Carolyn Neer

From: Art Henriques <ahenriques@cityofepa.org>
Sent: Friday, June 12, 2020 5:13 PM
To: Carolyn Neer
Cc: Amber Sharpe; Demetri Loukas; Richard Smeaton; Amy Chen
Subject: Fw: University Circle Phase 2

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Carolyn. Here are NOP comments for the record. I will send a standard acknowledgement/ reply to them. We will add this to the public comments attachment for the PC 6/22 staff report.

Arthur Henriques
Contract Project Manager
City of East Palo Alto
1960 Tate Street, East Palo Alto, CA 94303
Ph: (650) 853-3121; Fax: (650) 853-3179
ahenriques@cityofepa.org

From: Lauren Sims <laurensims@gmail.com>
Sent: Friday, June 12, 2020 3:07 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: University Circle Phase 2

We are residents of Palo Alto on Crescent Drive. This proposed building will be seen from our backyard. We are fully against the project. Woodland and University has a huge traffic issue already. Our neighbors will attend the meeting on July 8th.

Lauren Sims
Crescent Drive

--
Lauren Barry Sims
(415) 533-5735

Carolyn Neer

From: Art Henriques <ahenriques@cityofepa.org>
Sent: Saturday, June 13, 2020 4:24 PM
To: Carolyn Neer
Cc: Amber Sharpe; Demetri Loukas; Richard Smeaton; Amy Chen
Subject: Fw: More Public Comment for the EIR Scoping Meeting on Monday, June 22, 2020, regarding the University Circle Phase II Office Project

Follow Up Flag: Follow up
Flag Status: Flagged

Hello again Carolyn. Noted below is another comment email that came in for your records. I will respond. As noted in the last email all of the comments will included in a public comments attachment to the Commission Staff report when the packets go out next Thursday or Friday.

Arthur Henriques
Contract Project Manager
City of East Palo Alto
1960 Tate Street, East Palo Alto, CA 94303
Ph: (650) 853-3121; Fax: (650) 853-3179
ahenriques@cityofepa.org

From: Steve Bisset <steve@bisset.us>
Sent: Friday, June 12, 2020 8:17 PM
To: Art Henriques <ahenriques@cityofepa.org>
Cc: Norm Beamer <nhbeamer@yahoo.com>
Subject: Public Comment for the EIR Scoping Meeting on Monday, June 22, 2020, regarding the University Circle Phase II Office Project

Date:
June 12, 2020

To:
Art Henriques
Contract Project Manager
City of East Palo Alto, Planning Division
1960 Tate street
East Palo Alto, CA 94303
ahenriques@cityofepa.org

From:
Steve Bisset
Fife Avenue, Palo Alto (0.9 miles from the project site)

Re:
Public Comment for the EIR Scoping Meeting on Monday, June 22, 2020,
regarding the University Circle Phase II Office Project

Please read at the Scoping Meeting, time permitting.

To the City of East Palo Alto:

Please reject 100% of the office space in the project, because the impacts of new office space are entirely negative in the immediate vicinity and in the East Palo Alto, Palo Alto and Menlo Park region. Additional office space serves no community need. This project would substantially worsen the local jobs/housing imbalance, with negative impacts on traffic, pollution, and lost productivity due to increasing commute times.

I recommend rezoning the site from Office to Residential and Commercial, with zoning that accommodates large-scale for-profit underground parking.

I would enthusiastically support a project as large, or larger, at this site, provided:

1) There is zero office space.

2) There are many housing units, affordable to luxury. This would enlarge local housing stock and be mostly occupied by residents working locally (EPA/PA/MP) who would otherwise commute farther.

3) It retains all the Community Benefits described in the June 8 NOP.

4) It is combined with an electric bus service to provide frequent, attractive and convenient transportation to job and commercial sites.

5) Optional: Include large-scale for-profit underground parking (in addition to free permit parking for nearby residents as a Community Benefit), so that commuters can park there and commute the last mile or two by electric bus, thus actually reducing traffic.

Please answer on record: How much tax revenue would accrue to the City of East Palo Alto for a residential vs. an office development of the same square footage?

Sincerely,
Steve Bisset

Carolyn Neer

From: Art Henriques <ahenriques@cityofepa.org>
Sent: Saturday, June 13, 2020 4:20 PM
To: Carolyn Neer
Cc: Amber Sharpe; Demetri Loukas; Richard Smeaton; Amy Chen
Subject: Fw: University circle new building comments

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Carolyn. Noted below is another comment email for your records. I will respond. I will be sending you another project comment email shortly. I will ensure that all of the comments are included in a public comments attachment to the Commission Staff report when the packets go out next Thursday or Friday.

Arthur Henriques
Contract Project Manager
City of East Palo Alto
1960 Tate Street, East Palo Alto, CA 94303
Ph: (650) 853-3121; Fax: (650) 853-3179
ahenriques@cityofepa.org

From: Lisa DeLong <lisamdelong1@me.com>
Sent: Friday, June 12, 2020 7:03 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: University circle new building

Hello,

I am writing to you to express my concern about the development continuation of University Circle in East Palo Alto. I live in CrescentPark on SouthWood Dr. and I'm concerned about the increased traffic at the intersection of University Avenue and Woodland and compounding that traffic into my neighborhood as well as downtown Palo Alto and the on and off ramps to the 101 freeway. I feel that there should be a reduction in the size and height of the proposed building to be considerate of the existing neighborhood in East Palo Alto and the adjoining neighborhood of Palo Alto. I understand that the owners of the property want to maximize their investment so therefore want the biggest and tallest most cost-effective building they can have, but it's not fair for their economic gain to be a huge detriment to the longer established neighborhoods of these areas mentioned before.

I would strongly urge That this proposal will be significantly minimized and hope that the interest of the families and the pre-existing neighborhoods prevail over this continuous maximizing of commercial space in city impacted areas. I have lived in Palo Alto for many many decades and have seen the city go from a pleasant placeTo live and raise a family to one where there's a lot of stress and road rage in the city surface streets. Needless to say the traffic on 101 particularly the University , Embarcadero and San Antonio exits are atrocious and has significantly changed due to all the commercialization of the bayfront waterfront area and little pockets of space the developers see as an opportunity to make money and build. I also feel that it's not fair to build a building where window light at night causes glare /lighting pollution to the family neighborhoods. To me that's another form of pollution that isn't thought out in terms of its affect on residences in the area. I hope this project gets really looked at from the neighborhood perspective and favors the citizens of East Palo alto and Palo Alto and not just the pockets of developers and realtors.

Thanks for your consideration of my comments,

Lisa DeLong

Sent from my iPad

jay whaley <whaley_jay@hotmail.com>
Sun 6/14/2020 12:17 PM

To:
- Art Henriques

Cc:
- sallie whaley <salliewhaley@hotmail.com>

Dear Contract Property Manager,
As homeowners on Crescent Drive in Palo Alto for the past 45 years, we have witnessed and felt the overwhelming impact of the massive development of the University Circle complex Though we are not suggesting returning to the Whiskey Gulch" environment, we do strongly object to the additional project now being planned.

The increased traffic and negative air quality impacts upon the entire neighborhood is not worth the increased profits to the developers of this planned project. If you can state a rebuttal to that opinion, we are willing to listen.

In this new era of attempting of reduce unnecessary commuting and doing everything possible to combat pollution, we do not see the value to our East Palo Alto neighbors, or to us of your approval of this project.

Sincerely yours,
Sallie and Jay Whaley
Crescent Drive
Palo Alto

jay whaley <whaley_jay@hotmail.com>
Sun 6/14/2020 12:17 PM

To:
- Art Henriques

Cc:
- sallie whaley <salliewhaley@hotmail.com>

Dear Contract Property Manager,
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Sincerely yours,
Sallie and Jay Whaley
Crescent Drive
Palo Alto

NATIVE AMERICAN HERITAGE COMMISSION

June 9, 2020

Art Henriques
City of East Palo Alto
1960 Tate Street
East Palo Alto, CA 94303

Re: 2020060144, University Circle Phase II Office Project, San Mateo County

Dear Mr. Henriques:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Staff Services Analyst

cc: State Clearinghouse

From: Art Henriques
To: Carolyn Neer; Amber Sharpe
Cc: Demetri Loukas
Subject: Fw: Comments on scope and content of the EIR for the University Circle Phase II Office Project
Date: Monday, June 22, 2020 9:18:47 AM

These comments came in yesterday from Norm Beamer. I will also forward them to Staff and Mark English.

Arthur Henriques
Contract Project Manager
City of East Palo Alto
1960 Tate Street, East Palo Alto, CA 94303
Ph: (650) 853-3121; Fax: (650) 853-3179
ahenriques@cityofepa.org

From: Norman Beamer <nhbeamer@yahoo.com>
Sent: Sunday, June 21, 2020 3:40 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Comments on scope and content of the EIR for the University Circle Phase II Office Project

I am president of the Crescent Park Neighborhood Association. In 1988, the Association was party to a lawsuit against the original developers of University Circle, initiated due to the massive scope of the project being proposed. In 1991, the parties reached a Settlement Agreement, limiting the total square footage to 665,000, and the height to 185 feet, and many other provisions, which greatly scaled back the original plans and included traffic mitigation measures. The Settlement Agreement expires December 15, 2023.

Once again, there is substantial concern in the Crescent Park neighborhood concerning the impacts of the proposed new office space at University Circle. The project would substantially worsen the local jobs/housing imbalance, with negative impacts on traffic, pollution, new visual impacts on neighboring parcels, including exterior light pollution, and lost productivity due to increasing commute times. In particular, the project would significantly add to the congestion at the intersection if University and Woodland, and the 101 exits, thus further aggravating the already intolerable backups on University Avenue and the related chaotic cut-through traffic on the cross streets, which often trap people in their homes. See https://youtu.be/losaMGe5Alw

University Circle is already fully developed with office buildings and the Four Seasons Hotel. The small area at the corner at University and Woodland is presently used for surface parking and a landscape buffer. The former location of "Whiskey Gulch" is about as fully and densely developed as any area of similar size, except perhaps downtown San Francisco. The original development has already permanently and significantly increased congestion on University Avenue, due to required redesign of the access ramps and traffic lights because of the elimination of the traditional "Cloverleaf' intersection at Bayshore and University Avenue in order to make room for the Four Seasons Hotel.

This proposed development is just one of a multitude of office and housing developments that are apparently planned for East Palo Alto, the cumulative effect of which can only be characterized as resulting in severe adverse environmental effects which could not possibly be mitigated.

At minimum, the EIR should take into account the same considerations that led to the Settlement Agreement referenced above. It should take into account the adverse environmental impact of overdevelopment, including traffic, pollution, aesthetics and noise. The impact of construction, including noise, construction hours, and the huge amounts of excavation, including truck traffic to haul the excavated earth away, and the ultimate method of disposal of the excavated earth.

The issue of flood control of San Francisquito creek is a long term concern to the neighborhood. The original University Circle project had the effect of channeling flood water back into the creek, and so extra care should be taken to study the effect of any new development on that issue. Also, insofar as mitigation and public benefits are concerned, consideration should be given to requiring the project to contribute to the floodwall and bank improvement plans for the University Avenue bridge area that the San Francisquito Joint Powers Authority is studying.
The original Settlement Agreement referenced above included extensive mitigation requirements, including a comprehensive Traffic Demand Management program (see Exhibit B to the Settlement Agreement), ongoing traffic studies, annual leasing summaries, and a mitigation monitoring program. The EIR should assess whether these measures have been effective and complied with, and should make sure that measures at least as extensive are implemented for any new project.

The Notice of Preparation mentions that a public benefit of the project would be to make parking available to local residents – there is indeed a shortage of paring in the area and so that should definitely be a required benefit.

Norman Beamer
1005 University Avenue

Carolyn Neer

From: Art Henriques <ahenriques@cityofepa.org>
Sent: Monday, June 22, 2020 9:19 AM
To: Carolyn Neer; Amber Sharpe
Cc: Demetri Loukas
Subject: Fw: Comments on scope and content of the EIR for the University Circle Phase II Office Project

Follow Up Flag: Follow up
Flag Status: Completed

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Arthur Henriques
Contract Project Manager
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University Circle is already fully developed with office buildings and the Four Seasons Hotel. The small area at the corner at University and Woodland is presently used for surface parking and a landscape buffer. The former location of "Whiskey Gulch" is about as fully and densely developed as any area of similar size, except perhaps downtown San Francisco. The original development has already permanently and significantly increased congestion on University Avenue, due to required redesign of the access ramps and traffic lights because of the elimination of the traditional "Cloverleaf' intersection at Bayshore and University Avenue in order to make room for the Four Seasons Hotel.

This proposed development is just one of a multitude of office and housing developments that are apparently planned for East Palo Alto, the cumulative effect of which can only be characterized as resulting in severe adverse environmental effects which could not possibly be mitigated.

At minimum, the EIR should take into account the same considerations that led to the Settlement Agreement referenced above. It should take into account the adverse environmental impact of overdevelopment, including traffic, pollution, aesthetics and noise. The impact of construction, including noise, construction hours, and the huge amounts of excavation, including truck traffic to haul the excavated earth away, and the ultimate method of disposal of the excavated earth.

The issue of flood control of San Francisquito creek is a long term concern to the neighborhood. The original University Circle project had the effect of channeling flood water back into the creek, and so extra care should be taken to study the effect of any new development on that issue. Also, insofar as mitigation and public benefits are concerned, consideration should be given to requiring the project to contribute to the floodwall and bank improvement plans for the University Avenue bridge area that the San Francisquito Joint Powers Authority is studying.
The original Settlement Agreement referenced above included extensive mitigation requirements, including a comprehensive Traffic Demand Management program (see Exhibit B to the Settlement Agreement), ongoing traffic studies, annual leasing summaries, and a mitigation monitoring program. The EIR should assess whether these measures have been effective and complied with, and should make sure that measures at least as extensive are implemented for any new project.

The Notice of Preparation mentions that a public benefit of the project would be to make parking available to local residents – there is indeed a shortage of paring in the area and so that should definitely be a required benefit.

Norman Beamer
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June 22, 2020

VIA E-MAIL: *cityclerk@cityofepa.org*
City of East Palo Alto
c/o City Clerk
EPA Government Center
2415 University Avenue, 1st FL
East Palo Alto, CA 94303
Attn: Lisa Gauthier, Mayor
Members of City Council

Re: Proposed New Office Building at University Circle

Dear Mayor Guthier and Members of the City Council:

The proposal to build a new office building in University Circle at the corner of University Avenue and Woodland should be rejected. University Circle is already fully developed with office buildings and the Four Seasons Hotel. The small area in the corner at University and Woodland is presently used for surface parking and a landscape buffer. The former location of "Whiskey Gulch" is about as fully and densely developed as any area of similar size, except perhaps downtown San Francisco. Looking back, a major decision was made to replace the traditional "Cloverleaf" intersection at Bayshore and University Avenue with a modified interchange in order to make room for the Four Seasons Hotel. No doubt the addition of a prestigious hotel was of great benefit to the City. However, there was a price to pay for that accommodation, and the price is paid everyday by commuters who now transit that intersection on the way to and from work. Drivers coming south on Bayshore and then headed west on University Avenue can no longer make a smooth transition with an off-ramp leading from Bayshore to University Avenue because the hotel occupies that area. Instead, those drivers have to circle around and come to a stoplight before they can make a left turn onto University Avenue. This means that traffic that would normally transit from a southerly direction on Bayshore to a westerly direction on University Avenue is frequently stacked up waiting for the green light to be able to turn left onto University Avenue. At the same time, drivers heading west on University Avenue with Palo Alto or Stanford as their destination are faced with a stoplight on the overpass where they have to wait for the traffic just referred to that was heading south on Bayshore and then west on University Avenue. Traffic heading east on

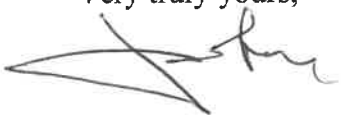
University Avenue is unable to make a smooth transition onto Bayshore going south towards San Jose because they have to stop at a stoplight to wait for the traffic coming west on University Avenue to turn left to go south on Bayshore because the off-ramp from University Avenue heading west to Bayshore going south is no longer there, its former location now being occupied by the hotel. The net result of all of this is huge traffic jams during commuting hours, something which affects everyone in the area. Adding another office building at that exact location will add more traffic, especially at the worst times, since the proposal is to build an office building.

East Palo Alto certainly does not need more office buildings. They are in the midst of an office building boom, with a new proposal to add $1.3M sq. ft. of office space at 2020 Bay Road.

The proposed replacement of 160 Woodland Park Apartments with 605 apartments will also add significant traffic to the intersection in question. A full Environmental Impact Study (which should definitely be required) will clearly demonstrate that the proposed office building, if approved, would result in severe adverse environmental effects which could not possibly be mitigated.

Let's admit it was a mistake to block the off-ramps with the hotel, and not compound the error by adding another office building at that location.

Very truly yours,



John Paul Hanna
JPH:sm

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Making Conservation
a California Way of Life.

July 8, 2020

SCH #2020060144
GTS #04-SM-2020-00324
GTS ID: 19737
Co/Rt/Pm: SM/101/0.923

Art Henriques
Contract Project Manager
City of East Palo Alto, Planning Division
1960 Tate Street
East Palo Alto, CA 94303

University Circle Phase II Office Project- Notice of Preparation (NOP) of an Environmental Impact Report

Dear Art Henriques:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for The University Circle Phase II office project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the June 2020 NOP.

Project Understanding

The proposed site is 11.84 acres in East Palo Alto and is adjacent to US-101. The project proposes to redevelop the existing parking lot located in the southeast corner of the project site with a six-story, approximately 180,000-square-foot office building above three levels of below-grade parking. The project would connect to existing utilities lines (e.g., water, sanitary sewer, and storm drain lines) on Woodland Avenue and Manhattan Avenue and would incorporate stormwater detention measures to store and control project peak flow rates to pre-project levels.

Travel Demand Analysis

Please note that a travel demand analysis that provides a Vehicle Miles Traveled (VMT) analysis will be required as part of the California Environmental Quality Act

(CEQA) process. With the enactment of Senate Bill (SB) 743, Caltrans is focusing on transportation infrastructure that supports smart growth and efficient development to ensure alignment with State policies using efficient development patterns, innovative travel demand reduction strategies, multimodal improvements, and VMT as the primary transportation impact metric. The travel demand analysis should include:

- A vicinity map, regional location map, and site plan clearly showing project access in relation to the State Transportation Network (STN). Ingress and egress for all project components should be clearly identified. Clearly identify the State right-of-way (ROW). Project driveways, local roads and intersections, car/bike parking, and transit facilities should be mapped.
- A VMT analysis pursuant to the City's proposed guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.
- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential safety issues for all road users should be identified and fully mitigated.
- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.
- Clarification of the intensity of events/receptions to be held at the location and how the associated travel demand and VMT will be mitigated.

Vehicle Trip Reduction

From Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*, the project site is identified as **Place Type 1b: Urban Centers** where location efficiency factors, such as community design, and regional accessibility are strong. Given the place, type and size of the project, it should include a robust Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions. Such measures are critical to facilitating efficient site access. The measures listed below can promote smart mobility and reduce

regional VMT.

- Project design to encourage walking, bicycling and transit access;
- Transit and trip planning resources such as a commute information kiosk;
- Real-time transit information system;
- Ten percent vehicle parking reductions;
- Charging stations and designated parking spaces for electric vehicles;
- Carpool and clean-fuel parking spaces;
- Designated parking spaces for a car share program;
- Unbundled parking;
- Secured bicycle storage facilities;
- Bicycle route mapping resources;
- Bicycle repair facilities;
- Participation/Formation in/of a Transportation Management Association (TMA) in partnership with other developments in the area; and
- Aggressive trip reduction targets with Lead Agency monitoring and enforcement.

Transportation Demand Management programs should be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets. Also, reducing parking supply can encourage active forms of transportation, reduce regional VMT, and lessen future transportation impacts on State facilities.

For additional TDM options, please refer to the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). The reference is available online at: http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf.

Multimodal, Bicycle and Pedestrian Planning

The project's primary and secondary effects on pedestrians, bicyclists, travelers with disabilities, and transit users should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access for pedestrians and bicyclists to transit facilities must be maintained. The proposed project exhibits strong locational connections to bicycle and transit networks, including Caltrain, bicycle trails, connections to major employment centers and the Newell/Clark pedestrian/ bicycle overcrossing. The inclusion of well-marked, well-connected bicycle/pedestrian facilities can encourage mode shift here.

These smart growth approaches, given the project location and adequate TDM

measures, should be consistent with MTC's Regional Transportation Plan/SCS and would help meet Caltrans Strategic Management Plan targets.

Transportation Impact Fees

The City should identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as the City's existing development and/or transportation impact fee programs should also be identified. We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

The City should also ensure that a capital improvement plan identifying the cost of needed improvements, funding sources, and a scheduled plan for implementation is prepared along with the General Plan. Caltrans welcomes the opportunity to work with the City and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

Construction-Related Impacts

Potential impacts to the State Right-of-Way (ROW) from project-related temporary access points should be analyzed. Mitigation for significant impacts due to construction and noise should be identified in the EIR. Project work that requires movement of oversized or excessive load vehicles on state roadways requires a transportation permit that is issued by Caltrans. To apply, visit: https://dot.ca.gov/programs/traffic-operations/transportation-permits.

Prior to construction, coordination is required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the STN.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Laurel Sears at (510) 286-5614 or laurel.sears@dot.ca.gov. Additionally, for future notifications and requests for review of new projects, please contact LDIGR-D4@dot.ca.gov.

Sincerely,

Mark Leong

Mark Leong
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

PLANNING & DEVELOPMENT SERVICES

CITY OF PALO ALTO
250 Hamilton Avenue, 5th Floor
Palo Alto, CA 94301
(650) 329-2441

July 8, 2020

Art Henriques, Project Manager
City of East Palo Alto, Planning Division
1960 Tate Street
East Palo Alto, CA 94303
Email: ahenriques@cityofepa.org

RE: Notice of Preparation of Environmental Impact Report, University Circle Phase II Office Project

Thank you for including the City of Palo Alto in the environmental review process for the above-referenced project.

Project Understanding
The Project, Phase II of the University Circle Development, is located on Assessor's Parcel Number (APN) 063-680-020 within the City of East Palo Alto. The University Circle site is located on the westside of U.S. 101 and bounded by U.S. 101, Manhattan Avenue, Woodland Avenue/San Francisquito Creek, and University Avenue to the north, west, south and east, respectively. Phase II is located within the 11.84 acre site at the corner of Woodland and University Avenue. The City of Palo Alto understands that both the zoning designation and land use designation of the site is Office in accordance with the City of East Palo Alto's Zoning Ordinance and Comprehensive Plan.

The project proposes to redevelop the existing at grade parking lot located in the southeast corner of the project site with a six-story, approximately 180,000 square-foot office building above three levels of below-grade parking. Project construction would take approximately 36 months to complete and would include removal of the existing parking lot improvements and landscaping, excavation and construction of the below-grade parking garage, and construction of the office building. Excavation to a maximum depth of 36 feet and removal of 132,473 cubic yards of soil would be necessary to construct the project. Vehicular access to the developed portion of the site would continue to be provided off Woodland Avenue via Manhattan Avenue and University Circle. Community benefits would include an easement dedication for a future City bike path along the eastern property line from U.S. 101 to Woodland Avenue, parking space dedication for use by surrounding residences, improvements to the Manhattan Avenue

bus stop, office space dedication for City use, and public art and memorial creation.

Given the location of the University Circle project and the current situation in the vicinity, the City of Palo Alto provides the following comments in response to the Notice of Preparation.

Transportation

Under existing conditions, vehicles heading eastbound on University Avenue approaching the University Avenue/Woodland intersection often queue well into Palo Alto and occasionally to Downtown Palo Alto, particularly within the PM peak hour. The Program for Arterial System Synchronization (PASS) signal coordination project has improved conditions to a limited extent. The coordination has been successful in reducing the period in which traffic volumes at the intersection exceed capacity and in delaying the congested period to start later. However, the proposed project would increase traffic volumes along University and at the University/Woodland Avenue intersection diminishing the benefits gained through PASS coordination.

Although the CEQA analysis will not include a level of service analysis at nearby intersections in accordance with SB 743, the City of Palo Alto respectfully requests that a separate traffic analysis be prepared so that the local impacts of the proposed development can be understood. The City requests that the analysis discuss the anticipated trips generated by the proposed development, the anticipated distribution pattern of those trips, and analyze delays at the following intersections: University Ave/Woodland Ave, University Ave/Highway 101 southbound ramp, and University Ave/Middlefield Rd. If the project would generate more than 10 peak hour trips towards highway 101 using West Bayshore Rd, then the study should also evaluate the Embarcadero Rd/St. Francis Drive intersection. For any intersections within the City of Palo Alto, the City of Palo Alto's intersection standards should be utilized. The City of Palo Alto may request additional analysis depending on the preliminary trip generation and distribution patterns.

Vehicle Miles Traveled

The analysis of Vehicle Miles Traveled (VMT) should not be truncated at the jurisdictional boundary.

Signal Operations

The City of Palo Alto requests that the analysis include a signal study for the Woodland/University Avenue intersection. If the project would further impact operations at this intersection, particularly during the a.m. and p.m. peak hour, the City of Palo Alto recommends that the City of East Palo Alto require proper optimization of the signal operation

based on the total traffic demand. The City of Palo Alto respectfully requests participation in any discussions regarding changes to the signal operations at this intersection.

Bicycle and Vehicle Circulation

The project includes a proposal to dedicate an easement for a bicycle path, which would connect to the newly constructed bicycle/pedestrian bridge within the City of East Palo Alto. However, it does not propose construction of the bicycle path. If mitigation is warranted to reduce vehicle miles traveled, the City of Palo Alto encourages the City of East Palo Alto to require construction of the bicycle path, in addition to dedication of the easement. This would improve bicycle infrastructure by ensuring a safe connection between the newly constructed pedestrian bicycle bridge and the University /Woodland Avenue intersection.

The plan sheets appear to show off-site improvements at the Woodland/University Avenue intersection as well as the northbound U.S. 101 off-ramp at University Avenue. However, no off-site improvements are noted in the project description. Any proposed off-site improvements need to be clearly explained in the project description. A detailed engineering analysis of how these improvements affect access to U.S. 101 southbound, egress from U.S. 101 northbound, and operation of the University Avenue/Woodland Avenue intersection is necessary.

Coordination

The Newell Road Bridge Replacement Project will require closure of Newell Road Bridge during construction, which will further impact the Woodland Avenue/University Avenue intersection, as discussed in the certified EIR/EA for Newell Road Bridge. Replacement of the Pope/Chaucer Bridge as part of the Upstream of Highway 101 Project may also reroute traffic to University Avenue as an alternate creek crossing. If construction of the proposed project would occur concurrently with either the Newell Road Bridge Replacement Project construction or the Upstream of Highway 101 Project, the traffic analysis must consider the cumulative impacts of these projects so that the localized impacts on traffic can be understood.

Parking

This project replaces a surface parking lot which serves existing uses within University Circle. The City of Palo Alto requests that the City of East Palo Alto require the developer to prepare a parking plan that identifies where vehicles associated with the existing University Circle uses would park during construction of the proposed project as well as the location of staging and parking for construction vehicles. The goal of the parking plan would be to minimize impacts on nearby residential neighborhoods, which may otherwise experience overflow parking during project construction.

Aesthetics

Due to the height and location of the project, the environmental analysis should include a study of impacts from interior and exterior lighting and glare. The City requests that the analysis consider impacts on residents in Palo Alto as well as East Palo Alto.

Air Quality

The Air Quality Analysis must assess the impacts of construction and operational emissions on sensitive receptors within the City of Palo Alto in addition to those in East Palo Alto. The City of Palo Alto requests that the air quality analysis evaluate impacts associated with toxic air contaminants due to increased traffic along roadways, including, but not limited to, University Avenue within the City of Palo Alto.

Noise and Vibration

The analysis must evaluate construction and operational noise impacts on residents within the City of Palo Alto in addition to those in East Palo Alto. The proposed construction equipment must be clearly stated. If pile driving is proposed, alternative construction methods are encouraged to reduce noise levels. The City requests that the analysis of operational noise impacts consider both mechanical equipment (e.g. HVAC) as well as noise generated by increased traffic along adjacent roadways, including University Avenue within the City of Palo Alto.

The City requests that the analysis also identify vibration impacts caused by excavation. In particular, if pile driving is proposed to construct the basement, the impacts of pile driving need to be analyzed. If applicable, mitigation may include consideration of alternative construction methods or equipment, neighborhood notification, or restriction on hours.

Groundwater

The City of Palo Alto requests that a geotechnical report be prepared to identify groundwater levels and quality at the project site. The project's impact on existing groundwater levels, flows, and water quality needs to be identified. The project description needs to clearly state whether the project will require groundwater dewatering either during or post construction. If applicable, identify the anticipated flows during construction and post construction and where will they be discharged. If applicable, mitigation needs to be identified to ensure that the project minimizes impacts on the existing groundwater table and its function as well as on San Francisquito Creek. The City of Palo Alto respectfully requests that the City of East Palo Alto coordinate with the City of Palo Alto to discuss potential impacts and any proposed mitigation with respect to changes to groundwater levels and short and long term groundwater dewatering.

Water Supply and Emergency Water Intertie

The 2016 East Palo Alto General Plan noted that the City of East Palo Alto did not have sufficient water supply to provide for all the development proposed in the plan. It was noted that each development would have to ensure that there was adequate available water supply to support it. Document that there is adequate water supply, both for potable water needs and to provide adequate pressures and flows for fire suppression, to serve the proposed building. Because of the known potable water shortage in East Palo Alto, recycled water should be required to irrigate all landscaping for the project.

In May 2018 the City of Palo Alto provided a transfer of individual supply guarantee to the City of East Palo Alto. It was understood that several public benefits could be realized through this agreement, one of which was the emergency water intertie from Palo Alto to East Palo Alto at Woodland Avenue, the location of the proposed project. The City of Palo Alto requests that the City of East Palo Alto identify the anticipated timeline for implementation of the emergency water intertie and whether this intertie is necessary to ensure adequate emergency water to or portable water needs for the proposed project. If the intertie is constructed separately but concurrently with the proposed project, the cumulative impacts of construction of that project along with the University Circle Phase II project at the Woodland/University Avenue intersection need to be identified.

Should you have any questions regarding this letter and the City's comment, please contact Claire Raybould at (650) 329-2116 or Claire.Raybould@cityofpaloalto.org or Jonathan Lait at Jonathan.Lait@cityofpaloalto.org.

Sincerely,

DocuSigned by:
293CF322E1294E6...

Jonathan Lait
Director, Planning & Development Services

Appendix B

UNIVERSITY CIRCLE PHASE II AIR QUALITY & GREENHOUSE GAS ASSESSMENT

East Palo Alto, California

August 9, 2021

Prepared for:

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Associate Project Manager
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Prepared by:

Casey Divine
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I&R Project#: 19-148

Introduction

The purpose of this report is to address air quality impacts and compute the greenhouse gas (GHG) emissions associated with the proposed office project located at the corner of University Avenue and Woodland Avenue in East Palo Alto, California. The air quality impacts and GHG emissions would be associated with the demolition of the existing uses at the site, construction of the new building and infrastructure, and operation of the project. Air pollutant and GHG emissions associated with the construction and operation of the project were predicted using models. In addition, the potential construction health risk impact to nearby sensitive receptors were evaluated. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Project Description

The approximately 11.84-acre total project site is located at 1900, 1950, 2000 and 2050 University Circle. The total project site is currently developed with three office buildings, one hotel, a parking structure, and surface parking lots. A one-level, below-grade parking garage underlies much of the project site. The proposed project would demolish the existing 32,150 square-foot (sf) surface parking lot located in the southeast corner of the total project site. It would then construct an approximately 180,000-sf, six-story office building above three levels and 513 parking spaces of below-grade parking. There would also be 14 surface parking lot spaces. The new office building would also include a 162-kilowatt (kW) emergency generator powered by a 216-horsepower (hp) diesel engine on the southwestern boundary of the total University Circle project area along Manhattan Avenue.

Setting

The project is located in San Mateo County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5

[1] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. The most recent Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines were published in February of 2015.[2] See *Attachment 1* for a detailed description of the community risk modeling methodology used in this assessment.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, infants and children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are the multi-family residences to the east opposite University Avenue and the single-family residences to the south opposite Woodland Avenue. There are additional residences west, south, and east of the site at further distances.

[2] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

Regulatory Agencies

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[3] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[4] The detailed community risk modeling methodology used in this assessment is contained in *Attachment 1*.

Vista 2035 East Palo Alto General Plan

On October 4, 2016, the City of East Palo Alto adopted the Vista 2035 East Palo Alto General Plan, which was an update to the City's 1999 General Plan and Zoning Ordinance.[5] The final version was published March 2017. The General Plan is the foundation for establishing goals, purposes, zoning, and activities allowed on each land parcel to provide compatibility and continuity to the entire region as well as each individual neighborhood. This general plan includes goals and policies to improve air quality within East Palo Alto. The following goal and policy apply to the project.

Goal HE-4. Safely and systemically address toxics, legacy pollutants, and hazardous materials

Intent: To protect residents and visitors against harmful health and other impacts associated with dangerous materials that may pose a threat to life and property, and may dictate costly public improvements. Reduction or elimination of these hazards can be accomplished with concerted efforts.

Policies:

4.2 Pollutants. Continue to work with state, federal, regional, and local agencies to eliminate and reduce concentrations of regulated legacy pollutants

[3] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[4] Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines*. May.
[5] City of East Palo Alto, 2017. *Vista 2035 East Palo Alto General Plan*. March. Web: http://www.ci.east-palo-alto.ca.us/DocumentCenter/View/3187

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 *CEQA Air Quality Guidelines*. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the *CEQA Air Quality Guidelines* in 2017 to include the latest significance thresholds that were used in this analysis are summarized in Table 1.

Table 1. BAAQMD CEQA Air Quality and GHG Significance Thresholds

Criteria Air Pollutant	**Construction Thresholds**	**Operational Thresholds**	
	Average Daily Emissions (lbs./day)	**Average Daily Emissions (lbs./day)**	**Annual Average Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental annual $PM_{2.5}$	0.3 µg/m^3	0.8 µg/m^3	
Odor			
5 confirmed complaints per year averaged over 3 years			
Greenhouse Gas Emissions			
Land Use Projects – direct and indirect emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually or 4.6 metric tons per capita (for 2020) *		
Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases. *BAAQMD does not have a recommended post-2020 GHG threshold.			

Air Quality Impacts and Mitigation Measures

Impact: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for O_3, $PM_{2.5}$ and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NOx), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Construction period emissions

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2021 (EMFAC2021) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.[6] The model output from CalEEMod along with construction inputs are included as *Attachment 2* and EMFAC2021 vehicle emissions modeling outputs are included in *Attachment 3*.

Land Use Inputs

The proposed project land uses were input into CalEEMod as follows:

- 180,000-sf entered as "General Office Building" on 4.13-acres. The larger default construction acreage was used to account for grading and trenching of the underground garage and the height of building construction,
- 513 spaces entered as "Enclosed Parking with Elevator", and
- 14 spaces entered as "Parking Lot".

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment list and schedule, were based on information provided by the project applicant.

[6] See CARB's EMFAC2021 Emissions Inventory at https://arb.ca.gov/emfac/emissions-inventory

The CalEEMod construction equipment worksheet provided by the applicant included the schedule for each phase. Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays was provided. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase. The construction schedule assumed that the earliest possible start date would be May 2025 and the project would be built out over a period of approximately 36 months, or 786 construction workdays. The first year of full project operation was assumed to be 2029.

Construction Truck Traffic Emissions

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2014 motor vehicle emission factor model. This model has been superseded by the EMFAC2021 model; however, CalEEMod has not been updated to include EMFAC2021. Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the estimate of demolition material to be exported, soil material imported and/or exported to the site, and the estimate of cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips for demolition were estimated from the provided demolition tonnage by assuming each truck could carry 10 tons per load. The number of concrete and asphalt total round haul trips were provided for the project and converted to total one-way trips, assuming two trips per delivery.

The construction traffic information was combined with EMFAC2021 motor vehicle emissions factors. EMFAC2021 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod default assumptions, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trips, including cement trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling (demolition material export and soil import/export). Since CalEEMod does not address cement or asphalt trucks, these were treated as vendor travel distances. Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On-road emission rates from the years 2025-2028 for San Mateo County were used. Table 2 provides the traffic inputs that were combined with the EMFAC2021 emission database to compute vehicle emissions.

Table 2. Construction Traffic Data Used for EMFAC2021 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	58% LDA 5% LDT1 37% LDT2	63% MHDT 37% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0	5 Minute Truck Idle Time
Demolition	225	-	-	
Site Preparation	195	-	-	
Grading	5,760	-	16,709	133,673 CY Export
Trenching	12,090	-	-	
Building Construction	44,775	19,125	-	
Architectural Coating	5,800	-	-	
Paving	6,075	-	-	

Notes: [1] Based on 2025-2028 EMFAC2021 light-duty vehicle fleet mix for San Mateo County.
[2] Includes grading trips estimated by CalEEMod based on amount of material to be removed.

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 3 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted annualized project construction period emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 3. Construction Period Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
2025	0.26	2.36	0.11	0.09
2026	0.51	4.11	0.17	0.15
2027	1.30	2.33	0.11	0.09
2028	0.02	0.19	0.01	0.01
Average Daily Construction Emissions Per Year (pounds/day)				
2025 (175 construction workdays)	2.92	26.90	1.20	1.01
2026 (261 construction workdays)	3.87	31.51	1.31	1.15
2027 (261 construction workdays)	9.95	17.82	0.81	0.67
2028 (89 construction workdays)	0.39	4.20	0.27	0.13
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented

to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices.*

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Measures to Control Particulate Matter Emissions during Construction. Measures to reduce DPM and PM_{10} from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided.

Dust (PM_{10}) Control Measures:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered three times a day and at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
9. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.
10. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
11. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

12. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
13. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
14. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

Effectiveness of Mitigation Measure AQ-1

Mitigation Measure AQ-1 represents enhanced dust control mitigation measures that would achieve greater than an 80 percent reduction in on-site fugitive PM_{10} and $PM_{2.5}$ emissions. These measures are consistent with recommendations in the BAAMQD CEQA Guidance for providing "best management practices" to control construction emissions.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future employees and vendors. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was also used to estimate emissions from operation of the proposed project assuming full build-out.

Land Uses

The project land uses were entered into CalEEMod as described above for the construction period modeling.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest the project could possibly begin operating would be 2029. Emissions associated with build-out later than 2029 would be lower.

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate provided by the traffic consultant was entered into the model. The daily trip rate accounted for a 25-percent reduction in trips due to implementing a

transportation demand management (TDM) plan[7]. For the office land use type, the forecasted daily trip rate with trip reductions applied was divided by the quantity of that land use to identify the weekday daily trip rate. The Saturday and Sunday trip rates were assumed to be the weekday rate adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate. The default trip lengths and trip types specified by CalEEMod were used.

EMFAC2021 Adjustment

The vehicle emission factors and fleet mix used in CalEEMod are based on EMFAC2014, which is an older CARB emission inventory for on road and off road mobile sources. Since the release of CalEEMod Version 2016.3.2, new emission factors have been produced by CARB. EMFAC2021 became available for use in January 2021. It includes the latest data on California's car and truck fleets and travel activity. Additionally, CARB has recently released EMFAC off-model adjustment factors to account for the Safer Affordable Efficient (SAFE) Vehicle Rule Part one.[8] The SAFE vehicle Rule Part One revoked California's authority to set its own GHG emission standards and set zero emission vehicle mandates in California. As a result of this ruling, mobile criteria pollutant emissions would increase. Therefore, the CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2021, which were adjusted with the CARB EMFAC off-model adjustment factors. On road emission rates from 2029 San Mateo County were used (See *Attachment 3*). More details about the updates in emissions calculation methodologies and data are available in the EMFAC2021 Technical Support Document.[9]

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on Pacific Gas and Electric's (PG&E) 2008 emissions rate. However, PG&E published in 2020 emissions rates for 2010 through 2018, which showed the emission rate for delivered electricity had been reduced to 206 pounds CO2 per megawatt of electricity delivered in the year 2018.[10] Peninsula Clean Energy (PCE) now provides electricity to 90-percent of San Mateo County, with 50 percent renewable and 90 percent being carbon free electricity. The 2018 rate provided by PCE was 129.77 pounds of CO_2 per megawatt of electricity delivered.[11] The CO_2 intensity rate input into CalEEMod was adjusted to account for 90 percent of PCE's rate and 10 percent of PG&E's rate. Therefore, an electricity emission rate of 138 pounds per of CO_2 per megawatt of electricity delivered was used for this analysis.

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[7] Hexagon Transportation Consultants, Inc., 2020. *University Circle Phase II Draft Transportation Impact Assessment*. February.

[8] California Air Resource Board, 2019. *EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One*. November. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf

[9] See CARB 2021: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

[10] PG&E Website, Climate Change Webpage - 2021. Web: https://www.pgecorp.com/corp_responsibility/reports/2019/en02_climate_change.html

[11] Correspondence with Michael Totah, Peninsula Clean Energy, August 30, 2019.

Emergency Generator

The project would include a 162-kW emergency generator that is powered by a diesel engine. Emissions from the testing and maintenance of the proposed generator engine were calculated for a 216-hp diesel engine. The generator is located on the southwestern boundary of the total University Circle project area along Manhattan Avenue. The CalEEMod modeling assumed 50 hours of annual operation for testing and maintenance purposes.

Other Inputs

Default model assumptions for emissions associated with solid waste generation use were applied to the project. Water/wastewater use were changed to 100% aerobic conditions to represent wastewater treatment plant conditions.

Existing Uses

The existing land uses on the project site include a parking area. This use produces low operational and traffic emissions that it would not make a considerable offset to the proposed project. Therefore, the existing uses emissions were not included.

Summary of Computed Operational Period Emissions

Annual emissions were predicted using CalEEMod and daily emissions were calculated assuming 365 days of operation. As shown in Table 4, operational emissions would not exceed the BAAQMD significance thresholds.

Table 4. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2029 Project Operational Emissions (*tons/year*)	1.23 tons	0.49 tons	0.82 tons	0.22 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	No	No	No	No
2029 Project Operational Emissions (*lbs/day*)[1]	6.75 lbs.	2.66 lbs.	4.52 lbs.	1.20 lbs.
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	No	No	No	No

Notes: [1] Assumes 365-day operation.

Impact: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased community risk would occur by introducing a new sources of TAC emissions with the potential to adversely affect existing sensitive receptors in the project vicinity. This project would introduce new sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., emergency diesel generators and project traffic).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project's operation would include the installation of emergency generators powered by diesel engines that would have TAC and air pollutant emissions. The increased traffic proposed by the project is not expected to be a source of TACs since a majority of the automobiles would be light-duty vehicles with low emissions. Also, the emissions from automobile traffic would be spread out over a broad geographical area and not localized. Therefore, the project's operational traffic is not expected to be a source of TACs.

Thus, project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. Additionally, the impact of the existing sources of TAC was also assessed in terms of the cumulative risk that includes the project's contribution.

Community risk impacts are addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations, and computing the Hazard Index (HI) for non-cancer health risks. The methodology for computing community risks impacts is contained in *Attachment 1*.

Community Risks from Project Construction

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issue associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[12] This assessment included dispersion modeling to predict the offsite and onsite concentrations resulting from project construction, so that increased cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages as 0.51 tons (1,028 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while

[12] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.21 tons (416 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[13] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

Combustion equipment DPM exhaust emissions were modeled as a series of point sources with a nine-foot release height (construction equipment exhaust stack height) placed at 20-feet (6-meter) intervals throughout the construction site. This resulted in 151 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area, with DPM emissions occurring throughout the project construction site. In addition, the following stack parameters were used: a vertical release, a stack diameter of 2.5 inches, an exhaust temperature of 918˚F, and an exit velocity of 309 feet per second. Since these are point sources, plume rise is calculated by the AERMOD dispersion model. Emissions from vehicle travel on- and off-site were also distributed among the point sources throughout the site. The locations of the point sources used for the modeling are identified in Figure 1.

For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 7 feet (2 meters) was used for the area source. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and unloading (rear or bottom dumping), loaders and excavators moving and transferring soil and other materials, etc. All of these activities result in fugitive dust emissions at various heights at the point(s) of generation. Once generated, the dust plume will tend to rise as it moves downwind across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources.

Since there are a number of tall buildings adjacent to or in close proximity to the project construction site, the effects of building downwash on the construction equipment exhaust plumes were also included in the modeling analysis. The locations of the point sources used for the modeling and the buildings that were evaluated for potential downwash effects are identified in Figure 1.

The modeling used a five-year data set (2013-2017) of hourly meteorological data from the Moffett Federal Airfield that was prepared for use with the AERMOD model by BAAQMD. According to the project applicant, construction activities would occur daily between 7:00 a.m. to 10:00 p.m.

[13] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

Construction activity with the majority of the on-site heavy-duty construction equipment would occur between 7:00 a.m. to 4:00 p.m. and only off-site construction activities such as truck hauling would occur between 4:00 p.m. to 10:00 p.m. Therefore, all construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2025-2028 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. Receptor heights of 5 feet (1.5 meters), 15 feet (4.5 meters), and 25 feet (7.6 meters) were used to represent the breathing height on the first through third floors of nearby single- and multi-family residences.[14]

Predicted Construction Risks and Hazards

The maximum-modeled annual DPM and $PM_{2.5}$ concentrations, which includes both the DPM and fugitive $PM_{2.5}$ concentrations, were identified at nearby sensitive receptors (as shown in Figure 1) to find the maximally exposed individuals (MEIs). Using the maximum annual modeled DPM concentrations, the maximum increased cancer risks were calculated using BAAQMD recommended methods and exposure parameters described in *Attachment 1*. Non-cancer health hazards and maximum $PM_{2.5}$ concentrations were also calculated and identified. *Attachment 4* to this report includes the emission calculations used for the construction source modeling and the cancer risk calculations.

Results of this assessment indicated that the cancer risk MEI was located on the third floor (25 feet above ground) of the multi-family residence to the east of the project site opposite University Avenue and the total $PM_{2.5}$ concentration MEI was located on the first floor (5 feet above ground) at the same receptor location (as seen in Figure 1). The maximum increased cancer risks and maximum $PM_{2.5}$ concentration from construction exceed their respective BAAQMD single-source thresholds of greater than 10.0 per million for cancer risk and greater than 0.3 $\mu g/m^3$ for $PM_{2.5}$ concentration. Table 5 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities affecting the MEIs. The incorporation of *Mitigation Measures AQ-1 and AQ-2* would reduce these levels to below the significance thresholds.

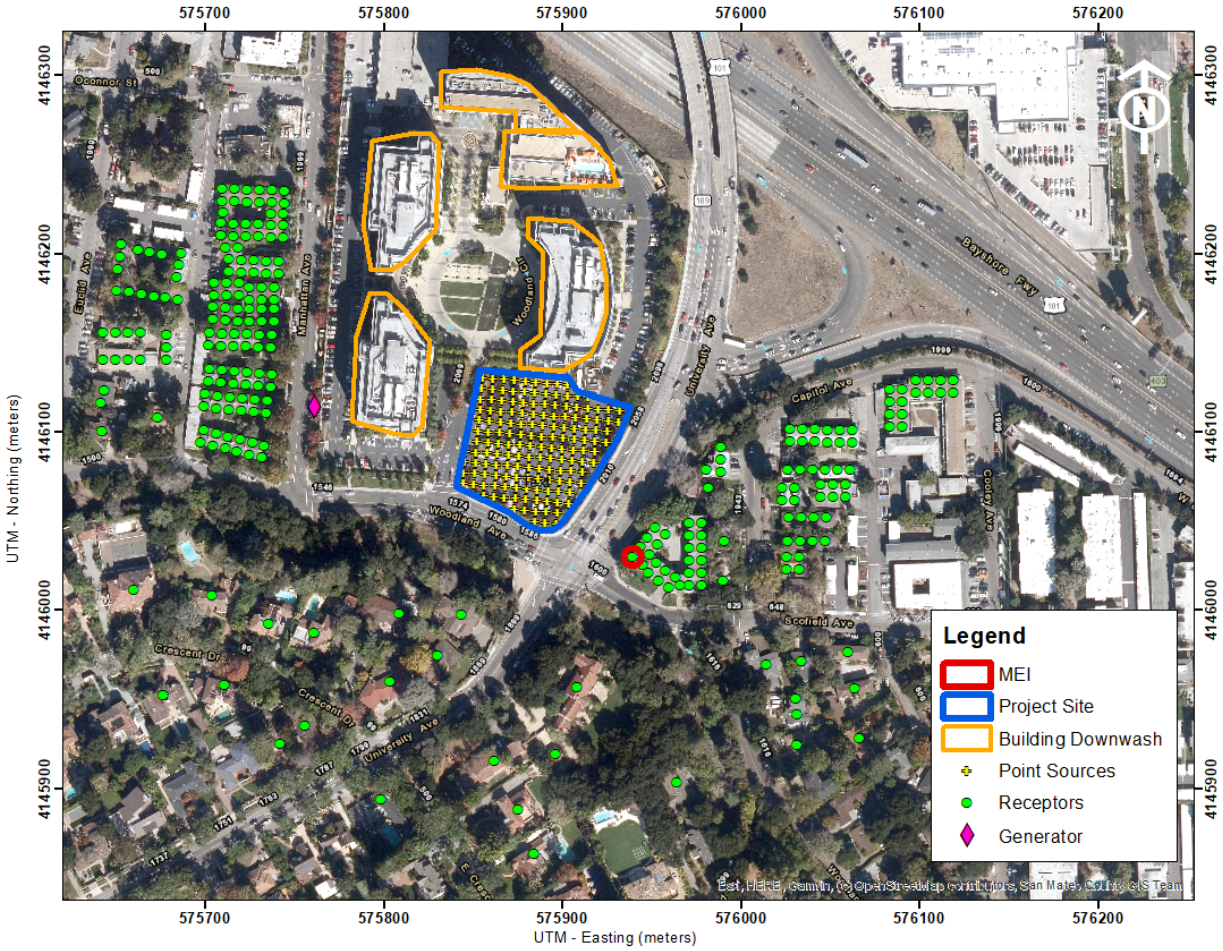
Table 5. Construction Risk Impacts at the Off-site Residential MEIs

Source		Cancer Risk* (per million)	Annual $PM_{2.5}$* ($\mu g/m^3$)	Hazard Index
Project Construction	Unmitigated	**69.5 (infant)**	**1.03**	0.05
	Mitigated**	5.8 (infant)	0.19	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated**	*No*	*No*	*No*

* Maximum cancer risk and maximum $PM_{2.5}$ concentration occur at same receptor on different floors.
** Construction equipment with Tier 4 Final engines, enhanced BMPs, and electric crane, generator, air compressor, and welder as Mitigation.

[14] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0. May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

Figure 1. Project Construction Site, Building Downwash, Generator Location, Locations of Off-Site Sensitive Receptors, and TAC Impacts



Community Risks from Project Operation – Generator

Operation of the project would have long-term emissions from the proposed diesel-powered emergency generator. While these emissions would not be as intensive at or near the site as construction activity, they would contribute to long-term effects to sensitive receptors.

Operational Emergency Generator Modeling

The project plans include a 162-kW emergency generator powered by a 216-HP diesel engine located on the southwestern boundary of the total University Circle project area along Manhattan Avenue. Operation of a diesel generator would be a source of TAC emissions. The generator would be operated for testing and maintenance purposes, with a maximum of 50 hours per year of non-emergency operation under normal conditions. During testing periods, the engine would typically be run for less than one hour under light engine loads. The generator engine would be required to meet EPA emission standards and consume commercially available low sulfur diesel fuel. The emissions from the operation of the generator were calculated using the CalEEMod model.

This diesel engine would be subject to CARB's Stationary Diesel Airborne Toxics Control Measure (ATCM) and require permits from the BAAQMD, since it will be equipped with an engine larger than 50-HP. As part of the BAAQMD permit requirements for toxics screening analysis, the engine emissions will have to meet Best Available Control Technology for Toxics (TBACT) and pass the toxic risk screening level of less than ten in a million. The risk assessment would be prepared by BAAQMD. Depending on results, BAAQMD would set limits for DPM emissions (e.g., more restricted engine operation periods). Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality community risk impact.

To obtain an estimate of potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generator, the U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at the off-site MEI location. The same receptor, breathing height, and BAAQMD Moffett Federal Airfield meteorological data used in the construction dispersion modeling were used for the generator model. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the generator was based on either provided generator information or BAAQMD default parameters for emergency generators.[15] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day.

To calculate the increased cancer risk from the generators at the construction MEIs, the cancer risks were also adjusted for exposure duration to account for the MEI being exposed to construction for the first four years of the 30-year exposure period. The exposure duration was adjusted for 26 years of exposure. Based on this duration, the increased cancer risk at the MEIs from the generator would be 0.2 per million. The maximum annual $PM_{2.5}$ concentration would be less than 0.01 $\mu g/m^3$ and the HI value would be less than 0.01. The emissions and health risk calculations for the proposed generators are included in *Attachment 4*.

Summary of Project-Related Community Risks at MEI

The cumulative risk impacts from a project are the combination of construction and operation sources. These sources include on-site construction activity and the project generator. The project impact is computed by adding the construction cancer risk for an infant to the increased cancer risk for the project operational conditions for the generator at the MEIs over a 30-year period. The project MEI is identified as the sensitive receptor that is most impacted by the project's construction and operation.

For this project, the sensitive receptor identified in Figure 1 as the construction MEI is also the project MEI. At this location, the MEI would be exposed to four years of construction cancer risks and 26 years of operational (includes emergency backup generator) cancer risks. The cancer risks from construction and operation of the project were summed together. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI risks are not additive but based on an annual maximum risk for the entirety of the project.

[15] The San Francisco Community Risk Reduction Plan: Technical Support Document, BAAQMD, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

The unmitigated maximum cancer risks and $PM_{2.5}$ concentration would exceed the BAAQMD single-source thresholds of greater than 10.0 per million for cancer risk and 0.3 $\mu g/m^3$ for $PM_{2.5}$ concentration. However, with *Mitigation Measure AQ-1 and AQ-2* the mitigated increased project cancer risk and $PM_{2.5}$ concentration would not exceed the single-source thresholds. The unmitigated non-cancer hazards from construction and operation activities would be below the single-source significance threshold, as seen in Table 6.

Table 6. Construction and Operation Risk Impacts at the Offsite Project MEIs

Source		Cancer Risk* (per million)	Annual $PM_{2.5}$* ($\mu g/m^3$)	Hazard Index
Project Construction (Years 0-4)	Unmitigated	**69.5 (infant)**	**1.03**	0.05
	Mitigated**	5.8 (infant)	0.19	<0.01
Project Generators (Years 4-30)		0.2	<0.01	<0.01
Unmitigated Total/Maximum Project (Years 0-30)		**69.7**	**1.03**	0.05
Mitigated Total/Maximum Project (Years 0-30)		6.0	0.19	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated**	*No*	*No*	*No*

* Maximum cancer risk and maximum $PM_{2.5}$ concentration occur at same receptor on different floors.
** Construction equipment with Tier 4 Final engines, enhanced BMPs, and electric crane, generator, air compressor, and welder as Mitigation.

Combined Impact of All TAC Sources on the Off-Site Construction MEI

Community health risk assessments typically look at all substantial sources of TACs located within 1,000 feet of project sites. These sources include rail lines, highways, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicates that traffic on U.S. Highway 101 (U.S. 101), University Avenue, and Woodland Avenue/Scofield Avenue have an average daily traffic (ADT) of over 10,000 vehicles. All other roadways within the area are assumed to have an ADT that is less than 10,000 vehicles. Three stationary sources were identified within the 1,000-foot influence area using BAAQMD's stationary source map website. Figure 2 shows the sources affecting the project site. Details of the modeling and community risk calculations are included in *Attachment 5.*

Figure 2. Project Site and Nearby TAC and $PM_{2.5}$ Sources

Highways – U.S. 101

BAAQMD provides raster files with cancer risk and $PM_{2.5}$ values for all highways/freeways, roadways (ADT > 30,000), and rail lines within the Bay Area. The risk values shown in the raster files were modeled in AERMOD in 20x20-meter grid cells. The files incorporate AADT for the highway using EMFAC 2014 data for fleet mix and include the OEHHA 2015 factor. These raster files were used to screen the U.S. 101 risk values upon the off-site MEIs. At the off-site MEIs, the cancer risk would be 20.8 per million and the $PM_{2.5}$ concentration would be 0.40 $\mu g/m^3$. No data was provided for the HI.

Local Roadways – University Avenue and Woodland Avenue/Scofield Avenue

University Avenue and Woodland Avenue/Scofield Avenue are located near the project site and construction MEIs. Traffic on University Avenue and Woodland Avenue/Scofield Avenue is a source of TACs that could adversely affect sensitive receptors at the MEIs. This assessment was conducted following guidance provided by the BAAQMD and OEHHA to analyze potential community health risk impacts at the project site and MEIs from nearby sources of TAC emissions.

Busy roadways are a source of TAC emissions that could affect sensitive receptors at the MEIs. University Avenue and Woodland Avenue/Scofield Avenue are busy arterial roadways near the project site and MEIs. In the vicinity of the project site, using cumulative traffic volumes provided by the project's traffic consultant[16], University Avenue has an ADT volume of 34,783 vehicles and Woodland Avenue/Scofield Avenue has an ADT volume of 13,706 vehicles. Because these traffic volumes are greater than an ADT of 10,000, a refined analysis of University Avenue and Woodland Avenue/Scofield Avenue to assess potential impacts to the MEIs was conducted.

Potential community risk impacts from University Avenue and Woodland Avenue/Scofield Avenue traffic TAC emissions to sensitive receptors at the MEIs were evaluated. This analysis involved the development of DPM, total organic gases (TOG), and $PM_{2.5}$ emissions for project traffic on University Avenue and Woodland Avenue/Scofield Avenue and using these emissions with an air quality dispersion model to calculate TAC and $PM_{2.5}$ concentrations at the MEIs receptor location. Increased cancer risks, non-cancer health effects represented by the HI, and the increase in annual $PM_{2.5}$ concentrations were then computed using the modeled TAC and $PM_{2.5}$ concentrations and BAAQMD methods and exposure parameters described in *Attachment 1*.

Traffic Emissions

DPM, TOG, and $PM_{2.5}$ emissions from traffic on University Avenue and Woodland Avenue/Scofield Avenue in the MEIs area were calculated using the CT-EMFAC2017 model, a Caltrans version of CARB's EMFAC2017 emissions model, and local roadway traffic volumes. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM.

Emission processes modeled with CT-EMFAC2017 include running exhaust for DPM, $PM_{2.5}$ and TOG, running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (i.e., San Mateo County), type of road, traffic mix assigned by CT-EMFAC2017 for the county. Average hourly traffic distributions for San Mateo County roadways were developed using the EMFAC model,[17] which were then applied to University Avenue and Woodland Avenue/Scofield Avenue traffic volumes to obtain estimated hourly traffic volumes and emissions. For all hours of the day, an average speed of 20

[16] Hexagon Transportation Consultants, Inc., 2020. *University Circle Phase II Draft Transportation Impact Assessment*. February.

[17] The Burden output from EMFAC2007, a prior version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2014 does not include Burden type output with hour by hour traffic volume information.

miles-per-hour (mph) was assumed for all vehicles.

The increased cancer risks at the MEIs needed to be calculated based on estimated TAC and $PM_{2.5}$ emissions from the roadways over the 30-year exposure period. The CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2021. Year 2021 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the BAAQMD for this type of analysis.[18] TAC and $PM_{2.5}$ emissions from traffic on University Avenue and Woodland Avenue/Scofield Avenue within about 1,000 feet of the project site were evaluated. Vehicle traffic on the roadways was modeled using a series of adjacent volume sources along a line (line volume sources); with line segments used for each of the travel directions on University Avenue and Woodland Avenue/Scofield Avenue. A five-year data set (2013-2017) of hourly meteorological data from the Moffett Federal Airfield was used for the modeling. Other inputs to the model included road geometries and elevations, hourly traffic emissions, and the MEIs receptor location. Annual TAC and $PM_{2.5}$ concentrations for 2021 from traffic on University Avenue and Woodland Avenue/Scofield Avenue were calculated using the model. Concentrations were calculated at the construction MEIs with receptor heights of 5 feet (1.5 meters) and 25 feet (7.6 meters) to represent the breathing heights on the first and third floors.

The roadway traffic contributions to cancer risk, annual $PM_{2.5}$ concentrations, and HI are shown in Table 7. The portions of University Avenue and Woodland Avenue/Scofield Avenue included in the modeling are shown in Figure 3 along with the project site and the MEIs receptor location where impacts were modeled. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5*.

[18] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

Figure 3. Project Site Location, Road Segments used for Modeling, and Location of Maximum Combined TAC Impacts from the Modeled Roadways

Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018* GIS website,[19] which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for new OEHHA guidance. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. BAAQMD provided

[19] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

updated emissions data and risk values.[20] The provided risk values were then adjusted for distance using the appropriate BAAQMD *Distance Multiplier Tool for Diesel Internal Combustion Engines, Gasoline Dispensing Facilities (GDFs), or Generic Sources.*

Three stationary sources were identified; Plant #15292, #16212, and #15835 are diesel-powered generators. Estimated risk values for these stationary sources at the MEI are listed in Table 7.

Construction Risk Impacts from Nearby Developments

Within the 1,000-ft influence area, there are four developments identified by the City that could be constructed at the same time as the proposed project. These developments include the Woodland Apartment Expansion Euclid Improvements residential project, the 660 Donohoe Street office project, the 630 Donohoe Street hotel project, and University Plaza/Sobrato Phase II (2111 University Avenue) office/commercial mixed-use project.

The mitigated construction risks and hazard impact values for the University Plaza/Sobrato Phase II development was available from its technical report conducted by *Illingworth & Rodin, Inc*.[21] The other three developments did not have available construction impact results at the time of this study. Therefore, it was assumed the construction risks from the remaining developments would be less than the BAAQMD single-source thresholds for community risks and hazards. If the nearby developments were more than 500 feet from the project site, the construction risks were assumed to be half of the BAAQMD single-source thresholds due to the distance and dispersion between the source and receptors. This approach likely provides an overestimate of the community risk and hazard levels because it assumes that maximum impacts from these developments occur concurrently with the proposed project.

Combined Community Health Risk at Off-site Construction MEI

Table 7 reports both the project and cumulative community risk impacts. Without mitigation, the project's community risk from project construction and operation activities would exceed the single-source maximum increased cancer risk of 10.0 per million and the $PM_{2.5}$ concentration threshold of 0.3 $\mu g/m^3$. Additionally, the unmitigated combined annual cancer risk would exceed its cumulative thresholds of 100.0 per million. The combined annual $PM_{2.5}$ concentration, which includes unmitigated and mitigated impacts, would exceed its cumulative thresholds of 0.8 $\mu g/m^3$ due to the concentration from the roadways (U.S. 101, University Avenue, and Woodland Avenue/Scofield Avenue). The HI, unmitigated and mitigated, does not exceed its cumulative threshold.

[20] Correspondence with Areana Flores, BAAQMD, April 1, 2020.
[21] Illingworth & Rodkin, Inc., *University Plaza Phase II Air Quality Assessment,* September 28, 2017.

Table 7. Cumulative Community Risk Impacts from Combined TAC Sources at MEIs

Source		Maximum Cancer Risk* (per million)	$PM_{2.5}$ concentration* ($\mu g/m^3$)	Hazard Index
Project Impacts				
Unmitigated Total/Maximum Project (Years 0-30)		**69.7 (infant)**	**1.03**	0.05
Mitigated Total/Maximum Project (Years 0-30)		6.0 (infant	0.19	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated **	*No*	*No*	*No*
Cumulative Sources				
U.S. 101		20.8	0.39	--
University Ave, ADT 34,783		13.8	**0.97**	<0.01
Woodland Ave/Scofield Ave, ADT 13,706		4.7	0.28	<0.01
Plant #15292 (Generator)		0.3	0	0
Plant #16212 (Generator)		0.1	0.03	0
Plant #15835 (Generator)		2.1	<0.01	<0.01
Woodland Apartment Mitigated Construction Emissions – 35 feet west		<10.0	<0.3	<1.0
660 Donohoe Street Mitigated Construction Emissions – 760 feet northeast		<5.0	<0.15	<0.5
630 Donohoe Street Mitigated Construction Emissions – 760 feet northeast		<5.0	<0.15	<0.5
University Plaza/Sobrato Phase II Mitigated Construction Emissions – 1,000 feet north		<3.0	<0.02	<0.01
Combined Sources	Unmitigated	**134.5 (infant)**	**<3.33**	<2.09
	Mitigated**	70.8 (infant)	**<2.49**	<2.05
BAAQMD Cumulative Source Threshold		***100***	***0.8***	***10.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated	*No*	***Yes***	*No*

* Maximum cancer risk and maximum $PM_{2.5}$ concentration occur at same receptor on different floors.
** Construction equipment with Tier 4 Final engines, enhanced BMPs, and electric crane, generator, air compressor, and welder as Mitigation.

Mitigation Measure AQ-2: Use construction equipment that has low diesel particulate matter exhaust emissions.

A feasible plan to reduce emissions such that increased cancer risk from construction would be reduced below significance levels is as follows:

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for particulate matter (PM_{10} and $PM_{2.5}$), if feasible, otherwise,

    a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a minimum of 87 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment.

b. Use of alternatively fueled or electric equipment.

2. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.

3. Cranes, air compressors, and welders shall be powered by electricity or alternative fuel

Alternatively, the applicant could develop a separate feasible plan that reduces on- and near-site construction diesel particulate matter emissions by a minimum of 87 percent or greater. Such a plan would have to be reviewed and approved by the City.

Effectiveness of Mitigation Measure AQ-2

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 Final engines standards, temporary power line was provided for the cranes, generators, air compressors, and welders to be powered electrically, and enhanced BAAQMD best management practices for construction were included. With these implemented, the project cancer risk levels and annual $PM_{2.5}$ concentrations would be reduced by 91.6 and 81.5 percent, respectively, and would no longer exceed the BAAQMD single-source significance thresholds. The computed maximum increased residential cancer risk from construction, assuming infant exposure, would be 5.8 in one million or less and the annual $PM_{2.5}$ concentration would be reduced to 0.19 $\mu g/m^3$.

Mitigation Measure AQ-1 and *AQ-2* represent the best available measures to reduce project construction period emissions. With these measures, project annual $PM_{2.5}$ concentrations would be reduced to below the single source threshold (as shown in Table 7), but it is not possible to reduce the $PM_{2.5}$ concentrations levels below the cumulative threshold since existing non-project sources alone cause $PM_{2.5}$ concentrations to exceed the cumulative threshold. Cumulative risks exceed the $PM_{2.5}$ concentration threshold because of the overwhelming influence of the traffic on the nearby roadways (U.S. 101, University Avenue, and Woodland Avenue/Scofield Avenue) at the MEIs. The project's mitigated $PM_{2.5}$ concentration only represents 8 percent of the total mitigated cumulative concentration. According to BAAQMD, project health risks would be less-than-significant if the risks from the project with best available mitigation measures are reduced below the single-source thresholds.[22] The project accomplishes this, and therefore the project would not make a cumulatively considerable contribution to this existing cumulative impact and no additional mitigation would be required on the part of the project to mitigate the exceedance of the cumulative source threshold for annual $PM_{2.5}$ concentration.

[22] Correspondence with Areana Flores, MSc, Environmental Planner, BAAQMD, February 23, 2021

Greenhouse Gas Emissions

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Recent Regulatory Actions

Assembly Bill 32 (AB 32), California Global Warming Solutions Act (2006)

AB 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards

Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State's main strategies to reduce GHGs from business-as-usual emissions projected in 2020 back down to 1990 levels. Business-as-usual (BAU) is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO_2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

Senate Bill 375, California's Regional Transportation and Land Use Planning Efforts (2008)

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g., Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

SB 350 Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increases the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

Executive Order EO-B-30-15 (2015) and SB 32 GHG Reduction Targets

In April 2015, Governor Brown signed Executive Order which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed SB 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*. While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikeable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons CO_2e per capita (statewide) by 2030 and no more than 2 metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2017, total gross nationwide GHG emissions were 6,457 MMT. These emissions were lower than peak levels of 7,370 MMT that were emitted in 2008. Relative to 1990 levels, these emissions were CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions[23]. In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017. The most recent Bay Area emission inventory was completed for the year 2011[24]. GHG emission in were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011.

City of East Palo Alto Climate Action Plan

The City of East Palo Alto's Climate Action Plan (CAP) includes policies and programs that aim to reduce emissions and save energy and money. The CAP's purpose is to create a high-level guidance document and framework for actions the City of East Palo Alto can take to reduce GHG emissions. In December 2011, the City adopted the CAP with guidelines of reaching a target reduction of 15% below baseline 2005 GHG emissions levels by 2020.[25] However, the CAP does not have a specific metric ton GHG threshold for project-level construction or operation. Therefore, the BAAQMD's CEQA Air Quality Guideline's thresholds are used.

BAAQMD Significance Thresholds

For quantified emissions, the BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons (MT) per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate. Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.8 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_2e/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.8 is calculated for 2030 based predictions from BAAQMD.[26] The 2030 bright-line threshold of 660 MT CO_2e/year is a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold.

[23] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Available at https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf accessed on Nov. 26, 2019.
[24] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.
[25] City of East Palo Alto, *City of East Palo Alto Climate Action Plan*, December 2011. Available at https://www.ci.east-palo-alto.ca.us/documentcenter/view/748
[26] Bay Area Air Quality Management District, 2016. *CLE International 12th Annual Super-Conference CEQA Guidelines, Case Law and Policy Update*. December.

Impact: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. CalEEMod output is included in *Attachment 2*.

Service Population Emissions

The project service population efficiency rate is based on the number of future employees. The number of future employees was estimated using the assumption of 4 employees per 1,000-sf for office land use. Using this assumption and the project's 180,000-sf of office use, the number of future employees and estimated total service population is 720 employees. This employee count was used to calculate the per capita emissions.

Construction Emissions

GHG emissions associated with construction were computed to be 2,761 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully-developed site under the proposed project. As shown in Table 8, the annual emissions resulting from operation of the proposed project are predicted to be 1,378 MT of CO_2e in 2029 and 1,372 MT of CO_2e in 2030. The service population emission for the year 2029 and 2030 are predicted to be 1.9 and 1.9 MT/CO_{2e}/year/service population, respectively.

To be considered significant, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in the opening and future

year. The project would exceed the annual emissions bright-line threshold of 660 MT CO_2e/year in the opening and future years. However, the 2029 and 2030 emissions would not exceed the per capita threshold of 2.8 MT of CO_2e/year/service population.

Table 8. Annual Project GHG Emissions (CO_2e) in Metric Tons and Per Capita

Source Category	Proposed Project in 2029	Proposed Project in 2030
Area	<1	<1
Energy Consumption	420	420
Mobile	839	833
Solid Waste Generation	84	84
Water Usage	35	35
Total (MT CO_{2e}/year)	**1,378 MT CO_{2e}/year**	**1,372 MT CO_{2e}/year**
Significance Threshold	***660 MT CO_2e/year***	
Service Population Emissions (MT CO_{2e}/year/service population)	1.9	1.9
Significance Threshold	***2.8 in 2030***	
Exceeds both thresholds?	*No*	*No*

Supporting Documentation

Attachment 1 is the methodology used to compute community risk impacts, including the methods to compute increased cancer risk from exposure to project emissions.

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant and GHG emissions. The operational outputs for 2030 uses are also included in this attachment. Also included are any modeling assumptions.

Attachment 3 includes the EMFAC2021 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

Attachment 4 is the construction and operational health risk assessments. AERMOD dispersion modeling files for these assessments, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 5 includes the cumulative community risk calculations, modeling results, and health risk calculations from sources affecting the construction MEI.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[27] These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.[28] This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.[29] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs is calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency and duration of exposure. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day) or liters per kilogram of body weight per 8-hour period for the case of worker or school child exposures. As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools and daycare facilities, BAAQMD recommends using the 95th percentile 8-hour breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of

[27] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.
[28] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[29] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults, a 25-year exposure period is recommended by the BAAQMD. For school children a 9-year exposure period is recommended by the BAAQMD.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

Cancer Risk (per million) = $CPF \times Inhalation\ Dose \times ASF \times ED/AT \times FAH \times 10^6$

Where:

CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = $C_{air} \times DBR^* \times A \times (EF/365) \times 10^{-6}$

Where:

C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
8HrBR = 8-hour breathing rate (L/kg body weight-8 hours)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

* An 8-hour breathing rate (8HrBR) is used for worker and school child exposures.

The health risk parameters used in this evaluation are summarized as follows:

Parameter	*Exposure Type* →	Infant		Child	Adult
	Age Range →	3rd Trimester	0<2	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95th Percentile Rate		-	1,200	520	240
Inhalation Absorption Factor		1	1	1	1
Averaging Time (years)		70	70	70	70
Exposure Duration (years)		0.25	2	14	14*
Exposure Frequency (days/year)		350	350	350	350*
Age Sensitivity Factor		10	10	3	1
Fraction of Time at Home (FAH)		0.85-1.0	0.85-1.0	0.72-1.0	0.73*

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu g/m^3$).

Annual $PM_{2.5}$ Concentrations

While not a TAC, fine particulate matter ($PM_{2.5}$) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for $PM_{2.5}$ (project level and cumulative) are in terms of an increase in the annual average concentration. When considering $PM_{2.5}$ impacts, the contribution from all sources of $PM_{2.5}$ emissions should be included. For projects with potential impacts from nearby local roadways, the $PM_{2.5}$ impacts should include those from vehicle exhaust emissions, $PM_{2.5}$ generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: University Circle Office Phase II

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size _____ Dwelling Units _____ total project acres disturbed

_____ s.f. residential

_____ s.f. retail

179012 s.f. office/commercial

_____ s.f. other, specify:

235728 s.f. parking garage _____ spaces

100798 s.f. parking lot _____ spaces

Construction Hours 7:00 am to 10:00 pm

Pile Driving? No

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? No

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments
	Demolition	**Start Date:**	**5/1/2025**	**Total phase:**	**15**			**Overall Import/Export Volumes**
		End Date:	**5/22/2025**					
2	Concrete/Industrial Saws	81	0.73	5	10	3.33	100	**Demolition Volume**
2	Excavators	158	0.38	6.5	10	4.33	130	General site work demolition
1	Rubber-Tired Dozers	247	0.4	4	10	2.67	40	General site work demolition
1	Tractors/Loaders/Backhoes	97	0.37	6.5	10	4.33	65	
	Site Preparation	**Start Date:**	**5/22/2025**	**Total phase:**	**15**			
		End Date:	**6/12/2025**					
2	Graders	187	0.41	6.5	10	4.33	130	Misc. pad preparation
2	Rubber Tired Dozers	247	0.4	4	10	2.67	80	
1	Tractors/Loaders/Backhoes	97	0.37	6.5	10	4.33	65	Misc. trenching
	Grading / Excavation	**Start Date:**	**6/12/2025**	**Total phase:**	**120**			
		End Date:	**11/27/2025**					**Soil Hauling Volume**
7	Excavators	158	0.38	6.5	120	6.50	5460	Export volume = 133,673 cubic yards?
1	Graders	187	0.41	6.5	110	5.96	715	Import volume = ? cubic yards?
2	Rubber Tired Dozers	247	0.4	4	110	3.67	880	
2	Concrete/Industrial Saws	81	0.73	5	110	4.58	1100	Saws for formwork, handrails, etc.
7	Tractors/Loaders/Backhoes	97	0.37	6.5	120	6.50	5460	7 loads per day per truck, 12 yard per load
	Trenching/Foundation	**Start Date:**	**11/27/2025**	**Total phase:**	**130**			
		End Date:	**5/28/2026**					
4	Tractor/Loader/Backhoe	97	0.37	6.5	130	6.50	3380	Shoring
4	Excavators	158	0.73	6.5	130	6.50	3380	Shoring
4	Drill Rigs	221	0.5	6.5	130	6.50	3380	Tie back and vertical drill rigs for cut off walls, etc.
8	Cement and Mortar Mixers	9	0.56	8	10	0.62	640	Cement trucks for mat slab and retaining walls, 9 yds per truck
6	Cement and Mortar Mixers	9	0.56	8	30	1.85	1440	Cement trucks for retaining walls and shoring walls, 9 yds per truck
1	Other Construction Equipment	172	0.42	6.5	120	6.00	780	Misc. equipment
2	Pumps	84	0.74	8	40	2.46	640	Concrete pumps
8	Concrete/Industrial Saws	81	0.73	5	130	5.00	5200	Shoring
	Building - Exterior	**Start Date:**	**5/28/2026**	**Total phase:**	**225**			
		End Date:	**4/8/2027**					
1	Cranes	231	0.29	8	220	7.82	1760	Tower crane for duration of superstructure
1	Forklifts	89	0.2	4	220	3.91	880	
4	Generator Sets	84	0.74	6.5	220	6.36	5720	
8	Cement and Mortar Mixers	9	0.56	6.5	50	1.44	2600	Concrete garage superstructure
6	Cement and Mortar Mixers	9	0.56	6.5	40	1.16	1560	Concrete topping slab at office
5	Dumpsters/Tenders	16	0.38	6.5	44	1.27	1430	Dumpsters for drywall framing and MEPF trades
1	Pumps	84	0.74	6.5	90	2.60	585	Concrete pumps
1	Other Construction Equipment	172	0.42	6.5	220	6.36	1430	Misc. equipment
2	Tractors/Loaders/Backhoes	97	0.37	2	220	1.96	880	Misc. loaders for MEPF, elevators, materials, etc.
32	Welders	46	0.45	6.5	70	2.02	14560	Structural steel frame, rebar for suspended slabs
	Building - Interior/Architectural Coating	**Start Date:**	**4/8/2027**	**Total phase:**	**145**			
		End Date:	**10/28/2027**					
9	Air Compressors	78	0.48	6.5	130	5.83	7605	Core walls and stairs
1	Other Construction Equipment	172	0.42	6.5	130	5.83	845	Misc. equipment
4	Aerial Lift	62	0.31	5	130	4.48	2600	Ceiling conduit and piping
	Paving	**Start Date:**	**10/28/2027**	**Total phase:**	**135**			
		Start Date:	**5/4/2028**					
10	Cement and Mortar Mixers	9	0.56	4	20	0.59	800	Flatwork and curb and gutter
3	Paving Equipment	132	0.36	4	20	0.59	240	Parking lot
2	Rollers	80	0.38	4	20	0.59	160	Parking lot
2	Pressure washers	13	0.3	4	20	0.59	160	SWPPP
1	Tractors/Loaders/Backhoes	97	0.37	4	65	1.93	260	Utilities

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Project Trip Generation Estimates - University Circle Phase II
(Based on ITE Rates)

Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
					Trip				Trip		
		Rate	Trip	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Uses											
General Office [1]	180,000 s.f. [2]	9.74	1,753	1.16	180	29	209	1.15	33	174	207
Reductions											
25% TDM Trip Reduction			(438)		(45)	(7)	(52)		(8)	(44)	(52)
Total New Project Trips			**1,315**		**135**	**22**	**157**		**25**	**130**	**155**

Notes:
[1] Trip generation rates for the proposed office space are based on the *ITE's Trip Generation Manual, 10th Edition* rates for Land Use Code 710 "General Office Building".
[2] Project size (180,000 s.f.) includes 2,940 s.f. of community space. The use of the community space is undetermined at this time. The traffic analysis assumes an office-type use in this community space.

Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2025	0.23	2.04	0.09	0.08	483.83	
2026	0.47	3.67	0.14	0.14	828.61	
2027	1.26	1.90	0.08	0.08	384.92	
2028	0.01	0.05	0.002	0.002	9.74	
EMFAC						
2025	0.03	0.32	0.02	0.01	240.68	
2026	0.04	0.45	0.03	0.01	352.36	
2027	0.03	0.42	0.03	0.01	345.91	
2028	0.01	0.14	0.01	0.00	115.30	
Total Construction Emissions by Year						
2025	0.26	2.36	0.11	0.09	724.51	
2026	0.51	4.11	0.17	0.15	1180.97	
2027	1.30	2.33	0.11	0.09	730.83	
2028	0.02	0.19	0.01	0.01	125.04	
	Total Construction Emissions					
Tons	2.08	8.98	0.39	0.33	2761.35	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2025	2.92	26.90	1.20	1.01		**175**
2026	3.87	31.51	1.31	1.15		**261**
2027	9.95	17.82	0.81	0.67		**261**
2028	0.39	4.20	0.27	0.13		**89**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	17.13	80.43	3.59	2.96	0.00	
Average	5.28	22.85	1.00	0.84	0.00	786.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	1.23	0.49	0.82	0.22		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	1.23	0.49	0.82	0.22		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	6.75	2.66	4.52	1.20		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Area	0.01		0.01	
Energy	420.35		420.35	
Mobile	838.59		833.13	
Waste	84.19		84.19	
Water	35.04		35.04	
TOTAL	1378.17	0.00	1372.71	0.00
Net GHG Emissions		1378.17		1372.71
Service Population	720.00			
Per Capita Emissions		1.91		1.91

	0	units
CA DOF 1920 =	0	pphh

University Circle Office Phase II, East Palo Alto

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	180.00	1000sqft	4.13	180,000.00	0
Enclosed Parking with Elevator	513.00	Space	0.00	236,000.00	0
Parking Lot	14.00	Space	0.00	100,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	138	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity = 90% PCE 2018 rate (of 129.77) with 10% PG&E 2018 rate (of 206) = 138

Land Use - Provided construction worksheet land uses, default acreage

Construction Phase - Provided construction schedule

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Trips and VMT - 0 trips EMFAC2021

Grading - grading = 133,673cy export

Vehicle Trips - Trip gen with reductions, 7.31, 1.63, 0.70

Vehicle Emission Factors - EMFAC2021 emissions factors

Water And Wastewater - WWTP 100% Aerobic

Construction Off-road Equipment Mitigation - BMPs + PM Mit, Tier 4 final mitigation, electric crane & generators & Air Compressors & welders

Stationary Sources - Emergency Generators and Fire Pumps - one emergency generator, 162kw, 216hp, 50hrs/year

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tblFleetMix	UBUS	2.9050e-003	1.8260e-003
tblFleetMix	UBUS	2.9050e-003	1.8260e-003
tblGrading	MaterialExported	0.00	133,673.00
tblLandUse	LandUseSquareFeet	205,200.00	236,000.00
tblLandUse	LandUseSquareFeet	5,600.00	100,800.00
tblLandUse	LotAcreage	4.62	0.00
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	7.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	32.00
tblOffRoadEquipment	UsageHours	6.00	5.80
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	8.00	3.30
tblOffRoadEquipment	UsageHours	7.00	7.80
tblOffRoadEquipment	UsageHours	8.00	4.30
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	3.70
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	1.90
tblOffRoadEquipment	UsageHours	8.00	4.30

tblOffRoadEquipment	UsageHours	8.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	138
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	216.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	16,709.00	0.00
tblTripsAndVMT	VendorTripNumber	85.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	93.00	0.00
tblTripsAndVMT	WorkerTripNumber	199.00	0.00
tblTripsAndVMT	WorkerTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	40.00	0.00
tblVehicleEF	HHD	0.12	0.24
tblVehicleEF	HHD	0.28	0.20
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.12	4.61
tblVehicleEF	HHD	3.21	1.50
tblVehicleEF	HHD	13.30	0.02
tblVehicleEF	HHD	2,552.51	720.34
tblVehicleEF	HHD	1,689.03	1,595.89
tblVehicleEF	HHD	40.51	0.22
tblVehicleEF	HHD	10.52	3.64
tblVehicleEF	HHD	2.13	2.00
tblVehicleEF	HHD	15.28	2.69
tblVehicleEF	HHD	9.3590e-003	2.3190e-003
tblVehicleEF	HHD	0.06	0.09

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	6.3330e-003	0.02
tblVehicleEF	HHD	4.5500e-004	2.0000e-006
tblVehicleEF	HHD	8.9540e-003	2.2130e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.5030e-003	8.6330e-003
tblVehicleEF	HHD	6.0570e-003	0.02
tblVehicleEF	HHD	4.1800e-004	2.0000e-006
tblVehicleEF	HHD	2.3800e-004	3.1300e-004
tblVehicleEF	HHD	0.01	8.9000e-005
tblVehicleEF	HHD	0.25	0.28
tblVehicleEF	HHD	1.8300e-004	3.1300e-004
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	2.0390e-003	5.9300e-004
tblVehicleEF	HHD	0.23	2.0000e-006
tblVehicleEF	HHD	0.02	5.8510e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	6.2100e-004	2.0000e-006
tblVehicleEF	HHD	2.3800e-004	3.1300e-004
tblVehicleEF	HHD	0.01	8.9000e-005
tblVehicleEF	HHD	0.32	0.54
tblVehicleEF	HHD	1.8300e-004	3.1300e-004
tblVehicleEF	HHD	0.39	0.22
tblVehicleEF	HHD	2.0390e-003	5.9300e-004
tblVehicleEF	HHD	0.25	2.0000e-006
tblVehicleEF	LDA	1.9000e-003	1.1600e-003
tblVehicleEF	LDA	2.5210e-003	0.05
tblVehicleEF	LDA	0.31	0.45
tblVehicleEF	LDA	0.69	2.42
tblVehicleEF	LDA	182.57	235.65

tblVehicleEF	LDA	43.36	61.40
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.04	6.3560e-003
tblVehicleEF	LDA	1.1270e-003	8.6700e-004
tblVehicleEF	LDA	1.8230e-003	1.5560e-003
tblVehicleEF	LDA	0.02	2.2250e-003
tblVehicleEF	LDA	1.0370e-003	7.9700e-004
tblVehicleEF	LDA	1.6760e-003	1.4310e-003
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	4.7620e-003	4.1800e-003
tblVehicleEF	LDA	0.04	0.17
tblVehicleEF	LDA	0.03	0.23
tblVehicleEF	LDA	1.8260e-003	2.1920e-003
tblVehicleEF	LDA	4.4500e-004	5.7100e-004
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	6.9270e-003	6.0940e-003
tblVehicleEF	LDA	0.04	0.17
tblVehicleEF	LDA	0.04	0.25
tblVehicleEF	LDT1	2.7880e-003	2.4740e-003
tblVehicleEF	LDT1	3.4930e-003	0.06
tblVehicleEF	LDT1	0.44	0.72
tblVehicleEF	LDT1	0.95	3.12
tblVehicleEF	LDT1	231.45	308.24
tblVehicleEF	LDT1	54.48	78.70
tblVehicleEF	LDT1	0.04	0.05

tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.04	7.9720e-003
tblVehicleEF	LDT1	1.4260e-003	1.1410e-003
tblVehicleEF	LDT1	2.2120e-003	1.8880e-003
tblVehicleEF	LDT1	0.02	2.7900e-003
tblVehicleEF	LDT1	1.3110e-003	1.0490e-003
tblVehicleEF	LDT1	2.0340e-003	1.7360e-003
tblVehicleEF	LDT1	0.03	0.33
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.03	0.33
tblVehicleEF	LDT1	6.9090e-003	0.01
tblVehicleEF	LDT1	0.08	0.26
tblVehicleEF	LDT1	0.05	0.30
tblVehicleEF	LDT1	2.3170e-003	2.8670e-003
tblVehicleEF	LDT1	5.6000e-004	7.3200e-004
tblVehicleEF	LDT1	0.03	0.33
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.03	0.33
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.08	0.26
tblVehicleEF	LDT1	0.05	0.32
tblVehicleEF	LDT2	2.7440e-003	1.5090e-003
tblVehicleEF	LDT2	2.9190e-003	0.05
tblVehicleEF	LDT2	0.45	0.54
tblVehicleEF	LDT2	0.85	2.65
tblVehicleEF	LDT2	265.55	318.72
tblVehicleEF	LDT2	61.90	80.08
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.04	7.7520e-003

tblVehicleEF	LDT2	1.3720e-003	9.5300e-004
tblVehicleEF	LDT2	2.1280e-003	1.5860e-003
tblVehicleEF	LDT2	0.02	2.7130e-003
tblVehicleEF	LDT2	1.2620e-003	8.7700e-004
tblVehicleEF	LDT2	1.9570e-003	1.4580e-003
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	6.8150e-003	5.4280e-003
tblVehicleEF	LDT2	0.06	0.12
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	2.6580e-003	2.9640e-003
tblVehicleEF	LDT2	6.3300e-004	7.4500e-004
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	9.9370e-003	7.9070e-003
tblVehicleEF	LDT2	0.06	0.12
tblVehicleEF	LDT2	0.04	0.27
tblVehicleEF	LHD1	3.7210e-003	4.2950e-003
tblVehicleEF	LHD1	7.5800e-003	3.2150e-003
tblVehicleEF	LHD1	8.9170e-003	0.02
tblVehicleEF	LHD1	0.13	0.19
tblVehicleEF	LHD1	0.55	0.50
tblVehicleEF	LHD1	1.51	2.17
tblVehicleEF	LHD1	8.93	7.86
tblVehicleEF	LHD1	634.71	694.41
tblVehicleEF	LHD1	25.77	17.10
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.37	0.20

tblVehicleEF	LHD1	0.57	0.31
tblVehicleEF	LHD1	8.1300e-004	6.2300e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.01	9.2860e-003
tblVehicleEF	LHD1	9.1040e-003	6.9430e-003
tblVehicleEF	LHD1	6.0100e-004	1.1400e-004
tblVehicleEF	LHD1	7.7700e-004	5.9600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6170e-003	2.3210e-003
tblVehicleEF	LHD1	8.6780e-003	6.6120e-003
tblVehicleEF	LHD1	5.5300e-004	1.0400e-004
tblVehicleEF	LHD1	1.1600e-003	0.06
tblVehicleEF	LHD1	0.06	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	7.8600e-004	0.06
tblVehicleEF	LHD1	0.09	0.04
tblVehicleEF	LHD1	0.21	0.09
tblVehicleEF	LHD1	0.12	0.07
tblVehicleEF	LHD1	8.9000e-005	7.7000e-005
tblVehicleEF	LHD1	6.1970e-003	6.7810e-003
tblVehicleEF	LHD1	2.8500e-004	1.6900e-004
tblVehicleEF	LHD1	1.1600e-003	0.06
tblVehicleEF	LHD1	0.06	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.8600e-004	0.06
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.21	0.09
tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD2	2.5750e-003	2.5840e-003
tblVehicleEF	LHD2	5.1670e-003	3.7950e-003

tblVehicleEF	LHD2	3.0690e-003	8.4220e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.43	0.33
tblVehicleEF	LHD2	0.89	1.17
tblVehicleEF	LHD2	13.57	13.27
tblVehicleEF	LHD2	676.11	735.14
tblVehicleEF	LHD2	22.05	8.96
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.17	0.30
tblVehicleEF	LHD2	0.26	0.18
tblVehicleEF	LHD2	1.0460e-003	1.4150e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.8310e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	5.4000e-005
tblVehicleEF	LHD2	1.0010e-003	1.3540e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7060e-003	2.6300e-003
tblVehicleEF	LHD2	8.4250e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	4.9000e-005
tblVehicleEF	LHD2	3.7200e-004	0.04
tblVehicleEF	LHD2	0.01	8.9810e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	2.7100e-004	0.04
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	1.3200e-004	1.2700e-004
tblVehicleEF	LHD2	6.5690e-003	7.0740e-003
tblVehicleEF	LHD2	2.3500e-004	8.9000e-005

tblVehicleEF	LHD2	3.7200e-004	0.04
tblVehicleEF	LHD2	0.01	8.9810e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.7100e-004	0.04
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	MCY	0.47	0.14
tblVehicleEF	MCY	0.16	0.16
tblVehicleEF	MCY	17.74	12.04
tblVehicleEF	MCY	10.52	7.19
tblVehicleEF	MCY	173.78	189.18
tblVehicleEF	MCY	41.99	44.61
tblVehicleEF	MCY	1.14	0.51
tblVehicleEF	MCY	0.32	0.11
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.1990e-003	2.1400e-003
tblVehicleEF	MCY	3.4400e-003	3.5470e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0510e-003	1.9970e-003
tblVehicleEF	MCY	3.2160e-003	3.3180e-003
tblVehicleEF	MCY	0.61	2.80
tblVehicleEF	MCY	0.50	3.54
tblVehicleEF	MCY	0.36	2.80
tblVehicleEF	MCY	2.13	0.88
tblVehicleEF	MCY	0.39	3.68
tblVehicleEF	MCY	2.12	1.13
tblVehicleEF	MCY	2.0920e-003	1.8700e-003
tblVehicleEF	MCY	6.5400e-004	4.4100e-004
tblVehicleEF	MCY	0.61	0.07

tblVehicleEF	MCY	0.50	3.54
tblVehicleEF	MCY	0.36	0.07
tblVehicleEF	MCY	2.68	1.09
tblVehicleEF	MCY	0.39	3.68
tblVehicleEF	MCY	2.31	1.23
tblVehicleEF	MDV	3.7820e-003	1.5360e-003
tblVehicleEF	MDV	5.3440e-003	0.06
tblVehicleEF	MDV	0.54	0.53
tblVehicleEF	MDV	1.24	2.66
tblVehicleEF	MDV	352.82	379.78
tblVehicleEF	MDV	81.25	94.83
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.08	0.24
tblVehicleEF	MDV	0.04	7.7720e-003
tblVehicleEF	MDV	1.4060e-003	9.3000e-004
tblVehicleEF	MDV	2.1170e-003	1.5560e-003
tblVehicleEF	MDV	0.02	2.7200e-003
tblVehicleEF	MDV	1.2950e-003	8.5600e-004
tblVehicleEF	MDV	1.9460e-003	1.4310e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.05
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	9.5020e-003	5.6550e-003
tblVehicleEF	MDV	0.09	0.13
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	3.5270e-003	3.5310e-003
tblVehicleEF	MDV	8.3300e-004	8.8200e-004
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.05
tblVehicleEF	MDV	0.04	0.17

tblVehicleEF	MDV	0.01	8.2290e-003
tblVehicleEF	MDV	0.09	0.13
tblVehicleEF	MDV	0.08	0.29
tblVehicleEF	MH	6.2530e-003	5.2560e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.33	0.32
tblVehicleEF	MH	3.41	1.92
tblVehicleEF	MH	1,176.42	1,658.98
tblVehicleEF	MH	56.10	20.15
tblVehicleEF	MH	0.69	1.02
tblVehicleEF	MH	0.54	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	7.4510e-003	0.01
tblVehicleEF	MH	8.7400e-004	2.5500e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2220e-003	3.3340e-003
tblVehicleEF	MH	7.0880e-003	0.01
tblVehicleEF	MH	8.0400e-004	2.3400e-004
tblVehicleEF	MH	0.23	12.32
tblVehicleEF	MH	0.02	3.26
tblVehicleEF	MH	0.12	12.32
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	6.2750e-003	0.08
tblVehicleEF	MH	0.20	0.08
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	6.2000e-004	1.9900e-004
tblVehicleEF	MH	0.23	12.32
tblVehicleEF	MH	0.02	3.26
tblVehicleEF	MH	0.12	12.32

tblVehicleEF	MH	0.04	0.05
tblVehicleEF	MH	6.2750e-003	0.08
tblVehicleEF	MH	0.21	0.09
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.6290e-003	9.7640e-003
tblVehicleEF	MHD	0.03	9.4250e-003
tblVehicleEF	MHD	0.36	0.64
tblVehicleEF	MHD	0.24	0.18
tblVehicleEF	MHD	3.64	1.03
tblVehicleEF	MHD	134.88	137.29
tblVehicleEF	MHD	1,164.50	1,178.93
tblVehicleEF	MHD	57.91	9.97
tblVehicleEF	MHD	0.35	0.69
tblVehicleEF	MHD	0.99	0.63
tblVehicleEF	MHD	10.26	1.17
tblVehicleEF	MHD	4.7000e-005	7.8500e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	2.9050e-003	6.2420e-003
tblVehicleEF	MHD	8.0700e-004	1.2100e-004
tblVehicleEF	MHD	4.5000e-005	7.5000e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	2.7730e-003	5.9600e-003
tblVehicleEF	MHD	7.4200e-004	1.1100e-004
tblVehicleEF	MHD	4.6300e-004	0.02
tblVehicleEF	MHD	0.03	4.3000e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.22	0.05

tblVehicleEF	MHD	1.2990e-003	1.2630e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.4300e-004	9.9000e-005
tblVehicleEF	MHD	4.6300e-004	0.02
tblVehicleEF	MHD	0.03	4.3000e-003
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.05	0.03
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.25	0.05
tblVehicleEF	OBUS	0.01	6.8800e-003
tblVehicleEF	OBUS	3.8630e-003	9.7190e-003
tblVehicleEF	OBUS	0.02	8.6480e-003
tblVehicleEF	OBUS	0.24	0.50
tblVehicleEF	OBUS	0.30	0.17
tblVehicleEF	OBUS	3.88	0.88
tblVehicleEF	OBUS	127.49	89.66
tblVehicleEF	OBUS	1,277.59	1,220.96
tblVehicleEF	OBUS	63.55	8.09
tblVehicleEF	OBUS	0.29	0.35
tblVehicleEF	OBUS	0.92	0.66
tblVehicleEF	OBUS	3.05	1.06
tblVehicleEF	OBUS	2.6000e-005	2.1300e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	2.9720e-003	7.7590e-003
tblVehicleEF	OBUS	9.3600e-004	8.7000e-005
tblVehicleEF	OBUS	2.5000e-005	2.0400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	2.8220e-003	7.4170e-003
tblVehicleEF	OBUS	8.6000e-004	8.0000e-005

tblVehicleEF	OBUS	7.9900e-004	0.03
tblVehicleEF	OBUS	0.01	6.9520e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	4.4300e-004	0.03
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.24	0.04
tblVehicleEF	OBUS	1.2280e-003	8.4200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.0300e-004	8.0000e-005
tblVehicleEF	OBUS	7.9900e-004	0.03
tblVehicleEF	OBUS	0.01	6.9520e-003
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.4300e-004	0.03
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.27	0.05
tblVehicleEF	SBUS	0.82	0.11
tblVehicleEF	SBUS	7.5770e-003	0.07
tblVehicleEF	SBUS	0.05	8.9770e-003
tblVehicleEF	SBUS	13.45	2.75
tblVehicleEF	SBUS	0.42	1.00
tblVehicleEF	SBUS	10.92	1.23
tblVehicleEF	SBUS	784.11	206.36
tblVehicleEF	SBUS	816.29	901.50
tblVehicleEF	SBUS	93.96	6.66
tblVehicleEF	SBUS	2.23	1.11
tblVehicleEF	SBUS	0.99	1.66
tblVehicleEF	SBUS	5.26	0.50
tblVehicleEF	SBUS	1.2050e-003	8.7500e-004

tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	9.1370e-003	9.9110e-003
tblVehicleEF	SBUS	5.5150e-003	7.9210e-003
tblVehicleEF	SBUS	1.8830e-003	9.2000e-005
tblVehicleEF	SBUS	1.1530e-003	8.3500e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.2840e-003	2.4780e-003
tblVehicleEF	SBUS	5.2370e-003	7.5550e-003
tblVehicleEF	SBUS	1.7320e-003	8.4000e-005
tblVehicleEF	SBUS	3.5060e-003	0.05
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	1.60	0.32
tblVehicleEF	SBUS	1.9750e-003	0.05
tblVehicleEF	SBUS	0.04	0.05
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.56	0.05
tblVehicleEF	SBUS	7.9620e-003	1.8830e-003
tblVehicleEF	SBUS	7.9950e-003	8.4430e-003
tblVehicleEF	SBUS	1.1280e-003	6.6000e-005
tblVehicleEF	SBUS	3.5060e-003	0.05
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	2.33	0.50
tblVehicleEF	SBUS	1.9750e-003	0.05
tblVehicleEF	SBUS	0.05	0.14
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.61	0.06
tblVehicleEF	UBUS	0.25	0.64
tblVehicleEF	UBUS	0.05	5.0250e-003
tblVehicleEF	UBUS	2.94	7.40
tblVehicleEF	UBUS	7.59	0.83

tblVehicleEF	UBUS	1,944.46	961.54
tblVehicleEF	UBUS	120.54	5.37
tblVehicleEF	UBUS	3.91	0.21
tblVehicleEF	UBUS	13.41	0.05
tblVehicleEF	UBUS	0.55	0.16
tblVehicleEF	UBUS	0.01	0.06
tblVehicleEF	UBUS	0.07	3.9610e-003
tblVehicleEF	UBUS	1.3490e-003	2.5000e-005
tblVehicleEF	UBUS	0.24	0.05
tblVehicleEF	UBUS	3.0000e-003	0.02
tblVehicleEF	UBUS	0.06	3.7830e-003
tblVehicleEF	UBUS	1.2410e-003	2.3000e-005
tblVehicleEF	UBUS	1.9850e-003	0.01
tblVehicleEF	UBUS	0.04	3.3170e-003
tblVehicleEF	UBUS	1.4090e-003	0.01
tblVehicleEF	UBUS	0.19	0.05
tblVehicleEF	UBUS	9.3990e-003	0.01
tblVehicleEF	UBUS	0.64	0.02
tblVehicleEF	UBUS	0.02	7.2890e-003
tblVehicleEF	UBUS	1.3430e-003	5.3000e-005
tblVehicleEF	UBUS	1.9850e-003	0.01
tblVehicleEF	UBUS	0.04	3.3170e-003
tblVehicleEF	UBUS	1.4090e-003	0.01
tblVehicleEF	UBUS	0.45	0.70
tblVehicleEF	UBUS	9.3990e-003	0.01
tblVehicleEF	UBUS	0.70	0.02
tblVehicleTrips	ST_TR	2.46	1.63
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	WD_TR	11.03	7.31
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.2298	2.0412	3.0730	5.5000e-003	0.4004	0.0864	0.4868	0.2047	0.0806	0.2853	0.0000	480.4962	480.4962	0.1332	0.0000	483.8265
2026	0.4687	3.6665	5.1738	9.7900e-003	0.0000	0.1432	0.1432	0.0000	0.1385	0.1385	0.0000	824.9302	824.9302	0.1472	0.0000	828.6099
2027	1.2636	1.9032	2.7271	4.5600e-003	0.0000	0.0773	0.0773	0.0000	0.0757	0.0757	0.0000	383.7206	383.7206	0.0479	0.0000	384.9188
2028	5.95E-03	0.0501	0.0725	1.2000e-004	0.0000	2.22E-03	2.2200e-003	0.0000	2.08E-03	2.0800e-003	0.0000	9.6725	9.6725	2.7400e-003	0.0000	9.741
Maximum	**1.2636**	**3.6665**	**5.1738**	**9.7900e-003**	**0.4004**	**0.1432**	**0.4868**	**0.2047**	**0.1385**	**0.2853**	**0.0000**	**824.9302**	**824.9302**	**0.1472**	**0.0000**	**828.6099**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0651	0.2820	3.6221	5.5000e-003	0.1562	8.68E-03	0.1648	0.0399	8.6800e-003	0.0486	0.0000	480.4956	480.4956	0.1332	0.0000	483.8259
2026	0.0675	0.2925	3.6638	9.7900e-003	0.0000	9.00E-03	9.0000e-003	0.0000	9.0000e-003	9.0000e-003	0.0000	527.8499	527.8499	0.1184	0.0000	530.8085
2027	1.0240	0.1905	0.7277	4.5600e-003	0.0000	1.57E-03	1.5700e-003	0.0000	1.5700e-003	1.5700e-003	0.0000	91.2734	91.2734	0.0264	0.0000	91.9330
2028	1.1100e-003	4.8000e-003	0.0683	1.2000e-004	0.0000	1.50E-04	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	0.0000	9.6725	9.6725	2.7400e-003	0.0000	9.7410
Maximum	**1.0240**	**0.2925**	**3.6638**	**9.7900e-003**	**0.1562**	**9.0000e-003**	**0.1648**	**0.0399**	**9.0000e-003**	**0.0486**	**0.0000**	**527.8499**	**527.8499**	**0.1332**	**0.0000**	**530.8085**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**41.17**	**89.95**	**26.84**	**0.00**	**61.00**	**93.72**	**75.26**	**80.50**	**93.47**	**88.18**	**0.00**	**34.70**	**34.70**	**15.22**	**0.00**	**34.61**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-1-2025**	**7-31-2025**	0.6380	0.0910
2	**8-1-2025**	**10-31-2025**	0.9447	0.1414
3	**11-1-2025**	**1-31-2026**	1.0614	0.1809
4	**2-1-2026**	**4-30-2026**	1.0712	0.1901
5	**5-1-2026**	**7-31-2026**	1.0291	0.0714
6	**8-1-2026**	**10-31-2026**	0.9966	0.0194
7	**11-1-2026**	**1-31-2027**	0.9966	0.0194
8	**2-1-2027**	**4-30-2027**	0.9518	0.1489
9	**5-1-2027**	**7-31-2027**	0.9474	0.5397
10	**8-1-2027**	**10-31-2027**	0.9080	0.5165
11	**11-1-2027**	**1-31-2028**	0.0418	0.0044
12	**2-1-2028**	**4-30-2028**	0.0409	0.0043
13	**5-1-2028**	**7-31-2028**	0.0014	0.0001
		Highest	1.0712	0.5397

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8262	6.0000e-005	6.4800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	415.0649	415.0649	0.0518	0.0134	420.3455
Mobile	0.3785	0.2905	2.5296	8.6100e-003	0.8053	4.5700e-003	0.8099	0.2010	4.2700e-003	0.2053	0.0000	837.8185	837.8185	0.0310	0.0000	838.5936
Stationary	8.8600e-003	0.0248	0.0226	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Waste						0.0000	0.0000		0.0000	0.0000	33.9807	0.0000	33.9807	2.0082	0.0000	84.1857
Water						0.0000	0.0000		0.0000	0.0000	11.3189	15.1317	26.4506	0.0421	0.0253	35.0353
Total	**1.2323**	**0.4859**	**2.7020**	**9.6700e-003**	**0.8053**	**0.0189**	**0.8241**	**0.2010**	**0.0186**	**0.2196**	**45.2995**	**1,272.1404**	**1,317.4399**	**2.1337**	**0.0387**	**1,382.3006**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8262	6.0000e-005	6.4800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	415.0649	415.0649	0.0518	0.0134	420.3455
Mobile	0.3785	0.2905	2.5296	8.6100e-003	0.8053	4.5700e-003	0.8099	0.2010	4.2700e-003	0.2053	0.0000	837.8185	837.8185	0.0310	0.0000	838.5936
Stationary	8.8600e-003	0.0248	0.0226	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Waste						0.0000	0.0000		0.0000	0.0000	33.9807	0.0000	33.9807	2.0082	0.0000	84.1857

Water						0.0000	0.0000		0.0000	0.0000	11.3189	15.1317	26.4506	0.0421	0.0253	35.0353
Total	**1.2323**	**0.4859**	**2.7020**	**9.6700e-003**	**0.8053**	**0.0189**	**0.8241**	**0.2010**	**0.0186**	**0.2196**	**45.2995**	**1,272.1404**	**1,317.4399**	**2.1337**	**0.0387**	**1,382.3006**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2025	5/21/2025	5	15	
2	Site Preparation	Site Preparation	5/22/2025	6/11/2025	5	15	
3	Grading	Grading	6/12/2025	11/26/2025	5	120	
4	Trenching	Trenching	11/27/2025	5/27/2026	5	130	
5	Building Construction	Building Construction	5/28/2026	4/7/2027	5	225	
6	Architectural Coating	Architectural Coating	4/8/2027	10/27/2027	5	145	
7	Paving	Paving	10/28/2027	5/3/2028	5	135	

Acres of Grading (Site Preparation Phase): 8.06

Acres of Grading (Grading Phase): 45

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 270,000; Non-Residential Outdoor: 90,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	3.30	81	0.73
Demolition	Excavators	2	4.30	158	0.38
Demolition	Rubber Tired Dozers	1	2.70	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.30	97	0.37

Site Preparation	Graders	2	4.30	187	0.41
Site Preparation	Rubber Tired Dozers	2	2.70	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.30	97	0.37
Grading	Concrete/Industrial Saws	2	4.60	81	0.73
Grading	Excavators	7	6.50	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	2	3.70	247	0.40
Grading	Tractors/Loaders/Backhoes	7	6.50	97	0.37
Trenching	Bore/Drill Rigs	4	6.50	221	0.50
Trenching	Cement and Mortar Mixers	8	0.60	9	0.56
Trenching	Cement and Mortar Mixers	6	1.90	9	0.56
Trenching	Concrete/Industrial Saws	8	5.00	81	0.73
Trenching	Excavators	4	6.50	158	0.38
Trenching	Other Construction Equipment	1	6.00	172	0.42
Trenching	Pumps	2	2.50	84	0.74
Trenching	Tractors/Loaders/Backhoes	4	6.50	97	0.37
Building Construction	Cement and Mortar Mixers	8	1.40	9	0.56
Building Construction	Cement and Mortar Mixers	6	1.20	9	0.56
Building Construction	Cranes	1	7.80	231	0.29
Building Construction	Dumpers/Tenders	5	1.30	16	0.38
Building Construction	Forklifts	1	3.90	89	0.20
Building Construction	Generator Sets	4	6.40	84	0.74
Building Construction	Other Construction Equipment	1	6.40	172	0.42
Building Construction	Pumps	1	2.60	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	2.00	97	0.37
Building Construction	Welders	32	2.00	46	0.45
Paving	Cement and Mortar Mixers	10	0.60	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	3	0.60	132	0.36
Paving	Pressure Washers	2	0.60	13	0.30

Paving	Rollers	2	0.60	80	0.38
Paving	Tractors/Loaders/Backhoes	1	1.90	97	0.37
Architectural Coating	Aerial Lifts	4	4.50	63	0.31
Architectural Coating	Air Compressors	9	5.80	78	0.48
Architectural Coating	Other Construction Equipment	1	5.80	172	0.42

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	19	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	37	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	61	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	14	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3500e-003	0.0461	0.0654	1.1000e-004		2.0100e-003	2.0100e-003		1.8900e-003	1.8900e-003	0.0000	9.9899	9.9899	2.3000e-003	0.0000	10.0475
Total	**5.3500e-003**	**0.0461**	**0.0654**	**1.1000e-004**		**2.0100e-003**	**2.0100e-003**		**1.8900e-003**	**1.8900e-003**	**0.0000**	**9.9899**	**9.9899**	**2.3000e-003**	**0.0000**	**10.0475**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3200e-003	5.7100e-003	0.0746	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	9.9899	9.9899	2.3000e-003	0.0000	10.0474

Total	**1.3200e-003**	**5.7100e-003**	**0.0746**	**1.1000e-004**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**9.9899**	**9.9899**	**2.3000e-003**	**0.0000**	**10.0474**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0172	0.0000	0.0172	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3200e-003	0.0668	0.0370	1.1000e-004		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	9.5854	9.5854	3.1000e-003	0.0000	9.6629
Total	**6.3200e-003**	**0.0668**	**0.0370**	**1.1000e-004**	**0.0348**	**2.5800e-003**	**0.0373**	**0.0172**	**2.3800e-003**	**0.0196**	**0.0000**	**9.5854**	**9.5854**	**3.1000e-003**	**0.0000**	**9.6629**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0136	0.0000	0.0136	3.3600e-003	0.0000	3.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e-003	5.7900e-003	0.0528	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	9.5854	9.5854	3.1000e-003	0.0000	9.6629
Total	**1.3400e-003**	**5.7900e-003**	**0.0528**	**1.1000e-004**	**0.0136**	**1.8000e-004**	**0.0137**	**3.3600e-003**	**1.8000e-004**	**3.5400e-003**	**0.0000**	**9.5854**	**9.5854**	**3.1000e-003**	**0.0000**	**9.6629**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3657	0.0000	0.3657	0.1874	0.0000	0.1874	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1725	1.5527	2.3627	4.0300e-003		0.0664	0.0664		0.0616	0.0616	0.0000	353.2739	353.2739	0.1039	0.0000	355.8712
Total	**0.1725**	**1.5527**	**2.3627**	**4.0300e-003**	**0.3657**	**0.0664**	**0.4321**	**0.1874**	**0.0616**	**0.2491**	**0.0000**	**353.2739**	**353.2739**	**0.1039**	**0.0000**	**355.8712**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1426	0.0000	0.1426	0.0366	0.0000	0.0366	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0484	0.2098	2.7491	4.0300e-003		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	353.2735	353.2735	0.1039	0.0000	355.8708
Total	**0.0484**	**0.2098**	**2.7491**	**4.0300e-003**	**0.1426**	**6.4600e-003**	**0.1491**	**0.0366**	**6.4600e-003**	**0.0430**	**0.0000**	**353.2735**	**353.2735**	**0.1039**	**0.0000**	**355.8708**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0456	0.3756	0.6078	1.2400e-003		0.0154	0.0154		0.0147	0.0147	0.0000	107.6469	107.6469	0.0239	0.0000	108.2449
Total	**0.0456**	**0.3756**	**0.6078**	**1.2400e-003**		**0.0154**	**0.0154**		**0.0147**	**0.0147**	**0.0000**	**107.6469**	**107.6469**	**0.0239**	**0.0000**	**108.2449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Off-Road	0.0140	0.0607	0.7456	1.2400e-003		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003	0.0000	107.6468	107.6468	0.0239	0.0000	108.2448
Total	**0.0140**	**0.0607**	**0.7456**	**1.2400e-003**		**1.8700e-003**	**1.8700e-003**		**1.8700e-003**	**1.8700e-003**	**0.0000**	**107.6468**	**107.6468**	**0.0239**	**0.0000**	**108.2448**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1917	1.5777	2.5528	5.2100e-003		0.0647	0.0647		0.0619	0.0619	0.0000	452.1170	452.1170	0.1005	0.0000	454.6287
Total	**0.1917**	**1.5777**	**2.5528**	**5.2100e-003**		**0.0647**	**0.0647**		**0.0619**	**0.0619**	**0.0000**	**452.1170**	**452.1170**	**0.1005**	**0.0000**	**454.6287**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.2551	3.1313	5.2100e-003		7.8500e-003	7.8500e-003		7.8500e-003	7.8500e-003	0.0000	452.1165	452.1165	0.1005	0.0000	454.6282
Total	**0.0589**	**0.2551**	**3.1313**	**5.2100e-003**		**7.8500e-003**	**7.8500e-003**		**7.8500e-003**	**7.8500e-003**	**0.0000**	**452.1165**	**452.1165**	**0.1005**	**0.0000**	**454.6282**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2770	2.0888	2.6209	4.5800e-003		0.0785	0.0785		0.0766	0.0766	0.0000	372.8132	372.8132	0.0467	0.0000	373.9811
Total	**0.2770**	**2.0888**	**2.6209**	**4.5800e-003**		**0.0785**	**0.0785**		**0.0766**	**0.0766**	**0.0000**	**372.8132**	**372.8132**	**0.0467**	**0.0000**	**373.9811**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6400e-003	0.0374	0.5325	4.5800e-003		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003	0.0000	75.7334	75.7334	0.0179	0.0000	76.1803
Total	**8.6400e-003**	**0.0374**	**0.5325**	**4.5800e-003**		**1.1500e-003**	**1.1500e-003**		**1.1500e-003**	**1.1500e-003**	**0.0000**	**75.7334**	**75.7334**	**0.0179**	**0.0000**	**76.1803**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1225	0.9239	1.1593	2.0300e-003		0.0347	0.0347		0.0339	0.0339	0.0000	164.8981	164.8981	0.0207	0.0000	165.4147
Total	**0.1225**	**0.9239**	**1.1593**	**2.0300e-003**		**0.0347**	**0.0347**		**0.0339**	**0.0339**	**0.0000**	**164.8981**	**164.8981**	**0.0207**	**0.0000**	**165.4147**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8200e-003	0.0166	0.2355	2.0300e-003		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	33.4975	33.4975	7.9100e-003	0.0000	33.6952
Total	**3.8200e-003**	**0.0166**	**0.2355**	**2.0300e-003**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**33.4975**	**33.4975**	**7.9100e-003**	**0.0000**	**33.6952**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.0088					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1290	0.9526	1.5291	2.4700e-003		0.0415	0.0415		0.0407	0.0407	0.0000	213.6565	213.6565	0.0258	0.0000	214.3015
Total	**1.1379**	**0.9526**	**1.5291**	**2.4700e-003**		**0.0415**	**0.0415**		**0.0407**	**0.0407**	**0.0000**	**213.6565**	**213.6565**	**0.0258**	**0.0000**	**214.3015**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0088					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0108	0.1714	0.4557	2.4700e-003		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	52.6099	52.6099	0.0170	0.0000	53.0353
Total	**1.0196**	**0.1714**	**0.4557**	**2.4700e-003**		**9.9000e-004**	**9.9000e-004**		**9.9000e-004**	**9.9000e-004**	**0.0000**	**52.6099**	**52.6099**	**0.0170**	**0.0000**	**53.0353**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1800e-003	0.0268	0.0387	6.0000e-005		1.1800e-003	1.1800e-003		1.1100e-003	1.1100e-003	0.0000	5.1660	5.1660	1.4600e-003	0.0000	5.2026
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1800e-003**	**0.0268**	**0.0387**	**6.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**5.1660**	**5.1660**	**1.4600e-003**	**0.0000**	**5.2026**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9000e-004	2.5600e-003	0.0365	6.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	5.1660	5.1660	1.4600e-003	0.0000	5.2026
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9000e-004**	**2.5600e-003**	**0.0365**	**6.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**5.1660**	**5.1660**	**1.4600e-003**	**0.0000**	**5.2026**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9500e-003	0.0501	0.0725	1.2000e-004		2.2200e-003	2.2200e-003		2.0800e-003	2.0800e-003	0.0000	9.6725	9.6725	2.7400e-003	0.0000	9.7410
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9500e-003**	**0.0501**	**0.0725**	**1.2000e-004**		**2.2200e-003**	**2.2200e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**9.6725**	**9.6725**	**2.7400e-003**	**0.0000**	**9.7410**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1100e-003	4.8000e-003	0.0683	1.2000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.6725	9.6725	2.7400e-003	0.0000	9.7410
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1100e-003**	**4.8000e-003**	**0.0683**	**1.2000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.6725**	**9.6725**	**2.7400e-003**	**0.0000**	**9.7410**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3785	0.2905	2.5296	8.6100e-003	0.8053	4.5700e-003	0.8099	0.2010	4.2700e-003	0.2053	0.0000	837.8185	837.8185	0.0310	0.0000	838.5936
Unmitigated	0.3785	0.2905	2.5296	8.6100e-003	0.8053	4.5700e-003	0.8099	0.2010	4.2700e-003	0.2053	0.0000	837.8185	837.8185	0.0310	0.0000	838.5936

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,315.80	293.40	126.00	2,389,207	2,389,207
Parking Lot	0.00	0.00	0.00		
Total	1,315.80	293.40	126.00	2,389,207	2,389,207

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.400584	0.038292	0.305399	0.179512	0.035812	0.008234	0.012726	0.007283	0.004738	0.001826	0.004460	0.000437	0.000696
General Office Building	0.400584	0.038292	0.305399	0.179512	0.035812	0.008234	0.012726	0.007283	0.004738	0.001826	0.004460	0.000437	0.000696
Parking Lot	0.400584	0.038292	0.305399	0.179512	0.035812	0.008234	0.012726	0.007283	0.004738	0.001826	0.004460	0.000437	0.000696

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	229.3909	229.3909	0.0482	9.9700e-003	233.5681
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	229.3909	229.3909	0.0482	9.9700e-003	233.5681
NaturalGas Mitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774
NaturalGas Unmitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.4794e+006	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0188**	**0.1706**	**0.1433**	**1.0200e-003**		**0.0130**	**0.0130**		**0.0130**	**0.0130**	**0.0000**	**185.6740**	**185.6740**	**3.5600e-003**	**3.4000e-003**	**186.7774**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.4794e+006	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0188**	**0.1706**	**0.1433**	**1.0200e-003**		**0.0130**	**0.0130**		**0.0130**	**0.0130**	**0.0000**	**185.6740**	**185.6740**	**3.5600e-003**	**3.4000e-003**	**186.7774**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.38296e+006	86.5674	0.0182	3.7600e-003	88.1438
General Office Building	2.2464e+006	140.6151	0.0296	6.1100e-003	143.1757
Parking Lot	35280	2.2084	4.6000e-004	1.0000e-004	2.2486
Total		**229.3909**	**0.0482**	**9.9700e-003**	**233.5681**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.38296e+006	86.5674	0.0182	3.7600e-003	88.1438
General Office Building	2.2464e+006	140.6151	0.0296	6.1100e-003	143.1757
Parking Lot	35280	2.2084	4.6000e-004	1.0000e-004	2.2486
Total		**229.3909**	**0.0482**	**9.9700e-003**	**233.5681**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8262	6.0000e-005	6.4800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Unmitigated	0.8262	6.0000e-005	6.4800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-004	6.0000e-005	6.4800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Total	**0.8262**	**6.0000e-005**	**6.4800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0126**	**0.0126**	**3.0000e-005**	**0.0000**	**0.0135**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-004	6.0000e-005	6.4800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Total	**0.8262**	**6.0000e-005**	**6.4800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0126**	**0.0126**	**3.0000e-005**	**0.0000**	**0.0135**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.4506	0.0421	0.0253	35.0353
Unmitigated	26.4506	0.0421	0.0253	35.0353

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	31.9921 / 19.608	26.4506	0.0421	0.0253	35.0353
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.4506**	**0.0421**	**0.0253**	**35.0353**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

General Office Building	31.9921 / 19.608	26.4506	0.0421	0.0253	35.0353
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.4506**	**0.0421**	**0.0253**	**35.0353**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.9807	2.0082	0.0000	84.1857
Unmitigated	33.9807	2.0082	0.0000	84.1857

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	167.4	33.9807	2.0082	0.0000	84.1857

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.9807**	**2.0082**	**0.0000**	**84.1857**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	167.4	33.9807	2.0082	0.0000	84.1857
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.9807**	**2.0082**	**0.0000**	**84.1857**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	216	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	8.8600e-003	0.0248	0.0226	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Total	**8.8600e-003**	**0.0248**	**0.0226**	**4.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**4.1126**	**4.1126**	**5.8000e-004**	**0.0000**	**4.1270**

11.0 Vegetation

University Circle Office Phase II, East Palo Alto - 2030

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	180.00	1000sqft	4.13	180,000.00	0
Enclosed Parking with Elevator	513.00	Space	0.00	236,000.00	0
Parking Lot	14.00	Space	0.00	100,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	138	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity = 90% PCE 2018 rate (of 129.77) with 10% PG&E 2018 rate (of 206) = 138

Land Use - Provided construction worksheet land uses, default acreage

Construction Phase - Provided construction schedule

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Trips and VMT - 0 trips EMFAC2021

Grading - grading = 133,673cy export

Vehicle Trips - Trip gen with reductions, 7.31, 1.63, 0.70

Vehicle Emission Factors - EMFAC2021 emissions factors

Water And Wastewater - WWTP 100% Aerobic

Construction Off-road Equipment Mitigation - BMPs + PM Mit, Tier 4 final mitigation, electric crane & generators & Air Compressors & welders

Stationary Sources - Emergency Generators and Fire Pumps - one emergency generator, 162kw, 216hp, 50hrs/year

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	38.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	32.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	18.00	145.00
tblConstructionPhase	NumDays	230.00	225.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	120.00
tblConstructionPhase	NumDays	18.00	135.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	6/23/2026	10/27/2027
tblConstructionPhase	PhaseEndDate	5/4/2026	4/7/2027

tblConstructionPhase	PhaseEndDate	5/28/2025	5/21/2025
tblConstructionPhase	PhaseEndDate	6/16/2025	11/26/2025
tblConstructionPhase	PhaseEndDate	5/28/2026	5/3/2028
tblConstructionPhase	PhaseEndDate	6/4/2025	6/11/2025
tblConstructionPhase	PhaseEndDate	6/16/2025	5/27/2026
tblConstructionPhase	PhaseStartDate	5/29/2026	4/8/2027
tblConstructionPhase	PhaseStartDate	6/17/2025	5/28/2026
tblConstructionPhase	PhaseStartDate	6/5/2025	6/12/2025
tblConstructionPhase	PhaseStartDate	5/5/2026	10/28/2027
tblConstructionPhase	PhaseStartDate	5/29/2025	5/22/2025
tblConstructionPhase	PhaseStartDate	6/17/2025	11/27/2025
tblFleetMix	HHD	6.8130e-003	7.3147e-003
tblFleetMix	HHD	6.8130e-003	7.3147e-003
tblFleetMix	HHD	6.8130e-003	7.3147e-003
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tblFleetMix	LDA	0.45	0.39
tblFleetMix	LDA	0.45	0.39
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tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.28	0.31
tblFleetMix	LDT2	0.28	0.31
tblFleetMix	LDT2	0.28	0.31
tblFleetMix	LHD1	0.02	0.04
tblFleetMix	LHD1	0.02	0.04
tblFleetMix	LHD1	0.02	0.04
tblFleetMix	LHD2	7.6330e-003	8.4117e-003
tblFleetMix	LHD2	7.6330e-003	8.4117e-003
tblFleetMix	LHD2	7.6330e-003	8.4117e-003
tblFleetMix	MCY	9.5100e-003	4.4928e-003

tblFleetMix	MCY	9.5100e-003	4.4928e-003
tblFleetMix	MCY	9.5100e-003	4.4928e-003
tblFleetMix	MDV	0.15	0.18
tblFleetMix	MDV	0.15	0.18
tblFleetMix	MDV	0.15	0.18
tblFleetMix	MH	8.9600e-004	7.0573e-004
tblFleetMix	MH	8.9600e-004	7.0573e-004
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tblFleetMix	MHD	0.03	0.01
tblFleetMix	MHD	0.03	0.01
tblFleetMix	OBUS	4.4760e-003	4.7195e-003
tblFleetMix	OBUS	4.4760e-003	4.7195e-003
tblFleetMix	OBUS	4.4760e-003	4.7195e-003
tblFleetMix	SBUS	6.0500e-004	4.4242e-004
tblFleetMix	SBUS	6.0500e-004	4.4242e-004
tblFleetMix	SBUS	6.0500e-004	4.4242e-004
tblFleetMix	UBUS	2.8550e-003	1.8230e-003
tblFleetMix	UBUS	2.8550e-003	1.8230e-003
tblFleetMix	UBUS	2.8550e-003	1.8230e-003
tblGrading	MaterialExported	0.00	133,673.00
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tblLandUse	LandUseSquareFeet	5,600.00	100,800.00
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tblLandUse	LotAcreage	0.13	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	7.00

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tblOffRoadEquipment	UsageHours	8.00	3.70
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	1.90
tblOffRoadEquipment	UsageHours	8.00	4.30

tblOffRoadEquipment	UsageHours	8.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	138
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	216.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	16,709.00	0.00
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tblVehicleEF	HHD	0.05	0.00
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tblVehicleEF	HHD	1,676.74	1,555.26
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tblVehicleEF	HHD	7.9170e-003	2.0820e-003
tblVehicleEF	HHD	0.06	0.09

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tblVehicleEF	HHD	0.23	2.0000e-006
tblVehicleEF	HHD	0.02	5.7250e-003
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tblVehicleEF	HHD	2.5200e-004	2.3600e-004
tblVehicleEF	HHD	0.01	6.5000e-005
tblVehicleEF	HHD	0.30	0.53
tblVehicleEF	HHD	1.9400e-004	2.3600e-004
tblVehicleEF	HHD	0.39	0.21
tblVehicleEF	HHD	2.1810e-003	3.9100e-004
tblVehicleEF	HHD	0.26	2.0000e-006
tblVehicleEF	LDA	1.7710e-003	1.0880e-003
tblVehicleEF	LDA	2.2600e-003	0.05
tblVehicleEF	LDA	0.30	0.44
tblVehicleEF	LDA	0.65	2.33
tblVehicleEF	LDA	178.28	233.45

tblVehicleEF	LDA	42.09	60.73
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.04	6.3460e-003
tblVehicleEF	LDA	1.0490e-003	8.1200e-004
tblVehicleEF	LDA	1.7270e-003	1.4720e-003
tblVehicleEF	LDA	0.02	2.2210e-003
tblVehicleEF	LDA	9.6500e-004	7.4700e-004
tblVehicleEF	LDA	1.5880e-003	1.3530e-003
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	4.4340e-003	3.8670e-003
tblVehicleEF	LDA	0.04	0.16
tblVehicleEF	LDA	0.03	0.22
tblVehicleEF	LDA	1.7830e-003	2.1560e-003
tblVehicleEF	LDA	4.3100e-004	5.6100e-004
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	6.4520e-003	5.6380e-003
tblVehicleEF	LDA	0.04	0.16
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDT1	2.5780e-003	2.2140e-003
tblVehicleEF	LDT1	3.0940e-003	0.06
tblVehicleEF	LDT1	0.42	0.67
tblVehicleEF	LDT1	0.88	2.93
tblVehicleEF	LDT1	226.43	305.57
tblVehicleEF	LDT1	53.15	77.75
tblVehicleEF	LDT1	0.04	0.05

tblVehicleEF	LDT1	0.04	0.24
tblVehicleEF	LDT1	0.04	7.9630e-003
tblVehicleEF	LDT1	1.3290e-003	1.0530e-003
tblVehicleEF	LDT1	2.0980e-003	1.7640e-003
tblVehicleEF	LDT1	0.02	2.7870e-003
tblVehicleEF	LDT1	1.2220e-003	9.6800e-004
tblVehicleEF	LDT1	1.9290e-003	1.6220e-003
tblVehicleEF	LDT1	0.02	0.31
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.02	0.31
tblVehicleEF	LDT1	6.3870e-003	9.0800e-003
tblVehicleEF	LDT1	0.08	0.24
tblVehicleEF	LDT1	0.04	0.27
tblVehicleEF	LDT1	2.2670e-003	2.8230e-003
tblVehicleEF	LDT1	5.4600e-004	7.1800e-004
tblVehicleEF	LDT1	0.02	0.31
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.02	0.31
tblVehicleEF	LDT1	9.3180e-003	0.01
tblVehicleEF	LDT1	0.08	0.24
tblVehicleEF	LDT1	0.05	0.30
tblVehicleEF	LDT2	2.6000e-003	1.4490e-003
tblVehicleEF	LDT2	2.6890e-003	0.05
tblVehicleEF	LDT2	0.44	0.53
tblVehicleEF	LDT2	0.82	2.59
tblVehicleEF	LDT2	259.84	316.92
tblVehicleEF	LDT2	60.40	79.52
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.04	0.22
tblVehicleEF	LDT2	0.04	7.7670e-003

tblVehicleEF	LDT2	1.2860e-003	8.9500e-004
tblVehicleEF	LDT2	2.0260e-003	1.4980e-003
tblVehicleEF	LDT2	0.02	2.7180e-003
tblVehicleEF	LDT2	1.1830e-003	8.2400e-004
tblVehicleEF	LDT2	1.8630e-003	1.3780e-003
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	6.4580e-003	5.1640e-003
tblVehicleEF	LDT2	0.06	0.12
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	2.6010e-003	2.9270e-003
tblVehicleEF	LDT2	6.1700e-004	7.3500e-004
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.02	0.16
tblVehicleEF	LDT2	9.4150e-003	7.5220e-003
tblVehicleEF	LDT2	0.06	0.12
tblVehicleEF	LDT2	0.04	0.26
tblVehicleEF	LHD1	3.5790e-003	4.1100e-003
tblVehicleEF	LHD1	6.9490e-003	2.8570e-003
tblVehicleEF	LHD1	8.0930e-003	0.01
tblVehicleEF	LHD1	0.13	0.18
tblVehicleEF	LHD1	0.52	0.47
tblVehicleEF	LHD1	1.42	2.11
tblVehicleEF	LHD1	8.92	7.75
tblVehicleEF	LHD1	630.67	681.95
tblVehicleEF	LHD1	25.19	16.68
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.33	0.18

tblVehicleEF	LHD1	0.54	0.30
tblVehicleEF	LHD1	7.9500e-004	6.1700e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.01	9.2640e-003
tblVehicleEF	LHD1	8.7410e-003	6.6480e-003
tblVehicleEF	LHD1	5.7500e-004	1.0400e-004
tblVehicleEF	LHD1	7.6000e-004	5.9000e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6230e-003	2.3160e-003
tblVehicleEF	LHD1	8.3320e-003	6.3310e-003
tblVehicleEF	LHD1	5.2800e-004	9.6000e-005
tblVehicleEF	LHD1	1.0880e-003	0.06
tblVehicleEF	LHD1	0.05	0.01
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	7.4600e-004	0.06
tblVehicleEF	LHD1	0.09	0.04
tblVehicleEF	LHD1	0.20	0.08
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	8.8000e-005	7.5000e-005
tblVehicleEF	LHD1	6.1550e-003	6.6580e-003
tblVehicleEF	LHD1	2.7700e-004	1.6500e-004
tblVehicleEF	LHD1	1.0880e-003	0.06
tblVehicleEF	LHD1	0.05	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.4600e-004	0.06
tblVehicleEF	LHD1	0.10	0.04
tblVehicleEF	LHD1	0.20	0.08
tblVehicleEF	LHD1	0.12	0.07
tblVehicleEF	LHD2	2.5060e-003	2.5020e-003
tblVehicleEF	LHD2	5.0690e-003	3.5940e-003

tblVehicleEF	LHD2	2.8610e-003	8.0250e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.43	0.32
tblVehicleEF	LHD2	0.87	1.15
tblVehicleEF	LHD2	13.54	13.41
tblVehicleEF	LHD2	673.90	723.74
tblVehicleEF	LHD2	21.85	8.83
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.15	0.27
tblVehicleEF	LHD2	0.24	0.17
tblVehicleEF	LHD2	1.0250e-003	1.4290e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.6290e-003	0.01
tblVehicleEF	LHD2	3.7300e-004	5.0000e-005
tblVehicleEF	LHD2	9.8000e-004	1.3670e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7070e-003	2.6170e-003
tblVehicleEF	LHD2	8.2320e-003	0.01
tblVehicleEF	LHD2	3.4300e-004	4.6000e-005
tblVehicleEF	LHD2	3.6400e-004	0.03
tblVehicleEF	LHD2	0.01	8.3390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	2.6800e-004	0.03
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	1.3200e-004	1.2800e-004
tblVehicleEF	LHD2	6.5470e-003	6.9630e-003
tblVehicleEF	LHD2	2.3300e-004	8.7000e-005

tblVehicleEF	LHD2	3.6400e-004	0.03
tblVehicleEF	LHD2	0.01	8.3390e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.6800e-004	0.03
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	MCY	0.47	0.14
tblVehicleEF	MCY	0.16	0.15
tblVehicleEF	MCY	17.68	11.96
tblVehicleEF	MCY	10.53	7.17
tblVehicleEF	MCY	173.86	189.11
tblVehicleEF	MCY	41.80	43.94
tblVehicleEF	MCY	1.14	0.51
tblVehicleEF	MCY	0.32	0.10
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.2080e-003	2.1450e-003
tblVehicleEF	MCY	3.4030e-003	3.5220e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0580e-003	2.0010e-003
tblVehicleEF	MCY	3.1790e-003	3.2920e-003
tblVehicleEF	MCY	0.61	2.69
tblVehicleEF	MCY	0.50	3.54
tblVehicleEF	MCY	0.36	2.69
tblVehicleEF	MCY	2.13	0.87
tblVehicleEF	MCY	0.38	3.67
tblVehicleEF	MCY	2.12	1.10
tblVehicleEF	MCY	2.0910e-003	1.8700e-003
tblVehicleEF	MCY	6.5200e-004	4.3400e-004
tblVehicleEF	MCY	0.61	0.07

tblVehicleEF	MCY	0.50	3.54
tblVehicleEF	MCY	0.36	0.07
tblVehicleEF	MCY	2.68	1.07
tblVehicleEF	MCY	0.38	3.67
tblVehicleEF	MCY	2.31	1.20
tblVehicleEF	MDV	3.5530e-003	1.4640e-003
tblVehicleEF	MDV	4.8880e-003	0.05
tblVehicleEF	MDV	0.52	0.53
tblVehicleEF	MDV	1.17	2.59
tblVehicleEF	MDV	345.39	377.41
tblVehicleEF	MDV	79.35	94.12
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.08	0.23
tblVehicleEF	MDV	0.04	7.7870e-003
tblVehicleEF	MDV	1.3240e-003	8.7100e-004
tblVehicleEF	MDV	2.0250e-003	1.4690e-003
tblVehicleEF	MDV	0.02	2.7250e-003
tblVehicleEF	MDV	1.2200e-003	8.0100e-004
tblVehicleEF	MDV	1.8620e-003	1.3500e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.05
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	8.9310e-003	5.3220e-003
tblVehicleEF	MDV	0.08	0.13
tblVehicleEF	MDV	0.07	0.25
tblVehicleEF	MDV	3.4520e-003	3.4850e-003
tblVehicleEF	MDV	8.1300e-004	8.6900e-004
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.05
tblVehicleEF	MDV	0.04	0.17

tblVehicleEF	MDV	0.01	7.7450e-003
tblVehicleEF	MDV	0.08	0.13
tblVehicleEF	MDV	0.07	0.28
tblVehicleEF	MH	5.3780e-003	4.8170e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.26	0.26
tblVehicleEF	MH	3.31	1.85
tblVehicleEF	MH	1,174.79	1,657.15
tblVehicleEF	MH	56.01	19.91
tblVehicleEF	MH	0.68	1.00
tblVehicleEF	MH	0.53	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.9500e-003	0.01
tblVehicleEF	MH	8.6500e-004	2.4800e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2220e-003	3.3360e-003
tblVehicleEF	MH	6.6090e-003	0.01
tblVehicleEF	MH	7.9600e-004	2.2800e-004
tblVehicleEF	MH	0.22	10.82
tblVehicleEF	MH	0.02	2.82
tblVehicleEF	MH	0.11	10.82
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	5.4280e-003	0.07
tblVehicleEF	MH	0.19	0.08
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	6.1700e-004	1.9700e-004
tblVehicleEF	MH	0.22	10.82
tblVehicleEF	MH	0.02	2.82
tblVehicleEF	MH	0.11	10.82

tblVehicleEF	MH	0.04	0.05
tblVehicleEF	MH	5.4280e-003	0.07
tblVehicleEF	MH	0.21	0.09
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.5460e-003	9.6240e-003
tblVehicleEF	MHD	0.03	9.1350e-003
tblVehicleEF	MHD	0.36	0.63
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	3.51	0.98
tblVehicleEF	MHD	134.54	133.41
tblVehicleEF	MHD	1,162.44	1,144.56
tblVehicleEF	MHD	57.83	9.75
tblVehicleEF	MHD	0.34	0.66
tblVehicleEF	MHD	0.99	0.56
tblVehicleEF	MHD	10.23	1.12
tblVehicleEF	MHD	4.2000e-005	6.3600e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	2.8940e-003	5.3910e-003
tblVehicleEF	MHD	8.0800e-004	1.1800e-004
tblVehicleEF	MHD	4.0000e-005	6.0800e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	2.7630e-003	5.1470e-003
tblVehicleEF	MHD	7.4300e-004	1.0900e-004
tblVehicleEF	MHD	4.5900e-004	0.02
tblVehicleEF	MHD	0.03	3.9100e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.3600e-004	0.02
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.22	0.05

tblVehicleEF	MHD	1.2960e-003	1.2250e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.3900e-004	9.6000e-005
tblVehicleEF	MHD	4.5900e-004	0.02
tblVehicleEF	MHD	0.03	3.9100e-003
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	3.3600e-004	0.02
tblVehicleEF	MHD	0.05	0.03
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.24	0.05
tblVehicleEF	OBUS	0.01	6.9140e-003
tblVehicleEF	OBUS	3.7210e-003	0.01
tblVehicleEF	OBUS	0.02	8.2390e-003
tblVehicleEF	OBUS	0.24	0.50
tblVehicleEF	OBUS	0.29	0.16
tblVehicleEF	OBUS	3.83	0.83
tblVehicleEF	OBUS	125.90	88.98
tblVehicleEF	OBUS	1,274.07	1,200.92
tblVehicleEF	OBUS	63.49	7.77
tblVehicleEF	OBUS	0.28	0.34
tblVehicleEF	OBUS	0.88	0.65
tblVehicleEF	OBUS	3.03	1.02
tblVehicleEF	OBUS	2.6000e-005	2.0700e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	2.9110e-003	7.6200e-003
tblVehicleEF	OBUS	9.4500e-004	8.4000e-005
tblVehicleEF	OBUS	2.5000e-005	1.9800e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	2.7640e-003	7.2850e-003
tblVehicleEF	OBUS	8.6900e-004	7.7000e-005

tblVehicleEF	OBUS	8.1200e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	4.5300e-004	0.03
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.24	0.04
tblVehicleEF	OBUS	1.2120e-003	8.3500e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.0200e-004	7.7000e-005
tblVehicleEF	OBUS	8.1200e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.5300e-004	0.03
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.27	0.05
tblVehicleEF	SBUS	0.82	0.11
tblVehicleEF	SBUS	6.7640e-003	0.07
tblVehicleEF	SBUS	0.05	8.9860e-003
tblVehicleEF	SBUS	13.58	2.80
tblVehicleEF	SBUS	0.37	0.91
tblVehicleEF	SBUS	10.81	1.22
tblVehicleEF	SBUS	774.42	204.64
tblVehicleEF	SBUS	809.72	878.82
tblVehicleEF	SBUS	94.79	6.73
tblVehicleEF	SBUS	1.96	1.04
tblVehicleEF	SBUS	0.86	1.45
tblVehicleEF	SBUS	5.09	0.50
tblVehicleEF	SBUS	9.3400e-004	7.5800e-004

tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	9.1050e-003	9.8790e-003
tblVehicleEF	SBUS	4.8090e-003	7.0920e-003
tblVehicleEF	SBUS	1.9160e-003	9.4000e-005
tblVehicleEF	SBUS	8.9300e-004	7.2300e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.2760e-003	2.4700e-003
tblVehicleEF	SBUS	4.5600e-003	6.7620e-003
tblVehicleEF	SBUS	1.7620e-003	8.6000e-005
tblVehicleEF	SBUS	3.7070e-003	0.05
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	1.61	0.33
tblVehicleEF	SBUS	2.0970e-003	0.05
tblVehicleEF	SBUS	0.04	0.05
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.55	0.05
tblVehicleEF	SBUS	7.8740e-003	1.8650e-003
tblVehicleEF	SBUS	7.9330e-003	8.2270e-003
tblVehicleEF	SBUS	1.1340e-003	6.7000e-005
tblVehicleEF	SBUS	3.7070e-003	0.05
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	2.35	0.51
tblVehicleEF	SBUS	2.0970e-003	0.05
tblVehicleEF	SBUS	0.05	0.13
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.61	0.06
tblVehicleEF	UBUS	0.25	0.64
tblVehicleEF	UBUS	0.05	4.9850e-003
tblVehicleEF	UBUS	2.66	7.38
tblVehicleEF	UBUS	7.71	0.81

tblVehicleEF	UBUS	1,920.81	959.09
tblVehicleEF	UBUS	124.76	5.33
tblVehicleEF	UBUS	3.13	0.21
tblVehicleEF	UBUS	13.14	0.05
tblVehicleEF	UBUS	0.54	0.16
tblVehicleEF	UBUS	0.01	0.06
tblVehicleEF	UBUS	0.05	3.9500e-003
tblVehicleEF	UBUS	1.3970e-003	2.5000e-005
tblVehicleEF	UBUS	0.23	0.05
tblVehicleEF	UBUS	3.0000e-003	0.02
tblVehicleEF	UBUS	0.05	3.7730e-003
tblVehicleEF	UBUS	1.2850e-003	2.3000e-005
tblVehicleEF	UBUS	2.0810e-003	0.01
tblVehicleEF	UBUS	0.04	3.4250e-003
tblVehicleEF	UBUS	1.5040e-003	0.01
tblVehicleEF	UBUS	0.15	0.05
tblVehicleEF	UBUS	9.5820e-003	0.01
tblVehicleEF	UBUS	0.65	0.02
tblVehicleEF	UBUS	0.02	7.2720e-003
tblVehicleEF	UBUS	1.3880e-003	5.3000e-005
tblVehicleEF	UBUS	2.0810e-003	0.01
tblVehicleEF	UBUS	0.04	3.4250e-003
tblVehicleEF	UBUS	1.5040e-003	0.01
tblVehicleEF	UBUS	0.41	0.69
tblVehicleEF	UBUS	9.5820e-003	0.01
tblVehicleEF	UBUS	0.71	0.02
tblVehicleTrips	ST_TR	2.46	1.63
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	WD_TR	11.03	7.31
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8262	6.0000e-005	6.4600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	415.0649	415.0649	0.0518	0.0134	420.3455
Mobile	0.3642	0.2766	2.4652	8.5000e-003	0.8053	4.3300e-003	0.8097	0.2010	4.0500e-003	0.2051	0.0000	832.3878	832.3878	0.0298	0.0000	833.1323
Stationary	8.8600e-003	0.0248	0.0226	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Waste						0.0000	0.0000		0.0000	0.0000	33.9807	0.0000	33.9807	2.0082	0.0000	84.1857
Water						0.0000	0.0000		0.0000	0.0000	11.3189	15.1317	26.4506	0.0421	0.0253	35.0353
Total	**1.2181**	**0.4720**	**2.6375**	**9.5600e-003**	**0.8053**	**0.0186**	**0.8239**	**0.2010**	**0.0183**	**0.2194**	**45.2995**	**1,266.7097**	**1,312.0092**	**2.1325**	**0.0387**	**1,376.8393**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8262	6.0000e-005	6.4600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	415.0649	415.0649	0.0518	0.0134	420.3455
Mobile	0.3642	0.2766	2.4652	8.5000e-003	0.8053	4.3300e-003	0.8097	0.2010	4.0500e-003	0.2051	0.0000	832.3878	832.3878	0.0298	0.0000	833.1323
Stationary	8.8600e-003	0.0248	0.0226	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Waste						0.0000	0.0000		0.0000	0.0000	33.9807	0.0000	33.9807	2.0082	0.0000	84.1857
Water						0.0000	0.0000		0.0000	0.0000	11.3189	15.1317	26.4506	0.0421	0.0253	35.0353
Total	**1.2181**	**0.4720**	**2.6375**	**9.5600e-003**	**0.8053**	**0.0186**	**0.8239**	**0.2010**	**0.0183**	**0.2194**	**45.2995**	**1,266.7097**	**1,312.0092**	**2.1325**	**0.0387**	**1,376.8393**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Mitigated	0.3642	0.2766	2.4652	8.5000e-003	0.8053	4.3300e-003	0.8097	0.2010	4.0500e-003	0.2051	0.0000	832.3878	832.3878	0.0298	0.0000	833.1323
Unmitigated	0.3642	0.2766	2.4652	8.5000e-003	0.8053	4.3300e-003	0.8097	0.2010	4.0500e-003	0.2051	0.0000	832.3878	832.3878	0.0298	0.0000	833.1323

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,315.80	293.40	126.00	2,389,207	2,389,207
Parking Lot	0.00	0.00	0.00		
Total	1,315.80	293.40	126.00	2,389,207	2,389,207

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
General Office Building	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Parking Lot	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	229.3909	229.3909	0.0482	9.9700e-003	233.5681
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	229.3909	229.3909	0.0482	9.9700e-003	233.5681
NaturalGas Mitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774
NaturalGas Unmitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.4794e+006	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0188**	**0.1706**	**0.1433**	**1.0200e-003**		**0.0130**	**0.0130**		**0.0130**	**0.0130**	**0.0000**	**185.6740**	**185.6740**	**3.5600e-003**	**3.4000e-003**	**186.7774**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.4794e+006	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6740	185.6740	3.5600e-003	3.4000e-003	186.7774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0188**	**0.1706**	**0.1433**	**1.0200e-003**		**0.0130**	**0.0130**		**0.0130**	**0.0130**	**0.0000**	**185.6740**	**185.6740**	**3.5600e-003**	**3.4000e-003**	**186.7774**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.38296e+006	86.5674	0.0182	3.7600e-003	88.1438
General Office Building	2.2464e+006	140.6151	0.0296	6.1100e-003	143.1757
Parking Lot	35280	2.2084	4.6000e-004	1.0000e-004	2.2486
Total		**229.3909**	**0.0482**	**9.9700e-003**	**233.5681**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.38296e+006	86.5674	0.0182	3.7600e-003	88.1438
General Office Building	2.2464e+006	140.6151	0.0296	6.1100e-003	143.1757

Parking Lot	35280	2.2084	4.6000e-004	1.0000e-004	2.2486
Total		**229.3909**	**0.0482**	**9.9700e-003**	**233.5681**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8262	6.0000e-005	6.4600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Unmitigated	0.8262	6.0000e-005	6.4600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.9000e-004	6.0000e-005	6.4600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135

Total	**0.8262**	**6.0000e-005**	**6.4600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0126**	**0.0126**	**3.0000e-005**	**0.0000**	**0.0135**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.9000e-004	6.0000e-005	6.4600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0126	0.0126	3.0000e-005	0.0000	0.0135
Total	**0.8262**	**6.0000e-005**	**6.4600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0126**	**0.0126**	**3.0000e-005**	**0.0000**	**0.0135**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.4506	0.0421	0.0253	35.0353
Unmitigated	26.4506	0.0421	0.0253	35.0353

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	31.9921 / 19.608	26.4506	0.0421	0.0253	35.0353
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.4506**	**0.0421**	**0.0253**	**35.0353**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	31.9921 / 19.608	26.4506	0.0421	0.0253	35.0353
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.4506**	**0.0421**	**0.0253**	**35.0353**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.9807	2.0082	0.0000	84.1857
Unmitigated	33.9807	2.0082	0.0000	84.1857

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	167.4	33.9807	2.0082	0.0000	84.1857
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.9807**	**2.0082**	**0.0000**	**84.1857**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	167.4	33.9807	2.0082	0.0000	84.1857
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.9807**	**2.0082**	**0.0000**	**84.1857**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	216	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					

Emergency Generator - Diesel (175 - 300 HP)	8.8600e-003	0.0248	0.0226	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Total	**8.8600e-003**	**0.0248**	**0.0226**	**4.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**4.1126**	**4.1126**	**5.8000e-004**	**0.0000**	**4.1270**

11.0 Vegetation

Attachment 3: EMFAC2021 Calculations

CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	225	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2430	0	0
Site Preparation	13	0	195	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2106	0	0
Grading	48	0	5760	0	16,709	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	62208	0	334180
Trenching	93	0	12090	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	130572	0	0
Building Construction	199	85	44775	19125	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	483570	139612.5	0
Architectural Coating	40	0	5800	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	62640	0	0
Paving	45	0	6075	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	65610	0	0

Number of Days Per Year					
2025	5/1/25	12/31/25	245	175	
2026	1/1/26	12/31/26	365	261	
2027	1/1/27	12/31/27	365	261	
2028	1/1/28	5/3/28	124	89	
			1099	**786**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	5/1/2025	5/21/2025	5	15
Site Preparation	5/22/2025	6/11/2025	5	15
Grading	6/12/2025	11/26/2025	5	120
Trenching	11/27/2025	5/27/2026	5	130
Building Construction	5/28/2026	4/7/2027	5	225
Architectural Coating	4/8/2027	10/27/2027	5	145
Paving	10/28/2027	5/3/2028	5	135

Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
					Tons							*Metric Tons*		
Criteria Pollutants														
2025	0.0259	0.3158	0.3688	0.0023	0.0943	0.0192	0.1134	0.0142	0.0079	0.0220	231.4385	0.0246	0.0290	240.6839
2026	0.0365	0.4458	0.5310	0.0034	0.1404	0.0284	0.1688	0.0211	0.0116	0.0327	338.8952	0.0349	0.0423	352.3623
2027	0.0349	0.4229	0.5139	0.0033	0.1404	0.0283	0.1687	0.0211	0.0114	0.0326	332.7616	0.0329	0.0414	345.9111
2028	0.0113	0.1360	0.1692	0.0011	0.0477	0.0095	0.0573	0.0072	0.0038	0.0110	110.9412	0.0105	0.0137	115.2990
Toxic Air Contaminants (1 Mile Trip Length)														
2025	0.0210	0.0589	0.0998	0.0001	0.0041	0.0008	0.0048	0.0006	0.0003	0.0009	14.3819	0.0033	0.0022	15.1248
2026	0.0298	0.0858	0.1435	0.0002	0.0061	0.0011	0.0072	0.0009	0.0005	0.0014	21.0892	0.0046	0.0032	22.1701
2027	0.0287	0.0838	0.1390	0.0002	0.0061	0.0011	0.0072	0.0009	0.0005	0.0014	20.7479	0.0045	0.0032	21.8042
2028	0.0094	0.0277	0.0459	0.0001	0.0021	0.0004	0.0024	0.0003	0.0002	0.0005	6.9321	0.0014	0.0011	7.2829

CalEEMod EMFAC2021 Emission Factors Input — Year 2029

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004295	0.002584	0.015926	0.23733838	0.00688	0	0	0.108708	0
A	CH4_RUNEX	0.00116	0.002474	0.001509	0.001536	0.003215	0.003795	0.009764	0.197118967	0.009719	0.643312556	0.142182	0.074435	0.005256
A	CH4_STREX	0.050068	0.061602	0.054938	0.057329	0.015063	0.008422	0.009425	3.61033E-07	0.008648	0.005025376	0.156864	0.008977	0.021984
A	CO_IDLEX	0	0	0	0	0.187647	0.138212	0.642653	4.610661927	0.500744	0	0	2.751173	0
A	CO_RUNEX	0.449655	0.715006	0.537711	0.533433	0.50315	0.334867	0.183571	1.498713419	0.170328	7.397815743	12.04123	1.004623	0.320047
A	CO_STREX	2.421317	3.121116	2.652131	2.659144	2.16698	1.173462	1.026668	0.018739922	0.875959	0.834766202	7.18956	1.230128	1.917152
A	CO2_NBIO_IDLEX	0	0	0	0	7.858984	13.27246	137.2862	720.3431495	89.65556	0	0	206.3604	0
A	CO2_NBIO_RUNEX	235.6537	308.2358	318.7163	379.7849	694.4054	735.136	1178.926	1595.885638	1220.959	961.5406097	189.1801	901.5047	1658.978
A	CO2_NBIO_STREX	61.40086	78.69592	80.0842	94.83389	17.10332	8.957661	9.968246	0.218489763	8.093267	5.373144162	44.6111	6.659004	20.14881
A	NOX_IDLEX	0	0	0	0	0.028995	0.061239	0.689714	3.643653901	0.348267	0	0	1.113894	0
A	NOX_RUNEX	0.022775	0.052586	0.031594	0.03281	0.200576	0.300081	0.625365	2.00075762	0.659337	0.210062417	0.509722	1.658022	1.015933
A	NOX_STREX	0.195543	0.246747	0.224392	0.238275	0.314169	0.181294	1.169511	2.688653895	1.056687	0.052482674	0.109032	0.50035	0.25675
A	PM10_IDLEX	0	0	0	0	0.000623	0.001415	0.000785	0.002319096	0.000213	0	0	0.000875	0
A	PM10_PMBW	0.006356	0.007972	0.007752	0.007772	0.074929	0.087233	0.043941	0.093734678	0.048989	0.155421458	0.012	0.043653	0.04494
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009286	0.010522	0.012	0.034533396	0.012	0.061368947	0.004	0.009911	0.013334
A	PM10_RUNEX	0.000867	0.001141	0.000953	0.00093	0.006943	0.012753	0.006242	0.021419024	0.007759	0.003960766	0.00214	0.007921	0.012264
A	PM10_STREX	0.001556	0.001888	0.001586	0.001556	0.000114	5.37E-05	0.000121	2.2664E-06	8.73E-05	2.48727E-05	0.003547	9.17E-05	0.000255
A	PM25_IDLEX	0	0	0	0	0.000596	0.001354	0.00075	0.002212589	0.000204	0	0	0.000835	0
A	PM25_PMBW	0.002225	0.00279	0.002713	0.00272	0.026225	0.030531	0.015379	0.032807137	0.017146	0.05439751	0.0042	0.015278	0.015729
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002321	0.00263	0.003	0.008633349	0.003	0.015342237	0.001	0.002478	0.003334
A	PM25_RUNEX	0.000797	0.001049	0.000877	0.000856	0.006612	0.012188	0.00596	0.020486421	0.007417	0.003783445	0.001997	0.007555	0.011695
A	PM25_STREX	0.001431	0.001736	0.001458	0.001431	0.000104	4.94E-05	0.000111	2.08387E-06	8.02E-05	2.28695E-05	0.003318	8.43E-05	0.000234
A	ROG_DIURN	0.213664	0.32906	0.159308	0.171614	0.061505	0.036562	0.017728	0.000313481	0.030462	0.011053831	2.798314	0.052349	12.32437
A	ROG_HTSK	0.060708	0.089932	0.045667	0.047714	0.015856	0.008981	0.0043	8.92344E-05	0.006952	0.003316553	3.538799	0.01182	3.255037
A	ROG_IDLEX	0	0	0	0	0.017288	0.013854	0.024032	0.275477137	0.032547	0	0	0.320989	0
A	ROG_RESTL	0.213664	0.32906	0.159308	0.171614	0.061505	0.036562	0.017728	0.000313481	0.030462	0.011053831	2.798314	0.052349	12.32437
A	ROG_RUNEX	0.00418	0.010309	0.005428	0.005655	0.040395	0.069824	0.018281	0.024385078	0.018534	0.045351779	0.878217	0.05136	0.04116
A	ROG_RUNLS	0.165546	0.257113	0.12188	0.131629	0.090356	0.051618	0.036169	0.000592576	0.035377	0.012602815	3.681462	0.037932	0.078693
A	ROG_STREX	0.232836	0.295698	0.244972	0.264164	0.07138	0.039919	0.048195	1.95594E-06	0.043251	0.018099946	1.126879	0.051732	0.084961
A	SO2_IDLEX	0	0	0	0	7.65E-05	0.000127	0.001263	0.005850893	0.000842	0	0	0.001883	0
A	SO2_RUNEX	0.002192	0.002867	0.002964	0.003531	0.006781	0.007074	0.011207	0.013759288	0.011562	0.007289424	0.00187	0.008443	0.016252
A	SO2_STREX	0.000571	0.000732	0.000745	0.000882	0.000169	8.86E-05	9.85E-05	2.15999E-06	8E-05	5.3119E-05	0.000441	6.58E-05	0.000199
A	TOG_DIURN	0.213664	0.32906	0.159308	0.171614	0.061505	0.036562	0.017728	0.000313481	0.030462	0.011053831	0.068824	0.052349	12.32437
A	TOG_HTSK	0.060708	0.089932	0.045667	0.047714	0.015856	0.008981	0.0043	8.92344E-05	0.006952	0.003316553	3.538799	0.01182	3.255037
A	TOG_IDLEX	0	0	0	0	0.024433	0.018436	0.043444	0.539282131	0.043434	0	0	0.50212	0
A	TOG_RESTL	0.213664	0.32906	0.159308	0.171614	0.061505	0.036562	0.017728	0.000313481	0.030462	0.011053831	0.068824	0.052349	12.32437
A	TOG_RUNEX	0.006094	0.015041	0.007907	0.008229	0.048439	0.080414	0.030475	0.224993468	0.030409	0.696029902	1.085371	0.135312	0.051251
A	TOG_RUNLS	0.165546	0.257113	0.12188	0.131629	0.090356	0.051618	0.036169	0.000592576	0.035377	0.012602815	3.681462	0.037932	0.078693
A	TOG_STREX	0.254926	0.323752	0.268214	0.289226	0.078153	0.043707	0.052768	2.14151E-06	0.047354	0.019817163	1.226316	0.05664	0.093021

CalEEMod EMFAC2021 Fleet Mix Input

Year 2029

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elev	0.400584	0.038292	0.305399	0.179512	0.035812	0.008234	0.012726	0.007283	0.004738	0.001826	0.00446	0.000437	0.000696
General Office Building	0.400584	0.038292	0.305399	0.179512	0.035812	0.008234	0.012726	0.007283	0.004738	0.001826	0.00446	0.000437	0.000696
Parking Lot	0.400584	0.038292	0.305399	0.179512	0.035812	0.008234	0.012726	0.007283	0.004738	0.001826	0.00446	0.000437	0.000696

CalEEMod EMFAC2021 Emission Factors Input — Year 2030

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.00411	0.002502	0.015963	0.229026242	0.006914	0	0	0.110559	0
A	CH4_RUNEX	0.001088	0.002214	0.001449	0.001464	0.002857	0.003594	0.009624	0.18305022	0.010248	0.641438636	0.140926	0.072674	0.004817
A	CH4_STREX	0.047827	0.05773	0.053015	0.054948	0.014214	0.008025	0.009135	3.05733E-07	0.008239	0.004984538	0.153808	0.008986	0.021494
A	CO_IDLEX	0	0	0	0	0.183464	0.137123	0.628743	4.574443284	0.49944	0	0	2.802822	0
A	CO_RUNEX	0.435661	0.670493	0.529878	0.525005	0.466091	0.320096	0.163527	1.442396346	0.162707	7.376099242	11.96398	0.912101	0.258927
A	CO_STREX	2.333356	2.925959	2.589204	2.59016	2.109493	1.154423	0.977377	0.016590448	0.832894	0.805652945	7.172074	1.218105	1.853708
A	CO2_NBIO_IDLEX	0	0	0	0	7.748251	13.40813	133.4064	708.210789	88.97829	0	0	204.6368	0
A	CO2_NBIO_RUNEX	233.4498	305.5749	316.9207	377.4122	681.9466	723.7374	1144.56	1555.256119	1200.915	959.0871849	189.1105	878.8154	1657.153
A	CO2_NBIO_STREX	60.73293	77.75441	79.52356	94.11907	16.67534	8.825739	9.749846	0.200078654	7.774869	5.326390756	43.94156	6.730539	19.91475
A	NOX_IDLEX	0	0	0	0	0.027637	0.059763	0.658867	3.566245811	0.336592	0	0	1.035723	0
A	NOX_RUNEX	0.021609	0.046708	0.030077	0.030824	0.177185	0.27492	0.558221	1.874181967	0.646065	0.209602311	0.506147	1.45062	0.995886
A	NOX_STREX	0.190434	0.235703	0.220486	0.232278	0.299719	0.174176	1.115695	2.649753409	1.022028	0.051171112	0.104712	0.50246	0.254132
A	PM10_IDLEX	0	0	0	0	0.000617	0.001429	0.000636	0.00208163	0.000207	0	0	0.000758	0
A	PM10_PMBW	0.006346	0.007963	0.007767	0.007787	0.074001	0.086134	0.043306	0.093281284	0.048975	0.156110891	0.012	0.043175	0.04494
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009264	0.01047	0.012	0.034539384	0.012	0.061827696	0.004	0.009879	0.013342
A	PM10_RUNEX	0.000812	0.001053	0.000895	0.000871	0.006648	0.01245	0.005391	0.020667549	0.00762	0.003949707	0.002145	0.007092	0.011597
A	PM10_STREX	0.001472	0.001764	0.001498	0.001469	0.000104	4.97E-05	0.000118	1.82388E-06	8.4E-05	2.48573E-05	0.003522	9.36E-05	0.000248
A	PM25_IDLEX	0	0	0	0	0.00059	0.001367	0.000608	0.001985313	0.000198	0	0	0.000723	0
A	PM25_PMBW	0.002221	0.002787	0.002718	0.002725	0.0259	0.030147	0.015157	0.032648449	0.017141	0.054638812	0.0042	0.015111	0.015729
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002316	0.002617	0.003	0.008634846	0.003	0.015456924	0.001	0.00247	0.003336
A	PM25_RUNEX	0.000747	0.000968	0.000824	0.000801	0.006331	0.011898	0.005147	0.019767546	0.007285	0.003772866	0.002001	0.006762	0.011058
A	PM25_STREX	0.001353	0.001622	0.001378	0.00135	9.55E-05	4.57E-05	0.000109	1.67699E-06	7.72E-05	2.28554E-05	0.003292	8.61E-05	0.000228
A	ROG_DIURN	0.207829	0.311941	0.15585	0.165572	0.056781	0.034294	0.016264	0.000235524	0.029304	0.012421079	2.694632	0.052216	10.81642
A	ROG_HTSK	0.05777	0.084002	0.043918	0.045597	0.014537	0.008339	0.00391	6.49199E-05	0.00656	0.003424597	3.535952	0.011692	2.824213
A	ROG_IDLEX	0	0	0	0	0.016598	0.013595	0.023221	0.271787437	0.032176	0	0	0.326882	0
A	ROG_RESTL	0.207829	0.311941	0.15585	0.165572	0.056781	0.034294	0.016264	0.000235524	0.029304	0.012421079	2.694632	0.052216	10.81642
A	ROG_RUNEX	0.003867	0.00908	0.005164	0.005322	0.037342	0.067106	0.015705	0.022524009	0.017791	0.045196878	0.86658	0.045956	0.038893
A	ROG_RUNLS	0.160612	0.242512	0.119342	0.12695	0.083346	0.048385	0.033035	0.000391321	0.033896	0.013537374	3.670486	0.037896	0.068402
A	ROG_STREX	0.221835	0.27407	0.235768	0.251724	0.066858	0.03786	0.046415	1.65627E-06	0.04121	0.017917411	1.100496	0.051728	0.081937
A	SO2_IDLEX	0	0	0	0	7.55E-05	0.000128	0.001225	0.005725269	0.000835	0	0	0.001865	0
A	SO2_RUNEX	0.002156	0.002823	0.002927	0.003485	0.006658	0.006963	0.010875	0.013364264	0.011361	0.007271598	0.00187	0.008227	0.016233
A	SO2_STREX	0.000561	0.000718	0.000735	0.000869	0.000165	8.73E-05	9.64E-05	1.97798E-06	7.69E-05	5.26568E-05	0.000434	6.65E-05	0.000197
A	TOG_DIURN	0.207829	0.311941	0.15585	0.165572	0.056781	0.034294	0.016264	0.000235524	0.029304	0.012421079	0.066855	0.052216	10.81642
A	TOG_HTSK	0.05777	0.084002	0.043918	0.045597	0.014537	0.008339	0.00391	6.49199E-05	0.00656	0.003424597	3.535952	0.011692	2.824213
A	TOG_IDLEX	0	0	0	0	0.023432	0.01804	0.04258	0.526899253	0.043038	0	0	0.511291	0
A	TOG_RESTL	0.207829	0.311941	0.15585	0.165572	0.056781	0.034294	0.016264	0.000235524	0.029304	0.012421079	0.066855	0.052216	10.81642
A	TOG_RUNEX	0.005638	0.01325	0.007522	0.007745	0.044469	0.077174	0.027406	0.208786723	0.030062	0.693976818	1.073491	0.127141	0.047979
A	TOG_RUNLS	0.160612	0.242512	0.119342	0.12695	0.083346	0.048385	0.033035	0.000391321	0.033896	0.013537374	3.670486	0.037896	0.068402
A	TOG_STREX	0.242882	0.300072	0.258136	0.275606	0.073201	0.041452	0.050819	1.8134E-06	0.04512	0.01961731	1.197752	0.056636	0.08971

CalEEMod EMFAC2021 Fleet Mix Input

Year 2030

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elev	0.392953	0.03814	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
General Office Building	0.392953	0.03814	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Parking Lot	0.392953	0.03814	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2025	**1.0018**	**1.0016**	**1.0016**	**1.0074**	**1.0065**	**1.0309**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNE	N2O_IDLEX	N2O_STRE	ROG_RUNI	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2025	HHDT	Aggregate	Aggregate	Gasoline	4.335984	539.4434	539.4434	0	86.75436	0	3.993891	0	0.002022	0.001378	0	0.000669	0.005	0.031006	0.001498	0	0.000751	0.02	0.088589	2226.101	0	52.013	0.111171	0	9.85E-05	0.151221	0	0.000104	0.548787	0	0.000535	0.032327	0.240688	2.160104	0.800789	0	0.000585	0.032327	0.240688	2.160104	0.045	33.0787	0	5.031545	0.022007	0	0.000514
San Mateo	2025	HHDT	Aggregate	Aggregate	Diesel	1328.41	119560.7	1195960.7	0	14621.91	0	2.632025	46.34757	3.000431	0.02461	0.033159	0	0.008607	0.030397	0.025723	0.034658	0	0.034427	0.086848	1786.171	8142.854	0	0.001211	0.15815	0	0.281412	1.28291	0	0.022607	3.404928	0	0	0	0	0.029679	3.876252	0	0	0	0	0	0.201044	0.113335	47.75386	0	0.016914	0.077108	0	0
San Mateo	2025	HHDT	Aggregate	Aggregate	Electricity	10.02384	901.0022	0	901.0022	96.27797	1681.601	0	0	0	0	0	0	0.008517	0.017099	0	0	0	0.034067	0.044854	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	HHDT	Aggregate	Aggregate	Natural Ga	180.5549	11842.66	11842.66	0	1200.105	0	1.331412	8.859598	0	0.001692	0.012232	0	0.009	0.060148	0.00184	0.013304	0	0.036	0.171851	1477.927	8333.863	0	2.792898	22.57518	0	0.301285	1.698912	0	0.061153	0.360007	0	0	0	0	2.874566	23.0823	0	0	0	0	0	0.720658	15.82056	63.0407	0	0	0	0	0
San Mateo	2025	LDA	Aggregate	Aggregate	Gasoline	238618	7185689	7185689	0	1119872	0	0.034615	0	0.235851	0.001128	0	0.001911	0.002	0.002349	0.001227	0	0.002078	0.008	0.00671	269.175	0	68.0394	0.001838	0	0.063866	0.004	0	0.030182	0.006975	0	0.296397	0.080623	0.207785	1.246636	0.010177	0	0.324517	0.080623	0.207785	1.246636	0.036919	0.602664	0	3.018989	0.002661	0	0.000673
San Mateo	2025	LDA	Aggregate	Aggregate	Diesel	710.5834	15407.46	15407.46	0	2980.227	0	0.166025	0	0	0.01142	0	0	0.002	0.00241	0.011937	0	0	0.008	0.006884	230.6071	0	0	0.00097	0	0	0.036332	0	0	0.020877	0	0	0	0	0	0.023767	0	0	0	0	0	0	0.0031	0.292415	0	0	0.002185	0	0
San Mateo	2025	LDA	Aggregate	Aggregate	Electricity	19564.98	745853.8	0	745853.8	96825.51	287961.1	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LDA	Aggregate	Aggregate	Plug-in Hyb	8044.117	283509.4	134548.1	148961.4	39536.84	44990.77	0.003049	0	0.473855	0.000543	0	0.001908	0.002	0.00133	0.000591	0	0.002075	0.008	0.0038	128.0305	0	73.49766	0.000312	0	0.155433	0.000334	0	0.05194	0.001281	0	0.821719	0.031948	0.028479	0.389847	0.00187	0	0.899679	0.031948	0.028479	0.389847	0.019071	0.191067	0	6.16492	0.001266	0	0.000727
San Mateo	2025	LDT1	Aggregate	Aggregate	Gasoline	25473.09	722986.2	722986.2	0	116608.1	0	0.088465	0	0.313819	0.001428	0	0.002288	0.002	0.002819	0.001554	0	0.002489	0.008	0.008056	314.602	0	81.51978	0.004138	0	0.083876	0.006908	0	0.033921	0.018105	0	0.421017	0.123314	0.343281	1.948219	0.026418	0	0.460961	0.123314	0.343281	1.948219	0.037997	0.996198	0	4.245316	0.003311	0	0.000806
San Mateo	2025	LDT1	Aggregate	Aggregate	Diesel	6.297196	75.91061	75.91061	0	17.6629	0	1.633241	0	0	0.233227	0	0	0.002	0.003314	0.243773	0	0	0.008	0.009467	417.0098	0	0	0.014366	0	0	0.0657	0	0	0.309282	0	0	0	0	0	0.352097	0	0	0	0	0	0	0.0031	1.645498	0	0	0.003951	0	0
San Mateo	2025	LDT1	Aggregate	Aggregate	Electricity	114.3013	4207.979	0	4207.979	557.9394	1624.627	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LDT1	Aggregate	Aggregate	Plug-in Hyb	78.69736	3019.599	1309.635	1709.964	386.7975	516.46	0.002786	0	0.473855	0.00035	0	0.001353	0.002	0.001345	0.000381	0	0.001471	0.008	0.003842	117.005	0	79.47792	0.000284	0	0.155353	0.000305	0	0.05188	0.001171	0	0.821719	0.019982	0.017036	0.266848	0.001709	0	0.899679	0.019982	0.017036	0.266848	0.018216	0.174613	0	6.16492	0.001157	0	0.000786
San Mateo	2025	LDT2	Aggregate	Aggregate	Gasoline	159673.6	5072144	5072144	0	766397.2	0	0.043155	0	0.259038	0.001111	0	0.001824	0.002	0.002725	0.001208	0	0.001983	0.008	0.007785	326.5862	0	82.3296	0.001976	0	0.066383	0.004349	0	0.031999	0.007386	0	0.299178	0.056614	0.145016	0.911896	0.010777	0	0.327563	0.056614	0.145016	0.911896	0.039093	0.616696	0	3.075211	0.003229	0	0.000814
San Mateo	2025	LDT2	Aggregate	Aggregate	Diesel	618.9276	19447.24	19447.24	0	2972.356	0	0.035316	0	0	0.004147	0	0	0.002	0.002746	0.004334	0	0	0.008	0.007845	303.5847	0	0	0.00056	0	0	0.04783	0	0	0.012057	0	0	0	0	0	0.013726	0	0	0	0	0	0	0.0031	0.116837	0	0	0.002877	0	0
San Mateo	2025	LDT2	Aggregate	Aggregate	Electricity	1700.502	48819.4	0	48819.4	8654.222	18848.32	0	0	0	0	0	0	0.002	0.001526	0	0	0	0.008	0.004361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LDT2	Aggregate	Aggregate	Plug-in Hyb	1989.466	72787.26	33032.95	39754.31	9778.227	12006.99	0.002916	0	0.473855	0.00042	0	0.00155	0.002	0.001337	0.000457	0	0.001686	0.008	0.003821	122.4321	0	86.03449	0.000298	0	0.155304	0.000319	0	0.051844	0.001225	0	0.821719	0.021329	0.019106	0.287953	0.001788	0	0.899679	0.021329	0.019106	0.287953	0.019048	0.182712	0	6.16492	0.00121	0	0.000851
San Mateo	2025	LHDT1	Aggregate	Aggregate	Gasoline	11613.82	405927.2	405927.2	0	173028.5	0	0.092721	0.032618	0.543495	0.00135	0	0.000213	0.002	0.0273	0.001468	0	0.000231	0.008	0.078	826.9698	115.7154	26.45235	0.004867	0.10443	0.026887	0.00529	0.002859	0.046486	0.023548	0.374027	0.129854	0.03142	0.171421	1.736909	0.034361	0.545779	0.142174	0.03142	0.171421	1.736909	0.044961	0.876305	3.766067	3.299991	0.008175	0.001144	0.000262
San Mateo	2025	LHDT1	Aggregate	Aggregate	Diesel	5396.711	200335.3	200335.3	0	67883.84	0	0.869542	1.51814	0	0.02239	0.026666	0	0.003	0.0273	0.023403	0.027871	0	0.012	0.078	625.1633	125.503	0	0.005716	0.005098	0	0.098495	0.019773	0	0.123053	0.10976	0	0	0	0	0.140088	0.124954	0	0	0	0	0	0.196014	0.301643	0.909745	0	0.005924	0.001189	0	0
San Mateo	2025	LHDT1	Aggregate	Aggregate	Electricity	157.5841	8786.546	0	8786.546	2203.775	5753.375	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LHDT2	Aggregate	Aggregate	Gasoline	1342.429	45031.5	45031.5	0	20000.19	0	0.100813	0.033102	0.570219	0.001282	0	0.000185	0.002	0.03185	0.001395	0	0.000201	0.008	0.091	933.6381	134.1464	25.03467	0.00415	0.105117	0.027515	0.005943	0.002815	0.047038	0.018802	0.379707	0.133283	0.032846	0.178071	1.845904	0.027436	0.554068	0.145928	0.032846	0.178071	1.845904	0.044991	0.761624	3.768677	3.255916	0.00923	0.001326	0.000247
San Mateo	2025	LHDT2	Aggregate	Aggregate	Diesel	2386.592	88314.97	88314.97	0	30020.32	0	0.655618	1.451157	0	0.020708	0.02679	0	0.003	0.03185	0.021644	0.028001	0	0.012	0.091	736.6435	200.0465	0	0.005491	0.005098	0	0.116058	0.031517	0	0.118209	0.10976	0	0	0	0	0.134573	0.124954	0	0	0	0	0	0.203813	0.264962	0.909745	0	0.00698	0.001896	0	0
San Mateo	2025	LHDT2	Aggregate	Aggregate	Electricity	40.48817	2145.224	0	2145.224	536.9131	1383.682	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	MCY	Aggregate	Aggregate	Gasoline	13994.78	78703.42	78703.42	0	27989.55	0	0.536852	0	0.132535	0.00196	0	0.003401	0.001	0.0042	0.002099	0	0.003624	0.004	0.012	189.8778	0	48.40409	0.151211	0	0.175047	0.038034	0	0.008168	0.960763	0	1.28387	3.548067	3.701315	3.154868	1.171115	0	1.396328	3.548067	3.701315	3.154868	0.008947	12.67708	0	7.342955	0.001877	0	0.000479
San Mateo	2025	MDV	Aggregate	Aggregate	Gasoline	89810.74	2915872	2915872	0	429459.7	0	0.050748	0	0.301319	0.001104	0	0.001871	0.002	0.002743	0.0012	0	0.002035	0.008	0.007838	394.1876	0	99.80167	0.002219	0	0.074825	0.004749	0	0.03376	0.008671	0	0.356712	0.062664	0.169351	1.048331	0.012652	0	0.390555	0.062664	0.169351	1.048331	0.039288	0.640699	0	3.225835	0.003897	0	0.000987
San Mateo	2025	MDV	Aggregate	Aggregate	Diesel	1216.213	38222.55	38222.55	0	5783.756	0	0.033166	0	0	0.003666	0	0	0.002	0.002807	0.003832	0	0	0.008	0.008021	398.1179	0	0	0.000395	0	0	0.062724	0	0	0.008497	0	0	0	0	0	0.009674	0	0	0	0	0	0	0.0031	0.166794	0	0	0.003772	0	0
San Mateo	2025	MDV	Aggregate	Aggregate	Electricity	1824.97	52408.32	0	52408.32	9288.746	20233.94	0	0	0	0	0	0	0.002	0.001526	0	0	0	0.008	0.004361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	MDV	Aggregate	Aggregate	Plug-in Hyb	1131.124	42471.44	19328.41	23143.04	5559.474	6989.887	0.002924	0	0.473855	0.000462	0	0.001705	0.002	0.001337	0.000502	0	0.001854	0.008	0.003821	122.7729	0	103.1752	0.0003	0	0.155901	0.000323	0	0.052276	0.001229	0	0.821719	0.023156	0.02002	0.299651	0.001793	0	0.899679	0.023156	0.02002	0.299651	0.019114	0.18322	0	6.16492	0.001214	0	0.00102
San Mateo	2025	MH	Aggregate	Aggregate	Gasoline	830.5401	8053.177	8053.177	0	83.08723	0	0.268304	0	0.400493	0.001562	0	0.000397	0.003	0.015756	0.001698	0	0.000432	0.012	0.045017	1946.149	0	31.33114	0.010026	0	0.036115	0.019184	0	0.043891	0.040666	0	0.147699	8.452557	0.201566	3.076801	0.05934	0	0.161711	8.452557	0.201566	3.076801	0.044943	0.905305	0	3.320123	0.01924	0	0.00031
San Mateo	2025	MH	Aggregate	Aggregate	Diesel	384.5125	3863.222	3863.222	0	38.45125	0	0.290063	0	0	0.044795	0	0	0.004	0.015675	0.04682	0	0	0.016	0.044785	1086.155	0	0	0.004106	0	0	0.171124	0	0	0.088396	0	0	0	0	0	0.100633	0	0	0	0	0	0	0.194759	0.273956	0	0	0.010292	0	0
San Mateo	2025	MHDT	Aggregate	Aggregate	Gasoline	825.6427	47612.58	47612.58	0	16519.46	0	0.323037	0.085434	0.420472	0.001351	0	0.000505	0.003	0.015756	0.00147	0	0.00055	0.012	0.045017	1723.877	519.5619	44.42849	0.010425	0.267434	0.04506	0.017424	0.007433	0.033886	0.050062	1.017725	0.241229	0.026732	0.218345	2.098508	0.073051	1.485063	0.264116	0.026732	0.218345	2.098508	0.044995	1.017203	15.17464	5.286069	0.017042	0.005136	0.000439
San Mateo	2025	MHDT	Aggregate	Aggregate	Diesel	4294.917	177557.8	177557.8	0	51845.95	0	1.188939	13.12716	1.614768	0.013944	0.027675	0	0.003	0.015982	0.014575	0.028927	0	0.012	0.045664	1147.33	2232.385	0	0.001506	0.011276	0	0.180762	0.351713	0	0.032415	0.242771	0	0	0	0	0.036902	0.276376	0	0	0	0	0	0.210368	0.120818	7.522952	0	0.010865	0.021139	0	0
San Mateo	2025	MHDT	Aggregate	Aggregate	Electricity	41.49574	2407.793	0	2407.793	583.4118	3153.286	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022716	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	MHDT	Aggregate	Aggregate	Natural Ga	44.4449	2054.281	2054.281	0	404.8873	0	0.119383	6.528501	0	0.001296	0.019376	0	0.003	0.016094	0.001409	0.021073	0	0.012	0.045982	1001.165	5451.255	0	0.776466	16.96742	0	0.204094	1.111274	0	0.011094	0.242431	0	0	0	0	0.79244	17.3165	0	0	0	0	0	1.06	3.065754	37.47811	0	0	0	0	0
San Mateo	2025	OBUS	Aggregate	Aggregate	Gasoline	252.722	13715.02	13715.02	0	5056.462	0	0.254289	0.063619	0.364813	0.00105	0	0.000289	0.003	0.01568	0.001142	0	0.000314	0.012	0.044799	1709.895	368.6745	29.74053	0.007842	0.204874	0.032288	0.014975	0.005762	0.031384	0.036425	0.747093	0.159999	0.025822	0.116247	1.973857	0.053152	1.090157	0.175179	0.025822	0.116247	1.973857	0.044948	0.777227	5.779588	3.340614	0.016904	0.003645	0.000294
San Mateo	2025	OBUS	Aggregate	Aggregate	Diesel	1111.576	75305.13	75305.13	0	10889.45	0	0.812155	5.594758	1.4975	0.009252	0.003188	0	0.003	0.01738	0.009671	0.003332	0	0.012	0.049657	1227.827	1209.887	0	0.000915	0.014161	0	0.193445	0.190618	0	0.019696	0.304888	0	0	0	0	0.022422	0.347092	0	0	0	0	0	0.217867	0.092546	5.69186	0	0.011627	0.011457	0	0
San Mateo	2025	OBUS	Aggregate	Aggregate	Electricity	2.143949	185.5536	0	185.5536	42.89613	241.8411	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	OBUS	Aggregate	Aggregate	Natural Ga	9.18414	584.7868	584.7868	0	81.73885	0	0.165457	1.529579	0	0.001178	0.004086	0	0.003	0.016148	0.001282	0.004444	0	0.012	0.046137	991.5916	1195.033	0	0.803368	4.140164	0	0.202142	0.243615	0	0.011479	0.059155	0	0	0	0	0.819896	4.225341	0	0	0	0	0	1.06	3.290889	7.77441	0	0	0	0	0
San Mateo	2025	SBUS	Aggregate	Aggregate	Gasoline	71.37135	3679.781	3679.781	0	285.4854	0	0.767242	0.883319	0.626471	0.001129	0	0.000724	0.002	0.015721	0.001228	0	0.000787	0.008	0.044917	784.7603	2507.332	59.92706	0.017691	2.446506	0.085381	0.036296	0.082358	0.056445	0.086658	10.61248	0.494948	0.122618	0.362839	1.907752	0.126452	15.4857	0.541906	0.122618	0.362839	1.907752	0.045	2.216556	82.06454	12.20654	0.007758	0.024788	0.000592
San Mateo	2025	SBUS	Aggregate	Aggregate	Diesel	168.9397	3758.24	3758.24	0	2446.247	0	4.387797	22.54247	0.476886	0.020913	0.021713	0	0.003	0.015721	0.021858	0.022694	0	0.012	0.044917	1140.479	2228.091	0	0.002986	0.00812	0	0.179683	0.351037	0	0.064283	0.174818	0	0	0	0	0.073182	0.199017	0	0	0	0	0	0.144353	0.19584	4.548944	0	0.0108	0.021099	0	0
San Mateo	2025	SBUS	Aggregate	Aggregate	Electricity	1.984894	78.89105	0	78.89105	17.7986	97.77438	0	0	0	0	0	0	0.002	0.002318	0.00786	0	0	0	0.00927	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	SBUS	Aggregate	Aggregate	Natural Ga	6.552799	163.6295	163.6295	0	94.88454	0	0.515656	5.239615	0	0.003378	0.012103	0	0.003	0.015721	0.003674	0.013164	0	0.012	0.044917	1239.908	4105.957	0	3.296356	14.87044	0	0.252763	0.837026	0	0.047098	0.212469	0	0	0	0	3.364173	15.17638	0	0	0	0	0	1.06	10.9887	22.4292	0	0	0	0	0
San Mateo	2025	UBUS	Aggregate	Aggregate	Gasoline	61.62557	4190.344	4190.344	0	246.5023	0	0.033702	0	0.527402	0.001105	0	0.000151	0.002	0.002073	0.032333	0.001202	0	0.000164	0.00829	0.092379	999.2964	0	40.23985	0.002024	0	0.048584	0.004371	0	0.074436	0.005871	0	0.183094	0.05773	0.119898	0.618422	0.008567	0	0.200465	0.05773	0.119898	0.618422	0.045	0.556049	0	6.146708	0.009879	0	0.000398
San Mateo	2025	UBUS	Aggregate	Aggregate	Diesel	278.2185	21526.83	21526.83	0	1112.874	0	0.375553	0	0	0.006827	0	0	0.002	0.008097	0.0385	0.007136	0	0	0.032387	0.11	1223.606	0	0.003145	0	0	0.19278	0	0	0.067717	0	0	0	0	0	0.077091	0	0	0	0	0	0	0.22	0.077193	0	0	0.011594	0	0
San Mateo	2025	UBUS	Aggregate	Aggregate	Electricity	37.31748	3870.538	0	3870.538	149.2699	6747.293	0	0	0	0	0	0	0.002	0.007369	0.01925	0	0	0	0.029474	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	UBUS	Aggregate	Aggregate	Natural Ga	65.5154	4534.391	4534.391	0	262.0616	0	0.055433	0	0	0.000272	0	0	0.002	0.007742	0.0385	0.000285	0	0	0.030968	0.11	1262.747	0	0	4.100892	0	0	0.257419	0	0	0.058594	0	0	0	0	0	4.185261	0	0	0	0	0	0	0.97	46.51263	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Cor	NOx_RUNE	NOx_IDLEX	NOx_STRE
San Mateo	2026	HHDT	Aggregate	Aggregate	Gasoline	4.283898	504.3899	504.3899	0	85.71223	0	3.767128	0	0.001928
San Mateo	2026	HHDT	Aggregate	Aggregate	Diesel	1339.121	119591.7	119591.7	0	14836.49	0	2.513316	46.04181	3.042683
San Mateo	2026	HHDT	Aggregate	Aggregate	Electricity	17.24092	1568.579	0	1568.579	167.6097	2925.183	0	0	0
San Mateo	2026	HHDT	Aggregate	Aggregate	Natural Ga	190.6077	12388.44	12388.44	0	1253.654	0	1.199642	8.304539	0
San Mateo	2026	LDA	Aggregate	Aggregate	Gasoline	238617.8	6969047	6969047	0	1119592	0	0.031815	0	0.225592
San Mateo	2026	LDA	Aggregate	Aggregate	Diesel	645.0664	13511.27	13511.27	0	2704.797	0	0.144803	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Electricity	20627.64	751657.4	0	751657.4	101606	290201.8	0	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Plug-in Hyb	8434.471	284060.2	132539.9	151520.3	41455.43	45763.65	0.002998	0	0.473855
San Mateo	2026	LDT1	Aggregate	Aggregate	Gasoline	25945.79	717326.6	717326.6	0	118989.9	0	0.078016	0	0.293254
San Mateo	2026	LDT1	Aggregate	Aggregate	Diesel	5.731399	66.09906	66.09906	0	15.81841	0	1.607443	0	0
San Mateo	2026	LDT1	Aggregate	Aggregate	Electricity	141.9822	5160.147	0	5160.147	697.0716	1992.243	0	0	0
San Mateo	2026	LDT1	Aggregate	Aggregate	Plug-in Hyb	104.7443	3837.146	1635.987	2201.159	514.818	664.8156	0.002739	0	0.473855
San Mateo	2026	LDT2	Aggregate	Aggregate	Gasoline	169697.7	5206694	5206694	0	813724.2	0	0.039564	0	0.246415
San Mateo	2026	LDT2	Aggregate	Aggregate	Diesel	655.1696	19853.42	19853.42	0	3139.478	0	0.033548	0	0
San Mateo	2026	LDT2	Aggregate	Aggregate	Electricity	2139.962	58794.02	0	58794.02	10836.18	22699.34	0	0	0
San Mateo	2026	LDT2	Aggregate	Aggregate	Plug-in Hyb	2330.737	81093.05	36145.09	44947.96	11455.57	13575.62	0.002864	0	0.473855
San Mateo	2026	LHDT1	Aggregate	Aggregate	Gasoline	12091.27	409379.7	409379.7	0	180141.9	0	0.080792	0.031581	0.522495
San Mateo	2026	LHDT1	Aggregate	Aggregate	Diesel	5774.561	207453.3	207453.3	0	72636.71	0	0.750622	1.425846	0
San Mateo	2026	LHDT1	Aggregate	Aggregate	Electricity	302.9677	15691.66	0	15691.66	4239.881	10276.64	0	0	0
San Mateo	2026	LHDT2	Aggregate	Aggregate	Gasoline	1390.219	45322.23	45322.23	0	20712.2	0	0.085517	0.032056	0.548101
San Mateo	2026	LHDT2	Aggregate	Aggregate	Diesel	2589.799	92139.39	92139.39	0	32576.42	0	0.583394	1.367929	0
San Mateo	2026	LHDT2	Aggregate	Aggregate	Electricity	77.23784	3810.55	0	3810.55	1024.59	2458.044	0	0	0
San Mateo	2026	MCY	Aggregate	Aggregate	Gasoline	14692.86	80438.96	80438.96	0	29385.71	0	0.527346	0	0.125388
San Mateo	2026	MDV	Aggregate	Aggregate	Gasoline	95415.04	2995462	2995462	0	456021.9	0	0.045043	0	0.280293
San Mateo	2026	MDV	Aggregate	Aggregate	Diesel	1264.364	38163.09	38163.09	0	5993.722	0	0.029639	0	0
San Mateo	2026	MDV	Aggregate	Aggregate	Electricity	2288.176	62843.93	0	62843.93	11585.67	24262.94	0	0	0
San Mateo	2026	MDV	Aggregate	Aggregate	Plug-in Hyb	1352.288	48514.48	21600.3	26914.18	6646.496	8128.885	0.00286	0	0.473855
San Mateo	2026	MH	Aggregate	Aggregate	Gasoline	860.1629	8288.685	8288.685	0	86.0507	0	0.23256	0	0.397384
San Mateo	2026	MH	Aggregate	Aggregate	Diesel	411.7686	4016.353	4016.353	0	41.17686	0	2.902322	0	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Gasoline	848.5573	48169.43	48169.43	0	16977.94	0	0.269412	0.081996	0.401399
San Mateo	2026	MHDT	Aggregate	Aggregate	Diesel	4345.03	177809.3	177809.3	0	52490.37	0	1.079543	12.71716	1.615228
San Mateo	2026	MHDT	Aggregate	Aggregate	Electricity	76.01194	4276.512	0	4276.512	1058.544	5576.394	0	0	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Natural Ga	48.05658	2179.843	2179.843	0	442.254	0	0.112977	6.480284	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Gasoline	250.2122	13078.36	13078.36	0	5006.245	0	0.228578	0.061817	0.359747
San Mateo	2026	OBUS	Aggregate	Aggregate	Diesel	1145.492	75611.47	75611.47	0	11233.17	0	0.7922	5.412165	1.482498
San Mateo	2026	OBUS	Aggregate	Aggregate	Electricity	3.59381	297.3898	0	297.3898	71.90495	387.6028	0	0	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Natural Ga	10.41211	669.454	669.454	0	92.66776	0	0.14486	1.520375	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Gasoline	75.66977	3792.283	3792.283	0	302.6791	0	0.689408	0.850076	0.614008
San Mateo	2026	SBUS	Aggregate	Aggregate	Diesel	168.4764	3737.054	3737.054	0	2439.538	0	4.092097	21.8241	0.494851
San Mateo	2026	SBUS	Aggregate	Aggregate	Electricity	3.281397	127.7057	0	127.7057	29.50964	158.2733	0	0	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Natural Ga	6.807777	168.2676	168.2676	0	98.5766	0	0.49789	5.22911	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Gasoline	61.80696	4202.678	4202.678	0	247.2278	0	0.028431	0	0.433124
San Mateo	2026	UBUS	Aggregate	Aggregate	Diesel	278.8478	21575.87	21575.87	0	1115.391	0	0.37554	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Electricity	37.55556	3889.774	0	3889.774	150.2222	6780.825	0	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Natural Ga	65.76966	4554.21	4554.21	0	263.0787	0	0.055441	0	0

Vehicle Cat	Fuel	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE
HHDT	Gasoline	0.001363	0	0.000634	0.005	0.031039	0.001482	0	0.00069	0.02	0.088682	2211.88	0	51.0826	0.109196	0	9.88E-05
HHDT	Diesel	0.024334	0.030988	0	0.008607	0.030272	0.025434	0.032389	0	0.034426	0.086492	1758.24	8065.386	0	0.00116	0.158921	0
HHDT	Electricity	0	0	0	0.008499	0.017277	0	0	0	0.033994	0.049364	0	0	0	0	0	0
HHDT	Natural Ga	0.001614	0.012208	0	0.009	0.06089	0.001755	0.013277	0	0.036	0.17397	1462.016	8267.834	0	2.557538	21.22587	0
LDA	Gasoline	0.00108	0	0.001846	0.002	0.002349	0.001174	0	0.002007	0.008	0.00671	264.3788	0	66.66342	0.001674	0	0.060063
LDA	Diesel	0.010068	0	0	0.002	0.002414	0.010523	0	0	0.008	0.006897	228.1946	0	0	0.000882	0	0
LDA	Electricity	0	0	0	0.002	0.001531	0	0	0	0.008	0.004375	0	0	0	0	0	0
LDA	Plug-in Hyb	0.00051	0	0.001828	0.002	0.001334	0.000555	0	0.001988	0.008	0.003813	125.8756	0	72.81552	0.000304	0	0.154142
LDT1	Gasoline	0.001334	0	0.002155	0.002	0.002818	0.001451	0	0.002344	0.008	0.008052	309.0343	0	79.57832	0.003639	0	0.077166
LDT1	Diesel	0.22953	0	0	0.002	0.003303	0.239908	0	0	0.008	0.009438	416.0554	0	0	0.01414	0	0
LDT1	Electricity	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0
LDT1	Plug-in Hyb	0.00033	0	0.0013	0.002	0.001349	0.000359	0	0.001414	0.008	0.003854	115.021	0	78.5782	0.000277	0	0.154039
LDT2	Gasoline	0.001061	0	0.001756	0.002	0.002732	0.001154	0	0.001909	0.008	0.007806	320.9048	0	80.65979	0.001836	0	0.062615
LDT2	Diesel	0.004079	0	0	0.002	0.002751	0.004264	0	0	0.008	0.00786	298.5166	0	0	0.000555	0	0
LDT2	Electricity	0	0	0	0.002	0.001528	0	0	0	0.008	0.004364	0	0	0	0	0	0
LDT2	Plug-in Hyb	0.000395	0	0.001488	0.002	0.001342	0.00043	0	0.001618	0.008	0.003835	120.2461	0	85.24057	0.00029	0	0.153892
LHDT1	Gasoline	0.001324	0	0.000197	0.002	0.0273	0.00144	0	0.000214	0.008	0.078	817.6093	114.8721	26.24211	0.004287	0.101474	0.025645
LHDT1	Diesel	0.020833	0.026593	0	0.003	0.0273	0.021775	0.027795	0	0.012	0.078	623.8159	124.2359	0	0.005378	0.005098	0
LHDT1	Electricity	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0
LHDT2	Gasoline	0.001251	0	0.000168	0.002	0.03185	0.001361	0	0.000183	0.008	0.091	923.0401	133.1397	24.8185	0.003504	0.102247	0.02615
LHDT2	Diesel	0.019861	0.026777	0	0.003	0.03185	0.020759	0.027987	0	0.012	0.091	733.3028	198.3363	0	0.00529	0.005098	0
LHDT2	Electricity	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0
MCY	Gasoline	0.001973	0	0.003385	0.001	0.0042	0.002113	0	0.00361	0.004	0.012	189.6088	0	47.25965	0.148096	0	0.169577
MDV	Gasoline	0.001049	0	0.001787	0.002	0.002752	0.001141	0	0.001943	0.008	0.007862	387.4402	0	97.80051	0.002014	0	0.069417
MDV	Diesel	0.00336	0	0	0.002	0.002815	0.003512	0	0	0.008	0.008044	391.9984	0	0	0.000371	0	0
MDV	Electricity	0	0	0	0.002	0.001528	0	0	0	0.008	0.004365	0	0	0	0	0	0
MDV	Plug-in Hyb	0.000424	0	0.001603	0.002	0.001343	0.000461	0	0.001743	0.008	0.003836	120.1141	0	101.9389	0.00029	0	0.154499
MH	Gasoline	0.001512	0	0.000384	0.003	0.015756	0.001645	0	0.000418	0.012	0.045017	1945.826	0	31.10578	0.008668	0	0.035239
MH	Diesel	0.040701	0	0	0.004	0.015675	0.042542	0	0	0.016	0.044785	1086.443	0	0	0.004006	0	0
MHDT	Gasoline	0.001349	0	0.000495	0.003	0.015756	0.001467	0	0.000539	0.012	0.045017	1713.093	515.7579	43.66845	0.008779	0.269455	0.043465
MHDT	Diesel	0.011982	0.022721	0	0.003	0.015982	0.012524	0.023749	0	0.012	0.045664	1143.798	2217.587	0	0.001294	0.010675	0
MHDT	Electricity	0	0	0	0.003	0.007951	0	0	0	0.012	0.022717	0	0	0	0	0	0
MHDT	Natural Ga	0.001327	0.019663	0	0.003	0.016091	0.001443	0.021385	0	0.012	0.045974	1000.122	5452.226	0	0.778786	16.68583	0
OBUS	Gasoline	0.001067	0	0.000285	0.003	0.01568	0.00116	0	0.00031	0.012	0.044799	1698.343	366.6953	29.51517	0.006927	0.20465	0.03203
OBUS	Diesel	0.00906	0.003089	0	0.003	0.017403	0.00947	0.003228	0	0.012	0.049724	1214.431	1202.439	0	0.000896	0.014277	0
OBUS	Electricity	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0
OBUS	Natural Ga	0.001277	0.004306	0	0.003	0.016148	0.001389	0.004683	0	0.012	0.046137	977.2919	1192.33	0	0.814665	4.026517	0
SBUS	Gasoline	0.001104	0	0.000723	0.002	0.015721	0.001201	0	0.000787	0.008	0.044917	780.8125	2496.879	58.92552	0.015917	2.447247	0.082067
SBUS	Diesel	0.019631	0.01977	0	0.003	0.015721	0.020519	0.020664	0	0.012	0.044917	1137.125	2219.315	0	0.002862	0.008051	0
SBUS	Electricity	0	0	0	0.002326	0.00786	0	0	0	0.009303	0.022459	0	0	0	0	0	0
SBUS	Natural Ga	0.003378	0.012354	0	0.003	0.015721	0.003674	0.013436	0	0.012	0.044917	1233.541	4122.694	0	3.247338	14.74074	0
UBUS	Gasoline	0.001186	0	0.000163	0.002073	0.032333	0.00129	0	0.000177	0.00829	0.092379	965.439	0	39.37599	0.001861	0	0.039723
UBUS	Diesel	0.006827	0	0	0.008097	0.0385	0.007135	0	0	0.032386	0.11	1223.487	0	0	0.003145	0	0
UBUS	Electricity	0	0	0	0.007371	0.01925	0	0	0	0.029483	0.055	0	0	0	0	0	0
UBUS	Natural Ga	0.000272	0	0	0.007743	0.0385	0.000285	0	0	0.030972	0.11	1262.837	0	0	4.101249	0	0

Vehicle Cat	Fuel	N2O_RUNE	N2O_IDLEX	N2O_STRE	ROG_RUNE	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
HHDT	Gasoline	0.147264	0	0.0001	0.53602	0	0.000536	0.029322	0.212948	1.905434	0.782159	0	0.000587	0.029322	0.212948	1.905434	0.045	33.33714	0	4.679779	0.021867	0	0.000505
HHDT	Diesel	0.277011	1.270705	0	0.024964	3.421536	0	0	0	0	0.02842	3.895158	0	0	0	0	0.202556	0.108407	48.25142	0	0.016649	0.076374	0
HHDT	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHDT	Natural Ga	0.298041	1.685452	0	0.054701	0.334996	0	0	0	0	2.630844	21.69869	0	0	0	0	0.713158	15.13386	61.6539	0	0	0	0
LDA	Gasoline	0.003806	0	0.029206	0.006262	0	0.277135	0.077036	0.201162	1.205717	0.009138	0	0.303428	0.077036	0.201162	1.205717	0.037625	0.572674	0	2.857953	0.002614	0	0.000659
LDA	Diesel	0.035952	0	0	0.01898	0	0	0	0	0	0.021607	0	0	0	0	0	0.0031	0.280265	0	0	0.002162	0	0
LDA	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDA	Plug-in Hyb	0.000323	0	0.051009	0.00126	0	0.821719	0.031632	0.028684	0.388535	0.001838	0	0.899679	0.031632	0.028684	0.388535	0.018859	0.187853	0	6.16492	0.001244	0	0.00072
LDT1	Gasoline	0.006309	0	0.032586	0.015756	0	0.382671	0.113653	0.314838	1.794906	0.022991	0	0.418976	0.113653	0.314838	1.794906	0.038437	0.911226	0	3.898361	0.003055	0	0.000787
LDT1	Diesel	0.06555	0	0	0.304424	0	0	0	0	0	0.346566	0	0	0	0	0	0.0031	1.619672	0	0	0.003942	0	0
LDT1	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	Plug-in Hyb	0.000294	0	0.050933	0.001151	0	0.821719	0.019594	0.016765	0.265458	0.00168	0	0.899679	0.019594	0.016765	0.265458	0.017907	0.171654	0	6.16492	0.001137	0	0.000777
LDT2	Gasoline	0.004145	0	0.031058	0.006772	0	0.280198	0.053684	0.140038	0.877766	0.009881	0	0.306782	0.053684	0.140038	0.877766	0.039596	0.591205	0	2.920622	0.003172	0	0.000797
LDT2	Diesel	0.047031	0	0	0.011952	0	0	0	0	0	0.013607	0	0	0	0	0	0.0031	0.11634	0	0	0.002829	0	0
LDT2	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	Plug-in Hyb	0.000307	0	0.050828	0.001204	0	0.821719	0.020962	0.018944	0.286085	0.001756	0	0.899679	0.020962	0.018944	0.286085	0.018711	0.179452	0	6.16492	0.001189	0	0.000843
LHDT1	Gasoline	0.004639	0.002792	0.04503	0.02053	0.362188	0.123358	0.029477	0.164217	1.658906	0.029958	0.528503	0.135062	0.029477	0.164217	1.658906	0.044975	0.834016	3.767862	3.304128	0.008083	0.001136	0.000259
LHDT1	Diesel	0.098282	0.019573	0	0.115791	0.10976	0	0	0	0	0.13182	0.124954	0	0	0	0	0.199971	0.278837	0.909745	0	0.005911	0.001177	0
LHDT1	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHDT2	Gasoline	0.005125	0.002756	0.045602	0.015517	0.367794	0.125909	0.030304	0.166922	1.734893	0.022642	0.536684	0.137854	0.030304	0.166922	1.734893	0.044997	0.713234	3.771186	3.244405	0.009125	0.001316	0.000245
LHDT2	Diesel	0.115532	0.031248	0	0.113887	0.10976	0	0	0	0	0.129653	0.124954	0	0	0	0	0.206359	0.253764	0.909745	0	0.006948	0.001879	0
LHDT2	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	Gasoline	0.037654	0	0.007808	0.932533	0	1.237008	3.545629	3.697544	3.067415	1.141542	0	1.345575	3.545629	3.697544	3.067415	0.008984	12.44479	0	7.286658	0.001874	0	0.000467
MDV	Gasoline	0.004439	0	0.032516	0.007733	0	0.326682	0.058677	0.159655	0.988966	0.011284	0	0.357675	0.058677	0.159655	0.988966	0.039732	0.608979	0	3.043816	0.00383	0	0.000967
MDV	Diesel	0.06176	0	0	0.007978	0	0	0	0	0	0.009083	0	0	0	0	0	0.0031	0.162819	0	0	0.003714	0	0
MDV	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	Plug-in Hyb	0.00031	0	0.051264	0.001202	0	0.821719	0.023156	0.02052	0.302424	0.001754	0	0.899679	0.023156	0.02052	0.302424	0.0187	0.179255	0	6.16492	0.001187	0	0.001008
MH	Gasoline	0.017644	0	0.044254	0.033949	0	0.14164	7.387206	0.177323	2.704624	0.049538	0	0.155079	7.387206	0.177323	2.704624	0.044967	0.720477	0	3.190918	0.019236	0	0.000308
MH	Diesel	0.17117	0	0	0.086257	0	0	0	0	0	0.098197	0	0	0	0	0	0.198004	0.264984	0	0	0.010295	0	0
MHDT	Gasoline	0.015276	0.007246	0.033229	0.041527	1.019578	0.229834	0.024222	0.200008	1.911848	0.060596	1.487766	0.251639	0.024222	0.200008	1.911848	0.044997	0.830138	15.19618	5.005077	0.016936	0.005099	0.000432
MHDT	Diesel	0.180206	0.349382	0	0.027853	0.229832	0	0	0	0	0.031709	0.261646	0	0	0	0	0.211826	0.108771	7.505293	0	0.010831	0.020999	0
MHDT	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHDT	Natural Ga	0.203881	1.111472	0	0.011127	0.238408	0	0	0	0	0.794808	17.02911	0	0	0	0	1.06	3.063718	38.15558	0	0	0	0
OBUS	Gasoline	0.013867	0.005591	0.030955	0.031574	0.747709	0.159032	0.025716	0.122353	2.090543	0.046073	1.091056	0.17412	0.025716	0.122353	2.090543	0.044974	0.662703	5.783272	3.284676	0.01679	0.003625	0.000292
OBUS	Diesel	0.191334	0.189445	0	0.019283	0.307371	0	0	0	0	0.021953	0.349919	0	0	0	0	0.21794	0.09136	5.733335	0	0.0115	0.011386	0
OBUS	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OBUS	Natural Ga	0.199227	0.243064	0	0.01164	0.057531	0	0	0	0	0.831426	4.109356	0	0	0	0	1.06	3.321327	8.269436	0	0	0	0
SBUS	Gasoline	0.033238	0.080267	0.056021	0.077973	10.62297	0.474628	0.118813	0.369995	1.975658	0.113778	15.50102	0.519658	0.118813	0.369995	1.975658	0.045	1.98957	82.12826	11.72979	0.007719	0.024684	0.000583
SBUS	Diesel	0.179155	0.349654	0	0.06162	0.173331	0	0	0	0	0.07015	0.197325	0	0	0	0	0.149335	0.189386	4.685291	0	0.010768	0.021016	0
SBUS	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	Natural Ga	0.251465	0.840438	0	0.046398	0.210616	0	0	0	0	3.314147	15.044	0	0	0	0	1.06	10.75802	22.99417	0	0	0	0
UBUS	Gasoline	0.003725	0	0.066482	0.005288	0	0.145424	0.029473	0.090867	0.345962	0.007716	0	0.159221	0.029473	0.090867	0.345962	0.045	0.550053	0	6.463625	0.009544	0	0.000389
UBUS	Diesel	0.192761	0	0	0.067715	0	0	0	0	0	0.077089	0	0	0	0	0	0.22	0.07719	0	0	0.011593	0	0
UBUS	Electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	Natural Ga	0.257438	0	0	0.058599	0	0	0	0	0	4.185626	0	0	0	0	0	0.97	46.51887	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2027
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM_PMBW	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2027	HHDT	Aggregate	Aggregate	Gasoline	4.22201	465.9735	465.9735	0	84.47398	0	3.784401	0	0.001809	0.00137	0	0.000612	0.005	0.031101	0.00149	0	0.000666	0.02	0.088859	2197.348	0	50.85422	0.10848	0	9.38E-05	0.147815	0	9.4E-05	0.529357	0	0.000508	0.02999	0.222639	2.054582	0.772437	0	0.000556	0.02999	0.222639	2.054582	0.045	33.09537	0	4.725369	0.021723	0	0.000503
San Mateo	2027	HHDT	Aggregate	Aggregate	Diesel	1346.151	119374.9	119374.9	0	15003.58	0	2.407204	45.79156	3.064838	0.024107	0.029271	0	0.008607	0.030209	0.025197	0.030595	0	0.034429	0.086312	1730.936	7996.262	0	0.001113	0.159723	0	0.27271	1.259814	0	0.023958	3.438793	0	0	0	0	0.027275	3.914804	0	0	0	0	0.203961	0.103951	48.72467	0	0.016391	0.07572	0
San Mateo	2027	HHDT	Aggregate	Aggregate	Electricity	27.72379	2533.074	0	2533.074	269.7516	4722.231	0	0	0	0	0	0	0.008486	0.017473	0	0	0	0.033946	0.049922	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	HHDT	Aggregate	Aggregate	Natural Ga	199.6437	12874.54	12874.54	0	1300.878	0	1.084345	7.803952	0	0.001553	0.012198	0	0.009	0.061541	0.001689	0.013266	0	0.036	0.175831	1450.507	8225.848	0	2.341828	20.00939	0	0.295695	1.676893	0	0.049129	0.313051	0	0	0	0	2.407859	20.45199	0	0	0	0	0.706678	14.49829	60.40274	0	0	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Gasoline	238471.3	6787745	6787745	0	1118595	0	0.029557	0	0.217198	0.001019	0	0.001761	0.002	0.002348	0.001108	0	0.001916	0.008	0.00671	260.24	0	65.45509	0.001542	0	0.056785	0.00365	0	0.028841	0.00568	0	0.260517	0.07439	0.198486	1.18951	0.038281	0.547784	0	0.718673	0.002573	0	0.000647
San Mateo	2027	LDA	Aggregate	Aggregate	Diesel	577.6306	11859.15	11859.15	0	2430.953	0	0.125063	0	0.008723	0	0	0	0.002	0.002417	0.009117	0	0	0.008	0.006905	225.6727	0	0	0.000794	0	0	0.035555	0	0	0.01709	0	0	0	0	0	0.019456	0	0	0	0	0	0.00231	0.267761	0	0	0.002138	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Electricity	21755.83	763478.8	0	763478.8	106722.5	294765.8	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Plug-in Hyb	8813.935	285623.3	131294.8	154328.5	4332.049	46611.82	0.002953	0	0.473855	0.000473	0	0.001727	0.002	0.001338	0.000514	0	0.001878	0.008	0.003824	124.0113	0	72.25125	0.000297	0	0.15304	0.000313	0	0.050222	0.001241	0	0.821719	0.032466	0.03224	0.416371	0.001811	0	0.899679	0.032466	0.03224	0.416371	0.018683	0.185073	0	6.16492	0.001226	0	0.000714
San Mateo	2027	LDT1	Aggregate	Aggregate	Gasoline	26419.18	713999.1	713999.1	0	121334.5	0	0.069103	0	0.27581	0.001241	0	0.002022	0.002	0.002818	0.001349	0	0.002199	0.008	0.008051	303.9903	0	77.82677	0.003215	0	0.071337	0.005799	0	0.031456	0.01376	0	0.349477	0.105239	0.292408	1.687165	0.020078	0	0.382633	0.105239	0.292408	1.687165	0.03886	0.838518	0	3.597733	0.003005	0	0.000769
San Mateo	2027	LDT1	Aggregate	Aggregate	Diesel	1.374283	18.5258	18.5258	0	4.138205	0	0.988299	0	0	0.1471	0	0	0.002	0.003155	0.153751	0	0	0.008	0.009016	380.9834	0	0	0.011093	0	0	0.060024	0	0	0.238825	0	0	0	0	0	0.271887	0	0	0	0	0	0.0031	1.735378	0	0	0.00361	0	0
San Mateo	2027	LDT1	Aggregate	Aggregate	Electricity	175.6332	6297.196	0	6297.196	865.6909	2431.237	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDT1	Aggregate	Aggregate	Plug-in Hyb	134.7957	4749.74	2001.346	2748.394	662.5207	830.097	0.002707	0	0.473855	0.000303	0	0.001214	0.002	0.001352	0.00033	0	0.00132	0.008	0.003862	113.6736	0	77.93769	0.000272	0	0.15299	0.000287	0	0.050185	0.001138	0	0.821719	0.019415	0.016698	0.265427	0.001666	0	0.899679	0.019415	0.016698	0.265427	0.017697	0.169545	0	6.16492	0.001124	0	0.00077
San Mateo	2027	LDT2	Aggregate	Aggregate	Gasoline	179414.4	5337772	5337772	0	859058.8	0	0.036713	0	0.236885	0.001002	0	0.001674	0.002	0.002741	0.00109	0	0.00182	0.008	0.00783	316.0459	0	79.2393	0.001725	0	0.059485	0.003982	0	0.030367	0.006284	0	0.264449	0.051332	0.135343	0.845955	0.00917	0	0.289538	0.051332	0.135343	0.845955	0.040019	0.572376	0	2.798095	0.003124	0	0.000783
San Mateo	2027	LDT2	Aggregate	Aggregate	Diesel	689.4223	20263.35	20263.35	0	3297.619	0	0.031701	0	0	0.003958	0	0	0.002	0.002756	0.004137	0	0	0.008	0.007875	293.9769	0	0	0.000547	0	0	0.046316	0	0	0.011786	0	0	0	0	0	0.013417	0	0	0	0	0	0.0031	0.115725	0	0	0.002786	0	0
San Mateo	2027	LDT2	Aggregate	Aggregate	Electricity	2621.122	69186.62	0	69186.62	13210.51	26711.75	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDT2	Aggregate	Aggregate	Plug-in Hyb	2686.495	89530.08	39333.03	50197.05	13204.12	15161.01	0.002822	0	0.473855	0.000367	0	0.001407	0.002	0.001346	0.000399	0	0.00153	0.008	0.003845	118.5212	0	84.59473	0.000283	0	0.152706	0.000298	0	0.049982	0.001186	0	0.821719	0.021044	0.018748	0.283634	0.001731	0	0.899679	0.021044	0.018748	0.283634	0.018444	0.176879	0	6.16492	0.001172	0	0.000836
San Mateo	2027	LHDT1	Aggregate	Aggregate	Gasoline	12519.56	410499.8	410499.8	0	186522.8	0	0.071098	0.030667	0.504033	0.001305	0	0.000184	0.002	0.0273	0.001419	0	0.0002	0.008	0.078	811.976	114.3018	26.07471	0.003793	0.09882	0.024599	0.004112	0.002729	0.043725	0.017937	0.351746	0.117908	0.027725	0.156123	1.578557	0.026174	0.513267	0.129095	0.027725	0.156123	1.578557	0.044987	0.798924	3.769346	3.306933	0.008027	0.00113	0.000258
San Mateo	2027	LHDT1	Aggregate	Aggregate	Diesel	6121.922	212564.8	212564.8	0	77006.08	0	0.657426	1.348518	0	0.019683	0.026527	0	0.003	0.0273	0.020573	0.027726	0	0.012	0.078	624.9594	123.4403	0	0.005114	0.005098	0	0.098463	0.019448	0	0.110093	0.10976	0	0	0	0	0.125334	0.124954	0	0	0	0	0.020312	0.261853	0.909745	0	0.005922	0.00117	0
San Mateo	2027	LHDT1	Aggregate	Aggregate	Electricity	519.4144	25488.91	0	25488.91	7271.182	16694.25	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LHDT2	Aggregate	Aggregate	Gasoline	1431.729	45337.82	45337.82	0	21330.63	0	0.073138	0.03114	0.528564	0.001227	0	0.000155	0.002	0.03185	0.001334	0	0.000168	0.008	0.091	916.8362	132.4747	24.66195	0.003015	0.099681	0.024981	0.004461	0.002701	0.044319	0.01308	0.357342	0.119587	0.028288	0.158472	1.660759	0.019086	0.521433	0.130933	0.028288	0.158472	1.660759	0.045	0.678584	3.773249	3.234367	0.009064	0.00131	0.000244
San Mateo	2027	LHDT2	Aggregate	Aggregate	Diesel	2777.037	94986.53	94986.53	0	34931.64	0	0.528044	1.299818	0	0.019303	0.02677	0	0.003	0.03185	0.020176	0.02798	0	0.012	0.091	733.1501	197.3659	0	0.005137	0.005098	0	0.115508	0.031095	0	0.110596	0.10976	0	0	0	0	0.125906	0.124954	0	0	0	0	0.208358	0.246415	0.909745	0	0.006947	0.00187	0
San Mateo	2027	LHDT2	Aggregate	Aggregate	Electricity	131.984	6178.283	0	6178.283	1750.724	3985.342	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MCY	Aggregate	Aggregate	Gasoline	15361.78	81910.47	81910.47	0	30723.56	0	0.519979	0	0.119128	0.001982	0	0.003355	0.001	0.0042	0.002123	0	0.003582	0.004	0.012	189.4149	0	46.2331	0.145656	0	0.164632	0.037364	0	0.007491	0.910192	0	1.194056	3.543525	3.694561	2.980616	1.118314	0	1.29906	3.543525	3.694561	2.980616	0.009015	12.27141	0	7.24418	0.001873	0	0.000457
San Mateo	2027	MDV	Aggregate	Aggregate	Gasoline	100853.9	3072334	3072334	0	481493.9	0	0.040639	0	0.264467	0.000989	0	0.001695	0.002	0.002761	0.001075	0	0.001844	0.008	0.007889	381.641	0	96.08948	0.001858	0	0.065023	0.004199	0	0.031612	0.007009	0	0.302374	0.055687	0.152422	0.944599	0.010227	0	0.331061	0.055687	0.152422	0.944599	0.040108	0.585727	0	2.900745	0.003773	0	0.00095
San Mateo	2027	MDV	Aggregate	Aggregate	Diesel	1306.722	38182.61	38182.61	0	6183.555	0	0.025409	0	0	0.002915	0	0	0.002	0.002822	0.003047	0	0	0.008	0.008064	386.2665	0	0	0.000339	0	0	0.060856	0	0	0.007306	0	0	0	0	0	0.008318	0	0	0	0	0	0.0031	0.158269	0	0	0.00366	0	0
San Mateo	2027	MDV	Aggregate	Aggregate	Electricity	2770.892	73029.24	0	73029.24	13959.05	28195.31	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MDV	Aggregate	Aggregate	Plug-in Hyb	1580.566	54464.83	23853.74	30611.09	7768.48	9245.461	0.002814	0	0.473855	0.000387	0	0.001494	0.002	0.001347	0.000421	0	0.001625	0.008	0.003848	118.1538	0	100.9841	0.000284	0	0.153324	0.0003	0	0.050423	0.001183	0	0.821719	0.022882	0.020696	0.30315	0.001726	0	0.899679	0.022882	0.020696	0.30315	0.018395	0.176331	0	6.16492	0.001168	0	0.000998
San Mateo	2027	MH	Aggregate	Aggregate	Gasoline	889.7275	8482.343	8482.343	0	89.00834	0	0.205598	0	0.394341	0.001477	0	0.000374	0.003	0.015756	0.001606	0	0.000407	0.012	0.045017	1945.602	0	30.91944	0.007677	0	0.034481	0.016471	0	0.044506	0.029111	0	0.136554	6.497034	0.156813	2.414317	0.042478	0	0.149509	6.497034	0.156813	2.414317	0.044981	0.592155	0	3.084243	0.019234	0	0.000306
San Mateo	2027	MH	Aggregate	Aggregate	Diesel	438.9117	4153.858	4153.858	0	43.89117	0	2.832054	0	0	0.037464	0	0	0.004	0.015675	0.039158	0	0	0.016	0.044785	1086.701	0	0	0.003935	0	0	0.17121	0	0	0.084726	0	0	0	0	0	0.096455	0	0	0	0	0	0.20065	0.258294	0	0	0.010297	0	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Gasoline	867.5241	48390.56	48390.56	0	17357.42	0	0.227578	0.078989	0.386341	0.001347	0	0.000485	0.003	0.015756	0.001465	0	0.000528	0.012	0.045017	1709.432	513.3044	43.07056	0.007475	0.271014	0.042102	0.013626	0.007061	0.032711	0.034686	1.021219	0.219918	0.022149	0.184846	1.785685	0.050614	1.490161	0.240782	0.022149	0.184846	1.785685	0.045	0.678531	15.21525	4.76187	0.016899	0.005075	0.000426
San Mateo	2027	MHDT	Aggregate	Aggregate	Diesel	4381.456	17745.11	17745.1	0	52965.25	0	0.98012	12.36142	1.609464	0.01032	0.018608	0	0.003	0.015983	0.010787	0.019449	0	0.012	0.045664	1142.378	2206.247	0	0.001114	0.010178	0	0.179982	0.347595	0	0.023977	0.219127	0	0	0	0	0.027296	0.24946	0	0	0	0	0.213081	0.098415	7.494036	0	0.010818	0.020892	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Electricity	127.7802	7032.616	0	7032.616	1769.648	9148.07	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Natural Ga	51.5504	2296.644	2296.644	0	479.4474	0	0.107496	6.432876	0	0.001352	0.018879	0	0.003	0.016088	0.001471	0.021621	0	0.012	0.045965	1002.447	5463.992	0	0.780237	16.43266	0	0.204355	1.113871	0	0.011148	0.23479	0	0	0	0	0.796289	16.77073	0	0	0	0	1.06	3.061376	38.67694	0	0	0	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Gasoline	248.2101	12473.77	12473.77	0	4966.188	0	0.211311	0.060192	0.357193	0.00109	0	0.00029	0.003	0.01568	0.001186	0	0.000315	0.012	0.044799	1692.32	365.4899	29.36303	0.006456	0.203928	0.031666	0.013066	0.005413	0.030606	0.029254	0.747798	0.15748	0.025953	0.127029	2.17	0.042687	1.091184	0.172421	0.025953	0.127029	2.17	0.044975	0.611503	5.783803	3.243094	0.01673	0.003613	0.00029
San Mateo	2027	OBUS	Aggregate	Aggregate	Diesel	1179.467	75909.96	75909.96	0	11575.44	0	0.775196	5.241419	1.466802	0.008873	0.002989	0	0.003	0.017435	0.009274	0.003124	0	0.012	0.049814	1200.115	1193.83	0	0.000878	0.014362	0	0.189079	0.188088	0	0.018903	0.309216	0	0	0	0	0.021519	0.352019	0	0	0	0	0.218013	0.090292	5.765682	0	0.011364	0.011305	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Electricity	5.720233	456.3866	0	456.3866	114.4504	594.8312	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Natural Ga	11.58861	747.5342	747.5342	0	103.1386	0	0.129807	1.513364	0	0.001349	0.004473	0	0.003	0.016148	0.001467	0.004865	0	0.012	0.046137	963.6185	1186.95	0	0.822922	3.939956	0	0.19644	0.241968	0	0.011758	0.056294	0	0	0	0	0.839853	4.021014	0	0	0	0	1.06	3.343572	8.646482	0	0	0	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Gasoline	79.49692	3883.503	3883.503	0	317.9877	0	0.632481	0.822307	0.600742	0.001079	0	0.000721	0.002	0.015721	0.001174	0	0.000784	0.008	0.044917	779.0372	2492.831	58.00255	0.014081	2.448145	0.080367	0.03084	0.078539	0.055535	0.068887	10.63321	0.464416	0.112849	0.357376	1.946706	0.100519	15.51596	0.508477	0.112849	0.357376	1.946706	0.045	1.780147	82.19044	11.21377	0.007702	0.024644	0.000573
San Mateo	2027	SBUS	Aggregate	Aggregate	Diesel	167.5641	3706.878	3706.878	0	2426.328	0	3.793477	21.05041	0.5128	0.018391	0.017915	0	0.003	0.015721	0.019223	0.018725	0	0.012	0.044917	1135.127	2211.457	0	0.002731	0.008003	0	0.17884	0.348416	0	0.058797	0.172299	0	0	0	0	0.066936	0.196149	0	0	0	0	0.15435	0.182463	4.828329	0	0.010749	0.020941	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Electricity	5.310741	202.8314	0	202.8314	47.87691	251.3811	0	0	0	0	0	0	0.002333	0.00786	0	0	0	0.009332	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Natural Ga	7.053679	172.5017	172.5017	0	102.1373	0	0.481743	5.219695	0	0.003378	0.012579	0	0.003	0.015721	0.003674	0.01368	0	0.012	0.044917	1229.808	4145.498	0	3.202788	14.62449	0	0.250704	0.845087	0	0.045762	0.208955	0	0	0	0	3.26868	14.92537	0	0	0	0	1.06	10.54837	23.50051	0	0	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Gasoline	61.98533	4214.564	4214.564	0	247.9413	0	0.030743	0	0.430318	0.001186	0	0.000163	0.002	0.002072	0.032332	0.00129	0	0.000177	0.00829	0.092377	965.383	0	39.15927	0.001844	0	0.040362	0.00389	0	0.066031	0.005247	0	0.147837	0.032636	0.102703	0.407958	0.007657	0	0.161863	0.032636	0.102703	0.407958	0.045	0.562264	0	6.323543	0.009544	0	0.000387
San Mateo	2027	UBUS	Aggregate	Aggregate	Diesel	279.2472	21607.25	21607.25	0	1116.989	0	0.375529	0	0	0.006826	0	0	0.008096	0.0385	0.007135	0	0	0.032385	0.11	1223.405	0	0	0.003145	0	0	0.192748	0	0	0.067714	0	0	0	0	0	0.077087	0	0	0	0	0	0.22	0.077188	0	0	0.011592	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Electricity	38.11938	3934.273	0	3934.273	152.4775	6858.398	0	0	0	0	0	0	0.007377	0.01925	0	0	0	0.029507	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Natural Ga	65.93105	4566.887	4566.887	0	263.7242	0	0.055445	0	0	0.000272	0	0	0.007744	0.0385	0.000285	0	0	0.030974	0.11	1262.884	0	0	4.101438	0	0	0.257447	0	0	0.058601	0	0	0	0	0	4.185818	0	0	0	0	0	0.97	46.52216	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2028
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_ST	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNI	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2028	HHDT	Aggregate	Aggregate	Gasoline	4.087369	426.9851	426.9851	0	81.78009	0	3.785923	0	0.000743	0.001359	0	0.000569	0.005	0.031153	0.001478	0	0.000618	0.02	0.089009	2189.586	0	49.88805	0.109696	0	8.65E-05	0.148497	0	4.84E-05	0.532974	0	0.000469	0.02665	0.192885	1.828464	0.777114	0	0.000513	0.02665	0.192885	1.828464	0.045	33.60705	0	4.299787	0.021646	0	0.000493
San Mateo	2028	HHDT	Aggregate	Aggregate	Diesel	1348.7	118863.6	118863.6	0	15118.87	0	2.305759	45.59696	3.062001	0.02389	0.027666	0	0.008609	0.030151	0.02497	0.028917	0	0.034435	0.086144	1706.585	7938.798	0	0.001068	0.160574	0	0.268873	1.250761	0	0.022983	3.457113	0	0	0	0	0.026165	3.93566	0	0	0	0	0	0.20529	0.099669	49.19936	0	0.01616	0.075176	0
San Mateo	2028	HHDT	Aggregate	Aggregate	Electricity	42.61913	3900.691	0	3900.691	410.6363	7273.025	0	0	0	0	0	0	0.008472	0.017636	0	0	0	0.033886	0.05039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	HHDT	Aggregate	Aggregate	Natural Ga	207.2611	13277.54	13277.54	0	1340.296	0	0.986115	7.372316	0	0.001507	0.012221	0	0.009	0.062091	0.001639	0.013292	0	0.036	0.177403	1448.565	8233.246	0	2.149289	18.9597	0	0.295299	1.678401	0	0.04445	0.294554	0	0	0	0	2.209162	19.37671	0	0	0	0	0	0.701215	13.92351	59.3483	0	0	0	0
San Mateo	2028	LDA	Aggregate	Aggregate	Gasoline	238224	6625086	6625096	0	1117181	0	0.027731	0	0.210074	0.000951	0	0.001665	0.002	0.002348	0.001034	0	0.00181	0.008	0.00671	256.6146	0	64.37049	0.001433	0	0.053849	0.003522	0	0.027728	0.005198	0	0.245617	0.071362	0.19449	1.165638	0.007584	0	0.268919	0.071362	0.19449	1.165638	0.038871	0.52715	0	2.594942	0.002537	0	0.000636
San Mateo	2028	LDA	Aggregate	Aggregate	Diesel	518.2623	10422.73	10422.73	0	2185.907	0	0.108554	0	0	0.007604	0	0	0.002	0.002418	0.007948	0	0	0.008	0.00691	223.1469	0	0	0.000725	0	0	0.03157	0	0	0.015608	0	0	0	0	0	0.017769	0	0	0	0	0	0.00231	0.255789	0	0	0.002114	0	0
San Mateo	2028	LDA	Aggregate	Aggregate	Electricity	22943.23	778703.3	0	778703.3	112146.2	300643.7	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LDA	Aggregate	Aggregate	Plug-in Hyb	9174.453	287067.5	130150.4	156917.1	45092.44	47393.65	0.002913	0	0.473855	0.000434	0	0.00162	0.002	0.001342	0.000472	0	0.001762	0.008	0.003833	122.3124	0	71.75942	0.000291	0	0.152035	0.000305	0	0.049509	0.001224	0	0.821719	0.032918	0.03567	0.443788	0.001786	0	0.899679	0.032918	0.03567	0.443788	0.018519	0.182539	0	6.16492	0.001209	0	0.000709
San Mateo	2028	LDT1	Aggregate	Aggregate	Gasoline	26871.73	710860.9	710860.9	0	123556	0	0.061142	0	0.260378	0.001145	0	0.001889	0.002	0.002819	0.001246	0	0.002054	0.008	0.008053	299.4853	0	76.24412	0.002858	0	0.066199	0.005353	0	0.03047	0.012073	0	0.320302	0.098602	0.279171	1.625538	0.017617	0	0.350691	0.098602	0.279171	1.625538	0.039234	0.777188	0	3.333143	0.002961	0	0.000754
San Mateo	2028	LDT1	Aggregate	Aggregate	Diesel	1.279991	17.08643	17.08643	0	3.850863	0	0.926773	0	0	0.137922	0	0	0.002	0.003128	0.144159	0	0	0.008	0.008938	379.2497	0	0	0.010417	0	0	0.059751	0	0	0.224274	0	0	0	0	0	0.255321	0	0	0	0	0	0.0031	1.631356	0	0	0.003594	0	0
San Mateo	2028	LDT1	Aggregate	Aggregate	Electricity	215.382	7602.43	0	7602.43	1064.315	2935.166	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LDT1	Aggregate	Aggregate	Plug-in Hyb	168.7717	5738.6	2397.775	3340.825	829.5127	1009.029	0.002684	0	0.473855	0.000274	0	0.001113	0.002	0.001354	0.000298	0	0.001211	0.008	0.003869	112.7228	0	77.47882	0.000268	0	0.152078	0.000281	0	0.049538	0.001128	0	0.821719	0.019265	0.016586	0.264869	0.001646	0	0.899679	0.019265	0.016586	0.264869	0.017549	0.168228	0	6.16492	0.001114	0	0.000766
San Mateo	2028	LDT2	Aggregate	Aggregate	Gasoline	188791.4	5454076	5454076	0	902311	0	0.034414	0	0.229703	0.000938	0	0.001582	0.002	0.002749	0.00102	0	0.001721	0.008	0.007856	311.9092	0	78.02059	0.001635	0	0.056817	0.003851	0	0.029851	0.005886	0	0.25108	0.049035	0.130934	0.815973	0.008588	0	0.274901	0.049035	0.130934	0.815973	0.040367	0.558186	0	2.697318	0.003084	0	0.000771
San Mateo	2028	LDT2	Aggregate	Aggregate	Diesel	721.4435	20620.51	20620.51	0	3444.651	0	0.030404	0	0	0.003874	0	0	0.002	0.002761	0.00405	0	0	0.008	0.00789	289.9832	0	0	0.000543	0	0	0.045687	0	0	0.011695	0	0	0	0	0	0.013314	0	0	0	0	0	0.0031	0.115462	0	0	0.002748	0	0
San Mateo	2028	LDT2	Aggregate	Aggregate	Electricity	3148.148	80104.27	0	80104.27	15796.57	30926.86	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.00437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LDT2	Aggregate	Aggregate	Plug-in Hyb	3055.991	97890.29	42500.25	55390.04	15020.19	16729.44	0.002789	0	0.473855	0.000337	0	0.001315	0.002	0.001349	0.000367	0	0.001431	0.008	0.003854	117.1281	0	84.06845	0.000278	0	0.151649	0.00029	0	0.049234	0.001172	0	0.821719	0.021105	0.018956	0.285181	0.001711	0	0.899679	0.021105	0.018956	0.285181	0.018229	0.174802	0	6.16492	0.001158	0	0.000831
San Mateo	2028	LHDT1	Aggregate	Aggregate	Gasoline	12894.54	409468.1	409468.1	0	192109.4	0	0.062799	0.029866	0.488244	0.00129	0	0.000173	0.002	0.0273	0.001403	0	0.000189	0.008	0.078	811.5033	114.151	25.97952	0.003371	0.096446	0.023737	0.003671	0.00267	0.042575	0.015726	0.342597	0.113456	0.026106	0.148763	1.503764	0.022947	0.499917	0.12422	0.026106	0.148763	1.503764	0.045	0.769623	3.770584	3.308967	0.008023	0.001128	0.000257
San Mateo	2028	LHDT1	Aggregate	Aggregate	Diesel	6434.479	215842.1	215842.1	0	80937.65	0	0.583074	1.283254	0	0.018834	0.026477	0	0.003	0.0273	0.019686	0.027674	0	0.012	0.078	630.0295	123.2776	0	0.004903	0.005098	0	0.099261	0.019422	0	0.105552	0.10976	0	0	0	0	0.120163	0.124954	0	0	0	0	0	0.205669	0.249178	0.909745	0	0.00597	0.001168	0
San Mateo	2028	LHDT1	Aggregate	Aggregate	Electricity	815.9233	38136.82	0	38136.82	11425.03	24979.89	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LHDT2	Aggregate	Aggregate	Gasoline	1466.531	45093.53	45093.53	0	21849.12	0	0.063424	0.030334	0.512043	0.001212	0	0.000145	0.002	0.03185	0.001318	0	0.000157	0.008	0.091	916.8409	132.3372	24.59687	0.002673	0.097359	0.02399	0.003935	0.002648	0.043199	0.011423	0.348148	0.11426	0.026654	0.152607	1.608504	0.016668	0.508016	0.1251	0.026654	0.152607	1.608504	0.045	0.656799	3.774704	3.227731	0.009064	0.001308	0.000243
San Mateo	2028	LHDT2	Aggregate	Aggregate	Diesel	2946.348	96950.8	96950.8	0	37061.35	0	0.484795	1.243506	0	0.018964	0.026767	0	0.003	0.03185	0.019821	0.027977	0	0.012	0.091	737.7052	197.3864	0	0.00502	0.005098	0	0.116226	0.031098	0	0.108087	0.10976	0	0	0	0	0.12305	0.124954	0	0	0	0	0	0.209959	0.241899	0.909745	0	0.00699	0.00187	0
San Mateo	2028	LHDT2	Aggregate	Aggregate	Electricity	206.8476	9233.104	0	9233.104	2743.645	5955.867	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	MCY	Aggregate	Aggregate	Gasoline	16024.84	83191.06	83191.06	0	32049.68	0	0.514288	0	0.113864	0.001991	0	0.003345	0.001	0.0042	0.002134	0	0.003573	0.004	0.012	189.2788	0	45.38272	0.143738	0	0.160571	0.037144	0	0.007222	0.892608	0	1.159184	3.541021	3.687565	2.884103	1.100142	0	1.261296	3.541021	3.687565	2.884103	0.00904	12.14179	0	7.212981	0.001871	0	0.000449
San Mateo	2028	MDV	Aggregate	Aggregate	Gasoline	106046.8	3139229	3139229	0	505616.6	0	0.037084	0	0.252753	0.000922	0	0.001593	0.002	0.002771	0.001003	0	0.001732	0.008	0.007918	376.6742	0	94.59274	0.00172	0	0.061312	0.004005	0	0.03096	0.006353	0	0.281783	0.052632	0.145505	0.901798	0.00927	0	0.308517	0.052632	0.145505	0.901798	0.040421	0.566677	0	2.776662	0.003724	0	0.000935
San Mateo	2028	MDV	Aggregate	Aggregate	Diesel	1344.624	38138.7	38138.7	0	6350.78	0	0.022126	0	0	0.002553	0	0	0.002	0.002828	0.002669	0	0	0.008	0.00808	381.079	0	0	0.000316	0	0	0.060039	0	0	0.006813	0	0	0	0	0	0.007757	0	0	0	0	0	0.0031	0.154195	0	0	0.003611	0	0
San Mateo	2028	MDV	Aggregate	Aggregate	Electricity	3273.507	83057.65	0	83057.65	16411.37	32067.11	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	MDV	Aggregate	Aggregate	Plug-in Hyb	1812.403	60147.57	26000.4	34147.16	8907.963	10313.46	0.002777	0	0.473855	0.00035	0	0.00138	0.002	0.00135	0.000381	0	0.001501	0.008	0.003858	116.6195	0	100.2202	0.000278	0	0.152275	0.000291	0	0.049678	0.001167	0	0.821719	0.023065	0.022303	0.316449	0.001703	0	0.899679	0.023065	0.022303	0.316449	0.018156	0.174043	0	6.16492	0.001153	0	0.000991
San Mateo	2028	MH	Aggregate	Aggregate	Gasoline	918.1328	8640.917	8640.917	0	91.85001	0	0.182853	0	0.391887	0.001446	0	0.000365	0.003	0.015756	0.001573	0	0.000397	0.012	0.045017	1945.394	0	30.76138	0.006797	0	0.033875	0.015497	0	0.044709	0.024735	0	0.132426	5.693158	0.137911	2.141844	0.036093	0	0.14499	5.693158	0.137911	2.141844	0.045	0.473286	0	2.993366	0.019232	0	0.000304
San Mateo	2028	MH	Aggregate	Aggregate	Diesel	465.6535	4277.963	4277.963	0	46.56535	0	2.773275	0	0	0.034738	0	0	0.004	0.015675	0.036308	0	0	0.016	0.044785	1086.92	0	0	0.003879	0	0	0.171245	0	0	0.083504	0	0	0	0	0	0.095063	0	0	0	0	0	0.202893	0.252824	0	0	0.010299	0	0
San Mateo	2028	MHDT	Aggregate	Aggregate	Gasoline	882.2879	48208.29	48208.29	0	17652.82	0	0.192737	0.075927	0.365526	0.001346	0	0.000477	0.003	0.015756	0.001464	0	0.000519	0.012	0.045017	1716.148	512.9166	42.67345	0.00648	0.272074	0.040965	0.012105	0.006866	0.031489	0.029453	1.02262	0.211628	0.020138	0.169219	1.647752	0.042978	1.492204	0.231706	0.020138	0.169219	1.647752	0.045	0.560554	15.23151	4.548122	0.016966	0.005071	0.000422
San Mateo	2028	MHDT	Aggregate	Aggregate	Diesel	4396.245	176136.6	176136.6	0	53168.12	0	0.894905	12.06559	1.58431	0.008976	0.015354	0	0.003	0.015983	0.009382	0.016048	0	0.012	0.045665	1144.223	2199.988	0	0.000968	0.009787	0	0.180273	0.346609	0	0.020831	0.210721	0	0	0	0	0.023715	0.239889	0	0	0	0	0	0.214104	0.08991	7.487192	0	0.010835	0.020833	0
San Mateo	2028	MHDT	Aggregate	Aggregate	Electricity	205.6395	11169.03	0	11169.03	2839.827	14503.21	0	0	0	0	0	0	0.003	0.007952	0	0	0	0.012	0.022719	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	MHDT	Aggregate	Aggregate	Natural Ga	54.70168	2394.418	2394.418	0	514.2228	0	0.103085	6.387434	0	0.001372	0.020029	0	0.003	0.016084	0.001492	0.021784	0	0.012	0.045955	1009.681	5490.756	0	0.780893	16.21102	0	0.20583	1.119327	0	0.011157	0.231624	0	0	0	0	0.796958	16.54454	0	0	0	0	0	1.06	3.059145	39.04826	0	0	0	0
San Mateo	2028	OBUS	Aggregate	Aggregate	Gasoline	244.3586	11852.4	11852.4	0	4889.127	0	0.189256	0.058492	0.348522	0.001102	0	0.000286	0.003	0.01568	0.001198	0	0.000311	0.012	0.044799	1694.536	365.2374	29.26703	0.005671	0.203559	0.031483	0.012019	0.005247	0.029789	0.024998	0.748329	0.156944	0.025167	0.126217	2.177423	0.036477	1.091959	0.171834	0.025167	0.126217	2.177423	0.045	0.520195	5.786979	3.194706	0.016752	0.003611	0.000289
San Mateo	2028	OBUS	Aggregate	Aggregate	Diesel	1211.393	76199.48	76199.48	0	11894.78	0	0.759172	5.051633	1.425614	0.008693	0.002895	0	0.003	0.017466	0.009086	0.003026	0	0.012	0.049902	1185.134	1184.015	0	0.000861	0.014413	0	0.186718	0.186542	0	0.018529	0.310316	0	0	0	0	0.021094	0.353271	0	0	0	0	0	0.21809	0.089377	5.786939	0	0.011223	0.011212	0
San Mateo	2028	OBUS	Aggregate	Aggregate	Electricity	8.935831	691.3658	0	691.3658	178.7881	901.0912	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	OBUS	Aggregate	Aggregate	Natural Ga	12.72738	821.4822	821.4822	0	113.2737	0	0.117916	1.507582	0	0.001405	0.004611	0	0.003	0.016148	0.001529	0.005015	0	0.012	0.046137	950.7451	1180.472	0	0.829445	3.868569	0	0.193816	0.240647	0	0.011851	0.055274	0	0	0	0	0.846509	3.948158	0	0	0	0	0	1.06	3.361144	8.957434	0	0	0	0
San Mateo	2028	SBUS	Aggregate	Aggregate	Gasoline	82.76405	3950.797	3950.797	0	331.0562	0	0.573197	0.792827	0.582796	0.001058	0	0.000719	0.002	0.015721	0.001151	0	0.000782	0.008	0.044917	780.4044	2498.008	57.38396	0.012554	2.448346	0.078437	0.028355	0.076641	0.054315	0.061351	10.64152	0.452518	0.104317	0.332084	1.837104	0.089523	15.52808	0.495451	0.104317	0.332084	1.837104	0.045	1.593965	82.24088	10.79588	0.007715	0.024695	0.000567
San Mateo	2028	SBUS	Aggregate	Aggregate	Diesel	166.0168	3662.699	3662.699	0	2403.923	0	3.486175	20.21871	0.524341	0.017155	0.016119	0	0.003	0.015721	0.01793	0.016848	0	0.012	0.044917	1135.3	2205.454	0	0.002589	0.007973	0	0.178867	0.34747	0	0.055749	0.17165	0	0	0	0	0.063466	0.195411	0	0	0	0	0	0.159444	0.174936	4.978986	0	0.010751	0.020884	0
San Mateo	2028	SBUS	Aggregate	Aggregate	Electricity	8.410812	315.9164	0	315.9164	76.16352	391.534	0	0	0	0	0	0	0.002	0.00786	0	0	0	0.009369	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	SBUS	Aggregate	Aggregate	Natural Ga	7.283353	176.1298	176.1298	0	105.463	0	0.467367	5.211463	0	0.003378	0.012775	0	0.003	0.015721	0.003674	0.013894	0	0.012	0.044917	1229.867	4176.87	0	3.163125	14.52286	0	0.250716	0.851482	0	0.045195	0.207503	0	0	0	0	3.228201	14.82164	0	0	0	0	0	1.06	10.36172	23.94323	0	0	0	0
San Mateo	2028	UBUS	Aggregate	Aggregate	Gasoline	62.16369	4226.45	4226.45	0	248.6548	0	0.028679	0	0.3878	0.001202	0	0.000164	0.002	0.002072	0.032331	0.001307	0	0.000179	0.00829	0.092375	965.9956	0	38.95709	0.00167	0	0.036353	0.003577	0	0.061849	0.00468	0	0.131312	0.023934	0.090544	0.316913	0.006829	0	0.14377	0.023934	0.090544	0.316913	0.045	0.548382	0	6.222243	0.00955	0	0.000385
San Mateo	2028	UBUS	Aggregate	Aggregate	Diesel	260.7992	19902.79	19902.79	0	1043.197	0	0.374953	0	0	0.006816	0	0	0.002	0.008085	0.0385	0.007124	0	0.032342	0.11	1245.48	0	0	0.003141	0	0	0.196226	0	0	0.067634	0	0	0	0	0	0.076996	0	0	0	0	0	0.22	0.077071	0	0	0.011802	0	0
San Mateo	2028	UBUS	Aggregate	Aggregate	Electricity	53.31881	5326.696	0	5326.696	213.2752	9285.731	0	0	0	0	0	0	0.002	0.007594	0.01925	0	0	0.030377	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	UBUS	Aggregate	Aggregate	Natural Ga	70.30426	4967.469	4967.469	0	281.217	0	0.055732	0	0	0.000273	0	0	0.002	0.007781	0.0385	0.000286	0	0.031125	0.11	1265.998	0	0	4.113837	0	0	0.258082	0	0	0.058779	0	0	0	0	0	4.198472	0	0	0	0	0	0.97	46.7387	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2029
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNI	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2029	HHDT	Aggregate	Aggregate	Gasoline	3.809191	386.0787	386.0787	0	76.2143	0	3.6408	0	0.000651	0.00131	0	0.000471	0.005	0.031192	0.001424	0	0.000512	0.02	0.08912	2180.009	0	49.35385	0.105106	0	8.16E-05	0.14591	0	4.39E-05	0.495946	0	0.000442	0.020157	0.133855	1.416786	0.723683	0	0.000484	0.020157	0.133855	1.416786	0.045	32.72931	0	4.233092	0.021552	0	0.000488
San Mateo	2029	HHDT	Aggregate	Aggregate	Diesel	1347.069	1181087	1181087	0	15180.79	0	2.216843	45.45292	3.040963	0.02371	0.026328	0	0.008612	0.030119	0.024782	0.027518	0	0.034446	0.086055	1686.529	7896.526	0	0.001029	0.161467	0	0.265713	1.244101	0	0.022151	3.47633	0	0	0	0	0.025217	3.957537	0	0	0	0	0.206457	0.095888	49.65756	0	0.01597	0.074775	0
San Mateo	2029	HHDT	Aggregate	Aggregate	Electricity	61.38548	5625.427	0	5625.427	586.7168	10491.49	0	0	0	0	0	0	0	0.008456	0.017685	0	0	0	0.033823	0.050527	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	HHDT	Aggregate	Aggregate	Natural Ga	213.1041	13573.41	13573.41	0	1372.044	0	0.903052	7.039119	0	0.001471	0.012322	0	0.009	0.062508	0.001599	0.013401	0	0.036	0.178595	1451.947	8278.083	0	1.987704	18.15289	0	0.295989	1.687541	0	0.04052	0.280116	18.55	0	0	0	0.697123	13.43818	58.5813	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDA	Aggregate	Aggregate	Gasoline	238011	6483192	6483192	0	1115947	0	0.02624	0	0.203926	0.000892	0	0.00158	0.002	0.002348	0.000971	0	0.001718	0.008	0.006709	253.3947	0	63.37886	0.001341	0	0.051198	0.003416	0	0.027128	0.004794	0	0.232262	0.068066	0.187788	1.127557	0.036995	0	0.254288	0.068066	0.187788	1.127557	0.039399	0.52981	0	2.4859	0.002504	0	0.000627
San Mateo	2029	LDA	Aggregate	Aggregate	Diesel	456.827	9170.063	9170.063	0	1942.931	0	0.094096	0	0	0.006546	0	0	0.002	0.002419	0.006842	0	0	0.008	0.00691	220.4912	0	0	0.000644	0	0	0.034738	0	0	0.013863	0	0	0	0	0	0.015782	0	0	0	0	0	0.00031	0.241685	0	0	0.002089	0	0
San Mateo	2029	LDA	Aggregate	Aggregate	Electricity	24100.92	793781.1	0	793781.1	117419.6	306465	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.00438	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDT1	Aggregate	Aggregate	Plug-in Hyb	9494.131	287716	128798.3	158917.6	46663.66	47997.87	0.002876	0	0.473855	0.000402	0	0.001533	0.002	0.001345	0.000437	0	0.001667	0.008	0.003842	120.7694	0	71.30961	0.000286	0	0.151116	0.000297	0	0.048861	0.001209	0	0.821719	0.033074	0.038062	0.462918	0.001764	0	0.899679	0.033074	0.038062	0.462918	0.018366	0.180238	0	6.16492	0.001194	0	0.000705
San Mateo	2029	LDT1	Aggregate	Aggregate	Gasoline	27294.21	708091.6	708091.6	0	125650.3	0	0.053512	0	0.246458	0.001655	0	0.001076	0.002	0.00282	0.001147	0	0.001914	0.008	0.008057	295.424	0	74.77875	0.002526	0	0.061513	0.004938	0	0.029607	0.010492	0	0.293538	0.09105	0.26062	1.534288	0.01531	0	0.321387	0.09105	0.26062	1.534288	0.039565	0.719479	0	3.085477	0.002921	0	0.000739
San Mateo	2029	LDT1	Aggregate	Aggregate	Diesel	0.938739	13.36993	13.36993	0	2.92998	0	0.773552	0	0	0.115054	0	0	0.002	0.003055	0.120256	0	0	0.008	0.008728	375.8287	0	0	0.008733	0	0	0.059212	0	0	0.188024	0	0	0	0	0	0.214053	0	0	0	0	0	0.0031	1.371554	0	0	0.003561	0	0
San Mateo	2029	LDT1	Aggregate	Aggregate	Electricity	261.7498	9083.851	0	9083.851	1295.214	3507.116	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDT1	Aggregate	Aggregate	Plug-in Hyb	206.752	6804.689	2825.811	3978.878	1016.186	1201.74	0.002668	0	0.473855	0.000252	0	0.001036	0.002	0.001356	0.000274	0	0.001127	0.008	0.003874	112.0329	0	77.13683	0.000265	0	0.151276	0.000276	0	0.048973	0.001121	0	0.821719	0.019224	0.016533	0.264662	0.001636	0	0.899679	0.019224	0.016533	0.264662	0.017442	0.167199	0	6.16492	0.001108	0	0.000763
San Mateo	2029	LDT2	Aggregate	Aggregate	Gasoline	197692.3	5555720	5555720	0	942893.2	0	0.032543	0	0.224267	0.000879	0	0.001496	0.002	0.002759	0.000956	0	0.001627	0.008	0.007882	308.3532	0	76.96688	0.001562	0	0.054515	0.003742	0	0.029465	0.005558	0	0.239589	0.046971	0.126032	0.782819	0.00811	0	0.26232	0.046971	0.126032	0.782819	0.040657	0.547513	0	2.613961	0.003048	0	0.000761
San Mateo	2029	LDT2	Aggregate	Aggregate	Diesel	751.2734	20941.98	20941.98	0	3581.796	0	0.029195	0	0	0.00378	0	0	0.002	0.002767	0.003951	0	0	0.008	0.007905	286.4383	0	0	0.000536	0	0	0.045128	0	0	0.011536	0	0	0	0	0	0.013133	0	0	0	0	0	0.0031	0.114787	0	0	0.002714	0	0
San Mateo	2029	LDT2	Aggregate	Aggregate	Electricity	3716.563	91448.71	0	91448.71	18570.34	35306.75	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDT2	Aggregate	Aggregate	Plug-in Hyb	3434.135	106095.8	45607.13	60488.72	16878.77	18269.4	0.002762	0	0.473855	0.000312	0	0.001238	0.002	0.001352	0.00034	0	0.001346	0.008	0.003862	115.9699	0	83.62692	0.000274	0	0.150701	0.000283	0	0.048568	0.001161	0	0.821719	0.021688	0.020209	0.296104	0.001694	0	0.899679	0.021688	0.020209	0.296104	0.018049	0.173075	0	6.16492	0.001146	0	0.000827
San Mateo	2029	LHDT1	Aggregate	Aggregate	Gasoline	13178.85	406150.2	406150.2	0	196345.3	0	0.053824	0.029142	0.476025	0.001265	0	0.000158	0.002	0.0273	0.001376	0	0.000172	0.008	0.078	815.3985	114.39	25.91476	0.002824	0.09436	0.022824	0.003216	0.002616	0.04167	0.012744	0.334359	0.108155	0.024026	0.136906	1.388424	0.018596	0.487896	0.118416	0.024026	0.136906	1.388424	0.045	0.713052	3.772559	3.283384	0.008061	0.001131	0.000256
San Mateo	2029	LHDT1	Aggregate	Aggregate	Diesel	6712.758	217621.3	217621.3	0	84438.05	0	0.523605	1.227788	0	0.018209	0.026431	0	0.003	0.0273	0.019032	0.027626	0	0.012	0.078	638.7299	123.7226	0	0.004733	0.005098	0	0.100632	0.019493	0	0.101898	0.10976	0	0	0	0	0.116004	0.124954	0	0	0	0	0.207752	0.239816	0.909745	0	0.006052	0.001172	0
San Mateo	2029	LHDT1	Aggregate	Aggregate	Electricity	1193.542	53319.24	0	53319.24	16716.82	34926.79	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LHDT2	Aggregate	Aggregate	Gasoline	1494.739	44651.31	44651.31	0	22269.38	0	0.055453	0.029625	0.498363	0.001198	0	0.000136	0.002	0.03185	0.001303	0	0.000148	0.008	0.091	922.3486	132.7182	24.62393	0.00239	0.095276	0.023151	0.003502	0.002597	0.042249	0.010051	0.340043	0.109735	0.024689	0.141893	1.497411	0.014666	0.49619	0.120146	0.024689	0.141893	1.497411	0.045	0.64117	3.77594	3.225757	0.009118	0.001312	0.000243
San Mateo	2029	LHDT2	Aggregate	Aggregate	Diesel	3096.292	98145.23	98145.23	0	38947.46	0	0.450786	1.196448	0	0.018788	0.026765	0	0.003	0.03185	0.019638	0.027976	0	0.012	0.091	746.5149	198.3402	0	0.004932	0.005098	0	0.117614	0.031249	0	0.106188	0.10976	0	0	0	0	0.120888	0.124954	0	0	0	0	0.211254	0.239495	0.909745	0	0.007074	0.001879	0
San Mateo	2029	LHDT2	Aggregate	Aggregate	Electricity	301.803	12890.22	0	12890.22	4002.814	8314.824	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	MCY	Aggregate	Aggregate	Gasoline	16656.23	84327.52	84327.52	0	33312.46	0	0.509722	0	0.109052	0.001997	0	0.003318	0.001	0.0042	0.00214	0	0.003547	0.004	0.012	189.1801	0	44.6111	0.142182	0	0.156864	0.036971	0	0.006976	0.878217	0	1.126879	3.538799	3.681462	2.798314	1.085371	0	1.226316	3.538799	3.681462	2.798314	0.009061	12.04123	0	7.18956	0.00187	0	0.000441
San Mateo	2029	MDV	Aggregate	Aggregate	Gasoline	111014.4	3197374	3197374	0	528366.3	0	0.034398	0	0.244243	0.000863	0	0.001503	0.002	0.002781	0.000939	0	0.001634	0.008	0.007947	372.4292	0	93.31931	0.001621	0	0.058298	0.003857	0	0.030492	0.005884	0	0.265357	0.050275	0.139464	0.862214	0.008586	0	0.290532	0.050275	0.139464	0.862214	0.040684	0.553206	0	2.681723	0.003682	0	0.000923
San Mateo	2029	MDV	Aggregate	Aggregate	Diesel	1382.277	38140.56	38140.56	0	6514.002	0	0.019715	0	0	0.002294	0	0	0.002	0.002834	0.002397	0	0	0.008	0.008096	376.4636	0	0	0.000296	0	0	0.059312	0	0	0.006372	0	0	0	0	0	0.007254	0	0	0	0	0	0.0031	0.150538	0	0	0.003567	0	0
San Mateo	2029	MDV	Aggregate	Aggregate	Electricity	3792.346	92906.98	0	92906.98	18923.54	35869.76	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	MDV	Aggregate	Aggregate	Plug-in Hyb	2048.731	65630.13	28078.34	37551.79	10069.51	11341.76	0.002749	0	0.473855	0.000321	0	0.001286	0.002	0.001353	0.000349	0	0.001399	0.008	0.003865	115.4194	0	99.6116	0.000273	0	0.15133	0.000285	0	0.049011	0.001155	0	0.821719	0.022722	0.022182	0.315186	0.001686	0	0.899679	0.022722	0.022182	0.315186	0.017969	0.172254	0	6.16492	0.001141	0	0.000985
San Mateo	2029	MH	Aggregate	Aggregate	Gasoline	945.7628	8775.425	8775.425	0	94.61411	0	0.162702	0	0.390234	0.001418	0	0.000356	0.003	0.015756	0.001542	0	0.000388	0.012	0.045017	1945.191	0	30.6242	0.005973	0	0.033413	0.014657	0	0.044914	0.020552	0	0.129132	4.947336	0.119606	1.873931	0.029989	0	0.141383	4.947336	0.119606	1.873931	0.045	0.356271	0	2.913882	0.01923	0	0.000303
San Mateo	2029	MH	Aggregate	Aggregate	Diesel	491.9002	4391.864	4391.864	0	49.18002	0	2.720781	0	0	0.032231	0	0	0.004	0.015675	0.033688	0	0	0.016	0.044785	1087.093	0	0	0.003824	0	0	0.171272	0	0	0.082336	0	0	0	0	0	0.093734	0	0	0	0	0	0.204889	0.247668	0	0	0.010301	0	0
San Mateo	2029	MHDT	Aggregate	Aggregate	Gasoline	891.858	47612.33	47612.33	0	17844.29	0	0.164485	0.073363	0.348878	0.001346	0	0.00047	0.003	0.015756	0.001464	0	0.000511	0.012	0.045017	1721.294	512.432	42.31104	0.005683	0.272739	0.040004	0.01086	0.006693	0.030483	0.025234	1.023798	0.204569	0.018253	0.153524	1.505548	0.036821	1.493923	0.223977	0.018253	0.153524	1.505548	0.045	0.466497	15.24521	4.357774	0.017017	0.005066	0.000418
San Mateo	2029	MHDT	Aggregate	Aggregate	Diesel	4384.783	173759.4	173759.4	0	53047.55	0	0.819487	11.81578	1.552476	0.007865	0.012697	0	0.003	0.015983	0.00822	0.013271	0	0.012	0.045665	1146.384	2194.882	0	0.000847	0.00947	0	0.180613	0.345805	0	0.018241	0.203878	0	0	0	0	0.020766	0.2321	0	0	0	0	0.214973	0.082868	7.484588	0	0.010856	0.020784	0
San Mateo	2029	MHDT	Aggregate	Aggregate	Electricity	312.3324	16768.42	0	16768.42	4303.818	21743.36	0	0	0	0	0	0	0.003	0.007953	0	0	0	0.012	0.022722	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	MHDT	Aggregate	Aggregate	Natural Ga	57.50627	2472.806	2472.806	0	545.9031	0	0.09947	6.346762	0	0.001388	0.020133	0	0.003	0.016081	0.00151	0.021897	0	0.012	0.045946	1017.115	5515.496	0	0.781143	16.02377	0	0.207346	1.12437	0	0.011161	0.228948	0	0	0	0	0.797213	16.35343	0	0	0	0	1.06	3.057046	39.31271	0	0	0	0
San Mateo	2029	OBUS	Aggregate	Aggregate	Gasoline	240.6761	11222.07	11222.07	0	4815.448	0	0.175186	0.056963	0.340865	0.00112	0	0.00029	0.003	0.01568	0.001218	0	0.000315	0.012	0.044799	1697.609	365.2372	29.21175	0.005361	0.202685	0.033215	0.011244	0.005082	0.028906	0.023536	0.748381	0.156108	0.025093	0.127691	2.199896	0.034344	1.092036	0.170919	0.025093	0.127691	2.199896	0.045	0.487648	5.787296	3.161678	0.016783	0.003611	0.000289
San Mateo	2029	OBUS	Aggregate	Aggregate	Diesel	1239.914	76476.57	76476.57	0	12176.3	0	0.745423	4.854045	1.373543	0.008508	0.0028	0	0.003	0.017495	0.008892	0.002927	0	0.012	0.049984	1170.234	1172.723	0	0.000842	0.014416	0	0.184371	0.184763	0	0.018119	0.310363	0	0	0	0	0.020627	0.353324	0	0	0	0	0.218178	0.088522	5.792853	0	0.011081	0.011105	0
San Mateo	2029	OBUS	Aggregate	Aggregate	Electricity	13.26988	997.9386	0	997.9386	265.5038	1300.663	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	OBUS	Aggregate	Aggregate	Natural Ga	13.88454	894.1709	894.1709	0	123.5724	0	0.108713	1.502935	0	0.001449	0.004722	0	0.003	0.016148	0.001576	0.005135	0	0.012	0.046137	939.9416	1174.524	0	0.834493	3.811194	0	0.191613	0.239434	0	0.011923	0.054454	0	0	0	0	0.851661	3.889603	0	0	0	0	1.06	3.374745	9.207349	0	0	0	0
San Mateo	2029	SBUS	Aggregate	Aggregate	Gasoline	85.79519	4011.661	4011.661	0	343.1808	0	0.529841	0.769401	0.569197	0.001062	0	0.000722	0.002	0.015721	0.001155	0	0.000785	0.008	0.044917	781.3192	2501.42	56.97936	0.011563	2.445754	0.07681	0.026561	0.07506	0.053342	0.056478	10.64152	0.442656	0.101137	0.324575	1.791736	0.082412	15.52808	0.484652	0.101137	0.324575	1.791736	0.045	1.463603	82.24088	10.52589	0.007724	0.024729	0.000563
San Mateo	2029	SBUS	Aggregate	Aggregate	Diesel	163.7264	3605.133	3605.133	0	2370.759	0	3.187035	19.33704	0.537357	0.015962	0.014391	0	0.003	0.015721	0.016684	0.015041	0	0.012	0.044917	1135.243	2198.125	0	0.002444	0.007958	0	0.178858	0.346316	0	0.052621	0.17133	0	0	0	0	0.059906	0.195046	0	0	0	0	0.164435	0.167221	5.136152	0	0.01075	0.020815	0
San Mateo	2029	SBUS	Aggregate	Aggregate	Electricity	12.56211	465.1312	0	465.1312	114.1625	576.4647	0	0	0	0	0	0	0.00235	0.00786	0	0	0	0.009401	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	SBUS	Aggregate	Aggregate	Natural Ga	7.486654	178.8835	178.8835	0	108.4067	0	0.454932	5.204524	0	0.003378	0.01294	0	0.003	0.015721	0.003674	0.014074	0	0.012	0.044917	1230.227	4204.569	0	3.128816	14.43719	0	0.25079	0.857129	0	0.044705	0.206279	0	0	0	0	3.193186	14.73421	0	0	0	0	1.06	10.20027	24.31637	0	0	0	0
San Mateo	2029	UBUS	Aggregate	Aggregate	Gasoline	62.34205	4238.336	4238.336	0	249.3682	0	0.030135	0	0.377055	0.001201	0	0.000164	0.002072	0.032331	0.001307	0	0.000179	0.008289	0.092373	966.2337	0	38.60271	0.001624	0	0.036104	0.003676	0	0.060487	0.004545	0	0.130037	0.023827	0.090543	0.31766	0.006632	0	0.142374	0.023827	0.090543	0.31766	0.045	0.552038	0	5.997278	0.009552	0	0.000382
San Mateo	2029	UBUS	Aggregate	Aggregate	Diesel	238.4518	18140.33	18140.33	0	953.8071	0	0.376197	0	0	0.006839	0	0	0.008109	0.0385	0.007148	0	0	0.032436	0.11	1228.547	0	0	0.003149	0	0	0.193558	0	0	0.067807	0	0	0	0	0	0.077193	0	0	0	0	0	0.22	0.077324	0	0	0.011641	0	0
San Mateo	2029	UBUS	Aggregate	Aggregate	Electricity	71.54628	6764.167	0	6764.167	286.1851	11791.59	0	0	0	0	0	0	0.007648	0.01925	0	0	0	0.030591	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	UBUS	Aggregate	Aggregate	Natural Ga	75.54888	5381.015	5381.015	0	302.1955	0	0.055771	0	0	0.000273	0	0	0.007786	0.0385	0.000286	0	0	0.031145	0.11	1266.418	0	0	4.115508	0	0	0.258168	0	0	0.058802	0	0	0	0	0	4.200177	0	0	0	0	0	0.97	46.76788	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNE	N2O_IDLEX	N2O_STRE	ROG_RUNI	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2030	HHDT	Aggregate	Aggregate	Gasoline	3.582613	348.8502	348.8502	0	71.68092	0	3.309536	0	0.000636	0.001281	0	0.000408	0.005	0.031258	0.001393	0	0.000444	0.02	0.08931	2170.333	0	48.6943	0.102341	0	7.44E-05	0.139473	0	4.21E-05	0.479172	0	0.000403	0.0158	0.095238	1.146877	0.699207	0	0.000441	0.0158	0.095238	1.146877	0.045	32.18037	0	4.037713	0.021456	0	0.000481
San Mateo	2030	HHDT	Aggregate	Aggregate	Diesel	1338.439	117080	117080	0	15181.71	0	2.116368	45.39119	3.044846	0.023283	0.023862	0	0.008615	0.030087	0.024335	0.024941	0	0.03446	0.085963	1667.919	7880.537	0	0.000972	0.162527	0	0.262781	1.241582	0	0.020928	3.499162	0	0	0	0	0.023825	3.98353	0	0	0	0	0	0.207747	0.090912	50.23689	0	0.015794	0.074624	0
San Mateo	2030	HHDT	Aggregate	Aggregate	Electricity	84.88807	7748.726	0	7748.726	800.5398	14460.23	0	0	0	0	0	0	0.00845	0.017769	0	0	0	0.033801	0.050769	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	HHDT	Aggregate	Aggregate	Natural Ga	216.5868	13750.35	13750.35	0	1391.47	0	0.831786	6.734329	0	0.001446	0.012428	0	0.009	0.062879	0.001573	0.013516	0	0.036	0.179654	1456.793	8329.563	0	1.838591	17.41083	0	0.296977	1.698036	0	0.037223	0.267421	0	0	0	0	1.888896	17.79029	0	0	0	0	0	0.693529	12.98287	57.90215	0	0	0	0
San Mateo	2030	LDA	Aggregate	Aggregate	Gasoline	237797.8	6358120	6358120	0	1114767	0	0.025015	0	0.198441	0.00084	0	0.0015	0.002	0.002348	0.000914	0	0.001631	0.008	0.006709	250.3795	0	62.47074	0.001264	0	0.048749	0.003327	0	0.026593	0.004452	0	0.219797	0.064961	0.182842	1.100035	0.006497	0	0.240655	0.064961	0.182842	1.100035	0.039859	0.49519	0	2.387223	0.002475	0	0.000618
San Mateo	2030	LDA	Aggregate	Aggregate	Diesel	401.2092	8094.892	8094.892	0	1723.63	0	0.081629	0	0	0.005614	0	0	0.002	0.002417	0.005867	0	0	0.008	0.006907	217.7249	0	0	0.000572	0	0	0.034303	0	0	0.012309	0	0	0	0	0	0.014013	0	0	0	0	0	0.00231	0.228322	0	0	0.002063	0	0
San Mateo	2030	LDA	Aggregate	Aggregate	Electricity	25244.08	809588.1	0	809588.1	122638.4	312567.8	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.004381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LDA	Aggregate	Aggregate	Plug-in Hyb	9770.495	287561.1	127243.4	160317.7	4802.198	48420.73	0.002843	0	0.473855	0.000375	0	0.001456	0.002	0.001348	0.000407	0	0.001584	0.008	0.00385	119.3761	0	70.89249	0.000281	0	0.150274	0.00029	0	0.048722	0.001195	0	0.821719	0.032583	0.038668	0.467089	0.001743	0	0.899679	0.032583	0.038668	0.467089	0.018225	0.17816	0	6.16492	0.00118	0	0.000701
San Mateo	2030	LDT1	Aggregate	Aggregate	Gasoline	27717.91	705667.7	705667.7	0	127669.4	0	0.047693	0	0.23518	0.009977	0	0.001648	0.002	0.002822	0.001063	0	0.001793	0.008	0.008064	291.8441	0	73.503	0.00227	0	0.057547	0.004614	0	0.028888	0.009274	0	0.271146	0.085215	0.246386	1.458315	0.013533	0	0.29687	0.085215	0.246386	1.458315	0.039865	0.675828	0	2.884818	0.002885	0	0.000727
San Mateo	2030	LDT1	Aggregate	Aggregate	Diesel	0.204115	6.131891	6.131891	0	1.004394	0	0.025448	0	0	0.003365	0	0	0.002	0.002682	0.003517	0	0	0.008	0.007662	360.704	0	0	0.000511	0	0	0.056829	0	0	0.011001	0	0	0	0	0	0.012524	0	0	0	0	0	0.00331	0.101404	0	0	0.003418	0	0
San Mateo	2030	LDT1	Aggregate	Aggregate	Electricity	315.4332	10759.94	0	10759.94	1561.79	4154.226	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LDT1	Aggregate	Aggregate	Plug-in Hyb	248.8694	7950.15	3286.476	4663.674	1223.193	1408.569	0.002656	0	0.473855	0.000235	0	0.000976	0.002	0.001357	0.000256	0	0.001062	0.008	0.003878	111.5238	0	76.87558	0.000263	0	0.150562	0.000272	0	0.048473	0.001116	0	0.821719	0.019344	0.016777	0.267154	0.001629	0	0.899679	0.019344	0.016777	0.267154	0.017362	0.166441	0	6.16492	0.001103	0	0.00076
San Mateo	2030	LDT2	Aggregate	Aggregate	Gasoline	206077.5	5643289	5643289	0	980667.9	0	0.031039	0	0.220236	0.000827	0	0.001417	0.002	0.002768	0.000899	0	0.001541	0.008	0.007907	305.2696	0	76.05021	0.001503	0	0.052526	0.003653	0	0.029181	0.005296	0	0.229711	0.045237	0.123667	0.765395	0.007728	0	0.251505	0.045237	0.123667	0.765395	0.040897	0.539909	0	2.545867	0.003018	0	0.000752
San Mateo	2030	LDT2	Aggregate	Aggregate	Diesel	779.569	21227.36	21227.36	0	3709.708	0	0.028723	0	0	0.003778	0	0	0.002	0.002772	0.003949	0	0	0.008	0.00792	283.3526	0	0	0.000535	0	0	0.044642	0	0	0.011525	0	0	0	0	0	0.013121	0	0	0	0	0	0.0031	0.115181	0	0	0.002685	0	0
San Mateo	2030	LDT2	Aggregate	Aggregate	Electricity	4330.718	103349.1	0	103349.1	21553.59	39901.28	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LDT2	Aggregate	Aggregate	Plug-in Hyb	3821.263	114216.7	48686.66	65530.03	18781.51	19792.02	0.002739	0	0.473855	0.000291	0	0.001172	0.002	0.001354	0.000317	0	0.001275	0.008	0.003869	114.9886	0	83.24807	0.00027	0	0.149847	0.000278	0	0.047972	0.001151	0	0.821719	0.021935	0.021016	0.30357	0.00168	0	0.899679	0.021935	0.021016	0.30357	0.017899	0.171627	0	6.16492	0.001137	0	0.000823
San Mateo	2030	LHDT1	Aggregate	Aggregate	Gasoline	13418.94	401266.7	401266.7	0	199922.2	0	0.047307	0.028514	0.465477	0.001251	0	0.000148	0.002	0.0273	0.001361	0	0.000161	0.008	0.078	819.7956	114.7523	25.89759	0.002417	0.092458	0.022075	0.00288	0.002564	0.040849	0.010497	0.327199	0.103834	0.022577	0.12944	1.313798	0.015317	0.477448	0.113685	0.022577	0.12944	1.313798	0.045	0.674984	3.773798	3.276142	0.008105	0.001134	0.000256
San Mateo	2030	LHDT1	Aggregate	Aggregate	Diesel	6950.283	217964.5	217964.5	0	87425.82	0	0.473806	1.179571	0	0.017738	0.02636	0	0.003	0.0273	0.01854	0.027552	0	0.012	0.078	649.5528	124.5833	0	0.004593	0.005098	0	0.102337	0.019628	0	0.098885	0.10976	0	0	0	0	0.112574	0.124954	0	0	0	0	0	0.209503	0.232834	0.909745	0	0.006155	0.00118	0
San Mateo	2030	LHDT1	Aggregate	Aggregate	Electricity	1651.837	70758.49	0	70758.49	23140.54	46352.96	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LHDT2	Aggregate	Aggregate	Gasoline	1516.427	44034.41	44034.41	0	22592.5	0	0.048969	0.028994	0.487022	0.001188	0	0.000128	0.002	0.03185	0.001292	0	0.000139	0.008	0.091	928.0863	133.2146	24.67811	0.002139	0.093385	0.022438	0.003148	0.002548	0.041437	0.008803	0.332841	0.105863	0.023317	0.135292	1.428649	0.012846	0.485681	0.115907	0.023317	0.135292	1.428649	0.045	0.626649	3.776933	3.227941	0.009175	0.001317	0.000244
San Mateo	2030	LHDT2	Aggregate	Aggregate	Diesel	3226.044	98642.37	98642.37	0	40579.57	0	0.423405	1.156649	0	0.01874	0.026765	0	0.003	0.03185	0.019587	0.027975	0	0.012	0.091	757.8729	199.9381	0	0.004866	0.005098	0	0.119403	0.0315	0	0.104756	0.10976	0	0	0	0	0.119258	0.124954	0	0	0	0	0	0.212304	0.238692	0.909745	0	0.007181	0.001895	0
San Mateo	2030	LHDT2	Aggregate	Aggregate	Electricity	416.7471	17085.75	0	17085.75	5526.66	11020.92	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	MCY	Aggregate	Aggregate	Gasoline	17265.42	85331.57	85331.57	0	34530.84	0	0.506147	0	0.104712	0.002001	0	0.003292	0.001	0.0042	0.002145	0	0.003522	0.004	0.012	189.1105	0	43.94156	0.140926	0	0.153808	0.036839	0	0.006757	0.86658	0	1.100496	3.535952	3.670486	2.694632	1.073491	0	1.197752	3.535952	3.670486	2.694632	0.00908	11.96398	0	7.172074	0.00187	0	0.000434
San Mateo	2030	MDV	Aggregate	Aggregate	Gasoline	115764.2	3248131	3248131	0	549832.1	0	0.032414	0	0.238074	0.000811	0	0.001423	0.002	0.002792	0.000882	0	0.001547	0.008	0.007976	368.7759	0	92.22249	0.00155	0	0.05581	0.003744	0	0.030164	0.055553	0	0.251972	0.048156	0.134906	0.832269	0.008103	0	0.275878	0.048156	0.134906	0.832269	0.040906	0.545181	0	2.607134	0.003646	0	0.000912
San Mateo	2030	MDV	Aggregate	Aggregate	Diesel	1415.877	38111.74	38111.74	0	6658.508	0	0.017624	0	0	0.002054	0	0	0.002	0.002838	0.002147	0	0	0.008	0.008109	372.2787	0	0	0.000277	0	0	0.058653	0	0	0.005968	0	0	0	0	0	0.006794	0	0	0	0	0	0.0031	0.147116	0	0	0.003528	0	0
San Mateo	2030	MDV	Aggregate	Aggregate	Electricity	4329.635	102706.8	0	102706.8	21508.26	39653.32	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	MDV	Aggregate	Aggregate	Plug-in Hyb	2286.849	70894.89	30074.66	40820.23	11239.86	12328.93	0.002725	0	0.473855	0.000297	0	0.001208	0.002	0.001355	0.000323	0	0.001314	0.008	0.003872	114.4453	0	99.10252	0.00027	0	0.150475	0.000279	0	0.048412	0.001145	0	0.821719	0.022551	0.022105	0.314563	0.001671	0	0.899679	0.022551	0.022105	0.314563	0.017817	0.170801	0	6.16492	0.001131	0	0.00098
San Mateo	2030	MH	Aggregate	Aggregate	Gasoline	975.2695	8905.399	8905.399	0	97.56596	0	0.146497	0	0.389106	0.001397	0	0.00035	0.003	0.015756	0.001519	0	0.00038	0.012	0.045017	1945.035	0	30.49184	0.005338	0	0.03291	0.013993	0	0.045078	0.017368	0	0.125455	4.324204	0.104731	1.656784	0.025343	0	0.137357	4.324204	0.104731	1.656784	0.045	0.266588	0	2.838247	0.019229	0	0.000301
San Mateo	2030	MH	Aggregate	Aggregate	Diesel	518.1906	4498.521	4498.521	0	53.81906	0	2.677361	0	0	0.030184	0	0	0.004	0.015675	0.031549	0	0	0.016	0.044785	1087.256	0	0	0.003786	0	0	0.171298	0	0	0.081505	0	0	0	0	0	0.092788	0	0	0	0	0	0.206555	0.243761	0	0	0.010302	0	0
San Mateo	2030	MHDT	Aggregate	Aggregate	Gasoline	896.2067	46600.57	46600.57	0	17931.3	0	0.14535	0.071332	0.336727	0.001349	0	0.000468	0.003	0.015756	0.001468	0	0.000509	0.012	0.045017	1723.801	511.6527	42.00515	0.005139	0.272865	0.039358	0.010032	0.006541	0.029695	0.022413	1.024632	0.19997	0.016844	0.142325	1.402001	0.032705	1.49514	0.218942	0.016844	0.142325	1.402001	0.045	0.405969	15.25491	4.210824	0.017042	0.005058	0.000415
San Mateo	2030	MHDT	Aggregate	Aggregate	Diesel	4347.362	170380.4	170380.4	0	52605.86	0	0.755775	11.60663	1.523653	0.006958	0.010527	0	0.003	0.015983	0.007273	0.011003	0	0.012	0.045667	1147.407	2189.021	0	0.000749	0.00921	0	0.180774	0.344881	0	0.016126	0.198289	0	0	0	0	0.018358	0.225736	0	0	0	0	0	0.215702	0.077124	7.484208	0	0.010865	0.020729	0
San Mateo	2030	MHDT	Aggregate	Aggregate	Electricity	446.3324	23740.44	0	23740.44	6143.241	30749.07	0	0	0	0	0	0	0.003	0.007953	0	0	0	0.012	0.022724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	MHDT	Aggregate	Aggregate	Natural Ga	59.81429	2526.343	2526.343	0	572.8236	0	0.0963	6.310343	0	0.001402	0.020216	0	0.003	0.016078	0.001525	0.021987	0	0.012	0.045938	1023.526	5534.878	0	0.781312	15.85967	0	0.208652	1.128321	0	0.011163	0.226603	0	0	0	0	0.797386	16.18596	0	0	0	0	0	1.06	3.055339	39.52768	0	0	0	0
San Mateo	2030	OBUS	Aggregate	Aggregate	Gasoline	235.2431	10564.99	10564.99	0	4706.745	0	0.160976	0.055683	0.334188	0.001132	0	0.000289	0.003	0.01568	0.001231	0	0.000315	0.012	0.044799	1698.725	364.9798	29.12177	0.004957	0.201951	0.030859	0.010543	0.00494	0.028192	0.021402	0.748646	0.154359	0.024573	0.126962	2.196095	0.03123	1.092423	0.169003	0.024573	0.126962	2.196095	0.045	0.436972	5.788883	3.119712	0.016794	0.003608	0.000288
San Mateo	2030	OBUS	Aggregate	Aggregate	Diesel	1265.064	76747.17	76747.17	0	12416.27	0	0.731147	4.662626	1.324481	0.008334	0.002706	0	0.003	0.017521	0.008711	0.002828	0	0.012	0.050059	1157.144	1158.301	0	0.000821	0.014331	0	0.182309	0.182491	0	0.017683	0.308549	0	0	0	0	0.020131	0.351259	0	0	0	0	0	0.218276	0.087625	5.772448	0	0.010957	0.010968	0
San Mateo	2030	OBUS	Aggregate	Aggregate	Electricity	18.67716	1366.971	0	1366.971	373.6926	1781.641	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	OBUS	Aggregate	Aggregate	Natural Ga	14.94448	957.8955	957.8955	0	133.0059	0	0.101418	1.499098	0	0.001484	0.004813	0	0.003	0.016148	0.001614	0.005235	0	0.012	0.046137	931.1349	1169.497	0	0.838494	3.763815	0	0.189818	0.23841	0	0.01198	0.053777	0	0	0	0	0.855745	3.84125	0	0	0	0	0	1.06	3.385525	9.413723	0	0	0	0
San Mateo	2030	SBUS	Aggregate	Aggregate	Gasoline	87.98822	4038.39	4038.39	0	351.9529	0	0.489617	0.750616	0.559502	0.001063	0	0.000722	0.002	0.015721	0.001156	0	0.000786	0.008	0.044917	781.2902	2502.142	56.48031	0.010391	2.44431	0.075405	0.024791	0.073975	0.052746	0.050694	10.64152	0.434086	0.098112	0.31801	1.752705	0.073972	15.52808	0.47527	0.098112	0.31801	1.752705	0.045	1.308566	82.24088	10.22191	0.007724	0.024736	0.000558
San Mateo	2030	SBUS	Aggregate	Aggregate	Diesel	160.7253	3531.519	3531.519	0	2327.302	0	2.868955	18.37325	0.553036	0.014701	0.012669	0	0.003	0.015721	0.015365	0.013242	0	0.012	0.044917	1134.569	2188.76	0	0.002281	0.007956	0	0.178752	0.34484	0	0.049109	0.1713	0	0	0	0	0.055907	0.195012	0	0	0	0	0	0.169646	0.15856	5.305748	0	0.010744	0.020726	0
San Mateo	2030	SBUS	Aggregate	Aggregate	Electricity	17.84997	651.998	0	651.998	163.1263	808.06	0	0	0	0	0	0	0.00236	0.00786	0	0	0	0.009438	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	SBUS	Aggregate	Aggregate	Natural Ga	7.671522	180.9535	180.9535	0	111.0836	0	0.443878	5.198476	0	0.003378	0.013085	0	0.003	0.015721	0.003674	0.014231	0	0.012	0.044917	1230.462	4228.548	0	3.098317	14.36251	0	0.250838	0.862017	0	0.044269	0.205212	0	0	0	0	3.16206	14.658	0	0	0	0	0	1.06	10.05674	24.64166	0	0	0	0
San Mateo	2030	UBUS	Aggregate	Aggregate	Gasoline	62.5174	4249.774	4249.774	0	250.0696	0	0.03127	0	0.367668	0.001201	0	0.000164	0.002072	0.032329	0.001307	0	0.000179	0.008288	0.09237	966.3686	0	38.2705	0.001556	0	0.035814	0.003737	0	0.059182	0.004342	0	0.128738	0.024606	0.097267	0.356985	0.006336	0	0.140952	0.024606	0.097267	0.356985	0.045	0.548457	0	5.788674	0.009554	0	0.000378
San Mateo	2030	UBUS	Aggregate	Aggregate	Diesel	238.4518	18140.33	18140.33	0	953.8071	0	0.376197	0	0	0.006839	0	0	0.008109	0.0385	0.007148	0	0	0.032436	0.11	1228.547	0	0	0.003149	0	0	0.193558	0	0	0.067807	0	0	0	0	0	0.077193	0	0	0	0	0	0.22	0.077324	0	0	0.011641	0	0
San Mateo	2030	UBUS	Aggregate	Aggregate	Electricity	72.67394	6853.165	0	6853.165	290.6957	11946.74	0	0	0	0	0	0	0.007651	0.01925	0	0	0	0.030604	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	UBUS	Aggregate	Aggregate	Natural Ga	75.54888	5381.015	5381.015	0	302.1955	0	0.055771	0	0	0.000273	0	0	0.007786	0.0385	0.000286	0	0	0.031145	0.11	1266.418	0	0	4.115508	0	0	0.258168	0	0	0.058802	0	0	0	0	0	4.200177	0	0	0	0	0	0.97	46.76788	0	0	0	0	0

Attachment 4: Construction and Operation Health Risk Calculations

Construction Emissions and Health Risk Calculations

University Circle Phase II, East Palo Alto, CA

Year	Unmitigated DPM	DPM EMFAC2021	Unmitigated Emissions	Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Unmitigated Emissions
2025	0.0864	0.0008	0.0872	0.2047	0.0006	0.2053
2026	0.1432	0.0011	0.1443	0.0000	0.0009	0.0009
2027	0.0773	0.0011	0.0784	0.0000	0.0009	0.0009
2028	0.0022	0.0004	0.0026	0.0000	0.0003	0.0003

Year	Mitigated DPM	DPM EMFAC2021	Mitigated Emissions	Mitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Mitigated Emissions
2025	0.0087	0.00075	0.0094	0.0399	0.00061	0.0405
2026	0.0090	0.00111	0.0101	0.0000	0.00091	0.0009
2027	0.0016	0.00110	0.0027	0.0000	0.00091	0.0009
2028	0.0002	0.00037	0.0005	0.0000	0.00031	0.0003

University Circle Phase II, East Palo Alto, CA - Construction Health Impact Modeling

Source Parameters for Point Sources Used in Construction Modeling

Source	Stack Height (ft)	Stack Diam (in)	Exhaust Temp (F)	Volume Flow (acfm)	Velocity (ft/min)	Velocity (ft/sec)
Construction Equipment	9.0	2.5	918	632	18540	309.0

Source	Stack Height (m)	Stack Diam (m)	Exhaust Temp (K)			Velocity (ft/sec)
Construction Equipment	2.74	0.064	765.37			94.2

University Circle Phase II, East Palo Alto, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Emissions per Point Source (g/s)
2025	Construction	0.0872	Point	151	174.3	0.05306	6.69E-03	4.43E-05
2026	Construction	0.1443	Point	151	288.6	0.08786	1.11E-02	7.33E-05
2027	Construction	0.0784	Point	151	156.8	0.04773	6.01E-03	3.98E-05
2028	Construction	0.0026	Point	151	5.2	0.00158	1.99E-04	1.32E-06
Total		***0.3125***			***624.9***	***0.1902***	***0.0240***	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)

days/yr = 365

hours/year = 3285

University Circle Phase II, East Palo Alto, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2025	Construction	CON_FUG	0.2053	410.6	0.12500	1.57E-02	5837.736	2.70E-06
2026	Construction	CON_FUG	0.0009	1.8	0.00056	7.00E-05	5837.736	1.20E-08
2027	Construction	CON_FUG	0.0009	1.8	0.00056	7.00E-05	5837.736	1.20E-08
2028	Construction	CON_FUG	0.0003	0.6	0.00019	2.38E-05	5837.736	4.07E-09
Total			***0.2074***	***414.9***	***0.1263***	***0.0159***		

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)

days/yr = 365

hours/year = 3285

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Emissions per Point Source (g/s)
2025	Construction	0.0094	Point	151	18.9	0.00574	7.24E-04	4.79E-06
2026	Construction	0.0101	Point	151	20.2	0.00616	7.76E-04	5.14E-06
2027	Construction	0.0027	Point	151	5.3	0.00162	2.05E-04	1.36E-06
2028	Construction	0.0005	Point	151	1.0	0.00032	3.98E-05	2.64E-07
Total		***0.0227***			***45.5***	***0.0138***	***0.0017***	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)

days/yr = 365

hours/year = 3285

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2025	Construction	CON_FUG	0.0405	81.0	0.02466	3.11E-03	5837.736	5.32E-07
2026	Construction	CON_FUG	0.0009	1.8	0.00056	7.00E-05	5837.736	1.20E-08
2027	Construction	CON_FUG	0.0009	1.8	0.00056	7.00E-05	5837.736	1.20E-08
2028	Construction	CON_FUG	0.0003	0.6	0.00019	2.38E-05	5837.736	4.07E-09
Total			***0.0426***	***85.3***	***0.0260***	***0.0033***		

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

University Circle Phase II, East Palo Alto, CA - Construction Health Impact Summary

Maximum Impacts at MEI Location - Without Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2025	0.1466	0.8898	26.08	0.42	0.03	1.03
2026	0.2428	0.0040	39.87	0.70	0.05	0.24
2027	0.1319	0.0040	3.41	0.38	0.03	0.13
2028	0.0044	0.0013	0.11	0.01	0.00	0.01
Total	-	-	**69.5**	**1.5**	-	-
Maximum	0.2428	0.8898	**-**	**-**	**0.05**	**1.03**

* Maximum cancer risk and maximum PM2.5 concentration occur at same receptor on different floors.

Maximum Impacts at MEI Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2025	0.0159	0.1753	2.82	0.05	0.003	0.19
2026	0.0170	0.0040	2.79	0.05	0.003	0.02
2027	0.0045	0.0040	0.12	0.01	0.001	0.01
2028	0.0009	0.0013	0.02	0.00	0.0002	0.00
Total	-	-	**5.8**	**0.1**	-	-
Maximum	0.0170	0.1753	**-**	**-**	**0.003**	**0.19**

- Tier 4 Final, Electric Equipment Mitigation, Enhanced BMPs

* Maximum cancer risk and maximum PM2.5 concentration occur at same receptor on different floors.

University Circle Phase II, East Palo Alto, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2025	0.1419	10	1.93	2025	0.1419	-	-		
1	1	0 - 1	2025	0.1419	10	23.30	2025	0.1419	1	0.41	0.8898	1.0317
2	1	1 - 2	2026	0.2349	10	38.59	2026	0.2349	1	0.67	0.0040	0.2389
3	1	2 - 3	2027	0.1276	3	3.30	2027	0.1276	1	0.37	0.0040	0.1316
4	1	3 - 4	2028	0.0042	3	0.11	2028	0.0042	1	0.01	0.0013	0.0056
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**67.23**				**1.46**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2025	0.1444	10	1.96	2025	0.1444	-	-		
1	1	0 - 1	2025	0.1444	10	23.72	2025	0.1444	1	0.41	0.7400	0.8844
2	1	1 - 2	2026	0.2391	10	39.27	2026	0.2391	1	0.69	0.0033	0.2424
3	1	2 - 3	2027	0.1299	3	3.36	2027	0.1299	1	0.37	0.0033	0.1332
4	1	3 - 4	2028	0.0043	3	0.11	2028	0.0043	1	0.01	0.0011	0.0054
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**68.42**				**1.49**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2025	0.1466	10	1.99	2025	0.1466	-	-		
1	1	0 - 1	2025	0.1466	10	24.08	2025	0.1466	1	0.42	0.5371	0.6837
2	1	1 - 2	2026	0.2428	10	39.87	2026	0.2428	1	0.70	0.0024	0.2452
3	1	2 - 3	2027	0.1319	3	3.41	2027	0.1319	1	0.38	0.0024	0.1343
4	1	3 - 4	2028	0.0044	3	0.11	2028	0.0044	1	0.01	0.0008	0.0052
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**69.47**				**1.51**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2025	0.0154	10	0.21	2025	0.0154	-	-		
1	1	0 - 1	2025	0.0154	10	2.52	2025	0.0154	1	0.04	0.1753	0.1907
2	1	1 - 2	2026	0.0165	10	2.70	2026	0.0165	1	0.05	0.0040	0.0204
3	1	2 - 3	2027	0.0043	3	0.11	2027	0.0043	1	0.01	0.0040	0.0083
4	1	3 - 4	2028	0.0008	3	0.02	2028	0.0008	1	0.00	0.0013	0.0022
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**5.57**				**0.11**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2025	0.0159	10	0.22	2025	0.0159	-	-		
1	1	0 - 1	2025	0.0159	10	2.61	2025	0.0159	1	0.05	0.1058	0.1217
2	1	1 - 2	2026	0.0170	10	2.79	2026	0.0170	1	0.05	0.0024	0.0194
3	1	2 - 3	2027	0.0045	3	0.12	2027	0.0045	1	0.01	0.0024	0.0069
4	1	3 - 4	2028	0.0009	3	0.02	2028	0.0009	1	0.00	0.0008	0.0017
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**5.75**				**0.11**		

* Third trimester of pregnancy

Project Emergency Generator Emissions and Health Risk Calculations

Universty Circle Phase II, East Palo Alto, CA

Standby Emergency Generator Impacts

Off-site Sensitive Receptors (7.6 meter receptor heights)

DPM Emission Rates			
	DPM Emissions per Generator		
	Max Daily	Annual	
Source Type	(lb/day)	(lb/year)	
162-kW 216- hp Generator	0.007	2.60	
CalEEMod DPM Emissions	0.0013	tons/year	

Modeling Information	
Model	AERMOD
Source	Diesel Generator Engine
Source Type	Point
Meteorological Data	2009-2013 San Jose Airport Meterological Data
Point Source Stack Parameters	
Generator Engine Size (hp)	216
Stack Height (ft)***	5.00
Stack Diameter (ft)**	0.60
Exhaust Gas Flowrate (CFM)***	1303.00
Stack Exit Velocity (ft/sec)*	76.81
Exhaust Temperature (˚F)***	1184.00
Emissions Rate (lb/hr)	0.000297

* AERMOD default

**BAAQMD default generator parameters

***Provided generator data parameters

Universty Circle Phase II, East Palo Alto, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors-7.6 meter receptor height
Impact at Project MEI (28-year Exposure)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)		Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2025	0.0000	10	0.00				
1	1	0 - 1	2025	0.0000	10	0.00				
2	1	1 - 2	2026	0.0000	10	0.00				
3	1	2 - 3	2027	0.0000	3	0.00				
4	1	3 - 4	2028	0.0000	3	0.00				
5	1	4 - 5	2029	0.0006	3	0.01		0.0001	0.001	0.001
6	1	5 - 6	2030	0.0006	3	0.01		0.0001	0.001	0.001
7	1	6 - 7	2031	0.0006	3	0.01		0.0001	0.001	0.001
8	1	7 - 8	2032	0.0006	3	0.01		0.0001	0.001	0.001
9	1	8 - 9	2033	0.0006	3	0.01		0.0001	0.001	0.001
10	1	9 - 10	2034	0.0006	3	0.01		0.0001	0.001	0.001
11	1	10 - 11	2035	0.0006	3	0.01		0.0001	0.001	0.001
12	1	11 - 12	2036	0.0006	3	0.01		0.0001	0.001	0.001
13	1	12 - 13	2037	0.0006	3	0.01		0.0001	0.001	0.001
14	1	13 - 14	2038	0.0006	3	0.01		0.0001	0.001	0.001
15	1	14 - 15	2039	0.0006	3	0.01		0.0001	0.001	0.001
16	1	15 - 16	2040	0.0006	3	0.01		0.0001	0.001	0.001
17	1	16-17	2041	0.0006	1	0.00		0.0001	0.001	0.001
18	1	17-18	2042	0.0006	1	0.00		0.0001	0.001	0.001
19	1	18-19	2043	0.0006	1	0.00		0.0001	0.001	0.001
20	1	19-20	2044	0.0006	1	0.00		0.0001	0.001	0.001
21	1	20-21	2045	0.0006	1	0.00		0.0001	0.001	0.001
22	1	21-22	2046	0.0006	1	0.00		0.0001	0.001	0.001
23	1	22-23	2047	0.0006	1	0.00		0.0001	0.001	0.001
24	1	23-24	2048	0.0006	1	0.00		0.0001	0.001	0.001
25	1	24-25	2049	0.0006	1	0.00		0.0001	0.001	0.001
26	1	25-26	2050	0.0006	1	0.00		0.0001	0.001	0.001
27	1	26-27	2051	0.0006	1	0.00		0.0001	0.001	0.001
28	1	27-28	2052	0.0006	1	0.00		0.0001	0.001	0.001
29	1	28-29	2053	0.0006	1	0.00		0.0001	0.001	0.001
30	1	29-30	2054	0.0006	1	0.00		0.0001	0.001	0.001
Total Increased Cancer Risk						**0.2**	**Max**	**0.0001**	**0.001**	**0.001**

* Third trimester of pregnancy

Attachment 5: Community Risk Screening and Calculations

University Avenue Traffic Emissions and Health Risk Calculations

```
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CT-EMFAC2017 Version:   1.0.2.27401
            Run Date:   5/14/2020 1:39:31 AM
                Area:   San Mateo (SF)
       Analysis Year:   2021
              Season:   Annual

======================================================================

Vehicle Category        VMT Fraction            Diesel VMT Fraction     Gas VMT Fraction
                        Across Category         Within Category         Within Category
         Truck 1             0.034                   0.460                   0.540
         Truck 2             0.026                   0.871                   0.114
       Non-Truck             0.940                   0.016                   0.967

======================================================================

               Road Type:       Major/Collector
     Silt Loading Factor:                  CARB         0.032 g/m2
Precipitation Correction:                  CARB         P = 60 days     N = 365 days

======================================================================

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

       Pollutant Name      <= 5 mph     10 mph     20 mph     30 mph     40 mph     50 mph     60 mph
                PM2.5      0.013170   0.009174   0.004564   0.002985   0.002459   0.002524   0.002977
                  TOG      0.282195   0.187807   0.084574   0.050758   0.037117   0.032969   0.035864
            Diesel PM      0.004327   0.003627   0.001988   0.001515   0.001423   0.001623   0.001992
                 DEOG      0.045367   0.033977   0.009259   0.005372   0.003714   0.002988   0.002958

======================================================================

Fleet Average Running Loss Emission Factors (grams/veh-hour)

       Pollutant Name   Emission Factor
                  TOG          1.340631

======================================================================

Fleet Average Tire Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.002083

======================================================================

Fleet Average Brake Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.017498

======================================================================

Fleet Average Road Dust Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.016026

============================END=======================================
```

University Circle Phase II - Roadway Emissions
University Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
NBUNIV_DPM	Northbound University Ave	N	2	779.0	0.48	13.3	43.7	3.4	20	17,392
SBUNIV_DPM	Southbound University Ave	S	2	779.0	0.48	13.3	43.7	3.4	20	17,392
									Total	34,783

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Emissions per Vehicle (g/VMT)	0.00199			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and DPM Emissions - NBUNIV_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	670	1.79E-04	9	6.57%	1142	3.05E-04	17	6.60%	1148	3.07E-04
2	3.18%	553	1.48E-04	10	8.24%	1433	3.83E-04	18	4.09%	711	1.90E-04
3	2.35%	408	1.09E-04	11	6.06%	1055	2.82E-04	19	2.38%	414	1.11E-04
4	1.01%	175	4.67E-05	12	7.24%	1258	3.36E-04	20	1.21%	210	5.61E-05
5	1.01%	175	4.67E-05	13	6.73%	1171	3.13E-04	21	3.05%	530	1.42E-04
6	2.18%	379	1.01E-04	14	6.57%	1142	3.05E-04	22	5.06%	880	2.35E-04
7	4.72%	822	2.20E-04	15	5.90%	1025	2.74E-04	23	3.55%	618	1.65E-04
8	3.58%	623	1.67E-04	16	4.22%	734	1.96E-04	24	0.67%	117	3.11E-05
								Total		17,392	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - SBUNIV_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	670	1.79E-04	9	6.57%	1142	3.05E-04	17	6.60%	1148	3.07E-04
2	3.18%	553	1.48E-04	10	8.24%	1433	3.83E-04	18	4.09%	711	1.90E-04
3	2.35%	408	1.09E-04	11	6.06%	1055	2.82E-04	19	2.38%	414	1.11E-04
4	1.01%	175	4.67E-05	12	7.24%	1258	3.36E-04	20	1.21%	210	5.61E-05
5	1.01%	175	4.67E-05	13	6.73%	1171	3.13E-04	21	3.05%	530	1.42E-04
6	2.18%	379	1.01E-04	14	6.57%	1142	3.05E-04	22	5.06%	880	2.35E-04
7	4.72%	822	2.20E-04	15	5.90%	1025	2.74E-04	23	3.55%	618	1.65E-04
8	3.58%	623	1.67E-04	16	4.22%	734	1.96E-04	24	0.67%	117	3.11E-05
								Total		17,392	

University Circle Phase II - Roadway Emissions
University Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
NBUNIV_PM25	Northbound University Ave	N	2	779.0	0.48	13.3	44	1.3	20	17,392
SBUNIV_PM25	Southbound University Ave	S	2	779.0	0.48	13.3	44	1.3	20	17,392
									Total	34,783

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Emissions per Vehicle (g/VMT)	0.004564			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and PM2.5 Emissions - NBUNIV_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	196	1.20E-04	9	7.12%	1238	7.60E-04	17	7.43%	1293	7.93E-04
2	0.42%	72	4.44E-05	10	4.38%	762	4.68E-04	18	8.23%	1432	8.79E-04
3	0.37%	65	3.97E-05	11	4.65%	809	4.96E-04	19	5.72%	995	6.11E-04
4	0.17%	30	1.82E-05	12	5.89%	1025	6.29E-04	20	4.31%	749	4.59E-04
5	0.45%	78	4.81E-05	13	6.17%	1074	6.59E-04	21	3.25%	565	3.47E-04
6	0.85%	148	9.11E-05	14	6.05%	1052	6.46E-04	22	3.31%	576	3.53E-04
7	3.73%	649	3.98E-04	15	7.06%	1227	7.53E-04	23	2.48%	431	2.65E-04
8	7.77%	1351	8.29E-04	16	7.18%	1249	7.67E-04	24	1.87%	325	1.99E-04
								Total		17,392	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - SBUNIV_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	196	1.20E-04	9	7.12%	1238	7.60E-04	17	7.43%	1293	7.93E-04
2	0.42%	72	4.44E-05	10	4.38%	762	4.68E-04	18	8.23%	1432	8.79E-04
3	0.37%	65	3.97E-05	11	4.65%	809	4.96E-04	19	5.72%	995	6.11E-04
4	0.17%	30	1.82E-05	12	5.89%	1025	6.29E-04	20	4.31%	749	4.59E-04
5	0.45%	78	4.81E-05	13	6.17%	1074	6.59E-04	21	3.25%	565	3.47E-04
6	0.85%	148	9.11E-05	14	6.05%	1052	6.46E-04	22	3.31%	576	3.53E-04
7	3.73%	649	3.98E-04	15	7.06%	1227	7.53E-04	23	2.48%	431	2.65E-04
8	7.77%	1351	8.29E-04	16	7.18%	1249	7.67E-04	24	1.87%	325	1.99E-04
								Total		17,392	

University Circle Phase II - Roadway Emissions
University Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
NBUNIV_TEXH	Northbound University Ave	N	2	779.0	0.48	13.3	44	1.3	20	17,392
SBUNIV_TEXH	Southbound University Ave	S	2	779.0	0.48	13.3	44	1.3	20	17,392
									Total	34,783

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	20	0		
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.084574	0.056759		
Diesel Veghicles TOG Emissions per Vehicle (g/VMT)	0.009259	0.002563		
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.07532	0.05420		

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - NBUNIV_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	196	1.98E-03	9	7.12%	1238	1.25E-02	17	7.43%	1293	1.31E-02
2	0.42%	72	7.32E-04	10	4.38%	762	7.72E-03	18	8.23%	1432	1.45E-02
3	0.37%	65	6.55E-04	11	4.65%	809	8.19E-03	19	5.72%	995	1.01E-02
4	0.17%	30	3.01E-04	12	5.89%	1025	1.04E-02	20	4.31%	749	7.58E-03
5	0.45%	78	7.94E-04	13	6.17%	1074	1.09E-02	21	3.25%	565	5.72E-03
6	0.85%	148	1.50E-03	14	6.05%	1052	1.07E-02	22	3.31%	576	5.83E-03
7	3.73%	649	6.57E-03	15	7.06%	1227	1.24E-02	23	2.48%	431	4.37E-03
8	7.77%	1351	1.37E-02	16	7.18%	1249	1.27E-02	24	1.87%	325	3.29E-03
								Total		17,392	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - SBUNIV_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	196	1.98E-03	9	7.12%	1238	1.25E-02	17	7.43%	1293	1.31E-02
2	0.42%	72	7.32E-04	10	4.38%	762	7.72E-03	18	8.23%	1432	1.45E-02
3	0.37%	65	6.55E-04	11	4.65%	809	8.19E-03	19	5.72%	995	1.01E-02
4	0.17%	30	3.01E-04	12	5.89%	1025	1.04E-02	20	4.31%	749	7.58E-03
5	0.45%	78	7.94E-04	13	6.17%	1074	1.09E-02	21	3.25%	565	5.72E-03
6	0.85%	148	1.50E-03	14	6.05%	1052	1.07E-02	22	3.31%	576	5.83E-03
7	3.73%	649	6.57E-03	15	7.06%	1227	1.24E-02	23	2.48%	431	4.37E-03
8	7.77%	1351	1.37E-02	16	7.18%	1249	1.27E-02	24	1.87%	325	3.29E-03
								Total		17,392	

University Circle Phase II - Roadway Emissions
University Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
NBUNIV_TEVAP	Northbound University Ave	N	2	779.0	0.48	13.3	44	1.3	20	17,392
SBUNIV_TEVAP	Southbound University Ave	S	2	779.0	0.48	13.3	44	1.3	20	17,392
									Total	34,783

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Emissions per Vehicle per Hour (g/hour)	1.34063			
Emissions per Vehicle per Mile (g/VMT)	0.06703			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - NBUNIV_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	196	1.76E-03	9	7.12%	1238	1.12E-02	17	7.43%	1293	1.17E-02
2	0.42%	72	6.51E-04	10	4.38%	762	6.87E-03	18	8.23%	1432	1.29E-02
3	0.37%	65	5.83E-04	11	4.65%	809	7.29E-03	19	5.72%	995	8.97E-03
4	0.17%	30	2.67E-04	12	5.89%	1025	9.24E-03	20	4.31%	749	6.75E-03
5	0.45%	78	7.06E-04	13	6.17%	1074	9.68E-03	21	3.25%	565	5.10E-03
6	0.85%	148	1.34E-03	14	6.05%	1052	9.48E-03	22	3.31%	576	5.19E-03
7	3.73%	649	5.85E-03	15	7.06%	1227	1.11E-02	23	2.48%	431	3.89E-03
8	7.77%	1351	1.22E-02	16	7.18%	1249	1.13E-02	24	1.87%	325	2.93E-03
								Total		17,392	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - SBUNIV_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	196	1.76E-03	9	7.12%	1238	1.12E-02	17	7.43%	1293	1.17E-02
2	0.42%	72	6.51E-04	10	4.38%	762	6.87E-03	18	8.23%	1432	1.29E-02
3	0.37%	65	5.83E-04	11	4.65%	809	7.29E-03	19	5.72%	995	8.97E-03
4	0.17%	30	2.67E-04	12	5.89%	1025	9.24E-03	20	4.31%	749	6.75E-03
5	0.45%	78	7.06E-04	13	6.17%	1074	9.68E-03	21	3.25%	565	5.10E-03
6	0.85%	148	1.34E-03	14	6.05%	1052	9.48E-03	22	3.31%	576	5.19E-03
7	3.73%	649	5.85E-03	15	7.06%	1227	1.11E-02	23	2.48%	431	3.89E-03
8	7.77%	1351	1.22E-02	16	7.18%	1249	1.13E-02	24	1.87%	325	2.93E-03
								Total		17,392	

University Circle Phase II - Roadway Emissions
University Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
NBUNIV_FUG	Northbound University Ave	N	2	779.0	0.48	13.3	44	1.3	20	17,392
SBUNIV_FUG	Southbound University Ave	S	2	779.0	0.48	13.3	44	1.3	20	17,392
									Total	34,783

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00208			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01750			
Road Dust - Emissions per Vehicle (g/VMT)	0.01603			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03561			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - NBUNIV_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	196	9.36E-04	9	7.12%	1238	5.93E-03	17	7.43%	1293	6.19E-03
2	0.42%	72	3.46E-04	10	4.38%	762	3.65E-03	18	8.23%	1432	6.86E-03
3	0.37%	65	3.10E-04	11	4.65%	809	3.87E-03	19	5.72%	995	4.76E-03
4	0.17%	30	1.42E-04	12	5.89%	1025	4.91E-03	20	4.31%	749	3.58E-03
5	0.45%	78	3.75E-04	13	6.17%	1074	5.14E-03	21	3.25%	565	2.71E-03
6	0.85%	148	7.10E-04	14	6.05%	1052	5.04E-03	22	3.31%	576	2.76E-03
7	3.73%	649	3.11E-03	15	7.06%	1227	5.88E-03	23	2.48%	431	2.07E-03
8	7.77%	1351	6.47E-03	16	7.18%	1249	5.98E-03	24	1.87%	325	1.56E-03
								Total		17,392	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - SBUNIV_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	196	9.36E-04	9	7.12%	1238	5.93E-03	17	7.43%	1293	6.19E-03
2	0.42%	72	3.46E-04	10	4.38%	762	3.65E-03	18	8.23%	1432	6.86E-03
3	0.37%	65	3.10E-04	11	4.65%	809	3.87E-03	19	5.72%	995	4.76E-03
4	0.17%	30	1.42E-04	12	5.89%	1025	4.91E-03	20	4.31%	749	3.58E-03
5	0.45%	78	3.75E-04	13	6.17%	1074	5.14E-03	21	3.25%	565	2.71E-03
6	0.85%	148	7.10E-04	14	6.05%	1052	5.04E-03	22	3.31%	576	2.76E-03
7	3.73%	649	3.11E-03	15	7.06%	1227	5.88E-03	23	2.48%	431	2.07E-03
8	7.77%	1351	6.47E-03	16	7.18%	1249	5.98E-03	24	1.87%	325	1.56E-03
								Total		17,392	

University Circle Phase II, E. Palo Alto - University AveTraffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Cancer Risk and PM2.5 MEI Receptors

Emissions Year	2021
Receptor Information	
Number of Receptors	2 at construction MEI location
Receptor Height =	1.5 meters for PM2.5 & 7.6 meters for cancer risk
Receptor distances =	Construction MEI Locations
Meteorological Conditions	
BAAQMD Moffett Field Met Data	2013-2017
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

Construction Cancer Risk MEI - Maximum Concentrations

Meteorological Data Years	2021 Concentration (µg/m^3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.01619	0.3877	0.3449

* Concentrations at construction cancer risk MEI receptor

Construction PM2.5 Concentration MEI - Maximum Concentrations

Meteorological Data Years	2021 PM2.5 Concentrations (µg/m^3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.9717	0.8613	0.1105

* Concentrations at construction PM2.5 MEI receptor

University Circle Phase II, E. Palo Alto - Maximum Cancer Risks from University Ave. Traffic at Construction Risk MEI Receptor (7.6 meter receptor height)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2021	0.25	-0.25 - 0*	10	0.0162	0.3877	0.3449	0.220	0.030	0.002	0.25
1	2021	1	1	10	0.0162	0.3877	0.3449	2.66	0.364	0.019	3.04
2	2022	1	2	10	0.0162	0.3877	0.3449	2.66	0.364	0.019	3.04
3	2023	1	3	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
4	2024	1	4	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
5	2025	1	5	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
6	2026	1	6	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
7	2027	1	7	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
8	2028	1	8	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
9	2029	1	9	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
10	2030	1	10	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
11	2031	1	11	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
12	2032	1	12	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
13	2033	1	13	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
14	2034	1	14	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
15	2035	1	15	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
16	2036	1	16	3	0.0162	0.3877	0.3449	0.42	0.057	0.003	0.48
17	2037	1	17	1	0.0162	0.3877	0.3449	0.05	0.0064	0.000	0.053
18	2038	1	18	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
19	2039	1	19	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
20	2040	1	20	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
21	2041	1	21	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
22	2042	1	22	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
23	2043	1	23	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
24	2044	1	24	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
25	2045	1	25	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
26	2046	1	26	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
27	2047	1	27	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
28	2048	1	28	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
29	2049	1	29	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
30	2050	1	30	1	0.0162	0.3877	0.3449	0.05	0.006	0.000	0.053
Total Increased Cancer Risk			**Total**					12.05	1.648	0.086	**13.8**

* Third trimester of pregnancy

Woodland Avenue Traffic Emissions and Health Risk Calculations

```
           File Name:   San Mateo (SF) - Default Mix 2021 - Annual.EF
CT-EMFAC2017 Version:   1.0.2.27401
            Run Date:   5/14/2020 1:39:31 AM
                Area:   San Mateo (SF)
       Analysis Year:   2021
              Season:   Annual

======================================================================

Vehicle Category        VMT Fraction            Diesel VMT Fraction     Gas VMT Fraction
                        Across Category         Within Category         Within Category
         Truck 1             0.034                   0.460                   0.540
         Truck 2             0.026                   0.871                   0.114
       Non-Truck             0.940                   0.016                   0.967

======================================================================

               Road Type:       Major/Collector
     Silt Loading Factor:                 CARB         0.032 g/m2
Precipitation Correction:                 CARB         P = 60 days     N = 365 days

======================================================================

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

       Pollutant Name      <= 5 mph     10 mph     20 mph     30 mph     40 mph     50 mph     60 mph
                PM2.5      0.013170   0.009174   0.004564   0.002985   0.002459   0.002524   0.002977
                  TOG      0.282195   0.187807   0.084574   0.050758   0.037117   0.032969   0.035864
            Diesel PM      0.004327   0.003627   0.001988   0.001515   0.001423   0.001623   0.001992
                 DEOG      0.045367   0.033977   0.009259   0.005372   0.003714   0.002988   0.002958

======================================================================

Fleet Average Running Loss Emission Factors (grams/veh-hour)

       Pollutant Name   Emission Factor
                  TOG          1.340631

======================================================================

Fleet Average Tire Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.002083

======================================================================

Fleet Average Brake Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.017498

======================================================================

Fleet Average Road Dust Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.016026

============================END=======================================
```

University Circle Phase II - Roadway Emissions
Woodland Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
EBWOOD_DPM	Eastbound Woodland Ave	N	2	779.0	0.48	13.3	43.7	3.4	20	6,853
WB WOOD_DPM	Westbound Woodland Ave	S	2	779.0	0.48	13.3	43.7	3.4	20	6,853
									Total	13,706

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Emissions per Vehicle (g/VMT)	0.00199			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and DPM Emissions - EBWOOD_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	264	7.06E-05	9	6.57%	450	1.20E-04	17	6.60%	452	1.21E-04
2	3.18%	218	5.83E-05	10	8.24%	565	1.51E-04	18	4.09%	280	7.49E-05
3	2.35%	161	4.30E-05	11	6.06%	416	1.11E-04	19	2.38%	163	4.36E-05
4	1.01%	69	1.84E-05	12	7.24%	496	1.33E-04	20	1.21%	83	2.21E-05
5	1.01%	69	1.84E-05	13	6.73%	461	1.23E-04	21	3.05%	209	5.58E-05
6	2.18%	149	3.99E-05	14	6.57%	450	1.20E-04	22	5.06%	347	9.27E-05
7	4.72%	324	8.65E-05	15	5.90%	404	1.08E-04	23	3.55%	243	6.50E-05
8	3.58%	246	6.57E-05	16	4.22%	289	7.73E-05	24	0.67%	46	1.23E-05
								Total		6,853	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - WB WOOD_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	264	7.06E-05	9	6.57%	450	1.20E-04	17	6.60%	452	1.21E-04
2	3.18%	218	5.83E-05	10	8.24%	565	1.51E-04	18	4.09%	280	7.49E-05
3	2.35%	161	4.30E-05	11	6.06%	416	1.11E-04	19	2.38%	163	4.36E-05
4	1.01%	69	1.84E-05	12	7.24%	496	1.33E-04	20	1.21%	83	2.21E-05
5	1.01%	69	1.84E-05	13	6.73%	461	1.23E-04	21	3.05%	209	5.58E-05
6	2.18%	149	3.99E-05	14	6.57%	450	1.20E-04	22	5.06%	347	9.27E-05
7	4.72%	324	8.65E-05	15	5.90%	404	1.08E-04	23	3.55%	243	6.50E-05
8	3.58%	246	6.57E-05	16	4.22%	289	7.73E-05	24	0.67%	46	1.23E-05
								Total		6,853	

University Circle Phase II - Roadway Emissions
Woodland Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
EBWOOD_PM25	Eastbound Woodland Ave	N	2	779.0	0.48	13.3	44	1.3	20	6,853
WB WOOD_PM25	Westbound Woodland Ave	S	2	779.0	0.48	13.3	44	1.3	20	6,853
									Total	13,706

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Emissions per Vehicle (g/VMT)	0.004564			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and PM2.5 Emissions - EBWOOD_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	77	4.73E-05	9	7.12%	488	2.99E-04	17	7.43%	509	3.13E-04
2	0.42%	28	1.75E-05	10	4.38%	300	1.84E-04	18	8.23%	564	3.46E-04
3	0.37%	25	1.56E-05	11	4.65%	319	1.96E-04	19	5.72%	392	2.41E-04
4	0.17%	12	7.18E-06	12	5.89%	404	2.48E-04	20	4.31%	295	1.81E-04
5	0.45%	31	1.90E-05	13	6.17%	423	2.60E-04	21	3.25%	223	1.37E-04
6	0.85%	58	3.59E-05	14	6.05%	415	2.54E-04	22	3.31%	227	1.39E-04
7	3.73%	256	1.57E-04	15	7.06%	484	2.97E-04	23	2.48%	170	1.04E-04
8	7.77%	532	3.27E-04	16	7.18%	492	3.02E-04	24	1.87%	128	7.86E-05
								Total		6,853	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WB WOOD_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	77	4.73E-05	9	7.12%	488	2.99E-04	17	7.43%	509	3.13E-04
2	0.42%	28	1.75E-05	10	4.38%	300	1.84E-04	18	8.23%	564	3.46E-04
3	0.37%	25	1.56E-05	11	4.65%	319	1.96E-04	19	5.72%	392	2.41E-04
4	0.17%	12	7.18E-06	12	5.89%	404	2.48E-04	20	4.31%	295	1.81E-04
5	0.45%	31	1.90E-05	13	6.17%	423	2.60E-04	21	3.25%	223	1.37E-04
6	0.85%	58	3.59E-05	14	6.05%	415	2.54E-04	22	3.31%	227	1.39E-04
7	3.73%	256	1.57E-04	15	7.06%	484	2.97E-04	23	2.48%	170	1.04E-04
8	7.77%	532	3.27E-04	16	7.18%	492	3.02E-04	24	1.87%	128	7.86E-05
								Total		6,853	

University Circle Phase II - Roadway Emissions
Woodland Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
EBWOOD_TEXH	Eastbound Woodland Ave	N	2	779.0	0.48	13.3	44	1.3	20	6,853
WB WOOD_TEXH	Westbound Woodland Ave	S	2	779.0	0.48	13.3	44	1.3	20	6,853
									Total	13,706

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	20	0		
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.084574	0.056759		
Diesel Veghicles TOG Emissions per Vehicle (g/VMT)	0.009259	0.002563		
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.07532	0.05420		

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - EBWOOD_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	77	7.80E-04	9	7.12%	488	4.94E-03	17	7.43%	509	5.16E-03
2	0.42%	28	2.88E-04	10	4.38%	300	3.04E-03	18	8.23%	564	5.71E-03
3	0.37%	25	2.58E-04	11	4.65%	319	3.23E-03	19	5.72%	392	3.97E-03
4	0.17%	12	1.18E-04	12	5.89%	404	4.09E-03	20	4.31%	295	2.99E-03
5	0.45%	31	3.13E-04	13	6.17%	423	4.28E-03	21	3.25%	223	2.26E-03
6	0.85%	58	5.92E-04	14	6.05%	415	4.20E-03	22	3.31%	227	2.30E-03
7	3.73%	256	2.59E-03	15	7.06%	484	4.90E-03	23	2.48%	170	1.72E-03
8	7.77%	532	5.39E-03	16	7.18%	492	4.99E-03	24	1.87%	128	1.30E-03
								Total		6,853	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WB WOOD_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	77	7.80E-04	9	7.12%	488	4.94E-03	17	7.43%	509	5.16E-03
2	0.42%	28	2.88E-04	10	4.38%	300	3.04E-03	18	8.23%	564	5.71E-03
3	0.37%	25	2.58E-04	11	4.65%	319	3.23E-03	19	5.72%	392	3.97E-03
4	0.17%	12	1.18E-04	12	5.89%	404	4.09E-03	20	4.31%	295	2.99E-03
5	0.45%	31	3.13E-04	13	6.17%	423	4.28E-03	21	3.25%	223	2.26E-03
6	0.85%	58	5.92E-04	14	6.05%	415	4.20E-03	22	3.31%	227	2.30E-03
7	3.73%	256	2.59E-03	15	7.06%	484	4.90E-03	23	2.48%	170	1.72E-03
8	7.77%	532	5.39E-03	16	7.18%	492	4.99E-03	24	1.87%	128	1.30E-03
								Total		6,853	

University Circle Phase II - Roadway Emissions
Woodland Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
EBWOOD_TEVAP	Eastbound Woodland Ave	N	2	779.0	0.48	13.3	44	1.3	20	6,853
WB WOOD_TEVAP	Westbound Woodland Ave	S	2	779.0	0.48	13.3	44	1.3	20	6,853
									Total	13,706

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Emissions per Vehicle per Hour (g/hour)	1.34063			
Emissions per Vehicle per Mile (g/VMT)	0.06703			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - EBWOOD_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	77	6.94E-04	9	7.12%	488	4.40E-03	17	7.43%	509	4.59E-03
2	0.42%	28	2.57E-04	10	4.38%	300	2.71E-03	18	8.23%	564	5.09E-03
3	0.37%	25	2.30E-04	11	4.65%	319	2.87E-03	19	5.72%	392	3.53E-03
4	0.17%	12	1.05E-04	12	5.89%	404	3.64E-03	20	4.31%	295	2.66E-03
5	0.45%	31	2.78E-04	13	6.17%	423	3.81E-03	21	3.25%	223	2.01E-03
6	0.85%	58	5.27E-04	14	6.05%	415	3.74E-03	22	3.31%	227	2.05E-03
7	3.73%	256	2.31E-03	15	7.06%	484	4.36E-03	23	2.48%	170	1.53E-03
8	7.77%	532	4.80E-03	16	7.18%	492	4.44E-03	24	1.87%	128	1.15E-03
								Total		6,853	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WB WOOD_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	77	6.94E-04	9	7.12%	488	4.40E-03	17	7.43%	509	4.59E-03
2	0.42%	28	2.57E-04	10	4.38%	300	2.71E-03	18	8.23%	564	5.09E-03
3	0.37%	25	2.30E-04	11	4.65%	319	2.87E-03	19	5.72%	392	3.53E-03
4	0.17%	12	1.05E-04	12	5.89%	404	3.64E-03	20	4.31%	295	2.66E-03
5	0.45%	31	2.78E-04	13	6.17%	423	3.81E-03	21	3.25%	223	2.01E-03
6	0.85%	58	5.27E-04	14	6.05%	415	3.74E-03	22	3.31%	227	2.05E-03
7	3.73%	256	2.31E-03	15	7.06%	484	4.36E-03	23	2.48%	170	1.53E-03
8	7.77%	532	4.80E-03	16	7.18%	492	4.44E-03	24	1.87%	128	1.15E-03
								Total		6,853	

University Circle Phase II - Roadway Emissions
Woodland Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
EBWOOD_FUG	Eastbound Woodland Ave	N	2	779.0	0.48	13.3	44	1.3	20	6,853
WB WOOD_FUG	Westbound Woodland Ave	S	2	779.0	0.48	13.3	44	1.3	20	6,853
									Total	13,706

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	20			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00208			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01750			
Road Dust - Emissions per Vehicle (g/VMT)	0.01603			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03561			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBWOOD_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	77	3.69E-04	9	7.12%	488	2.34E-03	17	7.43%	509	2.44E-03
2	0.42%	28	1.36E-04	10	4.38%	300	1.44E-03	18	8.23%	564	2.70E-03
3	0.37%	25	1.22E-04	11	4.65%	319	1.53E-03	19	5.72%	392	1.88E-03
4	0.17%	12	5.60E-05	12	5.89%	404	1.93E-03	20	4.31%	295	1.41E-03
5	0.45%	31	1.48E-04	13	6.17%	423	2.03E-03	21	3.25%	223	1.07E-03
6	0.85%	58	2.80E-04	14	6.05%	415	1.99E-03	22	3.31%	227	1.09E-03
7	3.73%	256	1.22E-03	15	7.06%	484	2.32E-03	23	2.48%	170	8.14E-04
8	7.77%	532	2.55E-03	16	7.18%	492	2.36E-03	24	1.87%	128	6.13E-04
								Total		6,853	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WB WOOD_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	77	3.69E-04	9	7.12%	488	2.34E-03	17	7.43%	509	2.44E-03
2	0.42%	28	1.36E-04	10	4.38%	300	1.44E-03	18	8.23%	564	2.70E-03
3	0.37%	25	1.22E-04	11	4.65%	319	1.53E-03	19	5.72%	392	1.88E-03
4	0.17%	12	5.60E-05	12	5.89%	404	1.93E-03	20	4.31%	295	1.41E-03
5	0.45%	31	1.48E-04	13	6.17%	423	2.03E-03	21	3.25%	223	1.07E-03
6	0.85%	58	2.80E-04	14	6.05%	415	1.99E-03	22	3.31%	227	1.09E-03
7	3.73%	256	1.22E-03	15	7.06%	484	2.32E-03	23	2.48%	170	8.14E-04
8	7.77%	532	2.55E-03	16	7.18%	492	2.36E-03	24	1.87%	128	6.13E-04
								Total		6,853	

University Circle Phase II, E. Palo Alto - Woodland AveTraffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Cancer Risk and PM2.5 MEI Receptors

Emissions Year	2021
Receptor Information	
Number of Receptors	2 at construction MEI location
Receptor Height =	1.5 meters for PM2.5 & 7.6 meters for cancer risk
Receptor distances =	Construction MEI Locations
Meteorological Conditions	
BAAQMD Moffett Field Met Data	2013-2017
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

Construction Cancer Risk MEI - Maximum Concentrations

Meteorological Data Years	2021 Concentration (µg/m^3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.00543	0.1433	0.1275

* Concentrations at construction cancer risk MEI receptor

Construction PM2.5 Concentration MEI - Maximum Concentrations

Meteorological Data Years	2021 PM2.5 Concentrations (µg/m^3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.2759	0.2447	0.0313

* Concentrations at construction PM2.5 MEI receptor

University Circle Phase II, E. Palo Alto - Maximum Cancer Risks from Woodland Ave. Traffic at Construction Risk MEI Receptor (7.6 meter receptor height)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2020	0.25	-0.25 - 0*	10	0.0054	0.1433	0.1275	0.074	0.011	0.001	0.09
1	2020	1	1	10	0.0054	0.1433	0.1275	0.89	0.134	0.007	1.03
2	2021	1	2	10	0.0054	0.1433	0.1275	0.89	0.134	0.007	1.03
3	2022	1	3	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
4	2023	1	4	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
5	2024	1	5	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
6	2025	1	6	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
7	2026	1	7	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
8	2027	1	8	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
9	2028	1	9	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
10	2029	1	10	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
11	2030	1	11	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
12	2031	1	12	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
13	2032	1	13	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
14	2033	1	14	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
15	2034	1	15	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
16	2035	1	16	3	0.0054	0.1433	0.1275	0.14	0.021	0.001	0.16
17	2036	1	17	1	0.0054	0.1433	0.1275	0.02	0.0023	0.000	0.018
18	2037	1	18	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
19	2038	1	19	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
20	2039	1	20	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
21	2040	1	21	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
22	2041	1	22	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
23	2042	1	23	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
24	2043	1	24	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
25	2044	1	25	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
26	2045	1	26	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
27	2046	1	27	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
28	2047	1	28	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
29	2048	1	29	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
30	2049	1	30	1	0.0054	0.1433	0.1275	0.02	0.002	0.000	0.018
Total Increased Cancer Risk			**Total**					4.04	0.609	0.032	**4.7**

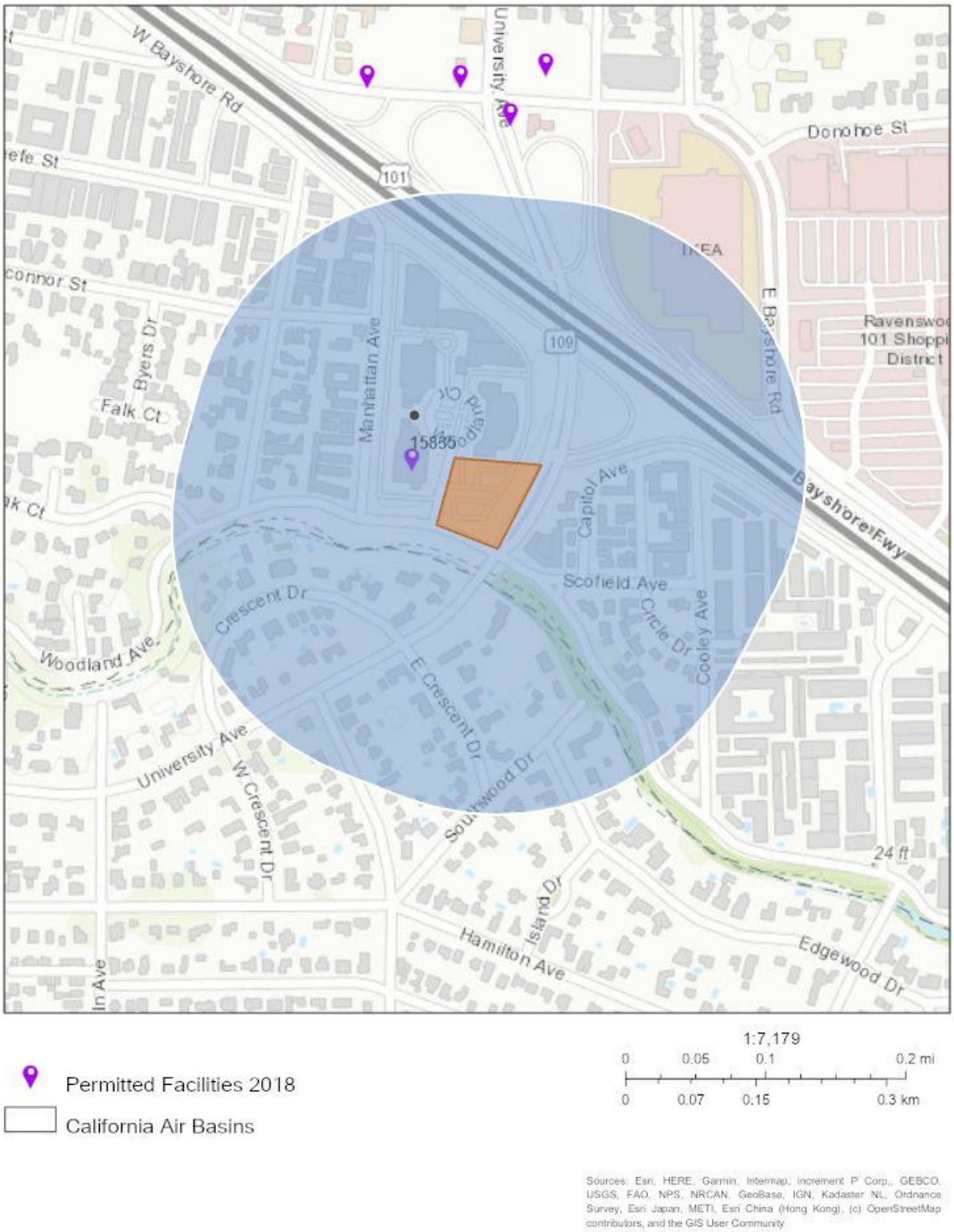
* Third trimester of pregnancy

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 4,411,688.33 ft²

Mar 26 2020 14:18:16 Pacific Daylight Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Facilities 2018	1	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	15835	University Circle	1900 University Avenue	East Palo Alto	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	94303	San Mateo	14.300	0.000	0.020	Generators	1

Note: The estimated risk and hazard impacts from these sources would be expected to be substantially lower when site specific Health Risk Screening Assessments are conducted.

The screening level map is not recommended for evaluating sensitive land uses such as schools, senior centers, day cares, and health facilities.

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**3/31/2020**
Contact Name	Casey Divine
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	cdivine@illingworthrodkin.com
Project Name	University Circle Phase II
Address	University Ave & Woodland Ave
City	East Palo Alto
County	San Mateo
Type (residential, commercial, mixed use, industrial, etc.)	Office
Project Size (# of units or building square feet)	180,000 SF Office and 219,835 SF Parking

Comments: #15292 and #16212 while are not in 1000ft on 2018 dataset, if you look up address of source are within 1000ft

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in blue section only.

6. Note that a small percentage of the stationary sources h Table B sk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name ght). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Areana Flores at 415-749-4616, or aflores@baaqmd.gov

Table B: Google Earth data

Construction MEI

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
1000	15292	IKEA California LLC	1700 E Bayshore Road	6.454	0.010	0.008		Generator			0.04	0.3	0.0004	0.0003
650	16212	Four Seasons Hotel	2050 University Avenue	1.762	0.003	0.357		Generator, Dry Cleaning, Boiler (2)			0.08	0.1	0.0003	0.03
440	15835	University Circle	1900 University Avenue	14.298	0.004	0.018		Generator			0.15	2.1	0.001	0.003

Footnotes:

1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

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May 27, 2021

Carolyn Neer, AICP
Project Manager
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San José, CA 95126

Via email: cneer@davidjpowers.com

Subject: **University Circle Phase II Alternative, East Palo Alto, CA**
Addendum to the Air Quality and Greenhouse Gas Assessment

Dear Carolyn:

In May 2021, *Illingworth & Rodkin, Inc*. drafted an air quality and greenhouse gas (GHG) assessment for the University Circle Phase II office building project in East Palo Alto, California.[1] An Above-Grade Garage Alternative (Alternative) has been proposed for this project which was not addressed in the original air quality analysis. The Alternative would consist of an office building of the same size and in the same location with the inclusion of parking provided through the following combination: 1) reallocating 210 excess parking spaces in the existing above-grade parking garage; 2) expanding the existing above-grade parking garage from four levels to 6.5 levels; and 3) expanding the existing below-grade parking garage. This Alternative would provide a total of 574 parking spaces.

This addendum letter discusses the potential impacts generated by the Alternative at existing land uses in the project vicinity.

Proposed Alternative Project Construction

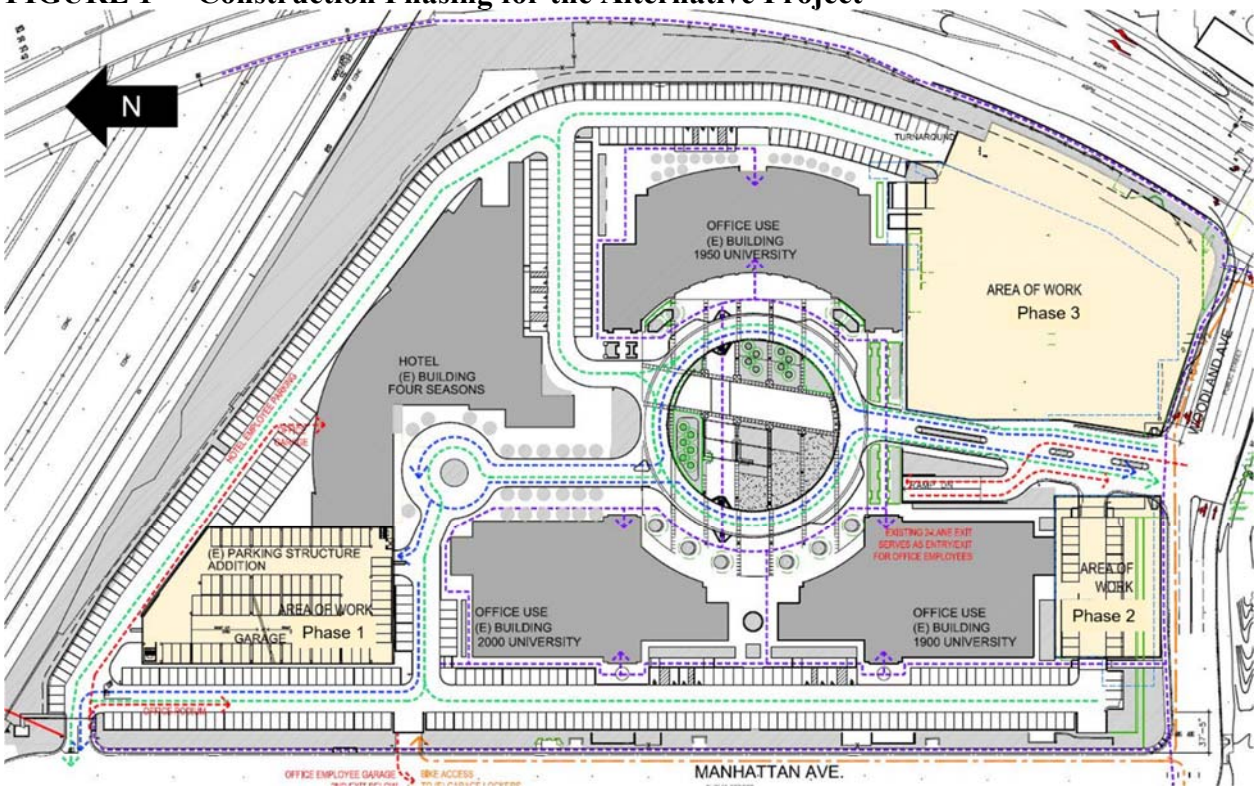
Construction of the Alternative would occur over a period of approximately 44 months and would be completed in three phases: 1) expansion of the above-grade garage in the northwest corner of the University Circle area; 2) expansion of the below-grade garage in the southwest corner; and 3) construction of the office building and in southeast corner. Figure 1 shows the construction phasing for the Alternative. Expansion of the above-grade parking garage (Phase 1) would be completed in approximately 15 months. Upon completion of this phase, excavation for and expansion of the

[1] Illingworth & Rodkin, Inc., "University Circle Phase II Air Quality and Greenhouse Gas Assessment," May 27, 2021.

below-grade parking garage (Phase 2) and for the proposed office building (Phase 3) would begin. Expansion of the below-grade parking garage (Phase 2) would be completed in approximately 15 months. Phase 3 would overlap with Phase 2, and after the completion of Phase 2, Phase 3 would continue for an additional 13 months.

During each phase of construction, the proposed construction hours would be 7:00 a.m. to 10:00 p.m. Most of the construction activities, which would include heavy on-site equipment, is expected to occur between 7:00 a.m. and 4:00 p.m. Activities occurring between 4:00 p.m. and 10:00 p.m. is expected to include off-site hauling.

FIGURE 1 Construction Phasing for the Alternative Project



Alternative Construction Criteria Air Pollutants

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The Alternative land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2021 (EMFAC2021) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.[2] The CalEEMod model output along with construction inputs are included in *Attachment 1* and EMFAC2021 vehicle emissions modeling outputs are included in *Attachment 2*.

[2] See CARB's EMFAC2021 Emissions Inventory at https://arb.ca.gov/emfac/emissions-inventory

CalEEMod Inputs

Land Use Inputs

The proposed Alternative uses were entered into CalEEMod as described in Table 1.

Table 1. Summary of Alternative Land Use Inputs

Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Phase 1: Northwest Above-Grade Garage				
Enclosed Parking with Elevator	52.8	1,000-sf	52,800	1.21
Phase 2: Southwest Below-Grade Garage				
Enclosed Parking with Elevator	14.7	1,000-sf	14,688	0.68
Parking Lot	14.7	1,000-sf	14,688	
Phase 3: Southeast Office Building				
General Office Building	180.0	1,000-sf	180,000	4.13
Enclosed Parking with Elevator	48.8	1,000-sf	48,796	
Parking Lot	43.5	1,000-sf	43,495	
Note: Default acreage was used to account for grading and trenching of the underground garage and the height of building construction.				

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment list and schedule, were based on information provided by the project applicant.

The construction equipment worksheet provided by the applicant included the schedule for each phase. Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays was provided. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase. The construction schedule assumed that the earliest possible start date would be January 2024 and the entire Alternative would be built out over a period of approximately 45 months, or 959 construction workdays.

Construction Truck Traffic Emissions

The construction traffic information was combined with EMFAC2021 motor vehicle emissions factors. Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the estimate of demolition material to be exported, soil

material imported and/or exported to the site, and the estimate of cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. On-road emission rates from the years 2024-2027 for San Mateo County were used. Table 2 provides the traffic inputs that were combined with the EMFAC2021 emission database to compute vehicle emissions.

Table 2. Construction Traffic Data Used for EMFAC2021 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	58% LDA 5% LDT1 37% LDT2	63% MHDT 37% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0 (Demo/Soil) 7.3 (Cement/Asphalt)	CalEEMod default distance with 5-min truck idle time.
Phase 1: Northwest Above-Grade Garage 2024 - 2025				
Demolition	720	-	-	
Site Preparation	80	-	-	
Trenching	1,080	-	212	1,692 CY Export
Building Construction	3,080	1,260	-	
Architectural Coating	180	-	-	
Paving	840	-	-	
Phase 2: Southwest Below-Grade Garage 2025 - 2026				
Demolition	50	-	-	
Site Preparation	40	-	-	
Grading	1,080	-	1,673	13,386 CY Export
Trenching	2,880	-	-	
Building Construction	1,380	575	-	
Architectural Coating	90	-	-	
Paving	875	-	-	
Phase 3: Southeast Office Building 2025 - 2027				
Demolition	225	-	-	
Site Preparation	195	-	-	
Grading	4,320	-	5,251	42,010 CY Export
Trenching	8,370	-	-	
Building Construction	19,200	9,000	-	
Architectural Coating	2,470	-	-	
Paving	3,150	-	-	

Notes: [1] Based on 2024-2027 EMFAC2021 light-duty vehicle fleet mix for San Mateo County.
[2] Includes grading trips estimated by CalEEMod based on amount of material to be removed.

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 3 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted annualized project

construction period emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 3. Alternative Construction Period Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Fugitive
Construction Emissions Per Year (Tons)				
2024	0.19	1.57	0.07	0.01
2025	0.45	3.81	0.16	0.14
2026	0.77	4.45	0.18	0.17
2027	0.89	0.93	0.04	0.04
Average Daily Construction Emissions Per Year (pounds/day)				
2024 (262 construction workdays)	1.46	11.98	0.52	0.10
2025 (261 construction workdays)	3.41	29.20	1.26	1.09
2026 (261 construction workdays)	5.91	34.11	1.38	1.27
2027 (175 construction workdays)	10.16	10.68	0.51	0.43
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. The applicant of *Mitigation Measure AQ-1* from the original project report would implement the enhanced BAAQMD-recommended best management practices.

Community Health Risk from Alternative Project

Community Risks from Project Construction

Construction Emissions

The CalEEMod and EMFAC2021 models provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages as 0.42 tons (836 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod and EMFAC2021 as 0.25 tons (497 pounds) for the overall construction period. Total PM_{10} exhaust and $PM_{2.5}$ fugitive emissions from all construction stages on an annual basis per phase are reported in Table 4.

Table 4. Unmitigated Construction Emissions of DPM and Fugitive $PM_{2.5}$ (tons)

Site	Description	2024	2025	2026	2027
Phase 1: Northwest Above-Grade Garage	PM_{10} Exhaust (DPM)	0.0662	0.0050	-	-
	$PM_{2.5}$ Fugitive	0.0107	0.0001	-	-
Phase 2: Southwest Below-Grade Garage	PM_{10} Exhaust (DPM)	-	0.0499	0.0298	-
	$PM_{2.5}$ Fugitive	-	0.0582	0.0002	-
Phase 3: Southeast Office Building	PM_{10} Exhaust (DPM)	-	0.0965	0.1348	0.0358
	$PM_{2.5}$ Fugitive	-	0.1772	0.0011	0.0007

Dispersion Modeling

Dispersion modeling for the Alternative construction was conducted using the same methods in the original air quality analysis. These methods included using the U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at nearby sensitive receptors (residences), point sources for exhaust emissions of DPM and area sources for fugitive $PM_{2.5}$ dust emissions, Moffett Federal Airfield meteorological data, building downwash, construction hours, and the same sensitive receptor locations.

Summary of Construction Community Risk Impacts

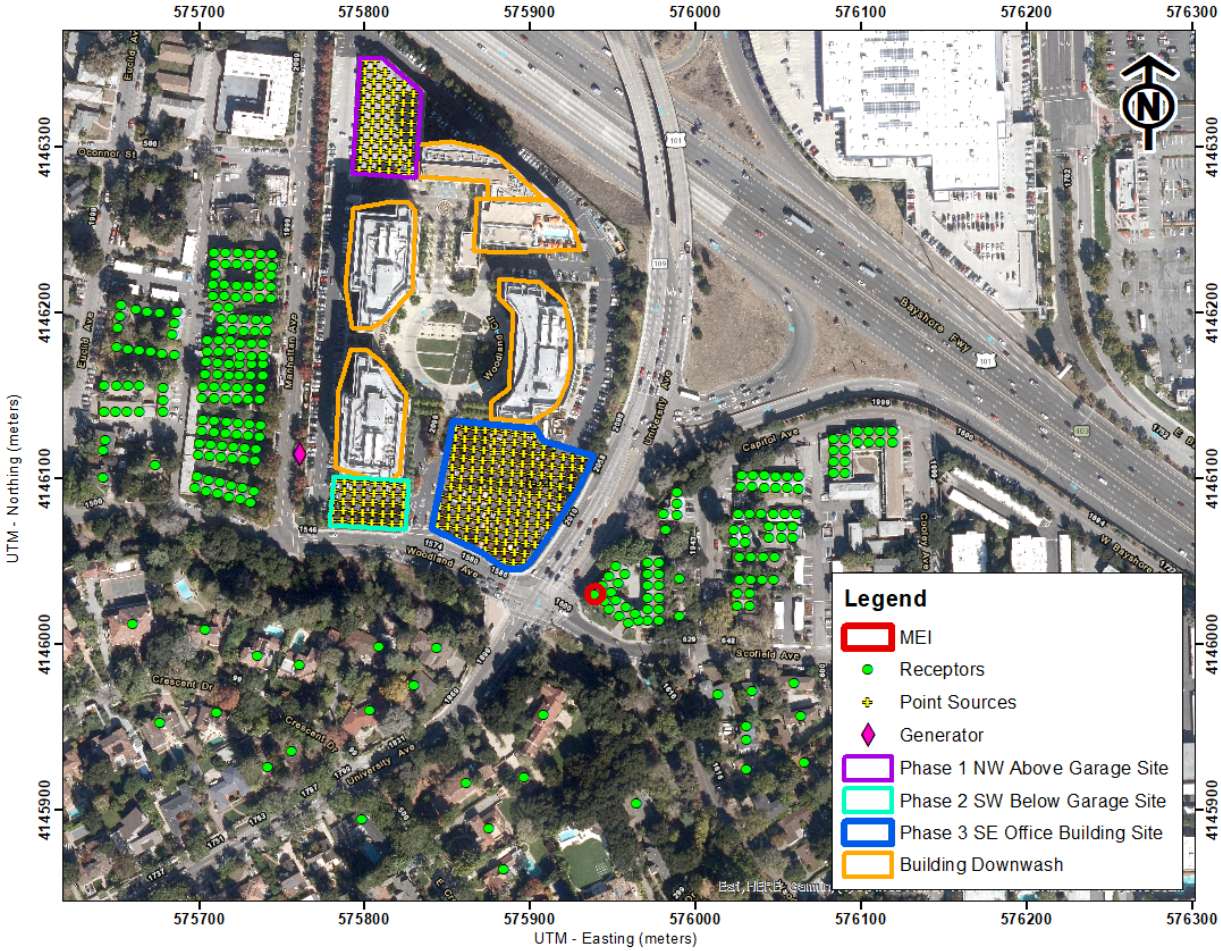
The maximum modeled annual DPM and $PM_{2.5}$ concentrations, were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that the MEIs most affected by the Alternative construction were located at the same MEIs found for the original project construction (i.e., a multi-family residence to the east of the project site opposite University Avenue, with the cancer risk MEI on the third floor and the total $PM_{2.5}$ concentration MEI on the first floor). The location of the MEIs and nearby sensitive receptors are shown in Figure 2. Table 5 lists the community risks from construction at the location of the residential MEIs. *Attachment 3* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Table 5. Construction Risk Impacts at the Off-Site Residential MEIs

Source		Cancer Risk* (per million)	Annual $PM_{2.5}$* ($\mu g/m^3$)	Hazard Index
Project Construction	Unmitigated	**71.7 (infant)**	**0.96**	0.05
	Mitigated**	5.1 (infant)	0.18	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated**	*No*	*No*	*No*

* Maximum cancer risk and maximum $PM_{2.5}$ concentration occur at same receptor on different floors.
** Construction equipment with Tier 4 Final engines, enhanced BMPs, and electric crane, generator, air compressor, and welder as Mitigation.

Figure 2. Locations of Alternative Construction Sites, Building Downwash, Generator Location, Off-Site Sensitive Receptors, and TAC Impacts



Combined Health Risk from the Alternative Construction and Operation

The project's proposed generator would not change in size or location between the original and Alternative projects. Therefore, the community health risk from the Alternative construction and the original project operation at the MEIs was combined to assess total project health risk impacts. As shown in Table 6, the unmitigated maximum cancer risks and $PM_{2.5}$ concentration from construction and operation activities of the Alternative at the project MEIs would exceed the BAAQMD single-source thresholds. However, with *Mitigation Measures AQ-1 and AQ-2* for the original report, the mitigated increased project cancer risk and $PM_{2.5}$ concentration would no longer exceed the single-source thresholds. The unmitigated non-cancer hazards from construction and operation activities would be below the single-source significance threshold.

Table 6. Construction and Operation Risk Impacts at the Off-Site Project MEIs

Source		Cancer Risk* (per million)	Annual $PM_{2.5}$* ($\mu g/m^3$)	Hazard Index
Alternative Construction (Years 0-4)	Unmitigated	**71.7 (infant)**	**0.96**	0.05
	Mitigated**	5.1 (infant)	0.18	<0.01
Project Generators (Years 4-30)		0.2	<0.01	<0.01
Unmitigated Total/Maximum Project (Years 0-30)		**71.9**	**0.96**	0.05
Mitigated Total/Maximum Project (Years 0-30)		5.3	0.18	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated**	*No*	*No*	*No*

* Maximum cancer risk and maximum $PM_{2.5}$ concentration occur at same receptor on different floors.
** Construction equipment with Tier 4 Final engines, enhanced BMPs, and electric crane, generator, air compressor, and welder as Mitigation.

Cumulative Community Health Risk from Alternative and Existing TAC Sources

The Alternative has the same MEIs as the original project. Therefore, the original report's risk impacts from nearby TAC sources (i.e., roadways, stationary sources, nearby developments) were used for the Alternative's cumulative risk analysis. Table 7 reports both the total Alternative and cumulative community risk impacts at the MEIs. Without mitigation, the Alternative's community risk from the project construction and operation activities would exceed the single-source maximum increased cancer risk and $PM_{2.5}$ concentration thresholds. Additionally, the unmitigated combined annual cancer risk would exceed its cumulative threshold. The combined annual $PM_{2.5}$ concentration, which includes unmitigated and mitigated impacts, would exceed its cumulative thresholds due to the concentration from the roadways (U.S. 101, University Avenue, and Woodland Avenue/Scofield Avenue). The HI, unmitigated and mitigated, does not exceed its cumulative threshold.

Mitigation Measure AQ-1 and *AQ-2* from the original project report represent the best available measures to reduce project construction period emissions. The cumulative $PM_{2.5}$ concentration exceeds the threshold from existing sources alone. Cumulative risks exceed the $PM_{2.5}$ concentration threshold because of the overwhelming influence of the traffic on the nearby roadways (U.S. 101, University Avenue, and Woodland Avenue/Scofield Avenue) at the MEIs. The project's mitigated $PM_{2.5}$ concentration only represents 7 percent of the total mitigated cumulative concentration. Therefore, the project would not be substantially contributing to the total cumulative $PM_{2.5}$ concentration and would not be cumulatively considerable.

Table 7. Cumulative Community Risk Impacts from Combined TAC Sources at MEIs

Source		Cancer Risk* (per million)	Annual $PM_{2.5}$* ($\mu g/m^3$)	Hazard Index
Project Impacts				
Unmitigated Total/Maximum Project (Years 0-30)		**71.9 (infant)**	**0.96**	0.05
Mitigated Total/Maximum Project (Years 0-30)		5.3 (infant)	0.18	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated **	*No*	*No*	*No*
Cumulative Sources				
U.S. 101		20.8	0.39	--
University Ave, ADT 34,783		13.8	**0.97**	<0.01
Woodland Ave/Scofield Ave, ADT 13,706		4.7	0.28	<0.01
Plant #15292 (Generator)		0.3	0	0
Plant #16212 (Generator)		0.1	0.03	0
Plant #15835 (Generator)		2.1	<0.01	<0.01
Woodland Apartment Mitigated Construction Emissions – 35 feet west		<10.0	<0.3	<1.0
660 Donohoe Street Mitigated Construction Emissions – 760 feet northeast		<5.0	<0.15	<0.5
630 Donohoe Street Mitigated Construction Emissions – 760 feet northeast		<5.0	<0.15	<0.5
University Plaza/Sobrato Phase II Mitigated Construction Emissions – 1,000 feet north		<3.0	<0.02	<0.01
Combined Sources	Unmitigated	**136.7 (infant)**	**<3.26**	<2.09
	Mitigated**	70.1 (infant)	**<2.48**	<2.05
BAAQMD Cumulative Source Threshold		***100***	***0.8***	***10.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated	*No*	***Yes***	*No*

* Maximum cancer risk and maximum $PM_{2.5}$ concentration occur at same receptor on different floors.
** Construction equipment with Tier 4 Final engines, enhanced BMPs, and electric crane, generator, air compressor, and welder as Mitigation.

Operational Criteria Air Pollutant and GHG Emissions

The Alternative proposes the same size office building in the same location as the original project with an addition of approximately 61 parking spaces. The operational inputs analyzed in the original report (i.e., trip generation, EMFAC2021 adjustments, energy, generator, service population) for the office land use would be the same since the office would be the same size in both scenarios. The additional parking would not generate vehicle trips on its own and would only minimally increase energy use. Therefore, the operational criteria air pollutant and GHG emissions for the Alternative would potentially increase by a negligible amount compared to the main office project. The operational criteria air pollutant and GHG emissions in the original report were found to be substantially below the significance thresholds, and any minimal increase in emissions for the Alternative would also be below the thresholds.

♦ ♦ ♦

This concludes the assessment for air quality and health risk impacts due to the Alternative University Circle Phase II project. Please feel free to contact us with any questions on the analysis or if we can be of further assistance.

Sincerely,

Casey Divine
Consultant
Illingworth & Rodkin, Inc.

(I&R #19-148)

Supporting Documentation

Attachment 1 includes the CalEEMod output for project construction criteria air pollutant emissions. Also included are any modeling assumptions.

Attachment 2 includes the EMFAC2021 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

Attachment 3 includes the construction health risk assessment. AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: University Circle Office Phase II - Phase 1

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size _____ Dwelling Units _____ total project acres disturbed

_____ s.f. residential

_____ s.f. retail

_____ s.f. office/commercial

_____ s.f. other, specify:

52800 s.f. parking garage _____ spaces

_____ s.f. parking lot _____ spaces

Construction Hours 7:00 am to 10:00 pm

Pile Driving? No

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? No

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower:

Fuel Type:

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments
	Demolition	**Start Date:**	**1/1/2024**	**Total phase:**	**40**			**Overall Import/Export Volumes**
		End Date:	**2/26/2024**					
3	Concrete/Industrial Saws	81	0.73	5	40	5.0	600	**Demolition Volume**
0	Excavators	158	0.38	0	0	-	0	General site work demolition
2	Rubber-Tired Dozers	247	0.4	5	40	5.0	400	General site work demolition
2	Tractors/Loaders/Backhoes	97	0.37	6.5	40	6.5	520	
	Site Preparation	**Start Date:**	**2/26/2024**	**Total phase:**	**10**			
		End Date:	**3/11/2024**					
0	Graders	187	0.41	0	0	-	0	Misc. pad preparation
1	Rubber Tired Dozers	247	0.4	5	10	5.0	50	
2	Tractors/Loaders/Backhoes	97	0.37	6.5	10	6.5	130	Misc. trenching
	Grading / Excavation	**Start Date:**	**3/11/2024**	**Total phase:**	**0**			
		End Date:	**3/11/2024**					**Soil Hauling Volume**
0	Excavators	158	0.38	6.5	0	-	0	Export volume = 1,692 cubic yards?
0	Graders	187	0.41	6.5	0	-	0	Import volume = ? cubic yards?
0	Rubber Tired Dozers	247	0.4	4	0	-	0	
0	Concrete/Industrial Saws	81	0.73	5	0	-	0	Saws for formwork, handrails, etc.
0	Tractors/Loaders/Backhoes	97	0.37	6.5	0	-	0	7 loads per day per truck, 12 yard per load
	Trenching/Foundation	**Start Date:**	**3/11/2024**	**Total phase:**	**60**			
		End Date:	**6/3/2024**					
0	Tractor/Loader/Backhoe	97	0.37	0	0	-	0	Shoring
0	Excavators	158	0.73	0	0	-	0	Shoring
2	Drill Rigs	221	0.5	6.5	60	6.5	780	Tie back and vertical drill rigs for cut off walls, etc.
3	Cement and Mortar Mixers	9	0.56	6.5	20	2.2	390	Cement trucks for mat slab, slab on grade and transfer beams, 9 yds per truck
1	Other Construction Equipment	172	0.42	6.5	60	6.5	390	Misc. equipment
1	Pumps	84	0.74	6.5	50	5.4	325	Concrete pumps
0	Concrete/Industrial Saws	81	0.73	0	0	-	0	Shoring
	Building - Exterior	**Start Date:**	**6/3/2024**	**Total phase:**	**140**			
		End Date:	**12/16/2024**					
1	Cranes	231	0.29	6.5	140	6.5	910	Tower crane for duration of superstructure
1	Forklifts	89	0.2	4	140	4.0	560	
2	Generator Sets	84	0.74	6.5	140	6.5	1820	
3	Cement and Mortar Mixers	9	0.56	6.5	28	1.3	546	Concrete garage superstructure and SOG
2	Dumpsters/Tenders	16	0.38	6.5	28	1.3	364	Dumpsters for drywall framing and MEPF trades
2	Pumps	84	0.74	6.5	28	1.3	364	Concrete pumps
1	Other Construction Equipment	172	0.42	6.5	60	2.8	390	Misc. equipment
1	Tractors/Loaders/Backhoes	97	0.37	2	40	0.6	80	Misc. loaders for MEPF, elevators, materials, etc.
10	Welders	46	0.45	6.5	40	1.9	2600	Structural steel frame, rebar for suspended slabs
	Building - Interior/Architectural Coating	**Start Date:**	**12/16/2024**	**Total phase:**	**45**			
		End Date:	**2/17/2025**					
3	Air Compressors	78	0.48	5	45	5.0	675	Core walls and stairs
1	Other Construction Equipment	172	0.42	6.5	45	6.5	293	Misc. equipment
2	Aerial Lift	62	0.31	5	45	5.0	450	Ceiling conduit and piping
	Paving	**Start Date:**	**2/17/2025**	**Total phase:**	**30**			
		Start Date:	**3/31/2025**					
5	Cement and Mortar Mixers	9	0.56	5	5	0.8	115	Flatwork and curb and gutter
2	Paving Equipment	132	0.36	6.5	5	1.0	60	Parking lot
1	Rollers	80	0.38	6.5	5	1.0	30	Parking lot
2	Pressure washers	13	0.3	4	5	0.6	37	SWPPP
1	Tractors/Loaders/Backhoes	97	0.37	4	15	2.0	60	Utilities

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: University Circle Office Phase II - Phase 2

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size
_____ Dwelling Units
_____ total project acres disturbed
_____ s.f. residential
_____ s.f. retail
0 s.f. office/commercial
_____ s.f. other, specify:
14688 s.f. parking garage _____ spaces
14688 s.f. parking lot _____ spaces

Construction Hours 7:00 am to 10:00 pm

Pile Driving? No

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? No
IF YES (if BOTH separate values) -->
Kilowatts/Horsepower:
Fuel Type:

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments
	Demolition	**Start Date:**	**5/1/2025**	**Total phase:**	**5**			**Overall Import/Export Volumes**
		End Date:	**5/8/2025**					
1	Concrete/Industrial Saws	81	0.73	5	5	5.0	25	**Demolition Volume**
1	Excavators	158	0.38	6.5	5	6.5	33	General site work demolition
1	Rubber-Tired Dozers	247	0.4	4	5	4.0	20	General site work demolition
1	Tractors/Loaders/Backhoes	97	0.37	6.5	5	6.5	33	
	Site Preparation	**Start Date:**	**5/8/2025**	**Total phase:**	**5**			
		End Date:	**5/15/2025**					
1	Graders	187	0.41	6.5	5	6.5	33	Misc. pad preparation
1	Rubber Tired Dozers	247	0.4	6.5	5	6.5	33	
1	Tractors/Loaders/Backhoes	97	0.37	6.5	5	6.5	33	Misc. trenching
	Grading / Excavation	**Start Date:**	**5/15/2025**	**Total phase:**	**60**			
		End Date:	**8/7/2025**					**Soil Hauling Volume**
2	Excavators	158	0.38	6.5	60	6.5	780	Export volume = 13,386 cubic yards?
1	Graders	187	0.41	6.5	60	6.5	390	Import volume = ? cubic yards?
1	Rubber Tired Dozers	247	0.4	4	60	4.0	240	
1	Concrete/Industrial Saws	81	0.73	5	60	5.0	300	Saws for formwork, handrails, etc.
2	Tractors/Loaders/Backhoes	97	0.37	6.5	60	6.5	780	7 loads per day per truck, 12 yard per load
	Trenching/Foundation	**Start Date:**	**8/7/2025**	**Total phase:**	**60**			
		End Date:	**10/30/2025**					
2	Tractor/Loader/Backhoe	97	0.37	6.5	60	6.5	780	Shoring
2	Excavators	158	0.73	6.5	60	6.5	780	Shoring
2	Drill Rigs	221	0.5	6.5	60	6.5	780	Tie back and vertical drill rigs for cut off walls, etc.
4	Cement and Mortar Mixers	9	0.56	6.5	5	0.5	130	Cement trucks for mat slab and retaining walls, 9 yds per truck
3	Cement and Mortar Mixers	9	0.56	6.5	15	1.6	293	Cement trucks for retaining walls and shoring walls, 9 yds per truck
1	Other Construction Equipment	172	0.42	6.5	60	6.5	390	Misc. equipment
1	Pumps	84	0.74	6.5	20	2.2	130	Concrete pumps
4	Concrete/Industrial Saws	81	0.73	5	60	5.0	1200	Shoring
	Building - Exterior	**Start Date:**	**10/30/2025**	**Total phase:**	**115**			
		End Date:	**4/9/2026**					
1	Cranes	231	0.29	6.5	115	6.5	748	Tower crane for duration of superstructure
1	Forklifts	89	0.2	4	115	4.0	460	
2	Generator Sets	84	0.74	6.5	115	6.5	1495	
4	Cement and Mortar Mixers	9	0.56	6.5	26	1.5	680	Concrete garage superstructure
3	Cement and Mortar Mixers	9	0.56	6.5	21	1.2	408	Concrete topping slab at office
3	Dumpsters/Tenders	16	0.38	6.5	23	1.3	449	Dumpsters for drywall framing and MEPF trades
1	Pumps	84	0.74	6.5	47	2.7	306	Concrete pumps
1	Other Construction Equipment	172	0.42	6.5	115	6.5	748	Misc. equipment
2	Tractors/Loaders/Backhoes	97	0.37	2	115	2.0	460	Misc. loaders for MEPF, elevators, materials, etc.
10	Welders	46	0.45	6.5	37	2.1	2378	Structural steel frame, rebar for suspended slabs
	Building - Interior/Architectural Coating	**Start Date:**	**4/9/2026**	**Total phase:**	**45**			
		End Date:	**6/11/2026**					
4	Air Compressors	78	0.48	6.5	45	6.5	1170	Core walls and stairs
1	Other Construction Equipment	172	0.42	6.5	45	6.5	293	Misc. equipment
1	Aerial Lift	62	0.31	5	45	5.0	225	Ceiling conduit and piping
	Paving	**Start Date:**	**6/11/2026**	**Total phase:**	**35**			
		Start Date:	**7/30/2026**		xxx			
3	Cement and Mortar Mixers	9	0.56	6.5	5	1.0	105	Flatwork and curb and gutter
2	Paving Equipment	132	0.36	6.5	5	1.0	70	Parking lot
2	Rollers	80	0.38	6.5	5	1.0	70	Parking lot
2	Pressure washers	13	0.3	4	5	0.6	43	SWPPP
1	Tractors/Loaders/Backhoes	97	0.37	4	18	2.0	70	Utilities

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: University Circle Office Phase II - Phase 3

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size	____ Dwelling Units	____ total project acres disturbed	
	____ s.f. residential		Pile Driving? No
	____ s.f. retail		
	179012 s.f. office/commercial		Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Yes
	____ s.f. other, specify:		IF YES (if BOTH separate values) -->
	48796 s.f. parking garage	____ spaces	Kilowatts/Horsepower: Six (6) 10 KW generators and One (1) fire pump
	43495 s.f. parking lot	____ spaces	Fuel Type: Gasoline
			Location in project (Plans Desired if Available):
Construction Hours	7:00 am to	10:00 pm	

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments
	Demolition	**Start Date:**	**5/1/2025**	**Total phase:**	**15**			**Overall Import/Export Volumes**
		End Date:	**5/22/2025**					
2	Concrete/Industrial Saws	81	0.73	5	15	5.0	150	**Demolition Volume**
2	Excavators	158	0.38	6.5	15	6.5	195	General site work demolition
1	Rubber-Tired Dozers	247	0.4	4	15	4.0	60	General site work demolition
1	Tractors/Loaders/Backhoes	97	0.37	6.5	15	6.5	98	
	Site Preparation	**Start Date:**	**5/22/2025**	**Total phase:**	**15**			
		End Date:	**6/12/2025**					
2	Graders	187	0.41	6.5	15	6.5	195	Misc. pad preparation
2	Rubber Tired Dozers	247	0.4	4	15	4.0	120	
1	Tractors/Loaders/Backhoes	97	0.37	6.5	15	6.5	98	Misc. trenching
	Grading / Excavation	**Start Date:**	**6/12/2025**	**Total phase:**	**90**			
		End Date:	**10/16/2025**					**Soil Hauling Volume**
7	Excavators	158	0.38	6.5	98	7.1	4467	Export volume = 42,010 cubic yards?
1	Graders	187	0.41	6.5	90	6.5	585	Import volume = ? cubic yards?
2	Rubber Tired Dozers	247	0.4	4	90	4.0	720	
2	Concrete/Industrial Saws	81	0.73	5	90	5.0	900	Saws for formwork, handrails, etc.
7	Tractors/Loaders/Backhoes	97	0.37	6.5	100	7.2	4542	7 loads per day per truck, 12 yard per load
	Trenching/Foundation	**Start Date:**	**10/16/2025**	**Total phase:**	**90**			
		End Date:	**2/19/2026**					
4	Tractor/Loader/Backhoe	97	0.37	6.5	90	6.5	2340	Shoring
4	Excavators	158	0.73	6.5	90	6.5	2340	Shoring
4	Drill Rigs	221	0.5	6.5	90	6.5	2340	Tie back and vertical drill rigs for cut off walls, etc.
8	Cement and Mortar Mixers	9	0.56	8	8	0.7	480	Cement trucks for mat slab and retaining walls, 9 yds per truck
6	Cement and Mortar Mixers	9	0.56	8	23	2.0	1080	Cement trucks for retaining walls and shoring walls, 9 yds per truck
1	Other Construction Equipment	172	0.42	6.5	90	6.5	585	Misc. equipment
2	Pumps	84	0.74	8	30	2.7	480	Concrete pumps
8	Concrete/Industrial Saws	81	0.73	5	90	5.0	3600	Shoring
	Building - Exterior	**Start Date:**	**2/19/2026**	**Total phase:**	**200**			
		End Date:	**11/26/2026**					
1	Cranes	231	0.29	8	200	8.0	1600	Tower crane for duration of superstructure
1	Forklifts	89	0.2	4	200	4.0	800	
4	Generator Sets	84	0.74	6.5	200	6.5	5200	
8	Cement and Mortar Mixers	9	0.56	6.5	45	1.5	2364	Concrete garage superstructure
6	Cement and Mortar Mixers	9	0.56	6.5	36	1.2	1418	Concrete topping slab at office
5	Dumpsters/Tenders	16	0.38	6.5	40	1.3	1300	Dumpsters for drywall framing and MEPF trades
1	Pumps	84	0.74	6.5	82	2.7	532	Concrete pumps
1	Other Construction Equipment	172	0.42	6.5	200	6.5	1300	Misc. equipment
2	Tractors/Loaders/Backhoes	97	0.37	2	200	2.0	800	Misc. loaders for MEPF, elevators, materials, etc.
32	Welders	46	0.45	6.5	64	2.1	13236	Structural steel frame, rebar for suspended slabs
	Building - Interior/Architectural Coating	**Start Date:**	**11/26/2026**	**Total phase:**	**130**			
		End Date:	**5/27/2027**					
9	Air Compressors	78	0.48	6.5	130	6.5	7605	Core walls and stairs
1	Other Construction Equipment	172	0.42	6.5	130	6.5	845	Misc. equipment
4	Aerial Lift	62	0.31	5	130	5.0	2600	Ceiling conduit and piping
	Paving	**Start Date:**	**5/27/2027**	**Total phase:**	**70**			
		End Date:	**9/2/2027**					
10	Cement and Mortar Mixers	9	0.56	4	11	0.6	431	Flatwork and curb and gutter
3	Paving Equipment	132	0.36	4	11	0.6	129	Parking lot
2	Rollers	80	0.38	4	11	0.6	86	Parking lot
2	Pressure washers	13	0.3	4	11	0.6	86	SWPPP
1	Tractors/Loaders/Backhoes	97	0.37	4	35	2.0	140	Utilities

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Total Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2024	0.18	1.54	0.07	0.01	287.23	
2025	0.42	3.59	0.15	0.14	861.98	
2026	0.74	4.19	0.16	0.16	826.53	
2027	0.87	0.81	0.04	0.03	179.96	
EMFAC						
2024	0.01	0.03	0.00	0.00	33.62	
2025	0.02	0.22	0.01	0.01	176.05	
2026	0.03	0.26	0.02	0.01	216.41	
2027	0.01	0.13	0.01	0.00	115.55	
Total Construction Emissions by Year						
2024	0.19	1.57	0.07	0.01	320.85	
2025	0.45	3.81	0.16	0.14	1038.03	
2026	0.77	4.45	0.18	0.17	1042.94	
2027	0.89	0.93	0.04	0.04	295.50	
	Total Construction Emissions					
Tons	2.30	10.77	0.46	0.36	2697.32	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2024	1.46	11.98	0.52	0.10		**262**
2025	3.41	29.20	1.26	1.09		**261**
2026	5.91	34.11	1.38	1.27		**261**
2027	10.16	10.68	0.51	0.43		**175**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	20.94	85.98	3.67	2.90	0.00	
Average	4.79	22.45	0.95	0.75	0.00	959.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

NW Above Garage Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	M10 Exhau	M2.5 Exhau	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2024	0.18	1.54	0.07	0.01	287.23	
2025	0.02	0.11	0.005	0.00	24.10	
EMFAC						
2024	0.01	0.03	0.002	0.003	33.62	
2025	0.002	0.01	0.001	0.001	7.88	
Total Construction Emissions by Year						
2024	0.19	1.57	0.07	0.01	320.85	
2025	0.02	0.12	0.01	0.00	31.98	
	Total Construction Emissions					
Tons	0.21	1.69	0.07	0.01	352.83	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2024	1.46	11.98	0.52	0.10		**262**
2025	0.75	3.80	0.18	0.02		**62**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	2.20	15.78	0.70	0.13	0.00	
Average	1.32	10.42	0.46	0.09	0.00	324.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

SW Below Garage Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	M10 Exhau	M2.5 Exhau	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2025	0.14	1.21	0.05	0.05	276.22	
2026	0.10	0.71	0.03	0.03	137.60	
EMFAC						
2025	0.01	0.06	0.004	0.002	48.17	
2026	0.00	0.05	0.003	0.001	40.55	
Total Construction Emissions by Year						
2025	0.15	1.27	0.05	0.05	324.39	
2026	0.10	0.76	0.03	0.03	178.15	
	Total Construction Emissions					
Tons	0.25	2.03	0.09	0.08	502.54	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2025	1.66	14.44	0.61	0.55		**176**
2026	1.33	10.14	0.44	0.40		**150**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	2.98	24.58	1.05	0.95	0.00	
Average	1.50	12.46	0.53	0.48	0.00	326.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

SE Building Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2025	0.26	2.28	0.10	0.09	561.66	
2026	0.65	3.49	0.13	0.13	688.94	
2027	0.87	0.81	0.04	0.03	179.96	
EMFAC						
2025	0.02	0.14	0.01	0.004	120.00	
2026	0.02	0.20	0.01	0.01	175.86	
2027	0.01	0.13	0.01	0.00	115.55	
Total Construction Emissions by Year						
2025	0.28	2.42	0.10	0.09	681.66	
2026	0.67	3.69	0.15	0.14	864.79	
2027	0.89	0.93	0.04	0.04	295.50	
	Total Construction Emissions					
Tons	1.84	7.05	0.30	0.27	1841.96	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2025	3.16	27.69	1.20	1.07		**175**
2026	5.15	28.28	1.13	1.04		**261**
2027	10.16	10.68	0.51	0.43		**175**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	18.47	66.65	2.83	2.54	0.00	
Average	6.01	23.07	0.97	0.87	0.00	611.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

University Circle Office Phase II, East Palo Alto - ALT NW Above Garage - San Mateo County, Annual

University Circle Office Phase II, East Palo Alto - ALT Phase 1 NW Above Garage

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	52.80	1000sqft	1.21	52,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2028
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	138	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity = 90% PCE 2018 rate (of 129.77) with 10% PG&E 2018 rate (of 206) = 138

Land Use - Provided construction worksheet land uses, default acreage

Construction Phase - Provided construction schedule

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Trips and VMT - 0 trips EMFAC2021

Grading - grading = 1,692-cy export

Vehicle Trips -

Vehicle Emission Factors - EMFAC2021 emissions factors

Water And Wastewater -

Construction Off-road Equipment Mitigation - BMPs + PM Mit, Tier 4 final mitigation, electric crane & generators & Air Compressors & welders

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	4.00	60.00
tblConstructionPhase	NumDays	200.00	140.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	1/26/2024	2/23/2024
tblConstructionPhase	PhaseEndDate	1/30/2024	3/8/2024
tblConstructionPhase	PhaseEndDate	2/5/2024	5/31/2024
tblConstructionPhase	PhaseEndDate	11/11/2024	12/13/2024
tblConstructionPhase	PhaseEndDate	12/9/2024	2/14/2025
tblConstructionPhase	PhaseEndDate	11/25/2024	3/28/2025
tblConstructionPhase	PhaseStartDate	1/27/2024	2/26/2024

tblConstructionPhase	PhaseStartDate	1/31/2024	3/11/2024
tblConstructionPhase	PhaseStartDate	2/6/2024	6/3/2024
tblConstructionPhase	PhaseStartDate	11/26/2024	12/16/2024
tblConstructionPhase	PhaseStartDate	11/12/2024	2/17/2025
tblGrading	MaterialExported	0.00	1,692.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Pressure Washers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	10.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	6.00	0.80
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	6.50
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	1.90
tblProjectCharacteristics	CO2IntensityFactor	641.35	138
tblTripsAndVMT	HaulingTripNumber	212.00	0.00
tblTripsAndVMT	VendorTripNumber	9.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00

tblTripsAndVMT	WorkerTripNumber	22.00	0.00
tblTripsAndVMT	WorkerTripNumber	4.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1839	1.5367	1.6951	3.3700e-003	0.0189	0.0660	0.0849	0.0104	0.0632	0.0736	0.0000	285.8977	285.8977	0.0531	0.0000	287.2254
2025	0.0216	0.1104	0.1742	2.8000e-004	0.0000	4.9100e-003	4.9100e-003	0.0000	4.7000e-003	4.7000e-003	0.0000	23.9826	23.9826	4.8300e-003	0.0000	24.1034
Maximum	**0.1839**	**1.5367**	**1.6951**	**3.3700e-003**	**0.0189**	**0.0660**	**0.0849**	**0.0104**	**0.0632**	**0.0736**	**0.0000**	**285.8977**	**285.8977**	**0.0531**	**0.0000**	**287.2254**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0259	0.1921	1.0465	3.3700e-003	0.0189	9.9300e-003	0.0288	5.1800e-003	9.9300e-003	0.0151	0.0000	157.6513	157.6513	0.0378	0.0000	158.5956
2025	0.0103	0.0254	0.1128	2.8000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	13.4504	13.4504	4.2600e-003	0.0000	13.5568
Maximum	**0.0259**	**0.1921**	**1.0465**	**3.3700e-003**	**0.0189**	**9.9300e-003**	**0.0288**	**5.1800e-003**	**9.9300e-003**	**0.0151**	**0.0000**	**157.6513**	**157.6513**	**0.0378**	**0.0000**	**158.5956**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	82.36	86.79	37.98	0.00	0.00	85.65	67.62	50.00	85.03	80.40	0.00	44.78	44.78	27.46	0.00	44.70

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	0.4336	0.1424
2	4-1-2024	6-30-2024	0.3345	0.0377
3	7-1-2024	9-30-2024	0.4838	0.0106
4	10-1-2024	12-31-2024	0.4321	0.0202
5	1-1-2025	3-31-2025	0.1282	0.0348
		Highest	0.4838	0.1424

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2024	2/23/2024	5	40	
2	Site Preparation	Site Preparation	2/26/2024	3/8/2024	5	10	
3	Trenching	Grading	3/11/2024	5/31/2024	5	60	
4	Building Construction	Building Construction	6/3/2024	12/13/2024	5	140	
5	Architectural Coating	Architectural Coating	12/16/2024	2/14/2025	5	45	
6	Paving	Paving	2/17/2025	3/28/2025	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.21

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,168

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	3	5.00	81	0.73

Trenching	Bore/Drill Rigs	2	6.50	221	0.50
Demolition	Rubber Tired Dozers	2	5.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.50	97	0.37
Site Preparation	Graders	0	0.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	5.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.50	97	0.37
Trenching	Cement and Mortar Mixers	3	2.20	9	0.56
Trenching	Other Construction Equipment	1	6.50	172	0.42
Trenching	Graders	0	0.00	187	0.41
Trenching	Rubber Tired Dozers	0	0.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Trenching	Pumps	1	5.40	84	0.74
Building Construction	Cement and Mortar Mixers	3	1.30	9	0.56
Building Construction	Dumpers/Tenders	2	1.30	16	0.38
Building Construction	Pumps	2	1.30	84	0.74
Building Construction	Other Construction Equipment	1	2.80	172	0.42
Architectural Coating	Aerial Lifts	2	5.00	63	0.31
Architectural Coating	Other Construction Equipment	1	6.50	172	0.42
Paving	Pressure Washers	2	0.60	13	0.30
Building Construction	Cranes	1	6.50	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	2	6.50	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	0.60	97	0.37
Building Construction	Welders	10	1.90	46	0.45
Architectural Coating	Air Compressors	3	5.00	78	0.48
Paving	Cement and Mortar Mixers	5	0.80	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	2	1.00	132	0.36
Paving	Rollers	1	1.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	23	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	11	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0338	0.3158	0.2878	5.5000e-004		0.0143	0.0143		0.0135	0.0135	0.0000	47.8149	47.8149	9.9000e-003	0.0000	48.0624
Total	**0.0338**	**0.3158**	**0.2878**	**5.5000e-004**		**0.0143**	**0.0143**		**0.0135**	**0.0135**	**0.0000**	**47.8149**	**47.8149**	**9.9000e-003**	**0.0000**	**48.0624**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5400e-003	0.1238	0.3167	5.5000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003	0.0000	47.8148	47.8148	9.9000e-003	0.0000	48.0623
Total	**8.5400e-003**	**0.1238**	**0.3167**	**5.5000e-004**		**8.0200e-003**	**8.0200e-003**		**8.0200e-003**	**8.0200e-003**	**0.0000**	**47.8148**	**47.8148**	**9.9000e-003**	**0.0000**	**48.0623**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0188	0.0000	0.0188	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0340	0.0280	5.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	4.5687	4.5687	1.4800e-003	0.0000	4.6057
Total	**3.3400e-003**	**0.0340**	**0.0280**	**5.0000e-005**	**0.0188**	**1.5400e-003**	**0.0204**	**0.0103**	**1.4200e-003**	**0.0118**	**0.0000**	**4.5687**	**4.5687**	**1.4800e-003**	**0.0000**	**4.6057**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0188	0.0000	0.0188	5.1700e-003	0.0000	5.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	2.7500e-003	0.0310	5.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.5687	4.5687	1.4800e-003	0.0000	4.6057
Total	**6.4000e-004**	**2.7500e-003**	**0.0310**	**5.0000e-005**	**0.0188**	**8.0000e-005**	**0.0189**	**5.1700e-003**	**8.0000e-005**	**5.2500e-003**	**0.0000**	**4.5687**	**4.5687**	**1.4800e-003**	**0.0000**	**4.6057**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0260	0.2319	0.2796	7.6000e-004		9.7900e-003	9.7900e-003		9.2300e-003	9.2300e-003	0.0000	66.4370	66.4370	0.0180	0.0000	66.8880
Total	**0.0260**	**0.2319**	**0.2796**	**7.6000e-004**	**1.0000e-004**	**9.7900e-003**	**9.8900e-003**	**1.0000e-005**	**9.2300e-003**	**9.2400e-003**	**0.0000**	**66.4370**	**66.4370**	**0.0180**	**0.0000**	**66.8880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9000e-003	0.0386	0.4059	7.6000e-004		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	66.4370	66.4370	0.0180	0.0000	66.8880
Total	**8.9000e-003**	**0.0386**	**0.4059**	**7.6000e-004**	**1.0000e-004**	**1.1900e-003**	**1.2900e-003**	**1.0000e-005**	**1.1900e-003**	**1.2000e-003**	**0.0000**	**66.4370**	**66.4370**	**0.0180**	**0.0000**	**66.8880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	0.1133	0.9173	1.0451	1.9100e-003		0.0385	0.0385		0.0374	0.0374	0.0000	159.5304	159.5304	0.0223	0.0000	160.0871
Total	**0.1133**	**0.9173**	**1.0451**	**1.9100e-003**		**0.0385**	**0.0385**		**0.0374**	**0.0374**	**0.0000**	**159.5304**	**159.5304**	**0.0223**	**0.0000**	**160.0871**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2300e-003	0.0183	0.2607	1.9100e-003		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	35.1140	35.1140	7.1500e-003	0.0000	35.2927
Total	**4.2300e-003**	**0.0183**	**0.2607**	**1.9100e-003**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**	**0.0000**	**35.1140**	**35.1140**	**7.1500e-003**	**0.0000**	**35.2927**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5700e-003	0.0377	0.0547	9.0000e-005		1.7800e-003	1.7800e-003		1.7100e-003	1.7100e-003	0.0000	7.5467	7.5467	1.4200e-003	0.0000	7.5821
Total	**7.5100e-003**	**0.0377**	**0.0547**	**9.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**7.5467**	**7.5467**	**1.4200e-003**	**0.0000**	**7.5821**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	8.6300e-003	0.0322	9.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.7168	3.7168	1.2000e-003	0.0000	3.7468
Total	**3.6200e-003**	**8.6300e-003**	**0.0322**	**9.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**3.7168**	**3.7168**	**1.2000e-003**	**0.0000**	**3.7468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.0945	0.1500	2.4000e-004		4.2000e-003	4.2000e-003		4.0300e-003	4.0300e-003	0.0000	20.7579	20.7579	3.8800e-003	0.0000	20.8550
Total	**0.0198**	**0.0945**	**0.1500**	**2.4000e-004**		**4.2000e-003**	**4.2000e-003**		**4.0300e-003**	**4.0300e-003**	**0.0000**	**20.7579**	**20.7579**	**3.8800e-003**	**0.0000**	**20.8550**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8600e-003	0.0238	0.0886	2.4000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.2258	10.2258	3.3100e-003	0.0000	10.3084
Total	**9.9400e-003**	**0.0238**	**0.0886**	**2.4000e-004**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**10.2258**	**10.2258**	**3.3100e-003**	**0.0000**	**10.3084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8400e-003	0.0159	0.0242	4.0000e-005		7.1000e-004	7.1000e-004		6.6000e-004	6.6000e-004	0.0000	3.2247	3.2247	9.5000e-004	0.0000	3.2484
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8400e-003**	**0.0159**	**0.0242**	**4.0000e-005**		**7.1000e-004**	**7.1000e-004**		**6.6000e-004**	**6.6000e-004**	**0.0000**	**3.2247**	**3.2247**	**9.5000e-004**	**0.0000**	**3.2484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-004	1.7000e-003	0.0241	4.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	3.2247	3.2247	9.5000e-004	0.0000	3.2484

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9000e-004**	**1.7000e-003**	**0.0241**	**4.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**3.2247**	**3.2247**	**9.5000e-004**	**0.0000**	**3.2484**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

University Circle Office Phase II, East Palo Alto - ALT Phase 2 SW Below Garage

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	14.69	1000sqft	0.34	14,688.00	0
Parking Lot	14.69	1000sqft	0.34	14,688.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2028
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	138	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity = 90% PCE 2018 rate (of 129.77) with 10% PG&E 2018 rate (of 206) = 138

Land Use - Provided construction worksheet land uses, default acreage

Construction Phase - Provided construction schedule

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Trips and VMT - 0 trips EMFAC2021

Grading - grading = 13,386-cy export

Vehicle Trips -

Vehicle Emission Factors - EMFAC2021 emissions factors

Water And Wastewater -

Construction Off-road Equipment Mitigation - BMPs + PM Mit, Tier 4 final mitigation, electric crane & generators & Air Compressors & welders

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	5.00	45.00
tblConstructionPhase	NumDays	100.00	115.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	60.00
tblConstructionPhase	NumDays	5.00	35.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseEndDate	10/20/2025	6/10/2026
tblConstructionPhase	PhaseEndDate	10/6/2025	4/8/2026
tblConstructionPhase	PhaseEndDate	5/14/2025	5/7/2025

tblConstructionPhase	PhaseEndDate	5/19/2025	8/6/2025
tblConstructionPhase	PhaseEndDate	10/13/2025	7/29/2026
tblConstructionPhase	PhaseEndDate	5/15/2025	5/14/2025
tblConstructionPhase	PhaseStartDate	10/14/2025	4/9/2026
tblConstructionPhase	PhaseStartDate	5/20/2025	10/30/2025
tblConstructionPhase	PhaseStartDate	5/16/2025	5/15/2025
tblConstructionPhase	PhaseStartDate	10/7/2025	6/11/2026
tblConstructionPhase	PhaseStartDate	5/15/2025	5/8/2025
tblGrading	MaterialExported	0.00	13,386.00
tblLandUse	LandUseSquareFeet	14,690.00	14,688.00
tblLandUse	LandUseSquareFeet	14,690.00	14,688.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	6.50
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	4.00	6.50
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	6.50

tblOffRoadEquipment	UsageHours	6.00	6.50
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblProjectCharacteristics	CO2IntensityFactor	641.35	138
tblTripsAndVMT	HaulingTripNumber	1,673.00	0.00
tblTripsAndVMT	VendorTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	12.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.1405	1.2066	1.6436	3.1800e-003	0.1173	0.0496	0.1670	0.0580	0.0470	0.1050	0.0000	274.6462	274.6462	0.0629	0.0000	276.2176
2026	0.0952	0.7083	0.9393	1.6300e-003	0.0000	0.0296	0.0296	0.0000	0.0285	0.0285	0.0000	137.0517	137.0517	0.0219	0.0000	137.5985
Maximum	**0.1405**	**1.2066**	**1.6436**	**3.1800e-003**	**0.1173**	**0.0496**	**0.1670**	**0.0580**	**0.0470**	**0.1050**	**0.0000**	**274.6462**	**274.6462**	**0.0629**	**0.0000**	**276.2176**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0308	0.1337	1.6580	3.1800e-003	0.0458	4.1100e-003	0.0499	0.0113	4.1100e-003	0.0154	0.0000	233.5959	233.5959	0.0580	0.0000	235.0468
2026	0.0130	0.0387	0.3799	1.6300e-003	0.0000	8.2000e-004	8.2000e-004	0.0000	8.2000e-004	8.2000e-004	0.0000	48.3018	48.3018	0.0130	0.0000	48.6273
Maximum	**0.0308**	**0.1337**	**1.6580**	**3.1800e-003**	**0.0458**	**4.1100e-003**	**0.0499**	**0.0113**	**4.1100e-003**	**0.0154**	**0.0000**	**233.5959**	**233.5959**	**0.0580**	**0.0000**	**235.0468**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**81.39**	**91.00**	**21.10**	**0.00**	**61.00**	**93.78**	**74.21**	**80.50**	**93.48**	**87.84**	**0.00**	**31.53**	**31.53**	**16.12**	**0.00**	**31.45**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-1-2025**	**7-31-2025**	0.4049	0.0526
2	**8-1-2025**	**10-31-2025**	0.5802	0.0988
3	**11-1-2025**	**1-31-2026**	0.5460	0.0198
4	**2-1-2026**	**4-30-2026**	0.4668	0.0240
5	**5-1-2026**	**7-31-2026**	0.1526	0.0211
		Highest	0.5802	0.0988

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2025	5/7/2025	5	5	
2	Site Preparation	Site Preparation	5/8/2025	5/14/2025	5	5	
3	Grading	Grading	5/15/2025	8/6/2025	5	60	
4	Trenching	Trenching	8/7/2025	10/29/2025	5	60	
5	Building Construction	Building Construction	10/30/2025	4/8/2026	5	115	

6	Architectural Coating	Architectural Coating	4/9/2026	6/10/2026	5	45	
7	Paving	Paving	6/11/2026	7/29/2026	5	35	

Acres of Grading (Site Preparation Phase): 2.03

Acres of Grading (Grading Phase): 24.38

Acres of Paving: 0.68

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,763

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	5.00	81	0.73
Demolition	Excavators	1	6.50	158	0.38
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.50	97	0.37
Site Preparation	Graders	1	6.50	187	0.41
Site Preparation	Rubber Tired Dozers	1	6.50	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	6.50	97	0.37
Grading	Concrete/Industrial Saws	1	5.00	81	0.73
Grading	Excavators	2	6.50	158	0.38
Grading	Graders	1	6.50	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.50	97	0.37
Trenching	Bore/Drill Rigs	2	6.50	221	0.50
Trenching	Cement and Mortar Mixers	4	0.50	9	0.56
Trenching	Cement and Mortar Mixers	3	1.60	9	0.56
Trenching	Concrete/Industrial Saws	4	5.00	81	0.73
Trenching	Excavators	2	6.50	158	0.38
Trenching	Other Construction Equipment	1	6.50	172	0.42
Trenching	Pumps	1	2.20	84	0.74
Trenching	Tractors/Loaders/Backhoes	2	6.50	97	0.37

Building Construction	Cement and Mortar Mixers	4	1.50	9	0.56
Building Construction	Cement and Mortar Mixers	3	1.20	9	0.56
Building Construction	Cranes	1	6.50	231	0.29
Building Construction	Dumpers/Tenders	3	1.30	16	0.38
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	2	6.50	84	0.74
Building Construction	Other Construction Equipment	1	6.50	172	0.42
Building Construction	Pumps	1	2.70	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	2.00	97	0.37
Building Construction	Welders	10	2.10	46	0.45
Architectural Coating	Aerial Lifts	1	5.00	63	0.31
Architectural Coating	Air Compressors	4	6.50	78	0.48
Architectural Coating	Other Construction Equipment	1	6.50	172	0.42
Paving	Cement and Mortar Mixers	3	1.00	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	2	1.00	132	0.36
Paving	Pressure Washers	2	0.60	13	0.30
Paving	Rollers	2	1.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	19	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	28	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8800e-003	0.0170	0.0206	4.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	3.2564	3.2564	8.2000e-004	0.0000	3.2769
Total	**1.8800e-003**	**0.0170**	**0.0206**	**4.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**3.2564**	**3.2564**	**8.2000e-004**	**0.0000**	**3.2769**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	1.8800e-003	0.0235	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2564	3.2564	8.2000e-004	0.0000	3.2769
Total	**4.3000e-004**	**1.8800e-003**	**0.0235**	**4.0000e-005**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**3.2564**	**3.2564**	**8.2000e-004**	**0.0000**	**3.2769**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0133	0.0000	0.0133	6.8400e-003	0.0000	6.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2200e-003	0.0232	0.0139	4.0000e-005		9.3000e-004	9.3000e-004		8.5000e-004	8.5000e-004	0.0000	3.2602	3.2602	1.0500e-003	0.0000	3.2866
Total	**2.2200e-003**	**0.0232**	**0.0139**	**4.0000e-005**	**0.0133**	**9.3000e-004**	**0.0142**	**6.8400e-003**	**8.5000e-004**	**7.6900e-003**	**0.0000**	**3.2602**	**3.2602**	**1.0500e-003**	**0.0000**	**3.2866**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1900e-003	0.0000	5.1900e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	1.9700e-003	0.0186	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2602	3.2602	1.0500e-003	0.0000	3.2866
Total	**4.5000e-004**	**1.9700e-003**	**0.0186**	**4.0000e-005**	**5.1900e-003**	**6.0000e-005**	**5.2500e-003**	**1.3300e-003**	**6.0000e-005**	**1.3900e-003**	**0.0000**	**3.2602**	**3.2602**	**1.0500e-003**	**0.0000**	**3.2866**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1040	0.0000	0.1040	0.0512	0.0000	0.0512	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0374	0.3509	0.4198	8.1000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	70.9776	70.9776	0.0201	0.0000	71.4811
Total	**0.0374**	**0.3509**	**0.4198**	**8.1000e-004**	**0.1040**	**0.0144**	**0.1184**	**0.0512**	**0.0134**	**0.0645**	**0.0000**	**70.9776**	**70.9776**	**0.0201**	**0.0000**	**71.4811**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0406	0.0000	0.0406	9.9800e-003	0.0000	9.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6700e-003	0.0419	0.5075	8.1000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	70.9775	70.9775	0.0201	0.0000	71.4810
Total	**9.6700e-003**	**0.0419**	**0.5075**	**8.1000e-004**	**0.0406**	**1.2900e-003**	**0.0419**	**9.9800e-003**	**1.2900e-003**	**0.0113**	**0.0000**	**70.9775**	**70.9775**	**0.0201**	**0.0000**	**71.4810**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0581	0.4825	0.7761	1.5600e-003		0.0202	0.0202		0.0192	0.0192	0.0000	135.4447	135.4447	0.0310	0.0000	136.2188
Total	**0.0581**	**0.4825**	**0.7761**	**1.5600e-003**		**0.0202**	**0.0202**		**0.0192**	**0.0192**	**0.0000**	**135.4447**	**135.4447**	**0.0310**	**0.0000**	**136.2188**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0178	0.0769	0.9520	1.5600e-003		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003	0.0000	135.4446	135.4446	0.0310	0.0000	136.2186
Total	**0.0178**	**0.0769**	**0.9520**	**1.5600e-003**		**2.3700e-003**	**2.3700e-003**		**2.3700e-003**	**2.3700e-003**	**0.0000**	**135.4446**	**135.4446**	**0.0310**	**0.0000**	**136.2186**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0409	0.3329	0.4133	7.4000e-004		0.0134	0.0134		0.0129	0.0129	0.0000	61.7072	61.7072	9.8800e-003	0.0000	61.9542
Total	**0.0409**	**0.3329**	**0.4133**	**7.4000e-004**		**0.0134**	**0.0134**		**0.0129**	**0.0129**	**0.0000**	**61.7072**	**61.7072**	**9.8800e-003**	**0.0000**	**61.9542**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5400e-003	0.0110	0.1564	7.4000e-004		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	20.6572	20.6572	5.0600e-003	0.0000	20.7837
Total	**2.5400e-003**	**0.0110**	**0.1564**	**7.4000e-004**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**20.6572**	**20.6572**	**5.0600e-003**	**0.0000**	**20.7837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Off-Road	0.0637	0.5179	0.6429	1.1500e-003		0.0209	0.0209		0.0201	0.0201	0.0000	95.9890	95.9890	0.0154	0.0000	96.3732
Total	**0.0637**	**0.5179**	**0.6429**	**1.1500e-003**		**0.0209**	**0.0209**		**0.0201**	**0.0201**	**0.0000**	**95.9890**	**95.9890**	**0.0154**	**0.0000**	**96.3732**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9500e-003	0.0171	0.2433	1.1500e-003		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	32.1333	32.1333	7.8800e-003	0.0000	32.3303
Total	**3.9500e-003**	**0.0171**	**0.2433**	**1.1500e-003**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**32.1333**	**32.1333**	**7.8800e-003**	**0.0000**	**32.3303**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1695	0.2648	4.3000e-004		7.7600e-003	7.7600e-003		7.5400e-003	7.5400e-003	0.0000	36.8967	36.8967	5.2400e-003	0.0000	37.0277
Total	**0.0287**	**0.1695**	**0.2648**	**4.3000e-004**		**7.7600e-003**	**7.7600e-003**		**7.5400e-003**	**7.5400e-003**	**0.0000**	**36.8967**	**36.8967**	**5.2400e-003**	**0.0000**	**37.0277**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9800e-003	0.0193	0.1041	4.3000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.0025	12.0025	3.8800e-003	0.0000	12.0995
Total	**8.1100e-003**	**0.0193**	**0.1041**	**4.3000e-004**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**12.0025**	**12.0025**	**3.8800e-003**	**0.0000**	**12.0995**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3100e-003	0.0209	0.0316	5.0000e-005		9.5000e-004	9.5000e-004		8.9000e-004	8.9000e-004	0.0000	4.1660	4.1660	1.2600e-003	0.0000	4.1976
Paving	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**0.0209**	**0.0316**	**5.0000e-005**		**9.5000e-004**	**9.5000e-004**		**8.9000e-004**	**8.9000e-004**	**0.0000**	**4.1660**	**4.1660**	**1.2600e-003**	**0.0000**	**4.1976**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3000e-004	2.2800e-003	0.0325	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.1660	4.1660	1.2600e-003	0.0000	4.1975
Paving	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8000e-004**	**2.2800e-003**	**0.0325**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.1660**	**4.1660**	**1.2600e-003**	**0.0000**	**4.1975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

University Circle Office Phase II, East Palo Alto - ALT Phase 3 SE Building

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	180.00	1000sqft	4.13	180,000.00	0
Enclosed Parking with Elevator	48.80	1000sqft	0.00	48,796.00	0
Parking Lot	43.50	1000sqft	0.00	43,495.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2028
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	138	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity = 90% PCE 2018 rate (of 129.77) with 10% PG&E 2018 rate (of 206) = 138

Land Use - Provided construction worksheet land uses, default acreage

Construction Phase - Provided construction schedule

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Off-road Equipment - provided construction equip & hours

Trips and VMT - 0 trips EMFAC2021

Grading - grading = 42,010-cy export

Vehicle Trips -

Vehicle Emission Factors - EMFAC2021 emissions factors

Water And Wastewater -

Construction Off-road Equipment Mitigation - BMPs + PM Mit, Tier 4 final mitigation, electric crane & generators & Air Compressors & welders

Stationary Sources - Emergency Generators and Fire Pumps - one emergency generator, 162kw, 216hp, 50hrs/year

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	38.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	32.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	90.00
tblConstructionPhase	NumDays	18.00	70.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	6/23/2026	5/26/2027
tblConstructionPhase	PhaseEndDate	5/4/2026	11/25/2026

tblConstructionPhase	PhaseEndDate	5/28/2025	5/21/2025
tblConstructionPhase	PhaseEndDate	6/16/2025	10/15/2025
tblConstructionPhase	PhaseEndDate	5/28/2026	9/1/2027
tblConstructionPhase	PhaseEndDate	6/4/2025	6/11/2025
tblConstructionPhase	PhaseStartDate	5/29/2026	11/26/2026
tblConstructionPhase	PhaseStartDate	6/17/2025	2/19/2026
tblConstructionPhase	PhaseStartDate	6/5/2025	6/12/2025
tblConstructionPhase	PhaseStartDate	5/5/2026	5/27/2027
tblConstructionPhase	PhaseStartDate	5/29/2025	5/22/2025
tblGrading	AcresOfGrading	36.56	33.75
tblGrading	AcresOfGrading	12.19	8.06
tblGrading	MaterialExported	0.00	42,010.00
tblLandUse	LotAcreage	1.12	0.00
tblLandUse	LotAcreage	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	32.00

tblOffRoadEquipment	UsageHours	6.00	6.50
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	7.10
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	6.00	0.60
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	7.20
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	2.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	138
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	216.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	5,251.00	0.00
tblTripsAndVMT	VendorTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	93.00	0.00
tblTripsAndVMT	WorkerTripNumber	96.00	0.00
tblTripsAndVMT	WorkerTripNumber	19.00	0.00
tblTripsAndVMT	WorkerTripNumber	45.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.2604	2.2779	3.4464	6.4000e-003	0.3407	0.0957	0.4364	0.1765	0.0897	0.2663	0.0000	558.0013	558.0013	0.1464	0.0000	561.6607
2026	0.6496	3.4861	4.6295	8.3000e-003	0.0000	0.1337	0.1337	0.0000	0.1302	0.1302	0.0000	686.4271	686.4271	0.1004	0.0000	688.9362
2027	0.8748	0.8055	1.2865	2.0800e-003	0.0000	0.0351	0.0351	0.0000	0.0344	0.0344	0.0000	179.3867	179.3867	0.0229	0.0000	179.9593
Maximum	**0.8748**	**3.4861**	**4.6295**	**8.3000e-003**	**0.3407**	**0.1337**	**0.4364**	**0.1765**	**0.1302**	**0.2663**	**0.0000**	**686.4271**	**686.4271**	**0.1464**	**0.0000**	**688.9362**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0748	0.3240	4.1034	6.4000e-003	0.1329	9.9700e-003	0.1428	0.0344	9.9700e-003	0.0444	0.0000	558.0006	558.0006	0.1464	0.0000	561.6600

2026	0.2248	0.1687	1.8388	8.3000e-003	0.0000	4.3400e-003	4.3400e-003	0.0000	4.3400e-003	4.3400e-003	0.0000	261.5707	261.5707	0.0604	0.0000	263.0804
2027	0.7758	0.1406	0.4202	2.0800e-003	0.0000	9.1000e-004	9.1000e-004	0.0000	9.1000e-004	9.1000e-004	0.0000	49.9367	49.9367	0.0158	0.0000	50.3328
Maximum	**0.7758**	**0.3240**	**4.1034**	**8.3000e-003**	**0.1329**	**9.9700e-003**	**0.1428**	**0.0344**	**9.9700e-003**	**0.0444**	**0.0000**	**558.0006**	**558.0006**	**0.1464**	**0.0000**	**561.6600**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**39.75**	**90.36**	**32.04**	**0.00**	**61.00**	**94.25**	**75.53**	**80.50**	**94.02**	**88.48**	**0.00**	**38.93**	**38.93**	**17.45**	**0.00**	**38.83**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-1-2025**	**7-31-2025**	0.7477	0.1053
2	**8-1-2025**	**10-31-2025**	1.0476	0.1622
3	**11-1-2025**	**1-31-2026**	1.1205	0.1979
4	**2-1-2026**	**4-30-2026**	1.0130	0.0540
5	**5-1-2026**	**7-31-2026**	1.0285	0.0198
6	**8-1-2026**	**10-31-2026**	1.0285	0.0198
7	**11-1-2026**	**1-31-2027**	1.0319	0.4248
8	**2-1-2027**	**4-30-2027**	0.9994	0.5572
9	**5-1-2027**	**7-31-2027**	0.3224	0.1660
10	**8-1-2027**	**9-30-2027**	0.0148	0.0016
		Highest	1.1205	0.5572

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2025	5/21/2025	5	15	
2	Site Preparation	Site Preparation	5/22/2025	6/11/2025	5	15	
3	Grading	Grading	6/12/2025	10/15/2025	5	90	
4	Trenching	Trenching	10/16/2025	2/18/2026	5	90	
5	Building Construction	Building Construction	2/19/2026	11/25/2026	5	200	

6	Architectural Coating	Architectural Coating	11/26/2026	5/26/2027	5	130	
7	Paving	Paving	5/27/2027	9/1/2027	5	70	

Acres of Grading (Site Preparation Phase): 8.06

Acres of Grading (Grading Phase): 33.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 270,000; Non-Residential Outdoor: 90,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	5.00	81	0.73
Demolition	Excavators	2	6.50	158	0.38
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.50	97	0.37
Site Preparation	Graders	2	6.50	187	0.41
Site Preparation	Rubber Tired Dozers	2	4.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	6.50	97	0.37
Grading	Concrete/Industrial Saws	2	5.00	81	0.73
Grading	Excavators	7	7.10	158	0.38
Grading	Graders	1	6.50	187	0.41
Grading	Rubber Tired Dozers	2	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	7	7.20	97	0.37
Trenching	Bore/Drill Rigs	4	6.50	221	0.50
Trenching	Cement and Mortar Mixers	8	0.70	9	0.56
Trenching	Cement and Mortar Mixers	6	2.00	9	0.56
Trenching	Concrete/Industrial Saws	8	5.00	81	0.73
Trenching	Excavators	4	6.50	158	0.38
Trenching	Other Construction Equipment	1	6.50	172	0.42
Trenching	Pumps	2	2.70	84	0.74
Trenching	Tractors/Loaders/Backhoes	4	6.50	97	0.37

Building Construction	Cement and Mortar Mixers	8	1.50	9	0.56
Building Construction	Cement and Mortar Mixers	6	1.20	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Dumpers/Tenders	5	1.30	16	0.38
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	4	6.50	84	0.74
Building Construction	Other Construction Equipment	1	6.50	172	0.42
Building Construction	Pumps	1	2.70	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	2.00	97	0.37
Building Construction	Welders	32	2.10	46	0.45
Architectural Coating	Aerial Lifts	4	5.00	63	0.31
Architectural Coating	Air Compressors	9	6.50	78	0.48
Architectural Coating	Other Construction Equipment	1	6.50	172	0.42
Paving	Cement and Mortar Mixers	10	0.60	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	3	0.60	132	0.36
Paving	Pressure Washers	2	0.60	13	0.30
Paving	Rollers	2	0.60	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	19	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	37	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	61	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	14	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0400e-003	0.0692	0.0987	1.7000e-004		3.0200e-003	3.0200e-003		2.8500e-003	2.8500e-003	0.0000	15.0555	15.0555	3.4600e-003	0.0000	15.1420
Total	**8.0400e-003**	**0.0692**	**0.0987**	**1.7000e-004**		**3.0200e-003**	**3.0200e-003**		**2.8500e-003**	**2.8500e-003**	**0.0000**	**15.0555**	**15.0555**	**3.4600e-003**	**0.0000**	**15.1420**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9800e-003	8.6000e-003	0.1126	1.7000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	15.0555	15.0555	3.4600e-003	0.0000	15.1420
Total	**1.9800e-003**	**8.6000e-003**	**0.1126**	**1.7000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**15.0555**	**15.0555**	**3.4600e-003**	**0.0000**	**15.1420**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0494	0.0000	0.0494	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4600e-003	0.1000	0.0555	1.6000e-004		3.8600e-003	3.8600e-003		3.5500e-003	3.5500e-003	0.0000	14.3750	14.3750	4.6500e-003	0.0000	14.4913
Total	**9.4600e-003**	**0.1000**	**0.0555**	**1.6000e-004**	**0.0494**	**3.8600e-003**	**0.0533**	**0.0253**	**3.5500e-003**	**0.0288**	**0.0000**	**14.3750**	**14.3750**	**4.6500e-003**	**0.0000**	**14.4913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0193	0.0000	0.0193	4.9300e-003	0.0000	4.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	8.6900e-003	0.0793	1.6000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	14.3750	14.3750	4.6500e-003	0.0000	14.4913
Total	**2.0000e-003**	**8.6900e-003**	**0.0793**	**1.6000e-004**	**0.0193**	**2.7000e-004**	**0.0196**	**4.9300e-003**	**2.7000e-004**	**5.2000e-003**	**0.0000**	**14.3750**	**14.3750**	**4.6500e-003**	**0.0000**	**14.4913**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2913	0.0000	0.2913	0.1513	0.0000	0.1513	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.1413	1.2725	1.9415	3.3100e-003		0.0544	0.0544		0.0505	0.0505	0.0000	289.8165	289.8165	0.0853	0.0000	291.9485
Total	**0.1413**	**1.2725**	**1.9415**	**3.3100e-003**	**0.2913**	**0.0544**	**0.3457**	**0.1513**	**0.0505**	**0.2017**	**0.0000**	**289.8165**	**289.8165**	**0.0853**	**0.0000**	**291.9485**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1136	0.0000	0.1136	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0397	0.1721	2.2576	3.3100e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	289.8161	289.8161	0.0853	0.0000	291.9482
Total	**0.0397**	**0.1721**	**2.2576**	**3.3100e-003**	**0.1136**	**5.3000e-003**	**0.1189**	**0.0295**	**5.3000e-003**	**0.0348**	**0.0000**	**289.8161**	**289.8161**	**0.0853**	**0.0000**	**291.9482**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1016	0.8363	1.3507	2.7500e-003		0.0344	0.0344		0.0328	0.0328	0.0000	238.7543	238.7543	0.0530	0.0000	240.0789
Total	**0.1016**	**0.8363**	**1.3507**	**2.7500e-003**		**0.0344**	**0.0344**		**0.0328**	**0.0328**	**0.0000**	**238.7543**	**238.7543**	**0.0530**	**0.0000**	**240.0789**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0311	0.1346	1.6539	2.7500e-003		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	238.7540	238.7540	0.0530	0.0000	240.0786
Total	**0.0311**	**0.1346**	**1.6539**	**2.7500e-003**		**4.1400e-003**	**4.1400e-003**		**4.1400e-003**	**4.1400e-003**	**0.0000**	**238.7540**	**238.7540**	**0.0530**	**0.0000**	**240.0786**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0646	0.5322	0.8595	1.7500e-003		0.0219	0.0219		0.0209	0.0209	0.0000	151.9345	151.9345	0.0337	0.0000	152.7775
Total	**0.0646**	**0.5322**	**0.8595**	**1.7500e-003**		**0.0219**	**0.0219**		**0.0209**	**0.0209**	**0.0000**	**151.9345**	**151.9345**	**0.0337**	**0.0000**	**152.7775**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0198	0.0856	1.0525	1.7500e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	151.9344	151.9344	0.0337	0.0000	152.7773
Total	**0.0198**	**0.0856**	**1.0525**	**1.7500e-003**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**151.9344**	**151.9344**	**0.0337**	**0.0000**	**152.7773**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Off-Road	0.3675	2.7627	3.4630	6.0500e-003		0.1036	0.1036		0.1012	0.1012	0.0000	491.5993	491.5993	0.0615	0.0000	493.1362
Total	**0.3675**	**2.7627**	**3.4630**	**6.0500e-003**		**0.1036**	**0.1036**		**0.1012**	**0.1012**	**0.0000**	**491.5993**	**491.5993**	**0.0615**	**0.0000**	**493.1362**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0113	0.0489	0.6951	6.0500e-003		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	99.1056	99.1056	0.0233	0.0000	99.6873
Total	**0.0113**	**0.0489**	**0.6951**	**6.0500e-003**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**99.1056**	**99.1056**	**0.0233**	**0.0000**	**99.6873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0259	0.1913	0.3070	5.0000e-004		8.3300e-003	8.3300e-003		8.1800e-003	8.1800e-003	0.0000	42.8932	42.8932	5.1700e-003	0.0000	43.0225
Total	**0.2175**	**0.1913**	**0.3070**	**5.0000e-004**		**8.3300e-003**	**8.3300e-003**		**8.1800e-003**	**8.1800e-003**	**0.0000**	**42.8932**	**42.8932**	**5.1700e-003**	**0.0000**	**43.0225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0342	0.0912	5.0000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	10.5307	10.5307	3.4100e-003	0.0000	10.6158
Total	**0.1937**	**0.0342**	**0.0912**	**5.0000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**10.5307**	**10.5307**	**3.4100e-003**	**0.0000**	**10.6158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1037	0.7651	1.2279	1.9900e-003		0.0333	0.0333		0.0327	0.0327	0.0000	171.5728	171.5728	0.0207	0.0000	172.0899
Total	**0.8700**	**0.7651**	**1.2279**	**1.9900e-003**		**0.0333**	**0.0333**		**0.0327**	**0.0327**	**0.0000**	**171.5728**	**171.5728**	**0.0207**	**0.0000**	**172.0899**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6000e-003	0.1367	0.3649	1.9900e-003		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	42.1228	42.1228	0.0136	0.0000	42.4634
Total	**0.7749**	**0.1367**	**0.3649**	**1.9900e-003**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**42.1228**	**42.1228**	**0.0136**	**0.0000**	**42.4634**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7900e-003	0.0404	0.0586	9.0000e-005		1.7900e-003	1.7900e-003		1.6800e-003	1.6800e-003	0.0000	7.8139	7.8139	2.2200e-003	0.0000	7.8694
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7900e-003**	**0.0404**	**0.0586**	**9.0000e-005**		**1.7900e-003**	**1.7900e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**7.8139**	**7.8139**	**2.2200e-003**	**0.0000**	**7.8694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	9.0000e-004	3.8900e-003	0.0553	9.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	7.8139	7.8139	2.2200e-003	0.0000	7.8694
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0000e-004**	**3.8900e-003**	**0.0553**	**9.0000e-005**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**7.8139**	**7.8139**	**2.2200e-003**	**0.0000**	**7.8694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Attachment 2: EMFAC2021 Calculations

Phase 1 NW Above Garage CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	18	0	720	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	7776	0	0
Site Preparation	8	0	80	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	864	0	0
Trenching	18	0	1080	0	212	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	11664	0	4240
Building Construction	22	9	3080	1260	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	33264	9198	0
Architectural Coating	4	0	180	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1944	0	0
Paving	28	0	840	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	9072	0	0

Number of Days Per Year					
2024	1/1/24	12/31/24	366	262	
2025	1/1/25	3/28/25	87	62	
			453	**325**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/1/2024	2/23/2024	5	40
Site Preparation	2/26/2024	3/8/2024	5	10
Trenching	3/11/2024	5/31/2024	5	60
Building Construction	6/3/2024	12/13/2024	5	140
Architectural Coating	12/16/2024	2/14/2025	5	45
Paving	2/17/2025	3/28/2025	5	30

Phase 1 NW Above Garage Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
					Tons							*Metric Tons*		
Criteria Pollutants														
2024	0.0068	0.0330	0.0701	0.0003	0.0208	0.0024	0.0231	0.0031	0.0009	0.0041	32.6956	0.0023	0.0029	33.6222
2025	0.0015	0.0074	0.0159	0.0001	0.0049	0.0006	0.0055	0.0007	0.0002	0.0010	7.6600	0.0005	0.0007	7.8750
Toxic Air Contaminants (1 Mile Trip Length)														
2024	0.0060	0.0095	0.0255	0.0000	0.0020	0.0002	0.0022	0.0003	0.0001	0.0004	4.0504	0.0006	0.0005	4.2182
2025	0.0014	0.0022	0.0059	0.0000	0.0005	0.0001	0.0005	0.0001	0.0000	0.0001	0.9494	0.0001	0.0001	0.9884

Phase 2 SW Below Garage CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	10	0	50	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	540	0	0
Site Preparation	8	0	40	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	432	0	0
Grading	18	0	1080	0	1,673	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	11664	0	33460
Trenching	48	0	2880	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	31104	0	0
Building Construction	12	5	1380	575	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	14904	4197.5	0
Architectural Coating	2	0	90	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	972	0	0
Paving	25	0	875	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	9450	0	0

Number of Days Per Year					
2025	5/1/25	12/31/25	245	176	
2026	1/1/26	7/29/26	210	150	
2027	1/0/00	1/0/00	0	0	
2028	1/0/00	1/0/00	0	0	
			455	**326**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	5/1/2025	5/7/2025	5	5
Site Preparation	5/8/2025	5/14/2025	5	5
Grading	5/15/2025	8/6/2025	5	60
Trenching	8/7/2025	10/29/2025	5	60
Building Construction	10/30/2025	4/8/2026	5	115
Architectural Coating	4/9/2026	6/10/2026	5	45
Paving	6/11/2026	7/29/2026	5	35

Phase 2 SW Below Garage Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
					Tons							*Metric Tons*		
Criteria Pollutants														
2025	0.0052	0.0640	0.0760	0.0005	0.0189	0.0039	0.0229	0.0028	0.0016	0.0045	46.2823	0.0053	0.0059	48.1689
2026	0.0042	0.0520	0.0630	0.0004	0.0162	0.0034	0.0196	0.0024	0.0014	0.0038	38.9701	0.0043	0.0049	40.5507
Toxic Air Contaminants (1 Mile Trip Length)														
2025	0.0043	0.0120	0.0213	0.0000	0.0015	0.0003	0.0018	0.0002	0.0001	0.0003	4.0519	0.0008	0.0006	4.2389
2026	0.0035	0.0100	0.0176	0.0000	0.0013	0.0002	0.0015	0.0002	0.0001	0.0003	3.4175	0.0006	0.0005	3.5740

Phase 3 SE Building CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	225	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2430	0	0
Site Preparation	13	0	195	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2106	0	0
Grading	48	0	4320	0	5,251	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	46656	0	105020
Trenching	93	0	8370	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	90396	0	0
Building Construction	96	45	19200	9000	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	207360	65700	0
Architectural Coating	19	0	2470	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	26676	0	0
Paving	45	0	3150	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	34020	0	0

Number of Days Per Year					
2025	5/1/25	12/31/25	245	175	
2026	1/1/26	12/31/26	365	261	
2027	1/1/27	9/1/27	244	175	
2028	1/0/00	1/0/00	0	0	
			854	**611**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	5/1/2025	5/21/2025	5	15
Site Preparation	5/22/2025	6/11/2025	5	15
Grading	6/12/2025	10/15/2025	5	90
Trenching	10/16/2025	2/18/2026	5	90
Building Construction	2/19/2026	11/25/2026	5	200
Architectural Coating	11/26/2026	5/26/2027	5	130
Paving	5/27/2027	9/1/2027	5	70

Phase 3 SE Building Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
					Tons							*Metric Tons*		
Criteria Pollutants														
2025	0.0159	0.1449	0.2001	0.0012	0.0549	0.0092	0.0641	0.0083	0.0038	0.0120	115.7666	0.0110	0.0133	120.0032
2026	0.0223	0.2043	0.2871	0.0017	0.0818	0.0137	0.0954	0.0123	0.0055	0.0178	169.6888	0.0156	0.0194	175.8581
2027	0.0143	0.1294	0.1853	0.0011	0.0547	0.0091	0.0637	0.0082	0.0036	0.0119	111.5191	0.0099	0.0127	115.5457
Toxic Air Contaminants (1 Mile Trip Length)														
2025	0.0134	0.0338	0.0647	0.0001	0.0049	0.0008	0.0057	0.0007	0.0003	0.0011	12.3432	0.0021	0.0017	12.8875
2026	0.0190	0.0489	0.0927	0.0002	0.0074	0.0011	0.0085	0.0011	0.0005	0.0016	18.1118	0.0029	0.0024	18.9036
2027	0.0122	0.0317	0.0599	0.0001	0.0049	0.0007	0.0057	0.0007	0.0003	0.0011	11.9196	0.0019	0.0016	12.4366

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2024	**1.0012**	**1.001**	**1.0011**	**1.0051**	**1.0044**	**1.0207**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEx and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNI	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2024	HHDT	Aggregate	Aggregate	Gasoline	4.38411	570.1519	570.1519	0	87.71727	0	4.048188	0	0.002195	0.001412	0	0.000781	0.005	0.031087	0.001536	0	0.000849	0.02	0.08882	2242.616	0	52.51813	0.114927	0	9.83E-05	0.151409	0	0.000106	0.580011	0	0.000534	0.038164	0.298441	2.621146	0.84635	0	0.000584	0.038164	0.298441	2.621146	0.045	33.76595	0	5.064106	0.022171	0	0.000519
San Mateo	2024	HHDT	Aggregate	Aggregate	Diesel	1314.625	119489.1	119489.1	0	14359.46	0	2.758523	46.67792	2.948259	0.025016	0.035273	0	0.008607	0.030666	0.026147	0.036868	0	0	0.034429	0.087616	1815.874	8218.84	0	0.001264	0.157243	0	0.286092	1.294882	0	0.027205	3.385404	0	0	0	0	0.030971	3.854024	0	0	0	0	0.19939	0.118425	47.19978	0	0.017195	0.077828	0
San Mateo	2024	HHDT	Aggregate	Aggregate	Electricity	4.22305	364.2879	0	364.2879	41.8342	680.3172	0	0	0	0	0	0	0.008582	0.016829	0	0	0	0	0.034329	0.048082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	HHDT	Aggregate	Aggregate	Natural Ga	168.5495	11187.83	11187.83	0	1132.175	0	1.492552	9.520927	0	0.001788	0.012243	0	0.009	0.059336	0.001944	0.013315	0	0.036	0.169533	1498.953	8407.645	0	3.081874	24.13874	0	0.305571	1.713953	0	0.069062	0.389544	0	0	0	0	3.173794	24.68622	0	0	0	0	0.729125	16.65962	64.84398	0	0	0	0
San Mateo	2024	LDA	Aggregate	Aggregate	Gasoline	239419.7	7454000	7454000	0	1124271	0	0.038087	0	0.247841	0.001162	0	0.001964	0.002	0.002348	0.001263	0	0.002136	0.008	0.006709	273.8201	0	69.41898	0.002038	0	0.068169	0.004236	0	0.031309	0.007847	0	0.318313	0.083377	0.213338	1.277502	0.01145	0	0.348512	0.083377	0.213338	1.277502	0.036176	0.637775	0	3.199778	0.002707	0	0.000686
San Mateo	2024	LDA	Aggregate	Aggregate	Diesel	770.443	17557.03	17557.03	0	3247.138	0	0.188593	0	0	0.01271	0	0	0.002	0.002404	0.013285	0	0	0.008	0.006869	232.7779	0	0	0.001054	0	0	0.036674	0	0	0.022696	0	0	0	0	0	0.025838	0	0	0	0	0	0.0031	0.304144	0	0	0.002206	0	0
San Mateo	2024	LDA	Aggregate	Aggregate	Electricity	17934.86	689392.1	0	689392.1	89072.05	2661623	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LDA	Aggregate	Aggregate	Plug-in Hyb	7500.936	275231.1	133857.4	141373.7	31016.37	42699.07	0.003125	0	0.117199	0.000577	0	0.001988	0.002	0.001324	0.000628	0	0.002162	0.008	0.003783	131.2036	0	65.11921	0.000402	0	0.042117	0.000534	0	0.020029	0.001313	0	0.176635	0.037635	0.03379	0.393665	0.00194	0.1958	0	0.193393	0.037635	0.03379	0.393665	0.0194	0.1958	0	1.37819	0.001297	0	0.000644
San Mateo	2024	LDT1	Aggregate	Aggregate	Gasoline	25010.05	728708.6	728708.6	0	114230.1	0	0.101175	0	0.337766	0.001531	0	0.002433	0.002	0.002823	0.001665	0	0.002647	0.008	0.008066	320.3175	0	83.57506	0.004741	0	0.091509	0.007635	0	0.035447	0.020943	0	0.464929	0.13393	0.378571	2.119435	0.037551	1.098083	0	0.509038	0.13393	0.378571	2.119435	0.037551	1.098083	0	4.642443	0.003167	0	0.000826
San Mateo	2024	LDT1	Aggregate	Aggregate	Diesel	6.907674	87.50597	87.50597	0	19.69868	0	1.656035	0	0	0.236493	0	0	0.002	0.003323	0.247186	0	0	0.008	0.009495	417.763	0	0	0.014564	0	0	0.065819	0	0	0.313559	0	0	0	0	0	0.356966	0	0	0	0	0	0.0031	1.668132	0	0	0.003959	0	0
San Mateo	2024	LDT1	Aggregate	Aggregate	Electricity	91.59654	3278.131	0	3278.131	443.5442	1265.629	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.004381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LDT1	Aggregate	Aggregate	Plug-in Hyb	54.25069	2174.893	971.2907	1203.602	224.3266	363.5237	0.002869	0	0.117199	0.000364	0	0.001376	0.002	0.001338	0.000396	0	0.001496	0.008	0.003823	120.4792	0	71.41059	0.00037	0	0.042142	0.000491	0	0.020052	0.001206	0	0.176635	0.024003	0.020809	0.269408	0.00176	0	0.193393	0.024003	0.020809	0.269408	0.018757	0.179795	0	1.37819	0.001191	0	0.000706
San Mateo	2024	LDT2	Aggregate	Aggregate	Gasoline	149536	4914901	4914901	0	718035.6	0	0.047837	0	0.275637	0.001155	0	0.001881	0.002	0.002719	0.001256	0	0.002046	0.008	0.007768	332.6183	0	84.15109	0.002154	0	0.070859	0.004613	0	0.03323	0.008159	0	0.321903	0.059457	0.151098	0.950815	0.011906	0	0.352443	0.059457	0.151098	0.950815	0.038479	0.65082	0	3.265171	0.003288	0	0.000832
San Mateo	2024	LDT2	Aggregate	Aggregate	Diesel	582.1748	18954.02	18954.02	0	2798.233	0	0.039602	0	0	0.004525	0	0	0.002	0.002742	0.00473	0	0	0.008	0.007835	308.9591	0	0	0.000583	0	0	0.048677	0	0	0.012549	0	0	0	0	0	0.014287	0	0	0	0	0	0.0031	0.119356	0	0	0.002928	0	0
San Mateo	2024	LDT2	Aggregate	Aggregate	Electricity	1250.957	37598.89	0	37598.89	6394.245	14516.27	0	0	0	0	0	0	0.002	0.001525	0	0	0	0.008	0.004358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LDT2	Aggregate	Aggregate	Plug-in Hyb	1631.391	62724.85	29203.5	33521.35	6745.803	10124.45	0.002991	0	0.117199	0.000445	0	0.001613	0.002	0.001331	0.000484	0	0.001754	0.008	0.003803	125.6019	0	77.89253	0.000385	0	0.042141	0.000512	0	0.020051	0.001257	0	0.176635	0.025289	0.023061	0.293714	0.001834	0	0.193393	0.025289	0.023061	0.293714	0.019538	0.18744	0	1.37819	0.001242	0	0.00077
San Mateo	2024	LHDT1	Aggregate	Aggregate	Gasoline	11110.29	401258.4	401258.4	0	165526.8	0	0.108054	0.033789	0.571117	0.001381	0	0.000231	0.002	0.0273	0.001502	0	0.000252	0.008	0.078	836.8766	116.5649	26.73629	0.005557	0.107506	0.028745	0.006197	0.00292	0.048292	0.02703	0.387394	0.139437	0.033968	0.18488	1.873078	0.039443	0.565284	0.152666	0.033968	0.18488	1.873078	0.044949	0.932434	3.763967	3.345475	0.008273	0.001152	0.000264
San Mateo	2024	LHDT1	Aggregate	Aggregate	Diesel	4996.692	191551.4	191551.4	0	62852.09	0	1.027551	1.628055	0	0.024469	0.026784	0	0.003	0.0273	0.025575	0.027995	0	0.012	0.078	625.1858	126.8159	0	0.006142	0.005098	0	0.098498	0.01998	0	0.132227	0.10976	0	0	0	0	0.150532	0.124954	0	0	0	0	0.191039	0.331515	0.909745	0	0.005924	0.001202	0
San Mateo	2024	LHDT1	Aggregate	Aggregate	Electricity	56.88552	3530.642	0	3530.642	794.6546	2311.167	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LHDT2	Aggregate	Aggregate	Gasoline	1289.385	44551.76	44551.76	0	19209.92	0	0.122228	0.032802	0.574333	0.001317	0	0.000203	0.002	0.03185	0.001432	0	0.00022	0.008	0.091	944.5417	135.0667	25.31696	0.004775	0.10351	0.028373	0.007371	0.002735	0.046606	0.02185	0.376166	0.138457	0.035403	0.189345	1.948594	0.04499	0.81417	3.766002	3.313222	0.009338	0.001335	0.00025
San Mateo	2024	LHDT2	Aggregate	Aggregate	Diesel	2173.662	83732.44	83732.44	0	27341.93	0	0.758817	1.552593	0	0.021905	0.026813	0	0.003	0.03185	0.022896	0.028026	0	0.012	0.091	738.893	201.7788	0	0.00575	0.005098	0	0.116413	0.03179	0	0.123794	0.10976	0	0	0	0	0.140931	0.124954	0	0	0	0	0.200587	0.280863	0.909745	0	0.007001	0.001912	0
San Mateo	2024	LHDT2	Aggregate	Aggregate	Electricity	14.72375	865.8383	0	865.8383	194.8979	558.2118	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	MCY	Aggregate	Aggregate	Gasoline	13263.89	76675.37	76675.37	0	26527.78	0	0.518793	0	0.126152	0.001881	0	0.003482	0.001	0.0042	0.002012	0	0.003708	0.004	0.012	186.9256	0	46.09461	0.145168	0	0.173078	0.036969	0	0.007549	0.930365	0	1.275208	3.551353	3.70872	3.28364	1.125127	0	1.386524	3.551353	3.70872	3.28364	0.008901	11.0461	0	7.750076	0.001848	0	0.000456
San Mateo	2024	MDV	Aggregate	Aggregate	Gasoline	84173.19	2823183	2823183	0	402441.6	0	0.058434	0	0.328591	0.001156	0	0.001958	0.002	0.002737	0.001258	0	0.002129	0.008	0.007819	401.2877	0	101.9843	0.002492	0	0.08141	0.005161	0	0.035386	0.009941	0	0.393656	0.066904	0.180975	1.115277	0.014501	0	0.431003	0.066904	0.180975	1.115277	0.038746	0.686178	0	3.45873	0.003967	0	0.001008
San Mateo	2024	MDV	Aggregate	Aggregate	Diesel	1163.667	38157.5	38157.5	0	5552.1	0	0.037261	0	0	0.004001	0	0	0.002	0.002798	0.004182	0	0	0.008	0.007995	404.1827	0	0	0.000421	0	0	0.063679	0	0	0.009074	0	0	0	0	0	0.01033	0	0	0	0	0	0.0031	0.171126	0	0	0.00383	0	0
San Mateo	2024	MDV	Aggregate	Aggregate	Electricity	1347.217	40547.66	0	40547.66	6889.415	15654.74	0	0	0	0	0	0	0.002	0.001525	0	0	0	0.008	0.004357	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	MDV	Aggregate	Aggregate	Plug-in Hyb	894.3672	35015.17	16467.11	18548.06	3698.208	5602.067	0.003021	0	0.117199	0.000509	0	0.001829	0.002	0.00133	0.000553	0	0.001989	0.008	0.0038	126.8709	0	95.82464	0.000391	0	0.042289	0.000521	0	0.020188	0.00127	0	0.176635	0.028115	0.024943	0.310017	0.001853	0	0.193393	0.028115	0.024943	0.310017	0.019752	0.189334	0	1.37819	0.001254	0	0.000947
San Mateo	2024	MH	Aggregate	Aggregate	Gasoline	801.8479	7786.339	7786.339	0	80.21686	0	0.31412	0	0.403344	0.001626	0	0.000414	0.003	0.015756	0.001768	0	0.00045	0.012	0.045017	1946.554	0	31.59379	0.011734	0	0.037106	0.021154	0	0.043344	0.049091	0	0.154768	9.691274	0.229932	3.473479	0.071633	0	0.169451	9.691274	0.229932	3.473479	0.044918	1.137792	0	3.470688	0.019244	0	0.000312
San Mateo	2024	MH	Aggregate	Aggregate	Diesel	356.6509	3693.518	3693.518	0	35.66509	0	3.096233	0	0	0.049578	0	0	0.004	0.015675	0.05182	0	0	0.016	0.044785	1085.795	0	0	0.004225	0	0	0.171067	0	0	0.090961	0	0	0	0	0	0.103553	0	0	0	0	0	0.190835	0.284597	0	0	0.010288	0	0
San Mateo	2024	MHDT	Aggregate	Aggregate	Gasoline	803.5707	46997.14	46997.14	0	1607.84	0	0.392706	0.088662	0.440106	0.001362	0	0.000524	0.003	0.015756	0.001481	0	0.00057	0.012	0.045017	1738.217	524.0271	45.30167	0.012668	0.264735	0.046933	0.020191	0.007577	0.034475	0.061766	1.015329	0.254725	0.030087	0.246862	2.353612	0.090129	1.481566	0.278892	0.030087	0.246862	2.353612	0.044986	1.274083	15.14683	5.603458	0.017184	0.005181	0.000448
San Mateo	2024	MHDT	Aggregate	Aggregate	Diesel	4233.233	177028	177028	0	51051.04	0	1.307284	13.59602	1.607655	0.016259	0.033511	0	0.003	0.015983	0.016994	0.035026	0	0.012	0.045664	1151.344	2248.491	0	0.001748	0.011985	0	0.181395	0.354251	0	0.037635	0.258043	0	0	0	0	0.042845	0.293763	0	0	0	0	0.208724	0.13444	7.547588	0	0.010903	0.021292	0
San Mateo	2024	MHDT	Aggregate	Aggregate	Electricity	14.28233	871.0875	0	871.0875	206.3119	980.3084	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	MHDT	Aggregate	Aggregate	Natural Ga	40.94682	1935.863	1935.863	0	369.2827	0	0.126627	6.578363	0	0.00126	0.019031	0	0.003	0.016095	0.001371	0.020698	0	0.012	0.045986	1003.333	5452.112	0	0.773152	17.27614	0	0.204536	1.111449	0	0.011047	0.246842	0	0	0	0	0.789058	17.63157	0	0	0	0	1.06	3.068853	36.67055	0	0	0	0
San Mateo	2024	OBUS	Aggregate	Aggregate	Gasoline	254.1967	14438.68	14438.68	0	5085.967	0	0.276687	0.065109	0.370674	0.00102	0	0.000283	0.003	0.01568	0.00111	0	0.000308	0.012	0.044799	1723.101	370.7574	29.97676	0.008478	0.205512	0.032818	0.016007	0.005919	0.031879	0.039535	0.746984	0.162428	0.025788	0.11331	1.92621	0.05769	1.089998	0.177838	0.025788	0.11331	1.92621	0.044947	0.847792	5.778931	3.396221	0.017035	0.003665	0.000296
San Mateo	2024	OBUS	Aggregate	Aggregate	Diesel	1077.493	75002.36	75002.36	0	10539.7	0	0.835238	5.759378	1.510482	0.009497	0.003284	0	0.003	0.017376	0.009927	0.003433	0	0.012	0.049647	1241.911	1216.11	0	0.000936	0.013985	0	0.195664	0.191599	0	0.020157	0.301093	0	0	0	0	0.022947	0.342772	0	0	0	0	0.217754	0.093918	5.631167	0	0.01176	0.011516	0
San Mateo	2024	OBUS	Aggregate	Aggregate	Electricity	0.873406	79.58076	0	79.58076	17.47512	88.16331	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	OBUS	Aggregate	Aggregate	Natural Ga	7.797528	492.5585	492.5585	0	69.398	0	0.196374	1.542446	0	0.001031	0.003779	0	0.003	0.016148	0.001121	0.00411	0	0.012	0.046137	1012.331	1198.177	0	0.786409	4.299019	0	0.20637	0.244256	0	0.011236	0.061424	0	0	0	0	0.802588	4.387464	0	0	0	0	1.06	3.2452	7.082462	0	0	0	0
San Mateo	2024	SBUS	Aggregate	Aggregate	Gasoline	66.88141	3561.549	3561.549	0	267.5256	0	0.835223	0.92382	0.639831	0.001152	0	0.000724	0.002	0.015721	0.001252	0	0.000787	0.008	0.044917	789.442	2519.886	61.00487	0.01963	2.446302	0.087874	0.039135	0.085207	0.056875	0.09611	10.60191	0.509805	0.133122	0.399591	2.076885	0.140243	15.47029	0.558173	0.133122	0.399591	2.076885	0.045	2.460202	82.00038	12.72081	0.007804	0.024912	0.000603
San Mateo	2024	SBUS	Aggregate	Aggregate	Diesel	168.96	3777.202	3777.202	0	2446.541	0	4.696712	23.22062	0.459253	0.022409	0.023726	0	0.003	0.015721	0.023422	0.024798	0	0.012	0.044917	1144.311	2236.593	0	0.003112	0.008208	0	0.180287	0.352376	0	0.067	0.176716	0	0	0	0	0.076275	0.201177	0	0	0	0	0.139187	0.202372	4.417573	0	0.010836	0.021179	0
San Mateo	2024	SBUS	Aggregate	Aggregate	Electricity	0.90883	36.62057	0	36.62057	8.140217	38.57814	0	0	0	0	0	0	0.002	0.00786	0	0	0	0.009214	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	SBUS	Aggregate	Aggregate	Natural Ga	6.288614	158.6097	158.6097	0	91.05913	0	0.535215	5.251389	0	0.003378	0.011823	0	0.003	0.015721	0.003674	0.012858	0	0.012	0.044917	1247.354	4088.672	0	3.35032	15.01581	0	0.254281	0.833502	0	0.047869	0.214546	0	0	0	0	3.419247	15.32474	0	0	0	0	1.06	11.24264	21.79598	0	0	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Gasoline	61.44418	4178.01	4178.01	0	245.7767	0	0.036235	0	0.500251	0.001083	0	0.000148	0.002	0.002073	0.032333	0.001178	0	0.000161	0.00829	0.092379	1002.317	0	40.2745	0.00211	0	0.046538	0.004853	0	0.069658	0.006117	0	0.175043	0.050072	0.096281	0.505947	0.008925	0	0.19165	0.050072	0.096281	0.505947	0.045	0.556675	0	6.169996	0.009909	0	0.000398
San Mateo	2024	UBUS	Aggregate	Aggregate	Diesel	277.5893	21477.78	21477.78	0	1110.357	0	0.375565	0	0	0.006827	0	0	0.002	0.008097	0.0385	0.007136	0	0	0.032388	0.11	1223.727	0	0.003145	0	0	0.192799	0	0	0.067719	0	0	0	0	0	0.077093	0	0	0	0	0	0.22	0.077195	0	0	0.011595	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Electricity	37.0794	3851.303	0	3851.303	148.3176	6713.762	0	0	0	0	0	0	0.002	0.007366	0.01925	0	0	0	0.029466	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Natural Ga	65.26114	4514.573	4514.573	0	261.0446	0	0.055424	0	0	0.000272	0	0	0.007741	0.0385	0.000285	0	0	0.030963	0.11	1262.656	0	0	4.100531	0	0	0.257401	0	0	0.058588	0	0	0	0	0	4.184893	0	0	0	0	0	0.97	46.50633	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNE	N2O_IDLEX	N2O_STRE	ROG_RUNI	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2025	HHDT	Aggregate	Aggregate	Gasoline	4.335984	539.4434	539.4434	0	86.75436	0	3.993891	0	0.002022	0.001378	0	0.000669	0.005	0.031006	0.001498	0	0.000751	0.02	0.088589	2226.101	0	52.013	0.111171	0	9.85E-05	0.151221	0	0.000104	0.548787	0	0.000535	0.032327	0.240688	2.160104	0.800789	0	0.000585	0.032327	0.240688	2.160104	0.045	33.0787	0	5.031545	0.022007	0	0.000514
San Mateo	2025	HHDT	Aggregate	Aggregate	Diesel	1328.41	119560.7	1195960.7	0	14621.91	0	2.632025	46.34757	3.000431	0.02461	0.033159	0	0.008607	0.030397	0.025723	0.034658	0	0.034427	0.086848	1786.171	8142.854	0	0.001211	0.15815	0	0.281412	1.28291	0	0.022607	3.404928	0	0	0	0	0.029679	3.876252	0	0	0	0	0	0.201044	0.113335	47.75386	0	0.016914	0.077108	0	0
San Mateo	2025	HHDT	Aggregate	Aggregate	Electricity	10.02384	901.0022	0	901.0022	96.27797	1681.601	0	0	0	0	0	0	0.008517	0.017099	0	0	0	0.034067	0.044854	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	HHDT	Aggregate	Aggregate	Natural Ga	180.5549	11842.66	11842.66	0	1200.105	0	1.331412	8.859598	0	0.001692	0.012232	0	0.009	0.060148	0.00184	0.013304	0	0.036	0.171851	1477.927	8333.863	0	2.792898	22.57518	0	0.301285	1.698912	0	0.061153	0.360007	0	0	0	0	2.874566	23.0823	0	0	0	0	0	0.720658	15.82056	63.0407	0	0	0	0	0
San Mateo	2025	LDA	Aggregate	Aggregate	Gasoline	238618	7185689	7185689	0	1119872	0	0.034615	0	0.235851	0.001128	0	0.001911	0.002	0.002349	0.001227	0	0.002078	0.008	0.00671	269.175	0	68.0394	0.001838	0	0.063866	0.004	0	0.030182	0.006975	0	0.296397	0.080623	0.207785	1.246636	0.010177	0	0.324517	0.080623	0.207785	1.246636	0.036919	0.602664	0	3.018989	0.002661	0	0.000673
San Mateo	2025	LDA	Aggregate	Aggregate	Diesel	710.5834	15407.46	15407.46	0	2980.227	0	0.166025	0	0	0.01142	0	0	0.002	0.00241	0.011937	0	0	0.008	0.006884	230.6071	0	0	0.00097	0	0	0.036332	0	0	0.020877	0	0	0	0	0	0.023767	0	0	0	0	0	0	0.0031	0.292415	0	0	0.002185	0	0
San Mateo	2025	LDA	Aggregate	Aggregate	Electricity	19564.98	745853.8	0	745853.8	96825.51	287961.1	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LDA	Aggregate	Aggregate	Plug-in Hyb	8044.117	283509.4	134548.1	148961.4	39536.84	44990.77	0.003049	0	0.473855	0.000543	0	0.001908	0.002	0.00133	0.000591	0	0.002075	0.008	0.0038	128.0305	0	73.49766	0.000312	0	0.155433	0.000334	0	0.05194	0.001281	0	0.821719	0.031948	0.028479	0.389847	0.00187	0	0.899679	0.031948	0.028479	0.389847	0.019071	0.191067	0	6.16492	0.001266	0	0.000727
San Mateo	2025	LDT1	Aggregate	Aggregate	Gasoline	25473.09	722986.2	722986.2	0	116608.1	0	0.088465	0	0.313819	0.001428	0	0.002288	0.002	0.002819	0.001554	0	0.002489	0.008	0.008056	314.602	0	81.51978	0.004138	0	0.083876	0.006908	0	0.033921	0.018105	0	0.421017	0.123314	0.343281	1.948219	0.026418	0	0.460961	0.123314	0.343281	1.948219	0.037997	0.996198	0	4.245316	0.003311	0	0.000806
San Mateo	2025	LDT1	Aggregate	Aggregate	Diesel	6.297196	75.91061	75.91061	0	17.6629	0	1.633241	0	0	0.233227	0	0	0.002	0.003314	0.243773	0	0	0.008	0.009467	417.0098	0	0	0.014366	0	0	0.0657	0	0	0.309282	0	0	0	0	0	0.352097	0	0	0	0	0	0	0.0031	1.645498	0	0	0.003951	0	0
San Mateo	2025	LDT1	Aggregate	Aggregate	Electricity	114.3013	4207.979	0	4207.979	557.9394	1624.627	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LDT1	Aggregate	Aggregate	Plug-in Hyb	78.69736	3019.599	1309.635	1709.964	386.7975	516.46	0.002786	0	0.473855	0.00035	0	0.001353	0.002	0.001345	0.000381	0	0.001471	0.008	0.003842	117.005	0	79.47792	0.000284	0	0.155353	0.000305	0	0.05188	0.001171	0	0.821719	0.019982	0.017036	0.266848	0.001709	0	0.899679	0.019982	0.017036	0.266848	0.018216	0.174613	0	6.16492	0.001157	0	0.000786
San Mateo	2025	LDT2	Aggregate	Aggregate	Gasoline	159673.6	5072144	5072144	0	766397.2	0	0.043155	0	0.259038	0.001111	0	0.001824	0.002	0.002725	0.001208	0	0.001983	0.008	0.007785	326.5862	0	82.3296	0.001976	0	0.066383	0.004349	0	0.031999	0.007386	0	0.299178	0.056614	0.145016	0.911896	0.010777	0	0.327563	0.056614	0.145016	0.911896	0.039093	0.616696	0	3.075211	0.003229	0	0.000814
San Mateo	2025	LDT2	Aggregate	Aggregate	Diesel	618.9276	19447.24	19447.24	0	2972.356	0	0.035316	0	0	0.004147	0	0	0.002	0.002746	0.004334	0	0	0.008	0.007845	303.5847	0	0	0.00056	0	0	0.04783	0	0	0.012057	0	0	0	0	0	0.013726	0	0	0	0	0	0	0.0031	0.116837	0	0	0.002877	0	0
San Mateo	2025	LDT2	Aggregate	Aggregate	Electricity	1700.502	48819.4	0	48819.4	8654.222	18848.32	0	0	0	0	0	0	0.002	0.001526	0	0	0	0.008	0.004361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LDT2	Aggregate	Aggregate	Plug-in Hyb	1989.466	72787.26	33032.95	39754.31	9778.227	12006.99	0.002916	0	0.473855	0.00042	0	0.00155	0.002	0.001337	0.000457	0	0.001686	0.008	0.003821	122.4321	0	86.03449	0.000298	0	0.155304	0.000319	0	0.051844	0.001225	0	0.821719	0.021329	0.019106	0.287953	0.001788	0	0.899679	0.021329	0.019106	0.287953	0.019048	0.182712	0	6.16492	0.00121	0	0.000851
San Mateo	2025	LHDT1	Aggregate	Aggregate	Gasoline	11613.82	405927.2	405927.2	0	173028.5	0	0.092721	0.032618	0.543495	0.00135	0	0.000213	0.002	0.0273	0.001468	0	0.000231	0.008	0.078	826.9698	115.7154	26.45235	0.004867	0.10443	0.026887	0.00529	0.002859	0.046486	0.023548	0.374027	0.129854	0.03142	0.171421	1.736909	0.034361	0.545779	0.142174	0.03142	0.171421	1.736909	0.044961	0.876305	3.766067	3.299991	0.008175	0.001144	0.000262
San Mateo	2025	LHDT1	Aggregate	Aggregate	Diesel	5396.711	200335.3	200335.3	0	67883.84	0	0.869542	1.51814	0	0.02239	0.026666	0	0.003	0.0273	0.023403	0.027871	0	0.012	0.078	625.1633	125.503	0	0.005716	0.005098	0	0.098495	0.019773	0	0.123053	0.10976	0	0	0	0	0.140088	0.124954	0	0	0	0	0	0.196014	0.301643	0.909745	0	0.005924	0.001189	0	0
San Mateo	2025	LHDT1	Aggregate	Aggregate	Electricity	157.5841	8786.546	0	8786.546	2203.775	5753.375	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	LHDT2	Aggregate	Aggregate	Gasoline	1342.429	45031.5	45031.5	0	20000.19	0	0.100813	0.033102	0.570219	0.001282	0	0.000185	0.002	0.03185	0.001395	0	0.000201	0.008	0.091	933.6381	134.1464	25.03467	0.00415	0.105117	0.027515	0.005943	0.002815	0.047038	0.018802	0.379707	0.133283	0.032846	0.178071	1.845904	0.027436	0.554068	0.145928	0.032846	0.178071	1.845904	0.044991	0.761624	3.768677	3.255916	0.00923	0.001326	0.000247
San Mateo	2025	LHDT2	Aggregate	Aggregate	Diesel	2386.592	88314.97	88314.97	0	30020.32	0	0.655618	1.451157	0	0.020708	0.02679	0	0.003	0.03185	0.021644	0.028001	0	0.012	0.091	736.6435	200.0465	0	0.005491	0.005098	0	0.116058	0.031517	0	0.118209	0.10976	0	0	0	0	0.134573	0.124954	0	0	0	0	0	0.203813	0.264962	0.909745	0	0.00698	0.001896	0	0
San Mateo	2025	LHDT2	Aggregate	Aggregate	Electricity	40.48817	2145.224	0	2145.224	536.9131	1383.682	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	MCY	Aggregate	Aggregate	Gasoline	13994.78	78703.42	78703.42	0	27989.55	0	0.536852	0	0.132535	0.00196	0	0.003401	0.001	0.0042	0.002099	0	0.003624	0.004	0.012	189.8778	0	48.40409	0.151211	0	0.175047	0.038034	0	0.008168	0.960763	0	1.28387	3.548067	3.701315	3.154868	1.171115	0	1.396328	3.548067	3.701315	3.154868	0.008947	12.67708	0	7.342955	0.001877	0	0.000479
San Mateo	2025	MDV	Aggregate	Aggregate	Gasoline	89810.74	2915872	2915872	0	429459.7	0	0.050748	0	0.301319	0.001104	0	0.001871	0.002	0.002743	0.0012	0	0.002035	0.008	0.007838	394.1876	0	99.80167	0.002219	0	0.074825	0.004749	0	0.03376	0.008671	0	0.356712	0.062664	0.169351	1.048331	0.012652	0	0.390555	0.062664	0.169351	1.048331	0.039288	0.640699	0	3.225835	0.003897	0	0.000987
San Mateo	2025	MDV	Aggregate	Aggregate	Diesel	1216.213	38222.55	38222.55	0	5783.756	0	0.033166	0	0	0.003666	0	0	0.002	0.002807	0.003832	0	0	0.008	0.008021	398.1179	0	0	0.000395	0	0	0.062724	0	0	0.008497	0	0	0	0	0	0.009674	0	0	0	0	0	0	0.0031	0.166794	0	0	0.003772	0	0
San Mateo	2025	MDV	Aggregate	Aggregate	Electricity	1824.97	52408.32	0	52408.32	9288.746	20233.94	0	0	0	0	0	0	0.002	0.001526	0	0	0	0.008	0.004361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	MDV	Aggregate	Aggregate	Plug-in Hyb	1131.124	42471.44	19328.41	23143.04	5559.474	6989.887	0.002924	0	0.473855	0.000462	0	0.001705	0.002	0.001337	0.000502	0	0.001854	0.008	0.003821	122.7729	0	103.1752	0.0003	0	0.155901	0.000323	0	0.052276	0.001229	0	0.821719	0.023156	0.02002	0.299651	0.001793	0	0.899679	0.023156	0.02002	0.299651	0.019114	0.18322	0	6.16492	0.001214	0	0.00102
San Mateo	2025	MH	Aggregate	Aggregate	Gasoline	830.5401	8053.177	8053.177	0	83.08723	0	0.268304	0	0.400493	0.001562	0	0.000397	0.003	0.015756	0.001698	0	0.000432	0.012	0.045017	1946.149	0	31.33114	0.010026	0	0.036115	0.019184	0	0.043891	0.040666	0	0.147699	8.452557	0.201566	3.076801	0.05934	0	0.161711	8.452557	0.201566	3.076801	0.044943	0.905305	0	3.320123	0.01924	0	0.00031
San Mateo	2025	MH	Aggregate	Aggregate	Diesel	384.5125	3863.222	3863.222	0	38.45125	0	0.290063	0	0	0.044795	0	0	0.004	0.015675	0.04682	0	0	0.016	0.044785	1086.155	0	0	0.004106	0	0	0.171124	0	0	0.088396	0	0	0	0	0	0.100633	0	0	0	0	0	0	0.194759	0.273956	0	0	0.010292	0	0
San Mateo	2025	MHDT	Aggregate	Aggregate	Gasoline	825.6427	47612.58	47612.58	0	16519.46	0	0.323037	0.085434	0.420472	0.001351	0	0.000505	0.003	0.015756	0.00147	0	0.00055	0.012	0.045017	1723.877	519.5619	44.42849	0.010425	0.267434	0.04506	0.017424	0.007433	0.033886	0.050062	1.017725	0.241229	0.026732	0.218345	2.098508	0.073051	1.485063	0.264116	0.026732	0.218345	2.098508	0.044995	1.017203	15.17464	5.286069	0.017042	0.005136	0.000439
San Mateo	2025	MHDT	Aggregate	Aggregate	Diesel	4294.917	177557.8	177557.8	0	51845.95	0	1.188939	13.12716	1.614768	0.013944	0.027675	0	0.003	0.015982	0.014575	0.028927	0	0.012	0.045664	1147.33	2232.385	0	0.001506	0.011276	0	0.180762	0.351713	0	0.032415	0.242771	0	0	0	0	0.036902	0.276376	0	0	0	0	0	0.210368	0.120818	7.522952	0	0.010865	0.021139	0	0
San Mateo	2025	MHDT	Aggregate	Aggregate	Electricity	41.49574	2407.793	0	2407.793	583.4118	3153.286	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022716	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	MHDT	Aggregate	Aggregate	Natural Ga	44.4449	2054.281	2054.281	0	404.8873	0	0.119383	6.528501	0	0.001296	0.019376	0	0.003	0.016094	0.001409	0.021073	0	0.012	0.045982	1001.165	5451.255	0	0.776466	16.96742	0	0.204094	1.111274	0	0.011094	0.242431	0	0	0	0	0.79244	17.3165	0	0	0	0	0	1.06	3.065754	37.47811	0	0	0	0	0
San Mateo	2025	OBUS	Aggregate	Aggregate	Gasoline	252.722	13715.02	13715.02	0	5056.462	0	0.254289	0.063619	0.364813	0.00105	0	0.000289	0.003	0.01568	0.001142	0	0.000314	0.012	0.044799	1709.895	368.6745	29.74053	0.007842	0.204874	0.032288	0.014975	0.005762	0.031384	0.036425	0.747093	0.159999	0.025822	0.116247	1.973857	0.053152	1.090157	0.175179	0.025822	0.116247	1.973857	0.044948	0.777227	5.779588	3.340614	0.016904	0.003645	0.000294
San Mateo	2025	OBUS	Aggregate	Aggregate	Diesel	1111.576	75305.13	75305.13	0	10889.45	0	0.812155	5.594758	1.4975	0.009252	0.003188	0	0.003	0.01738	0.009671	0.003332	0	0.012	0.049657	1227.827	1209.887	0	0.000915	0.014161	0	0.193445	0.190618	0	0.019696	0.304888	0	0	0	0	0.022422	0.347092	0	0	0	0	0	0.217867	0.092546	5.69186	0	0.011627	0.011457	0	0
San Mateo	2025	OBUS	Aggregate	Aggregate	Electricity	2.143949	185.5536	0	185.5536	42.89613	241.8411	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	OBUS	Aggregate	Aggregate	Natural Ga	9.18414	584.7868	584.7868	0	81.73885	0	0.165457	1.529579	0	0.001178	0.004086	0	0.003	0.016148	0.001282	0.004444	0	0.012	0.046137	991.5916	1195.033	0	0.803368	4.140164	0	0.202142	0.243615	0	0.011479	0.059155	0	0	0	0	0.819896	4.225341	0	0	0	0	0	1.06	3.290889	7.77441	0	0	0	0	0
San Mateo	2025	SBUS	Aggregate	Aggregate	Gasoline	71.37135	3679.781	3679.781	0	285.4854	0	0.767242	0.883319	0.626471	0.001129	0	0.000724	0.002	0.015721	0.001228	0	0.000787	0.008	0.044917	784.7603	2507.332	59.92706	0.017691	2.446506	0.085381	0.036296	0.082358	0.056445	0.086658	10.61248	0.494948	0.122618	0.362839	1.907752	0.126452	15.4857	0.541906	0.122618	0.362839	1.907752	0.045	2.216556	82.06454	12.20654	0.007758	0.024788	0.000592
San Mateo	2025	SBUS	Aggregate	Aggregate	Diesel	168.9397	3758.24	3758.24	0	2446.247	0	4.387797	22.54247	0.476886	0.020913	0.021713	0	0.003	0.015721	0.021858	0.022694	0	0.012	0.044917	1140.479	2228.091	0	0.002986	0.00812	0	0.179683	0.351037	0	0.064283	0.174818	0	0	0	0	0.073182	0.199017	0	0	0	0	0	0.144353	0.19584	4.548944	0	0.0108	0.021099	0	0
San Mateo	2025	SBUS	Aggregate	Aggregate	Electricity	1.984894	78.89105	0	78.89105	17.7986	97.77438	0	0	0	0	0	0	0.002	0.002318	0.00786	0	0	0	0.00927	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	SBUS	Aggregate	Aggregate	Natural Ga	6.552799	163.6295	163.6295	0	94.88454	0	0.515656	5.239615	0	0.003378	0.012103	0	0.003	0.015721	0.003674	0.013164	0	0.012	0.044917	1239.908	4105.957	0	3.296356	14.87044	0	0.252763	0.837026	0	0.047098	0.212469	0	0	0	0	3.364173	15.17638	0	0	0	0	0	1.06	10.9887	22.4292	0	0	0	0	0
San Mateo	2025	UBUS	Aggregate	Aggregate	Gasoline	61.62557	4190.344	4190.344	0	246.5023	0	0.033702	0	0.527402	0.001105	0	0.000151	0.002	0.002073	0.032333	0.001202	0	0.000164	0.00829	0.092379	999.2964	0	40.23985	0.002024	0	0.048584	0.004371	0	0.074436	0.005871	0	0.183094	0.05773	0.119898	0.618422	0.008567	0	0.200465	0.05773	0.119898	0.618422	0.045	0.556049	0	6.146708	0.009879	0	0.000398
San Mateo	2025	UBUS	Aggregate	Aggregate	Diesel	278.2185	21526.83	21526.83	0	1112.874	0	0.375553	0	0	0.006827	0	0	0.002	0.008097	0.0385	0.007136	0	0	0.032387	0.11	1223.606	0	0.003145	0	0	0.19278	0	0	0.067717	0	0	0	0	0	0.077091	0	0	0	0	0	0	0.22	0.077193	0	0	0.011594	0	0
San Mateo	2025	UBUS	Aggregate	Aggregate	Electricity	37.31748	3870.538	0	3870.538	149.2699	6747.293	0	0	0	0	0	0	0.002	0.007369	0.01925	0	0	0	0.029474	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2025	UBUS	Aggregate	Aggregate	Natural Ga	65.5154	4534.391	4534.391	0	262.0616	0	0.055433	0	0	0.000272	0	0	0.002	0.007742	0.0385	0.000285	0	0	0.030968	0.11	1262.747	0	0	4.100892	0	0	0.257419	0	0	0.058594	0	0	0	0	0	4.185261	0	0	0	0	0	0	0.97	46.51263	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Cor	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNE	N2O_IDLEX	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_DIUR	TOG_RUNE	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2026	HHDT	Aggregate	Aggregate	Gasoline	4.283898	504.3899	504.3899	0	85.71223	0	3.767128	0	0.001928	0.001363	0	0.000634	0.005	0.031039	0.001482	0	0.00069	0.02	0.088682	2211.88	0	51.0826	0.109196	0	9.88E-05	0.147264	0	0.0001	0.53602	0	0.000536	0.029322	0.212948	1.905434	0.782159	0	0.000587	0.029322	0.212948	1.905434	0.045	33.33714	0	4.679779	0.021867	0	0.000505
San Mateo	2026	HHDT	Aggregate	Aggregate	Diesel	1339.121	119591.7	119591.7	0	14836.49	0	2.513316	46.04181	3.042683	0.024334	0.030988	0	0.008607	0.030272	0.025434	0.032389	0	0.034426	0.086492	1758.24	8065.386	0	0.00116	0.158921	0	0.277011	1.270705	0	0.024964	3.421536	0	0	0	0	0.02842	3.895158	0	0	0	0	0.202556	0.108407	48.25142	0	0.016649	0.076374	0
San Mateo	2026	HHDT	Aggregate	Aggregate	Electricity	17.24092	1568.579	0	1568.579	167.6097	2925.183	0	0	0	0	0	0	0.008499	0.017277	0	0	0	0.033994	0.049364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	HHDT	Aggregate	Aggregate	Natural Ga	190.6077	12388.44	12388.44	0	1253.654	0	1.199642	8.304539	0	0.001614	0.012208	0	0.009	0.06089	0.001755	0.013277	0	0.036	0.17397	1462.016	8267.834	0	2.557538	21.22587	0	0.298041	1.685452	0	0.054701	0.334996	0	0	0	0	2.630844	21.69869	0	0	0	0	0.713158	15.13386	61.6539	0	0	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Gasoline	238617.8	6969047	6969047	0	1119592	0	0.031815	0	0.225592	0.00108	0	0.001846	0.002	0.002349	0.001174	0	0.002007	0.008	0.00671	264.3788	0	66.66342	0.001674	0	0.060063	0.003806	0	0.029206	0.006262	0	0.277135	0.077036	0.201162	1.205717	0.009138	0	0.303428	0.077036	0.201162	1.205717	0.037625	0.572674	0	2.857953	0.002614	0	0.000659
San Mateo	2026	LDA	Aggregate	Aggregate	Diesel	645.0664	13511.27	13511.27	0	2704.797	0	0.144803	0	0	0.010068	0	0	0.002	0.002414	0.010523	0	0	0.008	0.006897	228.1946	0	0	0.000882	0	0	0.035952	0	0	0.01898	0	0	0	0	0	0.021607	0	0	0	0	0	0.0031	0.280265	0	0	0.002162	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Electricity	20627.64	751657.4	0	751657.4	101606	290201.8	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Plug-in Hyb	8434.471	284060.2	132539.9	151520.3	41455.43	45763.65	0.002998	0	0.473855	0.00051	0	0.001828	0.002	0.001334	0.000555	0	0.001988	0.008	0.003813	125.8756	0	72.81552	0.000304	0	0.154142	0.000323	0	0.051009	0.00126	0	0.821719	0.031632	0.028684	0.388535	0.001838	0	0.899679	0.031632	0.028684	0.388535	0.018859	0.187853	0	6.16492	0.001244	0	0.00072
San Mateo	2026	LDT1	Aggregate	Aggregate	Gasoline	25945.79	717326.6	717326.6	0	118989.9	0	0.078016	0	0.293254	0.001334	0	0.002155	0.002	0.002818	0.001451	0	0.002344	0.008	0.008052	309.0343	0	79.57832	0.003639	0	0.077166	0.006309	0	0.032586	0.015756	0	0.382671	0.113653	0.314838	1.794906	0.022991	0	0.418976	0.113653	0.314838	1.794906	0.038437	0.911226	0	3.898361	0.003055	0	0.000787
San Mateo	2026	LDT1	Aggregate	Aggregate	Diesel	5.731399	66.09906	66.09906	0	15.81841	0	1.607443	0	0	0.22953	0	0	0.002	0.003303	0.239908	0	0	0.008	0.009438	416.0554	0	0	0.01414	0	0	0.06555	0	0	0.304424	0	0	0	0	0	0.346566	0	0	0	0	0	0.0031	1.619672	0	0	0.003942	0	0
San Mateo	2026	LDT1	Aggregate	Aggregate	Electricity	141.9822	5160.147	0	5160.147	697.0716	1992.243	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LDT1	Aggregate	Aggregate	Plug-in Hyb	104.7443	3837.146	1635.987	2201.159	514.818	664.8156	0.002739	0	0.473855	0.00033	0	0.0013	0.002	0.001349	0.000359	0	0.001414	0.008	0.003854	115.021	0	78.5782	0.000277	0	0.154039	0.000294	0	0.050933	0.001151	0	0.821719	0.019594	0.016765	0.265458	0.00168	0	0.899679	0.019594	0.016765	0.265458	0.017907	0.171654	0	6.16492	0.001137	0	0.000777
San Mateo	2026	LDT2	Aggregate	Aggregate	Gasoline	169697.7	5206694	5206694	0	813724.2	0	0.039564	0	0.246415	0.001061	0	0.001756	0.002	0.002732	0.001154	0	0.001909	0.008	0.007806	320.9048	0	80.65979	0.001836	0	0.062615	0.004145	0	0.031058	0.006772	0	0.280198	0.053684	0.140038	0.877766	0.009881	0	0.306782	0.053684	0.140038	0.877766	0.039596	0.591205	0	2.920622	0.003172	0	0.000797
San Mateo	2026	LDT2	Aggregate	Aggregate	Diesel	655.1696	19853.42	19853.42	0	3139.478	0	0.033548	0	0	0.004079	0	0	0.002	0.002751	0.004264	0	0	0.008	0.00786	298.5166	0	0	0.000555	0	0	0.047031	0	0	0.011952	0	0	0	0	0	0.013607	0	0	0	0	0	0.0031	0.11634	0	0	0.002829	0	0
San Mateo	2026	LDT2	Aggregate	Aggregate	Electricity	2139.962	58794.02	0	58794.02	10836.18	22699.34	0	0	0	0	0	0	0.002	0.001528	0	0	0	0.008	0.004364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LDT2	Aggregate	Aggregate	Plug-in Hyb	2330.737	81093.05	36145.09	44947.96	11455.57	13575.62	0.002864	0	0.473855	0.000395	0	0.001488	0.002	0.001342	0.00043	0	0.001618	0.008	0.003835	120.2461	0	85.24057	0.00029	0	0.153892	0.000307	0	0.050828	0.001204	0	0.821719	0.020962	0.018944	0.286085	0.001756	0	0.899679	0.020962	0.018944	0.286085	0.018711	0.179452	0	6.16492	0.001189	0	0.000843
San Mateo	2026	LHDT1	Aggregate	Aggregate	Gasoline	12091.27	409379.7	409379.7	0	180141.9	0	0.080792	0.031581	0.522495	0.001324	0	0.000197	0.002	0.0273	0.00144	0	0.000214	0.008	0.078	817.6093	114.8721	26.24211	0.004287	0.101474	0.025645	0.004639	0.002792	0.04503	0.02053	0.362188	0.123358	0.029477	0.164217	1.658906	0.029958	0.528503	0.135062	0.029477	0.164217	1.658906	0.044975	0.834016	3.767862	3.304128	0.008083	0.001136	0.000259
San Mateo	2026	LHDT1	Aggregate	Aggregate	Diesel	5774.561	207453.3	207453.3	0	72636.71	0	0.750622	1.425846	0	0.020833	0.026593	0	0.003	0.0273	0.021775	0.027795	0	0.012	0.078	623.8159	124.2359	0	0.005378	0.005098	0	0.098282	0.019573	0	0.115791	0.10976	0	0	0	0	0.13182	0.124954	0	0	0	0	0.199971	0.278837	0.909745	0	0.005911	0.001177	0
San Mateo	2026	LHDT1	Aggregate	Aggregate	Electricity	302.9677	15691.66	0	15691.66	4239.881	10276.64	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LHDT2	Aggregate	Aggregate	Gasoline	1390.219	45322.23	45322.23	0	20712.2	0	0.085517	0.032056	0.548101	0.001251	0	0.000168	0.002	0.03185	0.001361	0	0.000183	0.008	0.091	923.0401	133.1397	24.8185	0.003504	0.102247	0.02615	0.005125	0.002756	0.045602	0.015517	0.367794	0.125909	0.030304	0.166922	1.734893	0.022642	0.536684	0.137854	0.030304	0.166922	1.734893	0.044997	0.713234	3.771186	3.244405	0.009125	0.001316	0.000245
San Mateo	2026	LHDT2	Aggregate	Aggregate	Diesel	2589.799	92139.39	92139.39	0	32576.42	0	0.583394	1.367929	0	0.019861	0.026777	0	0.003	0.03185	0.020759	0.027987	0	0.012	0.091	733.3028	198.3363	0	0.00529	0.005098	0	0.115532	0.031248	0	0.113887	0.10976	0	0	0	0	0.129653	0.124954	0	0	0	0	0.206359	0.253764	0.909745	0	0.006948	0.001879	0
San Mateo	2026	LHDT2	Aggregate	Aggregate	Electricity	77.23784	3810.55	0	3810.55	1024.59	2458.044	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	MCY	Aggregate	Aggregate	Gasoline	14692.86	80438.96	80438.96	0	29385.71	0	0.527346	0	0.125388	0.001973	0	0.003385	0.001	0.0042	0.002113	0	0.00361	0.004	0.012	189.6088	0	47.25965	0.148096	0	0.169577	0.037654	0	0.007808	0.932533	0	1.237008	3.545629	3.697544	3.067415	1.141542	0	1.345575	3.545629	3.697544	3.067415	0.008984	12.44479	0	7.286658	0.001874	0	0.000467
San Mateo	2026	MDV	Aggregate	Aggregate	Gasoline	95415.04	2995462	2995462	0	456021.9	0	0.045043	0	0.280293	0.001049	0	0.001787	0.002	0.002752	0.001141	0	0.001943	0.008	0.007862	387.4402	0	97.80051	0.002014	0	0.069417	0.004439	0	0.032516	0.007733	0	0.326682	0.058677	0.159655	0.988966	0.011284	0	0.357675	0.058677	0.159655	0.988966	0.039732	0.608979	0	3.043816	0.00383	0	0.000967
San Mateo	2026	MDV	Aggregate	Aggregate	Diesel	1264.364	38163.09	38163.09	0	5993.722	0	0.029639	0	0	0.00336	0	0	0.002	0.002815	0.003512	0	0	0.008	0.008044	391.9984	0	0	0.000371	0	0	0.06176	0	0	0.007978	0	0	0	0	0	0.009083	0	0	0	0	0	0.0031	0.162819	0	0	0.003714	0	0
San Mateo	2026	MDV	Aggregate	Aggregate	Electricity	2288.176	62843.93	0	62843.93	11585.67	24262.94	0	0	0	0	0	0	0.002	0.001528	0	0	0	0.008	0.004365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	MDV	Aggregate	Aggregate	Plug-in Hyb	1352.288	48514.48	21600.3	26914.18	6646.496	8128.885	0.00286	0	0.473855	0.000424	0	0.001603	0.002	0.001343	0.000461	0	0.001743	0.008	0.003836	120.1141	0	101.9389	0.00029	0	0.154499	0.00031	0	0.051264	0.001202	0	0.821719	0.023156	0.02052	0.302424	0.001754	0	0.899679	0.023156	0.02052	0.302424	0.0187	0.179255	0	6.16492	0.001187	0	0.001008
San Mateo	2026	MH	Aggregate	Aggregate	Gasoline	860.1629	8288.685	8288.685	0	86.0507	0	0.23256	0	0.397384	0.001512	0	0.000384	0.003	0.015756	0.001645	0	0.000418	0.012	0.045017	1945.826	0	31.10578	0.008668	0	0.035239	0.017644	0	0.044254	0.033949	0	0.14164	7.387206	0.177323	2.704624	0.049538	0	0.155079	7.387206	0.177323	2.704624	0.044967	0.720477	0	3.190918	0.019236	0	0.000308
San Mateo	2026	MH	Aggregate	Aggregate	Diesel	411.7686	4016.353	4016.353	0	41.17686	0	2.902322	0	0	0.040701	0	0	0.004	0.015675	0.042542	0	0	0.016	0.044785	1086.443	0	0	0.004006	0	0	0.17117	0	0	0.086257	0	0	0	0	0	0.098197	0	0	0	0	0	0.198004	0.264984	0	0	0.010295	0	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Gasoline	848.5573	48169.43	48169.43	0	16977.94	0	0.269412	0.081996	0.401399	0.001349	0	0.000495	0.003	0.015756	0.001467	0	0.000539	0.012	0.045017	1713.093	515.7579	43.66845	0.008779	0.269455	0.043465	0.015276	0.007246	0.033229	0.041527	1.019578	0.229834	0.024222	0.200008	1.911848	0.060596	1.487766	0.251639	0.024222	0.200008	1.911848	0.044997	0.830138	15.19618	5.005077	0.016936	0.005099	0.000432
San Mateo	2026	MHDT	Aggregate	Aggregate	Diesel	4345.03	177809.3	177809.3	0	52490.37	0	1.079543	12.71716	1.615228	0.011982	0.022721	0	0.003	0.015982	0.012524	0.023749	0	0.012	0.045664	1143.798	2217.587	0	0.001294	0.010675	0	0.180206	0.349382	0	0.027853	0.229832	0	0	0	0	0.031709	0.261646	0	0	0	0	0.211826	0.108771	7.505293	0	0.010831	0.020999	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Electricity	76.01194	4276.512	0	4276.512	1058.544	5576.394	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022717	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Natural Ga	48.05658	2179.843	2179.843	0	442.254	0	0.112977	6.480284	0	0.001327	0.019663	0	0.003	0.016091	0.001443	0.021385	0	0.012	0.045974	1000.122	5452.226	0	0.778786	16.68583	0	0.203881	1.111472	0	0.011127	0.238408	0	0	0	0	0.794808	17.02911	0	0	0	0	1.06	3.063718	38.15558	0	0	0	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Gasoline	250.2122	13078.36	13078.36	0	5006.245	0	0.228578	0.061817	0.359747	0.001067	0	0.000285	0.003	0.01568	0.00116	0	0.00031	0.012	0.044799	1698.343	366.6953	29.51517	0.006927	0.20465	0.03203	0.013867	0.005591	0.030955	0.031574	0.747709	0.159032	0.025716	0.122353	2.090543	0.046073	1.091056	0.17412	0.025716	0.122353	2.090543	0.044974	0.662703	5.783272	3.284676	0.01679	0.003625	0.000292
San Mateo	2026	OBUS	Aggregate	Aggregate	Diesel	1145.492	75611.47	75611.47	0	11233.17	0	0.7922	5.412165	1.482498	0.00906	0.003089	0	0.003	0.017403	0.00947	0.003228	0	0.012	0.049724	1214.431	1202.439	0	0.000896	0.014277	0	0.191334	0.189445	0	0.019283	0.307371	0	0	0	0	0.021953	0.349919	0	0	0	0	0.21794	0.09136	5.733335	0	0.0115	0.011386	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Electricity	3.59381	297.3898	0	297.3898	71.90495	387.6028	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Natural Ga	10.41211	669.454	669.454	0	92.66776	0	0.14486	1.520375	0	0.001277	0.004306	0	0.003	0.016148	0.001389	0.004683	0	0.012	0.046137	977.2919	1192.33	0	0.814665	4.026517	0	0.199227	0.243064	0	0.01164	0.057531	0	0	0	0	0.831426	4.109356	0	0	0	0	1.06	3.321327	8.269436	0	0	0	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Gasoline	75.66977	3792.283	3792.283	0	302.6791	0	0.689408	0.850076	0.614008	0.001104	0	0.000723	0.002	0.015721	0.001201	0	0.000787	0.008	0.044917	780.8125	2496.879	58.92552	0.015917	2.447247	0.082067	0.033238	0.080267	0.056021	0.077973	10.62297	0.474628	0.118813	0.369995	1.975658	0.113778	15.50102	0.519658	0.118813	0.369995	1.975658	0.045	1.98957	82.12826	11.72979	0.007719	0.024684	0.000583
San Mateo	2026	SBUS	Aggregate	Aggregate	Diesel	168.4764	3737.054	3737.054	0	2439.538	0	4.092097	21.8241	0.494851	0.019631	0.01977	0	0.003	0.015721	0.020519	0.020664	0	0.012	0.044917	1137.125	2219.315	0	0.002862	0.008051	0	0.179155	0.349654	0	0.06162	0.173331	0	0	0	0	0.07015	0.197325	0	0	0	0	0.149335	0.189386	4.685291	0	0.010768	0.021016	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Electricity	3.281397	127.7057	0	127.7057	29.50964	158.2733	0	0	0	0	0	0	0.002326	0.00786	0	0	0	0.009303	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Natural Ga	6.807777	168.2676	168.2676	0	98.5766	0	0.49789	5.22911	0	0.003378	0.012354	0	0.003	0.015721	0.003674	0.013436	0	0.012	0.044917	1233.541	4122.694	0	3.247338	14.74074	0	0.251465	0.840438	0	0.046398	0.210616	0	0	0	0	3.314147	15.044	0	0	0	0	1.06	10.75802	22.99417	0	0	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Gasoline	61.80696	4202.678	4202.678	0	247.2278	0	0.028431	0	0.433124	0.001186	0	0.000163	0.002073	0.032333	0.00129	0	0.000177	0.00829	0.092379	965.439	0	39.37599	0.001861	0	0.039723	0.003725	0	0.066482	0.005288	0	0.145424	0.029473	0.090867	0.345962	0.007716	0	0.159221	0.029473	0.090867	0.345962	0.045	0.550053	0	6.463625	0.009544	0	0.000389
San Mateo	2026	UBUS	Aggregate	Aggregate	Diesel	278.8478	21575.87	21575.87	0	1115.391	0	0.37554	0	0	0.006827	0	0	0.008097	0.0385	0.007135	0	0	0.032386	0.11	1223.487	0	0	0.003145	0	0	0.192761	0	0	0.067715	0	0	0	0	0	0.077089	0	0	0	0	0	0.22	0.07719	0	0	0.011593	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Electricity	37.55556	3889.774	0	3889.774	150.2222	6780.825	0	0	0	0	0	0	0.007371	0.01925	0	0	0	0.029483	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Natural Ga	65.76966	4554.21	4554.21	0	263.0787	0	0.055441	0	0	0.000272	0	0	0.007743	0.0385	0.000285	0	0	0.030972	0.11	1262.837	0	0	4.101249	0	0	0.257438	0	0	0.058599	0	0	0	0	0	4.185626	0	0	0	0	0	0.97	46.51887	0	0	0	0	0

Source: EMFAC2021 (v1.0.0) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2027
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Con	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	PM_PMBW	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2027	HHDT	Aggregate	Aggregate	Gasoline	4.22201	465.9735	465.9735	0	84.47398	0	3.784401	0	0.001809	0.00137	0	0.000612	0.005	0.031101	0.00149	0	0.000666	0.02	0.088859	2197.348	0	50.85422	0.10848	0	9.38E-05	0.147815	0	9.4E-05	0.529357	0	0.000508	0.02999	0.222639	2.054582	0.772437	0	0.000556	0.02999	0.222639	2.054582	0.045	33.09537	0	4.725369	0.021723	0	0.000503
San Mateo	2027	HHDT	Aggregate	Aggregate	Diesel	1346.151	119374.9	119374.9	0	15003.58	0	2.407204	45.79156	3.064838	0.024107	0.029271	0	0.008607	0.030209	0.025197	0.030595	0	0.034429	0.086312	1730.936	7996.262	0	0.001113	0.159723	0	0.27271	1.259814	0	0.023958	3.438793	0	0	0	0	0.027275	3.914804	0	0	0	0	0.203961	0.103951	48.72467	0	0.016391	0.07572	0
San Mateo	2027	HHDT	Aggregate	Aggregate	Electricity	27.72379	2533.074	0	2533.074	269.7516	4722.231	0	0	0	0	0	0	0.008486	0.017473	0	0	0	0.033946	0.049922	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	HHDT	Aggregate	Aggregate	Natural Ga	199.6437	12874.54	12874.54	0	1300.878	0	1.084345	7.803952	0	0.001553	0.012198	0	0.009	0.061541	0.001689	0.013266	0	0.036	0.175831	1450.507	8225.848	0	2.341828	20.00939	0	0.295695	1.676893	0	0.049129	0.313051	0	0	0	0	2.407859	20.45199	0	0	0	0	0.706678	14.49829	60.40274	0	0	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Gasoline	238471.3	6787745	6787745	0	1118595	0	0.029557	0	0.217198	0.001019	0	0.001761	0.002	0.002348	0.001108	0	0.001916	0.008	0.00671	260.24	0	65.45509	0.001542	0	0.056785	0.00365	0	0.028841	0.00568	0	0.260517	0.07439	0.198486	1.18951	0.038281	0.547784	0	0.718673	0.002573	0	0.000647
San Mateo	2027	LDA	Aggregate	Aggregate	Diesel	577.6306	11859.15	11859.15	0	2430.953	0	0.125063	0	0.008723	0	0	0	0.002	0.002417	0.009117	0	0	0.008	0.006905	225.6727	0	0	0.000794	0	0	0.035555	0	0	0.01709	0	0	0	0	0	0.019456	0	0	0	0	0	0.00231	0.267761	0	0	0.002138	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Electricity	21755.83	763478.8	0	763478.8	106722.5	294765.8	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Plug-in Hyb	8813.935	285623.3	131294.8	154328.5	4332.049	46611.82	0.002953	0	0.473855	0.000473	0	0.001727	0.002	0.001338	0.000514	0	0.001878	0.008	0.003824	124.0113	0	72.25125	0.000297	0	0.15304	0.000313	0	0.050222	0.001241	0	0.821719	0.032466	0.03224	0.416371	0.001811	0	0.899679	0.032466	0.03224	0.416371	0.018683	0.185073	0	6.16492	0.001226	0	0.000714
San Mateo	2027	LDT1	Aggregate	Aggregate	Gasoline	26419.18	713999.1	713999.1	0	121334.5	0	0.069103	0	0.27581	0.001241	0	0.002022	0.002	0.002818	0.001349	0	0.002199	0.008	0.008051	303.9903	0	77.82677	0.003215	0	0.071337	0.005799	0	0.031456	0.01376	0	0.349477	0.105239	0.292408	1.687165	0.020078	0	0.382633	0.105239	0.292408	1.687165	0.03886	0.838518	0	3.597733	0.003005	0	0.000769
San Mateo	2027	LDT1	Aggregate	Aggregate	Diesel	1.374283	18.5258	18.5258	0	4.138205	0	0.988299	0	0	0.1471	0	0	0.002	0.003155	0.153751	0	0	0.008	0.009016	380.9834	0	0	0.011093	0	0	0.060024	0	0	0.238825	0	0	0	0	0	0.271887	0	0	0	0	0	0.0031	1.735378	0	0	0.00361	0	0
San Mateo	2027	LDT1	Aggregate	Aggregate	Electricity	175.6332	6297.196	0	6297.196	865.6909	2431.237	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDT1	Aggregate	Aggregate	Plug-in Hyb	134.7957	4749.74	2001.346	2748.394	662.5207	830.097	0.002707	0	0.473855	0.000303	0	0.001214	0.002	0.001352	0.00033	0	0.00132	0.008	0.003862	113.6736	0	77.93769	0.000272	0	0.15299	0.000287	0	0.050185	0.001138	0	0.821719	0.019415	0.016698	0.265427	0.001666	0	0.899679	0.019415	0.016698	0.265427	0.017697	0.169545	0	6.16492	0.001124	0	0.00077
San Mateo	2027	LDT2	Aggregate	Aggregate	Gasoline	179414.4	5337772	5337772	0	859058.8	0	0.036713	0	0.236885	0.001002	0	0.001674	0.002	0.002741	0.00109	0	0.00182	0.008	0.00783	316.0459	0	79.2393	0.001725	0	0.059485	0.003982	0	0.030367	0.006284	0	0.264449	0.051332	0.135343	0.845955	0.00917	0	0.289538	0.051332	0.135343	0.845955	0.040019	0.572376	0	2.798095	0.003124	0	0.000783
San Mateo	2027	LDT2	Aggregate	Aggregate	Diesel	689.4223	20263.35	20263.35	0	3297.619	0	0.031701	0	0	0.003958	0	0	0.002	0.002756	0.004137	0	0	0.008	0.007875	293.9769	0	0	0.000547	0	0	0.046316	0	0	0.011786	0	0	0	0	0	0.013417	0	0	0	0	0	0.0031	0.115725	0	0	0.002786	0	0
San Mateo	2027	LDT2	Aggregate	Aggregate	Electricity	2621.122	69186.62	0	69186.62	13210.51	26711.75	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDT2	Aggregate	Aggregate	Plug-in Hyb	2686.495	89530.08	39333.03	50197.05	13204.12	15161.01	0.002822	0	0.473855	0.000367	0	0.001407	0.002	0.001346	0.000399	0	0.00153	0.008	0.003845	118.5212	0	84.59473	0.000283	0	0.152706	0.000298	0	0.049982	0.001186	0	0.821719	0.021044	0.018748	0.283634	0.001731	0	0.899679	0.021044	0.018748	0.283634	0.018444	0.176879	0	6.16492	0.001172	0	0.000836
San Mateo	2027	LHDT1	Aggregate	Aggregate	Gasoline	12519.56	410499.8	410499.8	0	186522.8	0	0.071098	0.030667	0.504033	0.001305	0	0.000184	0.002	0.0273	0.001419	0	0.0002	0.008	0.078	811.976	114.3018	26.07471	0.003793	0.09882	0.024599	0.004112	0.002729	0.043725	0.017937	0.351746	0.117908	0.027725	0.156123	1.578557	0.026174	0.513267	0.129095	0.027725	0.156123	1.578557	0.044987	0.798924	3.769346	3.306933	0.008027	0.00113	0.000258
San Mateo	2027	LHDT1	Aggregate	Aggregate	Diesel	6121.922	212564.8	212564.8	0	77006.08	0	0.657426	1.348518	0	0.019683	0.026527	0	0.003	0.0273	0.020573	0.027726	0	0.012	0.078	624.9594	123.4403	0	0.005114	0.005098	0	0.098463	0.019448	0	0.110093	0.10976	0	0	0	0	0.125334	0.124954	0	0	0	0	0.020312	0.261853	0.909745	0	0.005922	0.00117	0
San Mateo	2027	LHDT1	Aggregate	Aggregate	Electricity	519.4144	25488.91	0	25488.91	7271.182	16694.25	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LHDT2	Aggregate	Aggregate	Gasoline	1431.729	45337.82	45337.82	0	21330.63	0	0.073138	0.03114	0.528564	0.001227	0	0.000155	0.002	0.03185	0.001334	0	0.000168	0.008	0.091	916.8362	132.4747	24.66195	0.003015	0.099681	0.024981	0.004461	0.002701	0.044319	0.01308	0.357342	0.119587	0.028288	0.158472	1.660759	0.019086	0.521433	0.130933	0.028288	0.158472	1.660759	0.045	0.678584	3.773249	3.234367	0.009064	0.00131	0.000244
San Mateo	2027	LHDT2	Aggregate	Aggregate	Diesel	2777.037	94986.53	94986.53	0	34931.64	0	0.528044	1.299818	0	0.019303	0.02677	0	0.003	0.03185	0.020176	0.02798	0	0.012	0.091	733.1501	197.3659	0	0.005137	0.005098	0	0.115508	0.031095	0	0.110596	0.10976	0	0	0	0	0.125906	0.124954	0	0	0	0	0.208358	0.246415	0.909745	0	0.006947	0.00187	0
San Mateo	2027	LHDT2	Aggregate	Aggregate	Electricity	131.984	6178.283	0	6178.283	1750.724	3985.342	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MCY	Aggregate	Aggregate	Gasoline	15361.78	81910.47	81910.47	0	30723.56	0	0.519979	0	0.119128	0.001982	0	0.003355	0.001	0.0042	0.002123	0	0.003582	0.004	0.012	189.4149	0	46.2331	0.145656	0	0.164632	0.037364	0	0.007491	0.910192	0	1.194056	3.543525	3.694561	2.980616	1.118314	0	1.29906	3.543525	3.694561	2.980616	0.009015	12.27141	0	7.24418	0.001873	0	0.000457
San Mateo	2027	MDV	Aggregate	Aggregate	Gasoline	100853.9	3072334	3072334	0	481493.9	0	0.040639	0	0.264467	0.000989	0	0.001695	0.002	0.002761	0.001075	0	0.001844	0.008	0.007889	381.641	0	96.08948	0.001858	0	0.065023	0.004199	0	0.031612	0.007009	0	0.302374	0.055687	0.152422	0.944599	0.010227	0	0.331061	0.055687	0.152422	0.944599	0.040108	0.585727	0	2.900745	0.003773	0	0.00095
San Mateo	2027	MDV	Aggregate	Aggregate	Diesel	1306.722	38182.61	38182.61	0	6183.555	0	0.025409	0	0	0.002915	0	0	0.002	0.002822	0.003047	0	0	0.008	0.008064	386.2665	0	0	0.000339	0	0	0.060856	0	0	0.007306	0	0	0	0	0	0.008318	0	0	0	0	0	0.0031	0.158269	0	0	0.00366	0	0
San Mateo	2027	MDV	Aggregate	Aggregate	Electricity	2770.892	73029.24	0	73029.24	13959.05	28195.31	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MDV	Aggregate	Aggregate	Plug-in Hyb	1580.566	54464.83	23853.74	30611.09	7768.48	9245.461	0.002814	0	0.473855	0.000387	0	0.001494	0.002	0.001347	0.000421	0	0.001625	0.008	0.003848	118.1538	0	100.9841	0.000284	0	0.153324	0.0003	0	0.050423	0.001183	0	0.821719	0.022882	0.020696	0.30315	0.001726	0	0.899679	0.022882	0.020696	0.30315	0.018395	0.176331	0	6.16492	0.001168	0	0.000998
San Mateo	2027	MH	Aggregate	Aggregate	Gasoline	889.7275	8482.343	8482.343	0	89.00834	0	0.205598	0	0.394341	0.001477	0	0.000374	0.003	0.015756	0.001606	0	0.000407	0.012	0.045017	1945.602	0	30.91944	0.007677	0	0.034481	0.016471	0	0.044506	0.029111	0	0.136554	6.497034	0.156813	2.414317	0.042478	0	0.149509	6.497034	0.156813	2.414317	0.044981	0.592155	0	3.084243	0.019234	0	0.000306
San Mateo	2027	MH	Aggregate	Aggregate	Diesel	438.9117	4153.858	4153.858	0	43.89117	0	2.832054	0	0	0.037464	0	0	0.004	0.015675	0.039158	0	0	0.016	0.044785	1086.701	0	0	0.003935	0	0	0.17121	0	0	0.084726	0	0	0	0	0	0.096455	0	0	0	0	0	0.20065	0.258294	0	0	0.010297	0	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Gasoline	867.5241	48390.56	48390.56	0	17357.42	0	0.227578	0.078989	0.386341	0.001347	0	0.000485	0.003	0.015756	0.001465	0	0.000528	0.012	0.045017	1709.432	513.3044	43.07056	0.007475	0.271014	0.042102	0.013626	0.007061	0.032711	0.034686	1.021219	0.219918	0.022149	0.184846	1.785685	0.050614	1.490161	0.240782	0.022149	0.184846	1.785685	0.045	0.678531	15.21525	4.76187	0.016899	0.005075	0.000426
San Mateo	2027	MHDT	Aggregate	Aggregate	Diesel	4381.456	17745.11	17745.1	0	52965.25	0	0.98012	12.36142	1.609464	0.01032	0.018608	0	0.003	0.015983	0.010787	0.019449	0	0.012	0.045664	1142.378	2206.247	0	0.001114	0.010178	0	0.179982	0.347595	0	0.023977	0.219127	0	0	0	0	0.027296	0.24946	0	0	0	0	0.213081	0.098415	7.494036	0	0.010818	0.020892	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Electricity	127.7802	7032.616	0	7032.616	1769.648	9148.07	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Natural Ga	51.5504	2296.644	2296.644	0	479.4474	0	0.107496	6.432876	0	0.001352	0.018879	0	0.003	0.016088	0.001471	0.021621	0	0.012	0.045965	1002.447	5463.992	0	0.780237	16.43266	0	0.204355	1.113871	0	0.011148	0.23479	0	0	0	0	0.796289	16.77073	0	0	0	0	1.06	3.061376	38.67694	0	0	0	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Gasoline	248.2101	12473.77	12473.77	0	4966.188	0	0.211311	0.060192	0.357193	0.00109	0	0.00029	0.003	0.01568	0.001186	0	0.000315	0.012	0.044799	1692.32	365.4899	29.36303	0.006456	0.203928	0.031666	0.013066	0.005413	0.030606	0.029254	0.747798	0.15748	0.025953	0.127029	2.17	0.042687	1.091184	0.172421	0.025953	0.127029	2.17	0.044975	0.611503	5.783803	3.243094	0.01673	0.003613	0.00029
San Mateo	2027	OBUS	Aggregate	Aggregate	Diesel	1179.467	75909.96	75909.96	0	11575.44	0	0.775196	5.241419	1.466802	0.008873	0.002989	0	0.003	0.017435	0.009274	0.003124	0	0.012	0.049814	1200.115	1193.83	0	0.000878	0.014362	0	0.189079	0.188088	0	0.018903	0.309216	0	0	0	0	0.021519	0.352019	0	0	0	0	0.218013	0.090292	5.765682	0	0.011364	0.011305	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Electricity	5.720233	456.3866	0	456.3866	114.4504	594.8312	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Natural Ga	11.58861	747.5342	747.5342	0	103.1386	0	0.129807	1.513364	0	0.001349	0.004473	0	0.003	0.016148	0.001467	0.004865	0	0.012	0.046137	963.6185	1186.95	0	0.822922	3.939956	0	0.19644	0.241968	0	0.011758	0.056294	0	0	0	0	0.839853	4.021014	0	0	0	0	1.06	3.343572	8.646482	0	0	0	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Gasoline	79.49692	3883.503	3883.503	0	317.9877	0	0.632481	0.822307	0.600742	0.001079	0	0.000721	0.002	0.015721	0.001174	0	0.000784	0.008	0.044917	779.0372	2492.831	58.00255	0.014081	2.448145	0.080367	0.03084	0.078539	0.055535	0.068887	10.63321	0.464416	0.112849	0.357376	1.946706	0.100519	15.51596	0.508477	0.112849	0.357376	1.946706	0.045	1.780147	82.19044	11.21377	0.007702	0.024644	0.000573
San Mateo	2027	SBUS	Aggregate	Aggregate	Diesel	167.5641	3706.878	3706.878	0	2426.328	0	3.793477	21.05041	0.5128	0.018391	0.017915	0	0.003	0.015721	0.019223	0.018725	0	0.012	0.044917	1135.127	2211.457	0	0.002731	0.008003	0	0.17884	0.348416	0	0.058797	0.172299	0	0	0	0	0.066936	0.196149	0	0	0	0	0.15435	0.182463	4.828329	0	0.010749	0.020941	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Electricity	5.310741	202.8314	0	202.8314	47.87691	251.3811	0	0	0	0	0	0	0.002333	0.00786	0	0	0	0.009332	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Natural Ga	7.053679	172.5017	172.5017	0	102.1373	0	0.481743	5.219695	0	0.003378	0.012579	0	0.003	0.015721	0.003674	0.01368	0	0.012	0.044917	1229.808	4145.498	0	3.202788	14.62449	0	0.250704	0.845087	0	0.045762	0.208955	0	0	0	0	3.26868	14.92537	0	0	0	0	1.06	10.54837	23.50051	0	0	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Gasoline	61.98533	4214.564	4214.564	0	247.9413	0	0.030743	0	0.430318	0.001186	0	0.000163	0.002	0.002072	0.032332	0.00129	0	0.000177	0.00829	0.092377	965.383	0	39.15927	0.001844	0	0.040362	0.00389	0	0.066031	0.005247	0	0.147837	0.032636	0.102703	0.407958	0.007657	0	0.161863	0.032636	0.102703	0.407958	0.045	0.562264	0	6.323543	0.009544	0	0.000387
San Mateo	2027	UBUS	Aggregate	Aggregate	Diesel	279.2472	21607.25	21607.25	0	1116.989	0	0.375529	0	0	0.006826	0	0	0.008096	0.0385	0.007135	0	0	0.032385	0.11	1223.405	0	0	0.003145	0	0	0.192748	0	0	0.067714	0	0	0	0	0	0.077087	0	0	0	0	0	0.22	0.077188	0	0	0.011592	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Electricity	38.11938	3934.273	0	3934.273	152.4775	6858.398	0	0	0	0	0	0	0.007377	0.01925	0	0	0	0.029507	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Natural Ga	65.93105	4566.887	4566.887	0	263.7242	0	0.055445	0	0	0.000272	0	0	0.007744	0.0385	0.000285	0	0	0.030974	0.11	1262.884	0	0	4.101438	0	0	0.257447	0	0	0.058601	0	0	0	0	0	4.185818	0	0	0	0	0	0.97	46.52216	0	0	0	0	0

Attachment 3: Construction Health Risk Calculations

Alternative University Circle Phase II, East Palo Alto, CA

Land Use	Year	Unmitigated DPM	DPM EMFAC2021	Unmitigated Emissions	Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Unmitigated Emissions
	2025	0.0957	0.0008	0.0965	0.1765	0.0007	0.1772
Building +	2026	0.1337	0.0011	0.1348	0.0000	0.0011	0.0011
Below Garage	2027	0.0351	0.0007	0.0358	0.0000	0.0007	0.0007
NW Above	2024	0.0660	0.0002	0.0662	0.0104	0.0003	0.0107
Garage	2025	0.0049	0.0001	0.0050	0.0000	0.0001	0.0001
SW Below	2025	0.0496	0.0003	0.0499	0.0580	0.0002	0.0582
Garage	2026	0.0296	0.0002	0.0298	0.0000	0.0002	0.0002

	Year	Mitigated DPM	DPM EMFAC2021	Mitigated Emissions	Mitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Mitigated Emissions
	2025	0.0100	0.0008	0.0107	0.0344	0.0007	0.0351
Building +	2026	0.0043	0.0011	0.0055	0.0000	0.0011	0.0011
Below Garage	2027	0.0009	0.0007	0.0017	0.0000	0.0007	0.0007
NW Above	2024	0.0099	0.0002	0.0102	0.0052	0.0003	0.0055
Garage	2025	0.0002	0.0001	0.0003	0.0000	0.0001	0.0001
SW Below	2025	0.0041	0.0003	0.0044	0.0113	0.0002	0.0115
Garage	2026	0.0008	0.0002	0.0010	0.0000	0.0002	0.0002

Alternative University Circle Phase II, East Palo Alto, CA - Construction Health Impact Modeling

Source Parameters for Point Sources Used in Construction Modeling

Source	Stack Height (ft)	Stack Diam (in)	Exhaust Temp (F)	Volume Flow (acfm)	Velocity (ft/min)	Velocity (ft/sec)
Construction Equipment	9.0	2.5	918	632	18540	309.0

Source	Stack Height (m)	Stack Diam (m)	Exhaust Temp (K)			Velocity (ft/sec)
Construction Equipment	2.74	0.064	765.37			94.2

Alternative University Circle Phase II, East Palo Alto, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation

Construction Year	Construction Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2024	NW Above Garage	0.0662	Point	64	132.5	0.04033	5.08E-03	7.94E-05
2025	Building + Below Garage	0.0965	Point	151	192.9	0.05873	7.40E-03	4.90E-05
2025	NW Above Garage	0.0050	Point	64	9.9	0.00302	3.81E-04	5.95E-06
2025	SW Below Garage	0.0499	Point	40	99.7	0.03035	3.82E-03	9.56E-05
2026	Building + Below Garage	0.1348	Point	151	269.7	0.08209	1.03E-02	6.85E-05
2026	SW Below Garage	0.0298	Point	40	59.6	0.01815	2.29E-03	5.72E-05
2027	Building + Below Garage	0.0358	Point	151	71.7	0.02182	2.75E-03	1.82E-05
Total		***0.4180***			***836.0***	***0.2545***	***0.0321***	

Construction Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Alternative University Circle Phase II, East Palo Alto, CA

PM2.5 Fugitive Dust Emissions for Modeling - Without Mitigation

Construction Year	Construction Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2024	NW Above Garage	FUG_BLD	0.0107	21.4	0.0065	8.21E-04	2,478	**3.31E-07**
2025	Building + Below Garage	FUG_BLD	0.1772	354.5	0.1079	1.36E-02	5,838	**2.33E-06**
2025	NW Above Garage	FUG_NW	0.0001	0.1	0.0000	5.44E-06	2,478	**2.20E-09**
2025	SW Below Garage	FUG_SW	0.0582	116.5	0.0355	4.47E-03	1,338	**3.34E-06**
2026	Building + Below Garage	FUG_BLD	0.0011	2.2	0.0007	8.48E-05	5,838	**1.45E-08**
2026	SW Below Garage	FUG_SW	0.0002	0.4	0.0001	1.52E-05	1,338	**1.13E-08**
2027	Building + Below Garage	FUG_BLD	0.0007	1.5	0.0005	5.67E-05	5,838	**9.72E-09**
Total			***0.2483***	***496.6***	***0.1512***	***0.0190***		

Construction Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

DPM Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Construction Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2024	NW Above Garage	0.0102	Point	64	20.3	0.00619	7.80E-04	1.22E-05
2025	Building + Below Garage	0.0107	Point	151	21.5	0.00654	8.23E-04	5.45E-06
2025	NW Above Garage	0.0003	Point	64	0.6	0.00018	2.28E-05	3.56E-07
2025	SW Below Garage	0.0044	Point	40	8.7	0.00266	3.35E-04	8.38E-06
2026	Building + Below Garage	0.0055	Point	151	10.9	0.00333	4.19E-04	2.78E-06
2026	SW Below Garage	0.0010	Point	40	2.1	0.00063	7.97E-05	1.99E-06
2027	Building + Below Garage	0.0017	Point	151	3.3	0.00101	1.27E-04	8.41E-07
Total		***0.0337***			***67.5***	***0.0205***	***0.0026***	

Construction Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Construction Year	Construction Area	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2024	NW Above Garage	FUG_BLD	0.0055	11.0	0.0033	4.20E-04	2,478	**1.70E-07**
2025	Building + Below Garage	FUG_BLD	0.0351	70.3	0.0214	2.70E-03	5,838	**4.62E-07**
2025	NW Above Garage	FUG_NW	0.0001	0.1	0.0000	5.44E-06	2,478	**2.20E-09**
2025	SW Below Garage	FUG_SW	0.0115	23.1	0.0070	8.85E-04	1,338	**6.61E-07**
2026	Building + Below Garage	FUG_BLD	0.0011	2.2	0.0007	8.48E-05	5,838	**1.45E-08**
2026	SW Below Garage	FUG_SW	0.0002	0.4	0.0001	1.52E-05	1,338	**1.13E-08**
2027	Building + Below Garage	FUG_BLD	0.0007	1.5	0.0005	5.67E-05	5,838	**9.72E-09**
Total			***0.05427***	***108.5***	***0.0330***	***0.0042***		

Construction Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Alternative University Circle Phase II, East Palo Alto, CA - Construction Health Impact Summary

Maximum Impacts at MEI Location - Without Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2025	0.1778	0.7888	31.62	0.51	0.04	0.96
2026	0.2347	0.0049	38.56	0.67	0.05	0.23
2027	0.0603	0.0032	1.56	0.17	0.01	0.06
Total	-	-	**71.74**	**1.36**	-	-
Maximum	0.2347	0.7888	**-**	**-**	**0.05**	**0.96**

* Maximum cancer risk and maximum PM2.5 concentration occur at same receptor on different floors.

Maximum Impacts at MEI Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2025	0.0194	0.1564	3.44	0.06	0.004	0.18
2026	0.0095	0.0049	1.56	0.03	0.002	0.01
2027	0.0028	0.0032	0.07	0.01	0.001	0.01
Total	-	-	**5.07**	**0.09**	-	-
Maximum	0.0194	0.1564	**-**	**-**	**0.004**	**0.18**

- Tier 4 Final, Electric Equipment Mitigation, Enhanced BMPs

* Maximum cancer risk and maximum PM2.5 concentration occur at same receptor on different floors.

University Circle Phase II, East Palo Alto, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2025	0.1736	10	2.36	2025	0.1736	-	-		
1	1	0 - 1	2025	0.1736	10	28.52	2025	0.1736	1	0.50	0.7888	0.9624
2	1	1 - 2	2026	0.2280	10	37.45	2026	0.2280	1	0.65	0.0049	0.2329
3	1	2 - 3	2027	0.0584	3	1.51	2027	0.0584	1	0.17	0.0032	0.0616
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**69.84**				**1.32**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2025	0.1759	10	2.39	2025	0.1759	-	-		
1	1	0 - 1	2025	0.1759	10	28.89	2025	0.1759	1	0.50	0.6581	0.8340
2	1	1 - 2	2026	0.2316	10	38.04	2026	0.2316	1	0.66	0.0040	0.2357
3	1	2 - 3	2027	0.0594	3	1.54	2027	0.0594	1	0.17	0.0027	0.0621
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**70.86**				**1.34**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2025	0.1778	10	2.42	2025	0.1778	-	-		
1	1	0 - 1	2025	0.1778	10	29.20	2025	0.1778	1	0.51	0.4807	0.6585
2	1	1 - 2	2026	0.2347	10	38.56	2026	0.2347	1	0.67	0.0029	0.2377
3	1	2 - 3	2027	0.0603	3	1.56	2027	0.0603	1	0.17	0.0019	0.0622
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**71.74**				**1.36**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2025	0.0189	10	0.26	2025	0.0189	-	-		
1	1	0 - 1	2025	0.0189	10	3.10	2025	0.0189	1	0.05	0.1564	0.1753
2	1	1 - 2	2026	0.0092	10	1.51	2026	0.0092	1	0.03	0.0049	0.0141
3	1	2 - 3	2027	0.0027	3	0.07	2027	0.0027	1	0.01	0.0032	0.0059
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**4.94**				**0.09**		

* Third trimester of pregnancy

University Circle Phase II, East Palo Alto, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2025	0.0194	10	0.26	2025	0.0194	-	-		
1	1	0 - 1	2025	0.0194	10	3.18	2025	0.0194	1	0.06	0.0953	0.1147
2	1	1 - 2	2026	0.0095	10	1.56	2026	0.0095	1	0.03	0.0029	0.0124
3	1	2 - 3	2027	0.0028	3	0.07	2027	0.0028	1	0.01	0.0019	0.0047
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**5.07**				**0.09**		

* Third trimester of pregnancy

Appendix C

Arborist Survey Report

UNIVERSITY CIRCLE PHASE II OFFICE PROJECT
EAST PALO ALTO, SAN MATEO COUNTY, CALIFORNIA

Prepared For:

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Gavin Albertoli, ISA-Certified Arborist
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Date:
October 2020

WRA Project No:
30165

ENVIRONMENTAL CONSULTANTS

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APPENDICES

1.0 INTRODUCTION

On June 23, 2020 and September 10, 2020, WRA, Inc. (WRA) conducted an arborist survey for the University Circle Phase II Office Project (Project), located in the City of East Palo Alto (City), San Mateo County, California. The Project involves the redevelopment of an existing parking lot within an approximately 2.97-acre site (Project Area). The Project proposes the construction of a six-story, approximately 180,000-square-foot office building. The Project Area is within a single 11.84-acre parcel (APN: 063-680-020) located at 1900, 1950, 2000, and 2050 University Circle in the western portion of the City. The purpose of the survey was to identify and document the presence of "Protected Trees" defined by Chapter 18.28, "Landscaping and Trees", of the City of East Palo Alto Municipal Code (Tree Ordinance; City of East Palo Alto 2020) within and directly adjacent to the Project Area.

GPS locations for all trees surveyed within the Project Area and information regarding the species, size in diameter at 24 inches above grade, estimated crown radius, estimated height, health, condition, and structure ratings were collected and are included in this report. A table with all relevant information pertaining to surveyed trees is provided in Appendix A. A tree survey location map is provided in Appendix B. Photographs of the Project Area are provided in Appendix C.

1.1 Project Area Description

The Project Area is located approximately 0.1 mile south of Highway 101 and approximately 1.2 miles north east of downtown Palo Alto. The entire Project Area consists of developed and/or landscaped land cover and includes the paved parking areas adjacent to 1900 and 1950 University Circle. The Project Area is bordered to the north by office buildings and associated infrastructure, to the south by Woodland Avenue, to the west by Manhattan Avenue, and to the east by University Avenue. The Project Area is flat throughout with two moderately sloped paved driveways that lead to underground parking areas. All trees present within the Project Area are located in maintained planting strips adjacent to paved parking areas and roadways.

1.2 Regulatory Background

City of East Palo Alto Tree Ordinance

The East Palo Alto Municipal Code Chapter 18.28, "Landscaping and Trees", establishes regulations controlling the removal of certain trees on public and private properties in the City to preserve and protect the economic, aesthetic, and environmental values trees provide to the citizens of East Palo Alto. Trees protected by the City's Tree Ordinance are defined as "Protected Trees" and include any tree having a main stem or trunk that measures 40 inches or greater in circumference at a height of 24 inches above grade or any tree within a public street or public right-of-way, regardless of size. Protected trees are required to be preserved unless a removal permit is obtained. Any person who conducts grading, excavation, demolition, or construction activity on a property is required to do so in a manner which does not threaten the health or viability of any protected tree. No tree removal permit is required where the removal of trees has been authorized as part of a development approval granted by the City.

2.0 METHODS

On June 23, 2020 and September 10, 2020, the Project Area was traversed on foot to inventory all trees. WRA's International Society of Arboriculture (ISA)-Certified Arborist, Gavin Albertoli (ISA #WE-12027A), surveyed the area and recorded relevant tree information for each surveyed tree.

2.1 Tree Inventory

Locations of surveyed trees within the Project Area were recorded using a handheld GPS unit capable of sub-meter accuracy. Each surveyed tree was given an aluminum tree tag with a unique identification number. Diameter at 2 feet above grade was calculated for all trees located within the Project Area. Diameter for trees that split into multiple trunks at or just below 2 feet were measured at the narrowest point beneath the split. In cases where an irregular buttress or bulge occurred at 2 feet above ground measurements were taken above or below the irregular feature to best represent the size of the tree. Tree circumferences were calculated by multiplying the diameter by 3.14. All tree inventory methods follow ISA's tree measurement best practices guidelines. A complete list of all surveyed trees is provided in Appendix A.

2.2 Tree Assessment

General notes on the condition of trees were taken, including health, structure, and overall condition. Assessment of the health, structure, and overall condition of each tree was conducted according to the narratives listed in Table 1.

Table 1. Rating Narratives for Tree Assessment

Health	
Good	Tree is free from symptoms of disease and stress
Fair	Tree shows some symptoms of disease or stress including twig and small branch dieback, evidence of fungal / parasitic infection, thinning of crown, or poor leaf color
Poor	Tree shows symptoms of severe decline
Structure	
Good	Tree is free from major structural defects
Fair	Tree shows some structural defects in branches but overall structure is stable
Poor	Tree shows structural failure of a major branch or co-dominant trunk
General Condition	
Good	Tree shows condition of foliage, bark, and overall structure characteristic of the species and lacking obvious defect, or disease
Fair	Tree shows condition of foliage, bark, and overall structure characteristic of the species with some evidence of stress, defect, or disease
Poor	Tree shows condition of foliage, bark, and overall structure uncharacteristic of the species with obvious evidence of stress, defect, or disease

2.3 Tree Impact Assessment

Potential impacts to surveyed trees were analyzed in GIS (Geographic Information Systems). The most recent Phase II project footprint was overlaid with tree survey data to determine which

trees will potentially be impacted by removal (Appendix B). Any tree within the footprint of the Project was considered to be a potential removal impact. Trees directly outside of the Project footprint which overhang into the Project Area are considered to be a potential root or branch pruning impact. All potential tree impacts requiring a permit from the City include destruction, excessive pruning, girdling, or removal of a protected tree. The results of the impacts analysis is provided below and shown in Appendix A.

3.0 RESULTS

3.1 Tree Inventory

A total of 158 trees were identified within and directly adjacent to the Project Area. Tree species surveyed included pin oak (*Quercus palustris*; 77 total), purple leaf plum (*Prunus cerasifera*; 25 total), Callery pear (*Pyrus calleryana*; 17 total), New Zealand Christmas tree (*Metrosideros excelsa*; 15 total), Chinese pistache (*Pistacia chinensis*; nine total), coast live oak (*Quercus agrifolia*; eight total), and coast redwood (*Sequoia sempervirens*; seven total). Of the 158 trees surveyed, 21 are considered protected trees per the City Tree Ordinance.

The trees surveyed in the Project Area ranged in size from 6.3 to 69.7 inches in circumference. The largest tree surveyed was a 69.7-inch circumference coast live oak (Tree #119). Approximate canopy radii of all surveyed trees averaged from 4 to 25 feet. Approximate height of all surveyed trees ranged from 10 to 45 feet. A complete list of all trees surveyed is presented in Appendix A. The GPS locations of surveyed trees are shown on Figure 1, Appendix B. Photographs taken during the survey are provided in Appendix C.

3.2 Tree Assessment

The overall condition, health, and structure of trees inventoried during this assessment ranged from poor to good, with most trees ranking fair in all categories.

- Ninety-two (92) percent of the trees surveyed within the Project Area ranked fair in general condition with most trees displaying little to no signs of maladies or decline in vigor.
- Ninety-three (93) percent of the trees ranked fair in health with eight (8) percent ranking good, further indicating the large quantity of visibly healthy trees surveyed in the Project Area.
- Eighty-eight (88) percent of trees surveyed ranked fair in structure, with eight (8) percent of the trees surveyed ranking poor, mostly due to having poor growth forms. Trees that received a poor structure rating had excessive, uncorrected leans, visible mechanical injuries, or other structural defects.

Table 2 below summarizes the assessment results for all trees surveyed.

Table 2. Tree Assessment Results Summary

Criteria Assessed/Rating	Condition (Tree Count [Percent])	Health (Tree Count [Percent])	Structure (Tree Count [Percent])
Good	8 (5)	8 (5)	7 (4)
Fair	146 (92)	147 (93)	139 (88)
Poor	4 (3)	3 (2)	12 (8)

3.3 Tree Impact Assessment

A total of 117 surveyed trees have been identified for potential removal to accommodate construction of the proposed project. Of the 117 trees identified for potential removal, 15 are considered protected trees per the Tree Ordinance.

In addition, a total of two (2) non-protected trees may require moderate to heavy pruning of their canopy and/or roots as they are located outside of the Project footprint, but have overhanging canopies and/or root zones. Potential impacts to the canopy or root system could include damage to branches or trunk during construction, ripping or tearing roots during subgrade excavation, or smothering roots due to soil compaction or grade fills. These types of injuries can lead to reduced tree vigor, increased susceptibility to pathogens or pests, or in severe cases eventual tree decline or death. Potential impacts are subject to specific proposed Project activities adjacent to each individual tree.

Potential permit, mitigation, and tree protection requirements as required by the Tree Ordinance are provided below.

4.0 SUMMARY AND RECOMMENDATIONS

Planting of replacement trees is required anytime a protected tree is removed. As specified in the Tree Ordinance, the City requires that the tree removal permit applicant plants replacement tree(s) of an equivalent value. Prioritization of planting trees onsite should be made to accomplish replacement requirements. If replacement cannot be fully accomplished onsite, staff may require in-lieu fees. The value of removed tree(s) will be calculated based on the latest edition of the Guide for Establishing Values of Trees and Other Plants, as prepared by the Council of Tree and Landscape Appraisers.

The 15 protected trees identified for potential removal will be replaced with tree species specified by the planting palette provided in the most recent Phase II Project plans.

Table 3 below summarizes the number of protected and non-protected trees proposed for removal and the proposed number of trees to be planted based on the most recent Phase II Project plans.

Table 3. Proposed Tree Removal and Planting Summary

	Proposed Removal	Retain	Proposed New Trees (24" box)
Protected Tree	15	6	0
Non-protected Tree	102	35	60
Totals	**117**	**41**	**60**

4.1 Tree Protection Avoidance and Minimization Measures

To avoid and minimize damage to existing trees that are not proposed for direct impact by Project activities, the following measures are recommended to be implemented during construction:

- Caution shall be taken when conducting construction activities (grading, filling, paving, etc.) in close proximity to the root protection zone (RPZ) around all protected trees within the vicinity of the Project Area that are not proposed for removal. The RPZ should be a distance of 1.0 times the dripline radius measured from the trunk of the tree. Exception to this standard could be considered on a case-by-case basis, provided that it is demonstrated that an encroachment into the RPZ will not affect the root system or the health of the tree, and is authorized by an ISA-Certified Arborist or comparable specialist.
- Temporary protective fencing shall be installed around the dripline of existing protected trees prior to commencement of any construction activity conducted within 25 feet of the tree canopy. The fence shall be clearly marked to prevent inadvertent encroachment by heavy machinery.
- Drainage shall not be allowed to pond around the base of any protected tree.
- An ISA-Certified Arborist or tree specialist shall be retained to perform any necessary pruning of trees during construction activity.
- Roots exposed, as a result of construction activities, shall be covered with wet burlap to avoid desiccation, and should be buried as soon as practicable.
- Construction materials or heavy equipment shall not be stored within the RPZ of protected trees.
- Only an ISA-Certified Arborist, or comparable specialist, shall make specific recommendations as to where any existing trees can safely tolerate some level of fill within the drip line.
- Trenching within RPZ shall be done under the field supervision of an ISA-Certified Arborist and shall be hand dug as much as possible in addition to using auger or drill.
- Construction materials shall be properly stored away from existing protected trees to avoid spillage or damage to trees.

5.0 REFERENCES

Google Earth. 2020. Aerial Photography 1993-2020.

City of East Palo Alto. 2020. Chapter 18.628, “Landscaping and Trees” (Tree Ordinance) of the City of East Palo Alto Municipal Code. Available online at: https://www.codepublishing.com/CA/east_palo_alto/. Most recently accessed: June 2020.

APPENDIX A

TREE SURVEY TABLE

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Appendix A. University Circle Phase II Office Project, Tree Survey Table, October 2020

Tag ID	Species	Common Name	Multi-stem	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Total DBH (inches)	Total Circumference (inches)	Ordinance Status	Impact Assessment	Dripline (feet)	Height (feet)	Condition	Health	Structure
21	*Pyrus calleryana*	Callery pear	No	12.8	0.0	0.0	0.0	0.0	12.8	40.2	protected tree	Removal	12	35	Good	Good	Fair
22	*Pistacia chinensis*	Chinese pistache	No	7.1	0.0	0.0	0.0	0.0	7.1	22.3	tree	No Impact	15	25	Fair	Fair	Fair
23	*Pistacia chinensis*	Chinese pistache	No	6.8	0.0	0.0	0.0	0.0	6.8	21.4	tree	No Impact	15	25	Fair	Fair	Poor
24	*Pistacia chinensis*	Chinese pistache	No	10.1	0.0	0.0	0.0	0.0	10.1	31.7	tree	No Impact	20	30	Fair	Fair	Fair
25	*Metrosideros excelsa*	New Zealand christmas tree	No	4.2	0.0	0.0	0.0	0.0	4.2	13.2	tree	Removal	4	15	Fair	Fair	Fair
26	*Metrosideros excelsa*	New Zealand christmas tree	No	7.4	0.0	0.0	0.0	0.0	7.4	23.2	tree	Removal	4	18	Fair	Fair	Fair
27	*Pyrus calleryana*	Callery pear	No	11.1	0.0	0.0	0.0	0.0	11.1	34.9	tree	Removal	12	35	Fair	Fair	Fair
28	*Pyrus calleryana*	Callery pear	No	10.6	0.0	0.0	0.0	0.0	10.6	33.3	tree	Removal	12	35	Fair	Fair	Fair
29	*Pyrus calleryana*	Callery pear	No	10.5	0.0	0.0	0.0	0.0	10.5	33.0	tree	Removal	12	30	Fair	Fair	Fair
30	*Pyrus calleryana*	Callery pear	No	9.0	0.0	0.0	0.0	0.0	9.0	28.3	tree	Removal	10	30	Fair	Fair	Fair
31	*Pyrus calleryana*	Callery pear	No	8.1	0.0	0.0	0.0	0.0	8.1	25.4	tree	Removal	10	30	Fair	Fair	Fair
32	*Pyrus calleryana*	Callery pear	No	8.6	0.0	0.0	0.0	0.0	8.6	27.0	tree	Removal	8	25	Fair	Fair	Fair
33	*Pyrus calleryana*	Callery pear	No	8.1	0.0	0.0	0.0	0.0	8.1	25.4	tree	Removal	8	25	Fair	Fair	Fair
34	*Pyrus calleryana*	Callery pear	No	7.2	0.0	0.0	0.0	0.0	7.2	22.6	tree	Removal	6	25	Fair	Fair	Fair
35	*Pyrus calleryana*	Callery pear	No	8.1	0.0	0.0	0.0	0.0	8.1	25.4	tree	Removal	8	35	Fair	Fair	Fair
36	*Pyrus calleryana*	Callery pear	No	8.5	0.0	0.0	0.0	0.0	8.5	26.7	tree	Removal	6	30	Fair	Fair	Fair
37	*Pyrus calleryana*	Callery pear	No	8.2	0.0	0.0	0.0	0.0	8.2	25.7	tree	Removal	6	30	Fair	Fair	Fair
38	*Pyrus calleryana*	Callery pear	No	7.6	0.0	0.0	0.0	0.0	7.6	23.9	tree	Removal	6	30	Fair	Fair	Fair
39	*Pyrus calleryana*	Callery pear	No	8.9	0.0	0.0	0.0	0.0	8.9	27.9	tree	Removal	8	30	Fair	Fair	Fair
40	*Pyrus calleryana*	Callery pear	No	10.4	0.0	0.0	0.0	0.0	10.4	32.7	tree	Removal	10	34	Fair	Fair	Fair
41	*Quercus palustris*	pin oak	No	5.7	0.0	0.0	0.0	0.0	5.7	17.9	tree	Removal	8	25	Poor	Poor	Poor
42	*Quercus palustris*	pin oak	No	9.3	0.0	0.0	0.0	0.0	9.3	29.2	tree	Removal	15	30	Good	Good	Good
43	*Quercus palustris*	pin oak	No	6.8	0.0	0.0	0.0	0.0	6.8	21.4	tree	Removal	10	25	Fair	Fair	Fair
44	*Quercus palustris*	pin oak	No	4.9	0.0	0.0	0.0	0.0	4.9	15.4	tree	Removal	6	20	Fair	Fair	Fair
45	*Quercus palustris*	pin oak	No	5.9	0.0	0.0	0.0	0.0	5.9	18.5	tree	Removal	10	25	Fair	Fair	Fair
46	*Quercus palustris*	pin oak	No	8.8	0.0	0.0	0.0	0.0	8.8	27.6	tree	Removal	18	30	Good	Good	Fair
47	*Metrosideros excelsa*	New Zealand christmas tree	No	9.8	0.0	0.0	0.0	0.0	9.8	30.8	tree	Removal	15	30	Good	Good	Good
48	*Metrosideros excelsa*	New Zealand christmas tree	No	10.3	0.0	0.0	0.0	0.0	10.3	32.3	tree	No Impact	12	30	Fair	Fair	Fair
49	*Metrosideros excelsa*	New Zealand christmas tree	No	7.5	0.0	0.0	0.0	0.0	7.5	23.6	tree	No Impact	10	25	Fair	Fair	Fair
50	*Metrosideros excelsa*	New Zealand christmas tree	No	7.7	0.0	0.0	0.0	0.0	7.7	24.2	tree	Potential Root Zone Impact	10	25	Fair	Fair	Poor
51	*Prunus cerasifera*	purple leaf plum	No	5.2	0.0	0.0	0.0	0.0	5.2	16.3	tree	Removal	12	25	Fair	Fair	Fair
52	*Prunus cerasifera*	purple leaf plum	No	5.3	0.0	0.0	0.0	0.0	5.3	16.6	tree	Potential Root Zone Impact	10	25	Fair	Fair	Fair
53	*Prunus cerasifera*	purple leaf plum	No	5.5	0.0	0.0	0.0	0.0	5.5	17.3	tree	Removal	10	25	Fair	Fair	Fair
54	*Prunus cerasifera*	purple leaf plum	No	4.8	0.0	0.0	0.0	0.0	4.8	15.1	tree	Removal	8	20	Fair	Fair	Fair
55	*Prunus cerasifera*	purple leaf plum	No	6.4	0.0	0.0	0.0	0.0	6.4	20.1	tree	Removal	10	20	Fair	Fair	Fair
56	*Quercus palustris*	pin oak	No	9.6	0.0	0.0	0.0	0.0	9.6	30.1	tree	Removal	20	40	Good	Good	Fair
57	*Quercus palustris*	pin oak	No	9.0	0.0	0.0	0.0	0.0	9.0	28.3	tree	Removal	15	35	Fair	Fair	Fair
58	*Quercus palustris*	pin oak	No	7.8	0.0	0.0	0.0	0.0	7.8	24.5	tree	Removal	15	35	Fair	Fair	Fair
59	*Quercus palustris*	pin oak	No	8.5	0.0	0.0	0.0	0.0	8.5	26.7	tree	Removal	15	30	Fair	Fair	Fair
60	*Quercus palustris*	pin oak	No	9.6	0.0	0.0	0.0	0.0	9.6	30.1	tree	Removal	18	30	Fair	Fair	Fair
61	*Quercus palustris*	pin oak	No	6.5	0.0	0.0	0.0	0.0	6.5	20.4	tree	Removal	15	20	Fair	Fair	Poor
62	*Quercus palustris*	pin oak	No	8.5	0.0	0.0	0.0	0.0	8.5	26.7	tree	Removal	18	30	Fair	Fair	Fair
63	*Quercus palustris*	pin oak	No	8.0	0.0	0.0	0.0	0.0	8.0	25.1	tree	Removal	18	30	Fair	Fair	Fair
64	*Quercus palustris*	pin oak	No	9.5	0.0	0.0	0.0	0.0	9.5	29.8	tree	Removal	18	30	Fair	Fair	Fair
65	*Quercus palustris*	pin oak	No	11.0	0.0	0.0	0.0	0.0	11.0	34.5	tree	Removal	20	40	Fair	Fair	Fair
66	*Prunus cerasifera*	purple leaf plum	No	5.4	0.0	0.0	0.0	0.0	5.4	17.0	tree	Removal	7	20	Fair	Fair	Fair
67	*Prunus cerasifera*	purple leaf plum	No	4.3	0.0	0.0	0.0	0.0	4.3	13.5	tree	Removal	5	18	Fair	Fair	Fair
68	*Prunus cerasifera*	purple leaf plum	No	4.8	0.0	0.0	0.0	0.0	4.8	15.1	tree	Removal	8	20	Fair	Fair	Fair
69	*Prunus cerasifera*	purple leaf plum	No	4.5	0.0	0.0	0.0	0.0	4.5	14.1	tree	Removal	8	18	Fair	Fair	Fair
70	*Prunus cerasifera*	purple leaf plum	No	5.7	0.0	0.0	0.0	0.0	5.7	17.9	tree	Removal	8	20	Fair	Fair	Fair

Appendix A. University Circle Phase II Office Project, Tree Survey Table, October 2020

Tag ID	Species	Common Name	Multi-stem	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Total DBH (inches)	Total Circumference (inches)	Ordinance Status	Impact Assessment	Dripline (feet)	Height (feet)	Condition	Health	Structure
71	*Prunus cerasifera*	purple leaf plum	No	4.2	0.0	0.0	0.0	0.0	4.2	13.2	tree	Removal	8	20	Fair	Fair	Fair
72	*Prunus cerasifera*	purple leaf plum	No	4.9	0.0	0.0	0.0	0.0	4.9	15.4	tree	Removal	10	20	Fair	Fair	Fair
73	*Prunus cerasifera*	purple leaf plum	No	5.6	0.0	0.0	0.0	0.0	5.6	17.6	tree	Removal	10	20	Fair	Fair	Fair
74	*Prunus cerasifera*	purple leaf plum	No	4.4	0.0	0.0	0.0	0.0	4.4	13.8	tree	Removal	8	20	Fair	Fair	Fair
75	*Prunus cerasifera*	purple leaf plum	No	6.5	0.0	0.0	0.0	0.0	6.5	20.4	tree	Removal	12	20	Fair	Fair	Fair
76	*Prunus cerasifera*	purple leaf plum	No	6.1	0.0	0.0	0.0	0.0	6.1	19.2	tree	Removal	10	20	Fair	Fair	Fair
77	*Prunus cerasifera*	purple leaf plum	No	8.2	0.0	0.0	0.0	0.0	8.2	25.7	tree	Removal	12	25	Fair	Fair	Fair
78	*Prunus cerasifera*	purple leaf plum	No	6.4	0.0	0.0	0.0	0.0	6.4	20.1	tree	Removal	12	25	Fair	Fair	Fair
79	*Quercus palustris*	pin oak	No	5.0	0.0	0.0	0.0	0.0	5.0	15.7	tree	Removal	8	20	Fair	Fair	Fair
80	*Quercus palustris*	pin oak	No	6.2	0.0	0.0	0.0	0.0	6.2	19.5	tree	Removal	10	20	Fair	Fair	Fair
81	*Quercus palustris*	pin oak	No	4.0	0.0	0.0	0.0	0.0	4.0	12.6	tree	Removal	8	18	Poor	Poor	Fair
82	*Quercus palustris*	pin oak	No	10.6	0.0	0.0	0.0	0.0	10.6	33.3	tree	Removal	12	25	Fair	Fair	Fair
83	*Quercus palustris*	pin oak	No	6.5	0.0	0.0	0.0	0.0	6.5	20.4	tree	Removal	8	20	Fair	Fair	Fair
84	*Quercus palustris*	pin oak	No	4.5	0.0	0.0	0.0	0.0	4.5	14.1	tree	Removal	8	20	Fair	Fair	Fair
85	*Quercus palustris*	pin oak	No	2.9	0.0	0.0	0.0	0.0	2.9	9.1	tree	Removal	5	15	Fair	Fair	Fair
86	*Quercus palustris*	pin oak	No	2.0	0.0	0.0	0.0	0.0	2.0	6.3	tree	Removal	5	10	Fair	Fair	Fair
87	*Quercus palustris*	pin oak	No	8.6	0.0	0.0	0.0	0.0	8.6	27.0	tree	Removal	12	25	Fair	Fair	Fair
88	*Quercus palustris*	pin oak	No	5.8	0.0	0.0	0.0	0.0	5.8	18.2	tree	Removal	10	20	Fair	Fair	Fair
89	*Quercus palustris*	pin oak	No	3.6	0.0	0.0	0.0	0.0	3.6	11.3	tree	Removal	6	12	Fair	Fair	Fair
90	*Quercus palustris*	pin oak	No	4.3	0.0	0.0	0.0	0.0	4.3	13.5	tree	Removal	8	25	Fair	Fair	Fair
91	*Quercus palustris*	pin oak	No	3.2	0.0	0.0	0.0	0.0	3.2	10.0	tree	Removal	8	20	Fair	Fair	Poor
92	*Quercus palustris*	pin oak	No	7.8	0.0	0.0	0.0	0.0	7.8	24.5	tree	Removal	15	30	Fair	Fair	Fair
93	*Quercus palustris*	pin oak	No	6.4	0.0	0.0	0.0	0.0	6.4	20.1	tree	Removal	15	25	Poor	Poor	Poor
94	*Prunus cerasifera*	purple leaf plum	No	5.3	0.0	0.0	0.0	0.0	5.3	16.6	tree	Removal	6	15	Fair	Fair	Fair
95	*Prunus cerasifera*	purple leaf plum	No	7.3	0.0	0.0	0.0	0.0	7.3	22.9	tree	Removal	10	18	Fair	Fair	Fair
96	*Prunus cerasifera*	purple leaf plum	No	4.6	0.0	0.0	0.0	0.0	4.6	14.4	tree	Removal	10	15	Fair	Fair	Fair
97	*Prunus cerasifera*	purple leaf plum	No	4.1	0.0	0.0	0.0	0.0	4.1	12.9	tree	Removal	10	16	Fair	Fair	Fair
98	*Prunus cerasifera*	purple leaf plum	No	5.2	0.0	0.0	0.0	0.0	5.2	16.3	tree	Removal	10	18	Fair	Fair	Fair
99	*Prunus cerasifera*	purple leaf plum	No	4.8	0.0	0.0	0.0	0.0	4.8	15.1	tree	Removal	6	15	Fair	Fair	Fair
100	*Prunus cerasifera*	purple leaf plum	No	4.9	0.0	0.0	0.0	0.0	4.9	15.4	tree	Removal	10	18	Fair	Fair	Fair
101	*Quercus palustris*	pin oak	No	5.4	0.0	0.0	0.0	0.0	5.4	17.0	tree	Removal	10	20	Poor	Fair	Poor
102	*Metrosideros excelsa*	New Zealand christmas tree	No	7.2	0.0	0.0	0.0	0.0	7.2	22.6	tree	Removal	8	20	Fair	Fair	Fair
103	*Metrosideros excelsa*	New Zealand christmas tree	No	5.2	0.0	0.0	0.0	0.0	5.2	16.3	tree	Removal	5	16	Fair	Fair	Fair
104	*Metrosideros excelsa*	New Zealand christmas tree	No	6.6	0.0	0.0	0.0	0.0	6.6	20.7	tree	Removal	6	18	Fair	Fair	Fair
105	*Metrosideros excelsa*	New Zealand christmas tree	No	6.1	0.0	0.0	0.0	0.0	6.1	19.2	tree	Removal	5	15	Fair	Fair	Fair
106	*Metrosideros excelsa*	New Zealand christmas tree	No	7.0	0.0	0.0	0.0	0.0	7.0	22.0	tree	Removal	8	20	Fair	Fair	Fair
107	*Metrosideros excelsa*	New Zealand christmas tree	No	5.5	0.0	0.0	0.0	0.0	5.5	17.3	tree	Removal	6	20	Fair	Fair	Fair
108	*Metrosideros excelsa*	New Zealand christmas tree	No	8.4	0.0	0.0	0.0	0.0	8.4	26.4	tree	Removal	10	20	Fair	Fair	Fair
109	*Pistacia chinensis*	Chinese pistache	No	5.2	0.0	0.0	0.0	0.0	5.2	16.3	tree	Removal	10	20	Fair	Fair	Fair
110	*Pistacia chinensis*	Chinese pistache	No	4.7	0.0	0.0	0.0	0.0	4.7	14.8	tree	Removal	10	20	Fair	Fair	Fair
111	*Pistacia chinensis*	Chinese pistache	No	5.8	0.0	0.0	0.0	0.0	5.8	18.2	tree	Removal	10	20	Fair	Fair	Fair
112	*Pistacia chinensis*	Chinese pistache	No	6.1	0.0	0.0	0.0	0.0	6.1	19.2	tree	Removal	12	20	Fair	Fair	Fair
113	*Pistacia chinensis*	Chinese pistache	No	6.5	0.0	0.0	0.0	0.0	6.5	20.4	tree	Removal	12	20	Fair	Fair	Fair
114	*Pistacia chinensis*	Chinese pistache	No	9.7	0.0	0.0	0.0	0.0	9.7	30.5	tree	Removal	20	35	Fair	Fair	Fair
115	*Quercus palustris*	pin oak	No	7.3	0.0	0.0	0.0	0.0	7.3	22.9	tree	Removal	15	28	Fair	Fair	Fair
118	*Quercus agrifolia*	coast live oak	No	12.8	0.0	0.0	0.0	0.0	12.8	40.2	protected tree	Removal	16	30	Fair	Fair	Fair
119	*Quercus agrifolia*	coast live oak	No	22.2	0.0	0.0	0.0	0.0	22.2	69.7	protected tree	Removal	20	30	Good	Good	Fair
120	*Quercus agrifolia*	coast live oak	No	16.7	0.0	0.0	0.0	0.0	16.7	52.4	protected tree	Removal	20	30	Good	Good	Good
121	*Quercus agrifolia*	coast live oak	No	21.1	0.0	0.0	0.0	0.0	21.1	66.3	protected tree	Removal	20	30	Good	Good	Good
122	*Quercus agrifolia*	coast live oak	No	16.3	0.0	0.0	0.0	0.0	16.3	51.2	protected tree	Removal	18	30	Fair	Fair	Fair

Appendix A. University Circle Phase II Office Project, Tree Survey Table, October 2020

Tag ID	Species	Common Name	Multi-stem	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Total DBH (inches)	Total Circumference (inches)	Ordinance Status	Impact Assessment	Dripline (feet)	Height (feet)	Condition	Health	Structure
123	*Sequoia sempervirens*	coast redwood	No	17.2	0.0	0.0	0.0	0.0	17.2	54.0	protected tree	Removal	10	40	Fair	Fair	Good
124	*Sequoia sempervirens*	coast redwood	No	15.5	0.0	0.0	0.0	0.0	15.5	48.7	protected tree	Removal	10	40	Fair	Fair	Fair
125	*Sequoia sempervirens*	coast redwood	No	16.0	0.0	0.0	0.0	0.0	16.0	50.2	protected tree	Removal	10	40	Fair	Fair	Fair
126	*Sequoia sempervirens*	coast redwood	No	17.4	0.0	0.0	0.0	0.0	17.4	54.6	protected tree	Removal	10	40	Fair	Fair	Fair
127	*Sequoia sempervirens*	coast redwood	No	15.3	0.0	0.0	0.0	0.0	15.3	48.0	protected tree	Removal	10	40	Fair	Fair	Fair
128	*Sequoia sempervirens*	coast redwood	No	18.4	0.0	0.0	0.0	0.0	18.4	57.8	protected tree	Removal	10	40	Fair	Fair	Fair
129	*Sequoia sempervirens*	coast redwood	No	16.7	0.0	0.0	0.0	0.0	16.7	52.4	protected tree	Removal	10	40	Fair	Fair	Fair
130	*Quercus agrifolia*	coast live oak	No	9.5	0.0	0.0	0.0	0.0	9.5	29.8	tree	Removal	10	18	Fair	Fair	Fair
131	*Quercus agrifolia*	coast live oak	No	13.6	0.0	0.0	0.0	0.0	13.6	42.7	protected tree	Removal	12	25	Fair	Fair	Fair
132	*Quercus palustris*	pin oak	No	6.4	0.0	0.0	0.0	0.0	6.4	20.1	tree	Removal	10	25	Fair	Fair	Fair
133	*Quercus palustris*	pin oak	No	5.5	0.0	0.0	0.0	0.0	5.5	17.3	tree	Removal	10	20	Fair	Fair	Fair
134	*Quercus palustris*	pin oak	No	5.6	0.0	0.0	0.0	0.0	5.6	17.6	tree	Removal	10	25	Fair	Fair	Poor
135	*Quercus palustris*	pin oak	No	9.0	0.0	0.0	0.0	0.0	9.0	28.3	tree	Removal	12	35	Fair	Fair	Fair
136	*Quercus palustris*	pin oak	No	7.4	0.0	0.0	0.0	0.0	7.4	23.2	tree	Removal	10	25	Fair	Fair	Fair
137	*Quercus palustris*	pin oak	No	5.0	0.0	0.0	0.0	0.0	5.0	15.7	tree	Removal	10	20	Fair	Fair	Fair
138	*Quercus palustris*	pin oak	No	3.6	0.0	0.0	0.0	0.0	3.6	11.3	tree	Removal	10	18	Fair	Fair	Poor
139	*Metrosideros excelsa*	New Zealand christmas tree	No	7.2	0.0	0.0	0.0	0.0	7.2	22.6	tree	No Impact	8	20	Fair	Fair	Fair
140	*Metrosideros excelsa*	New Zealand christmas tree	No	6.4	0.0	0.0	0.0	0.0	6.4	20.1	tree	No Impact	8	20	Fair	Fair	Fair
201	*Pyrus calleryana*	Callery pear	No	12.3	0.0	0.0	0.0	0.0	12.3	38.6	tree	No Impact	10	30	Fair	Fair	Good
202	*Pyrus calleryana*	Callery pear	No	8.9	0.0	0.0	0.0	0.0	8.9	27.9	tree	No Impact	12	40	Fair	Fair	Fair
203	*Quercus palustris*	pin oak	No	10.7	0.0	0.0	0.0	0.0	10.7	33.6	tree	No Impact	15	40	Fair	Fair	Fair
204	*Quercus palustris*	pin oak	No	8.3	0.0	0.0	0.0	0.0	8.3	26.1	tree	No Impact	12	40	Fair	Fair	Fair
205	*Quercus palustris*	pin oak	No	14.4	0.0	0.0	0.0	0.0	14.4	45.2	protected tree	No Impact	20	45	Fair	Fair	Fair
206	*Quercus palustris*	pin oak	No	11.2	0.0	0.0	0.0	0.0	11.2	35.2	tree	No Impact	15	40	Fair	Fair	Fair
207	*Quercus palustris*	pin oak	No	4.5	0.0	0.0	0.0	0.0	4.5	14.1	tree	Removal	8	25	Fair	Fair	Poor
208	*Quercus palustris*	pin oak	No	12.0	0.0	0.0	0.0	0.0	12.0	37.7	tree	Removal	18	40	Fair	Fair	Good
209	*Quercus palustris*	pin oak	No	9.5	0.0	0.0	0.0	0.0	9.5	29.8	tree	No Impact	15	30	Fair	Fair	Fair
210	*Quercus palustris*	pin oak	No	13.1	0.0	0.0	0.0	0.0	13.1	41.1	protected tree	Removal	20	30	Fair	Fair	Poor
211	*Quercus palustris*	pin oak	No	6.7	0.0	0.0	0.0	0.0	6.7	21.0	tree	Removal	12	35	Fair	Fair	Fair
212	*Quercus palustris*	pin oak	No	7.5	0.0	0.0	0.0	0.0	7.5	23.6	tree	Removal	15	40	Fair	Fair	Fair
213	*Quercus palustris*	pin oak	No	7.6	0.0	0.0	0.0	0.0	7.6	23.9	tree	Removal	12	35	Fair	Fair	Fair
214	*Quercus palustris*	pin oak	No	6.3	0.0	0.0	0.0	0.0	6.3	19.8	tree	Removal	10	30	Fair	Fair	Fair
215	*Quercus palustris*	pin oak	No	9.6	0.0	0.0	0.0	0.0	9.6	30.1	tree	Removal	15	30	Fair	Fair	Fair
216	*Quercus palustris*	pin oak	No	13.8	0.0	0.0	0.0	0.0	13.8	43.3	protected tree	No Impact	20	35	Fair	Fair	Fair
217	*Quercus palustris*	pin oak	No	14.9	0.0	0.0	0.0	0.0	14.9	46.8	protected tree	No Impact	20	40	Fair	Fair	Fair
218	*Quercus palustris*	pin oak	No	9.7	0.0	0.0	0.0	0.0	9.7	30.5	tree	No Impact	15	40	Fair	Fair	Fair
219	*Quercus palustris*	pin oak	No	11.0	0.0	0.0	0.0	0.0	11.0	34.5	tree	No Impact	20	35	Fair	Fair	Poor
220	*Quercus palustris*	pin oak	No	5.5	0.0	0.0	0.0	0.0	5.5	17.3	tree	No Impact	15	35	Fair	Fair	Fair
221	*Quercus palustris*	pin oak	No	9.4	0.0	0.0	0.0	0.0	9.4	29.5	tree	No Impact	15	35	Fair	Fair	Fair
222	*Quercus palustris*	pin oak	No	7.8	0.0	0.0	0.0	0.0	7.8	24.5	tree	No Impact	12	35	Fair	Fair	Fair
223	*Quercus palustris*	pin oak	No	14.7	0.0	0.0	0.0	0.0	14.7	46.2	protected tree	No Impact	20	40	Fair	Fair	Fair
224	*Quercus palustris*	pin oak	No	11.0	0.0	0.0	0.0	0.0	11.0	34.5	tree	No Impact	20	40	Fair	Fair	Fair
225	*Quercus palustris*	pin oak	No	10.8	0.0	0.0	0.0	0.0	10.8	33.9	tree	No Impact	18	40	Fair	Fair	Fair
226	*Quercus palustris*	pin oak	No	9.8	0.0	0.0	0.0	0.0	9.8	30.8	tree	No Impact	15	35	Fair	Fair	Fair
227	*Quercus palustris*	pin oak	No	9.5	0.0	0.0	0.0	0.0	9.5	29.8	tree	No Impact	15	35	Fair	Fair	Fair
228	*Quercus palustris*	pin oak	No	10.7	0.0	0.0	0.0	0.0	10.7	33.6	tree	No Impact	17	40	Fair	Fair	Fair
229	*Quercus palustris*	pin oak	No	11.6	0.0	0.0	0.0	0.0	11.6	36.4	tree	No Impact	17	40	Fair	Fair	Fair
230	*Quercus palustris*	pin oak	No	11.2	0.0	0.0	0.0	0.0	11.2	35.2	tree	No Impact	20	36	Fair	Fair	Fair
231	*Quercus palustris*	pin oak	No	8.9	0.0	0.0	0.0	0.0	8.9	27.9	tree	No Impact	15	35	Fair	Fair	Fair
232	*Quercus palustris*	pin oak	No	11.8	0.0	0.0	0.0	0.0	11.8	37.1	tree	No Impact	20	30	Fair	Fair	Fair

Appendix A. University Circle Phase II Office Project, Tree Survey Table, October 2020

Tag ID	Species	Common Name	Multi-stem	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Total DBH (inches)	Total Circumference (inches)	Ordinance Status	Impact Assessment	Dripline (feet)	Height (feet)	Condition	Health	Structure
233	*Quercus palustris*	pin oak	No	10.6	0.0	0.0	0.0	0.0	10.6	33.3	tree	No Impact	18	35	Fair	Fair	Fair
234	*Quercus palustris*	pin oak	No	8.7	0.0	0.0	0.0	0.0	8.7	27.3	tree	No Impact	15	35	Fair	Fair	Fair
235	*Quercus palustris*	pin oak	No	11.5	0.0	0.0	0.0	0.0	11.5	36.1	tree	No Impact	25	38	Fair	Fair	Fair
236	*Quercus palustris*	pin oak	No	13.0	0.0	0.0	0.0	0.0	13.0	40.8	protected tree	No Impact	20	40	Fair	Fair	Fair
237	*Quercus agrifolia*	coast live oak	No	14.5	0.0	0.0	0.0	0.0	14.5	45.5	protected tree	No Impact	20	40	Fair	Fair	Fair
238	*Quercus palustris*	pin oak	No	8.6	0.0	0.0	0.0	0.0	8.6	27.0	tree	No Impact	12	35	Fair	Fair	Fair
239	*Quercus palustris*	pin oak	No	9.0	0.0	0.0	0.0	0.0	9.0	28.3	tree	No Impact	15	35	Fair	Fair	Fair
240	*Quercus palustris*	pin oak	No	12.5	0.0	0.0	0.0	0.0	12.5	39.3	tree	No Impact	15	35	Fair	Fair	Fair

APPENDIX B

TREE SURVEY MAP

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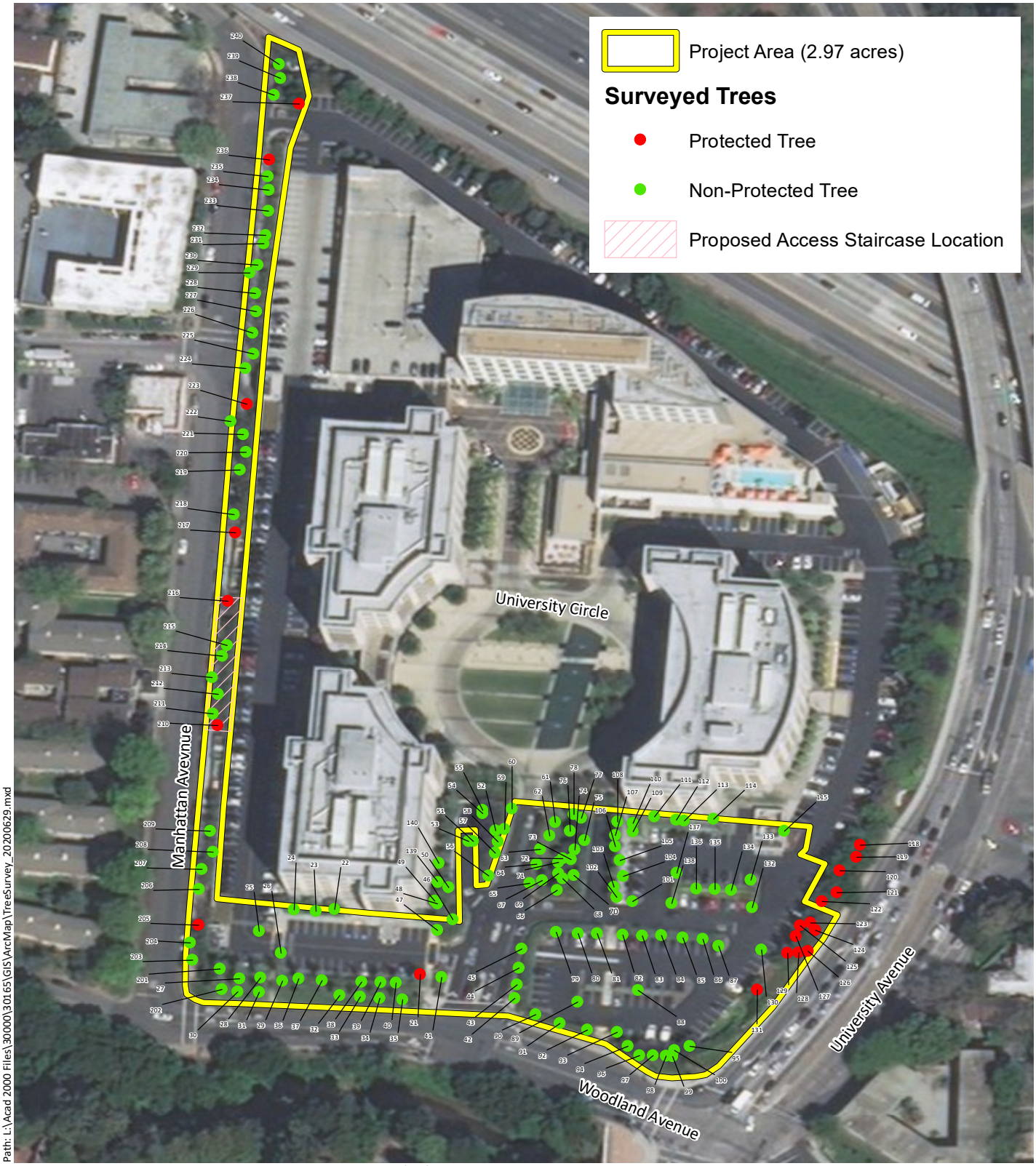

Path: L:\Acad 2000 Files\30000\30165\GIS\ArcMap\TreeSurvey_20200629.mxd

Sources: Esri World Imagery, WRA | Prepared By: JSChuster, 9/21/2020

Figure 1. Tree Survey Map

University Circle Phase 2
Tree Survey and Arborist Report
East Palo Alto, San Mateo County, California

wra
ENVIRONMENTAL CONSULTANTS

APPENDIX C

REPRESENTATIVE PHOTOGRAPHS

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Photograph 1. Tree #29, a 33.0” circumference Callery pear (*Pyrus calleryana*).

Photograph 2. Tree #35, a 25.4” circumference Callery pear adjacent to Woodland Avenue.

Photograph 3. Tree #41, a 17.9” circumference pin oak *(Quercus palustris*) observed to be in poor health.

Photograph 4. Tree #56, a 30.1” circumference pin oak along the northern side of University Circle.

Photograph 5. Tree #120, a 52.4” circumference coast live oak (*Quercus agrifolia*) protected tree in the southern portion of the Project Area.

Photograph 6. Tree #123, a 54.0” circumference coast redwood (*Sequoia sempervirens*) protected tree in the southern portion of the Project Area.

Photograph 7. Photograph of five purple leaf plums (*Prunus* cerasifera) trees (Tree #'s 51, 52, 53, 54, and 55) within the central portion of the Project Area.

Appendix D

PHASE II - UNIVERSITY CIRCLE PROJECT
1950 UNIVERSITY AVENUE
EAST PALO ALTO, CALIFORNIA

GEOTECHNICAL EXPLORATION

PREPARED FOR
Columbia REIT – University Circle L.P.
1900 University Avenue, Suite 106
East Palo Alto, CA 94303

PREPARED BY
ENGEO Incorporated

March 11, 2020

PROJECT NO.
16889.000.000

ENGEO
Expect Excellence

Project No.
16889.000.000

March 11, 2020

Ms. Michelle Goudeaux
Columbia REIT – University Circle L.P.
1900 University Avenue, Suite 106
East Palo Alto, CA 94303

Subject: Phase II - University Circle Project
1950 University Avenue
East Palo Alto, California

GEOTECHNICAL EXPLORATION

Dear Ms. Goudeaux:

As requested, we completed this geotechnical exploration report for the proposed Phase II - University Circle project in East Palo Alto, California. The accompanying report presents our field exploration and laboratory testing with our conclusions and recommendations regarding the proposed project.

It is our opinion from a geotechnical standpoint that the site is suitable for the proposed development, provided the recommendations and guidelines in this report are implemented during project planning, design, and construction. The main geologic/geotechnical concerns at the site include strong ground motions, the presence of groundwater and its effect on below-grade structures, and necessity of shoring and dewatering systems during construction. Our recommendations to address these concerns are presented in the accompanying report.

We are pleased to have been of service to you on this project and are prepared to consult further with you and your design team as the project progresses.

Sincerely,

ENGEO Incorporated

Jonas F. Bauer, EIT

Siobhan O'Reilly-Shaw, PE

Jeff Fippin, GE

Yan Lap Janet Kan, GE, CEG

jfb/sos/jaf/jk/cjn

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of this geotechnical exploration report, as described in our revised proposal dated October 17, 2019, is to provide design-level geotechnical services for the proposed Phase II - University Circle project in East Palo Alto, California. Our scope of services includes field exploration, laboratory testing, analysis, and reporting to assist the design team. Each service is outlined in greater detail in the following sections.

1.1.1 Field Exploration and Lab Testing Program

Our field exploration included exploring the site through the following means:

- Three cone penetration tests (CPTs) including one seismic CPT.
- One mud-rotary boring to collect subsurface soil samples.
- Geophysical testing, consisting of horizontal-to-vertical spectral ratio (HVSR) testing.
- Installation of one vibrating-wire piezometer (VWP) to provide site-specific groundwater data.

Upon completion of field exploration activities, soil samples were routed to our in-house laboratory for various geotechnical tests to further characterize the site.

1.1.2 Data/Document Review, Engineering Analysis, and Reporting

Utilizing the site-specific data from this study in conjunction with exploration data previously obtained by others, we completed literature and document review/research and engineering analyses, as follows:

- Review of historic aerial photographs.
- Review of various geologic maps for the East Palo Alto area, including assessment of nearby faults and potential earthquake ground motions.
- Groundwater evaluation based on our experience in the area, records of historic high groundwater levels, and site-specific vibrating wire piezometer information.
- Analysis of seismic hazards, including liquefaction, cyclic softening, and site-specific seismic hazards.
- Development of a site-specific seismic hazard analysis.
- Compilation of current California Building Code (CBC) seismic design parameters.
- Analyses of settlement due to static and cyclic loading.
- Development of design and construction recommendations based on findings and engineering analyses.

Our findings and recommendations outlined in the aforementioned scope were compiled into this report. Our recommendations are based on the following plans and documents provided to us for the subject project:

- Architectural Plans, University Circle Phase II, Chang Architecture, June 1, 2017, Job No. A4095.00.
- Final Geotechnical Investigation for University Circle, Lowney Associates, January 1, 2000.
- Formal Application Submittal, University Circle – Phase II, Chang Architecture, December 20, 2019, Job No. A4095.00

Based on conversation with the Civil Engineer for the project (BKF Engineers), we understand that civil plans are currently being updated to NAVD88 datum. As such, this report provides recommendations in terms of depth rather than elevation. After the civil plans are updated, we should revise this report to include elevation specific recommendations.

We prepared this report exclusively for Columbia REIT – University Circle L.P., its authorized agent and design team consultants for design of the project described in Sections 1.2 and 1.3 of this report. We should review any changes made in the character, design or layout of the development to modify the conclusions and recommendations contained in this report, as necessary. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

1.2 SITE LOCATION AND DESCRIPTION

The University Circle commercial complex is located at the northwest corner of the intersection of Woodland Avenue and University Avenue in East Palo Alto, California. The existing structures within the University Circle commercial complex are constructed on a podium over one level of below grade parking.

The proposed project site is roughly 0.6 acres in area and located at the southern area of University Circle Commercial Complex (Figure 1). The project site is currently covered by at-grade paved parking and landscaped area. The entry ramps to the existing-below grade garage are located in the middle of the proposed project site. A gentle, roughly 3:1 (horizontal:vertical) slope ranging from 3 to 10 feet high is present along the eastern boundary of the project site along University Avenue. Moreover, San Francisquito Creek runs along the south side of Woodland Avenue, approximately 150 feet south of proposed project site, as shown on Figure 2.

1.3 PROPOSED DEVELOPMENT

Based on our review of the provided plans and documents, we understand the proposed project will include construction of a new six-story office building with three levels of below grade parking. The office building is planned to be approximately 100 feet in height and the bottom of the lowest basement floor level is planned to be approximately 34 feet below the ground floor level. As shown on the architectural plans, the proposed below-grade parking will be connected to the existing below-grade parking level of the podium at four locations on the first level of below-grade parking. Two of the garage connection locations will be at the current locations of the existing garage entrance and exit. Landscape, walkways and parking spaces are planned at grade around the proposed office building.

Exhibits 1.3-1 and 1.3-2 below show the proposed building designed by Chang Architecture.

EXHIBIT 1.3-1: Proposed Project Rendering Looking Northeast

EXHIBIT 1.3-2: Proposed Project Rendering Looking Southeast

1.4 PREVIOUS GEOTECHNICAL STUDIES

We reviewed the geotechnical investigation report prepared by Lowney Associates, dated January 31, 2000 for the existing University Circle commercial complex. A total of three CPTs and seven exploratory borings were advanced to depths varying between 45 and 96 feet within the complex. One groundwater monitoring well was constructed to a depth of 25 feet adjacent to Boring EB-12; however, we could not locate this well during our field reconnaissance. The previous geotechnical investigation described subsurface conditions below the site as generally consisting of silty clay extending to depths of 12 to 28 feet below the ground surface (bgs). The clay was underlain by dense silty and clayey sand and gravel. Groundwater was reported as approximately 16 to 26 feet bgs. Borelogs, CPTs and laboratory test results of previous geotechnical studies are provided in Appendix H.

2.0 FINDINGS

2.1 SITE HISTORY

To characterize and understand site development history and geomorphology, we reviewed historic aerial photographs and topographic maps. We viewed numerous historic aerial photographs taken from 1939 through 2019 to assess site use over time. We also viewed historic topographic maps published back to 1899 to understand the site history before aerial photographic coverage was available.

An early topographic map from 1899 shows that the site is located in an area that was undeveloped at the time; the site was at an elevation of approximately 30 to 40 feet above sea level. The site elevation currently is approximately 36 feet above sea level implying that site elevations have remained largely unchanged over time. The alignment of the San Francisquito Creek has remained unchanged, but nearby city streets and building development in the area has changed significantly since 1899. In the 1939 aerial photo, the site appears to be occupied by trees and sparsely distributed residences along with large plots of land that remained empty and undeveloped. By 1948, the site had been developed into streets and lots for commercial or residential use and the 101 Freeway had been constructed. Between 1956 and 1958, University Avenue had been built and the 101 Freeway widened to its current configuration. By 2002, the previous buildings had been demolished and structures associated with the existing University Circle commercial complex had been constructed. The site remains similar to current conditions since 2002.

2.2 GEOLOGIC SETTING

East Palo Alto is located within the Coast Ranges geomorphic province of California. The Coast Ranges are characterized by a series of northwest-trending valleys and mountain ranges formed due to the interactions of the San Andreas Fault zone. The bedrock in this region has been folded and faulted in a tectonic setting that is experiencing translational and compressional deformations of the earth's crust.

More specifically, the project site is located within a relatively flat-lying area adjacent to the tidal marshes of the San Francisco bay. As depicted on Figure 3, regional mapping by Dibblee (2007) indicates the site is situated on Quaternary age alluvium (Qa). These deposits are characterized by alluvial gravel, sand, silt and clay. Alluvial stream deposits in drainages and younger alluvial fan deposits at the base of slopes are also common in these deposits. Brabb (1998) maps the site as partly underlain by artificial fill and natural levee deposits (af, Qhl, respectively).

2.3 REGIONAL FAULTING

Numerous small earthquakes occur every year in the San Francisco Bay Region and larger earthquakes have been recorded and can be expected to occur in the future. Figure 4 shows the approximate locations of these faults and significant historic earthquakes recorded within the greater Bay Area Region. The site is not located within a currently designated Earthquake Fault Special Study Zone and no known surface expression of active faults is believed to exist within the site. Although not zoned by the State of California, Jennings (1994) maps two traces of the San Jose Fault as concealed and located at ½ and 1½ mile away from the site. At this time, the San Jose Fault is considered Pre-Quaternary of age. Therefore, the risk of surface fault rupture at the project site is low.

The Working Group on California Earthquake Probabilities (WGCEP, 2017) evaluated the 30-year probability of a Moment Magnitude 6.7 or greater earthquake occurring on the known active fault systems in the Bay Area, including the Northern San Andreas fault, in UCERF3. UCERF3 estimated an overall probability of 72 percent for the Bay Area as a whole, a probability of 14.3 percent for the Hayward fault, 7.4 percent for the Calaveras fault, 6.4 for the Northern San Andreas fault, and 3.5 percent for the Concord-Green Valley fault.

Based on the historic seismicity, the proximity of known active faults, and the estimated earthquake probabilities for the Bay Area as a whole, it should be expected that the site will experience strong seismic ground shaking during the lifetime of the proposed improvements. The ground shaking hazard levels at the site are similar to those for most of the Bay Area.

The site is mapped in the current seismic hazard zonation with potential permanent ground displacements due to liquefaction based on the California Geologic Survey Seismic Hazard Zone Maps (CDMG, 2006) (Figure 5). This liquefaction susceptibility mapping is based on regional geologic mapping of soil and rock deposits and is not based on site-specific exploration or analyses. We performed detailed analysis of the liquefaction-induced settlement and provide the results in the subsequent sections of this report.

2.4 FIELD EXPLORATION

Our field exploration included advancing three CPTs (1-SCPT1, 1-CPT2, and 1-CPT3), drilling one boring (1-B1), installing and monitoring one vibrating wire piezometer (VWP) at 1-B1, and performing geophysical testing. Our field explorations, VWP installation and geophysical testing were completed between December 19, 2019 and January 7, 2020. We will continue to monitor the VWP until one year after the original signed agreement. The locations of our explorations are shown on Figure 2.

2.4.1 Rotary-Wash Boring

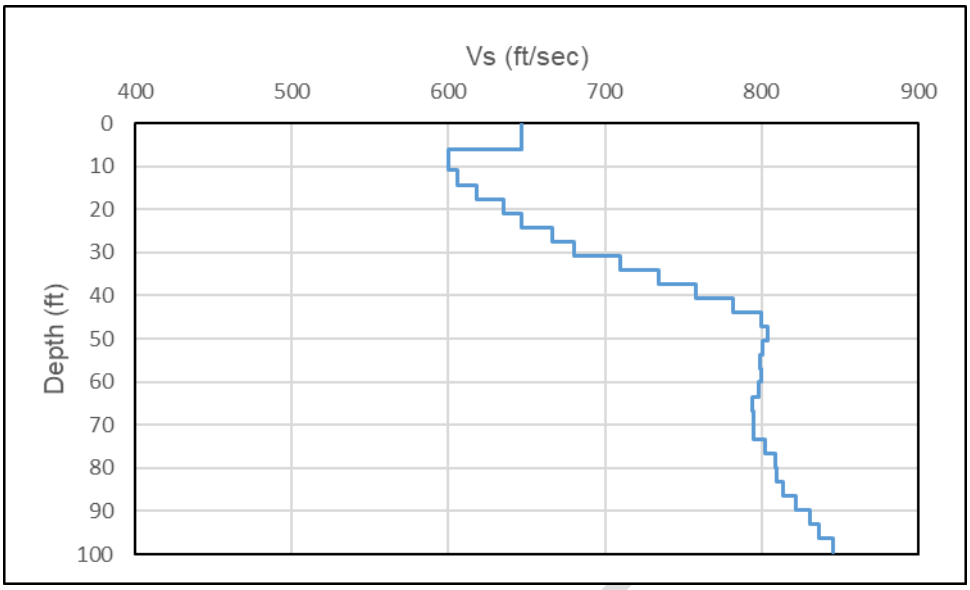
We drilled one soil boring on January 3, 2020, and it extended to a maximum depth of approximately 101½ feet bgs. The boring was performed with a truck-mounted rig using 4-inch-diameter mud-rotary drilling methods. A geologist from our firm logged the boring in the field and collected soil samples using 2½-inch-inside-diameter California-type split-spoon sampler fitted with 6-inch-long stainless steel liners, or a 2-inch-outside-diameter Standard Penetration Test (SPT) split-spoon sampler. The penetration of the samplers into underlying materials was recorded as the number of blows needed to drive the sampler 18 inches in 6-inch increments (SPT and California-type samplers). The boring logs present blow count results as the actual number of blows required for the last 1 foot of penetration; no conversion factors have been applied. The SPT and California-type samplers were driven with a 140-pound hammer falling a distance of 30 inches. The field logs were then used to develop the report logs, presented in Appendix A. The logs depict subsurface conditions within the boring at the time of drilling; however, subsurface conditions may vary with time.

2.4.2 Cone Penetration Tests

We conducted the CPTs for this study on December 19, 2019. We retained the services of a CPT contractor to push the CPTs to depths ranging from approximately 50 feet to 100 feet in general accordance with ASTM D-5778. We drilled mud-rotary borings in close proximity to 1-SCPT1 to allow direct comparison of the data (matched pairs). Measurements include the tip resistance to penetration of the cone (Qc), the resistance of the surface sleeve (Fs), and pore pressure (U) (Robertson and Campanella, 1988). We present the CPT logs in Appendix C.

The CPT contractor performed shear wave velocity (V_s) measurements in 1-SCPT1 using the downhole seismic method specified in ASTM D7400. The V_s profiles obtained from this testing are shown in Exhibit 2.4.2-1. Based on our measurements, the V_{S30} (average shear wave velocity over the top 30 meters) value associated with 1-SCPT1 is 846 feet per second (ft/s) or 258 meters per second (m/s).

EXHIBIT 2.4.2-1: Shear Wave Velocity Data



2.4.3 Geophysical Survey (HVSR Testing)

We performed horizontal-to-spectral ratio (HVSR) testing at three locations as shown on Figure 2, to understand the fundamental shear wave resonant wave resonant frequency (f_0) or, equivalently, the fundamental period (T_0) at these locations (SESAME 2004).

If a well-defined peak is present in the HVSR spectrum, this peak approximately coincides with f_0 (SESAME 2004). Generally, the HVSR curves show a consistent, well-defined peak at frequencies ranging from 0.352 to 0.390 Hertz (Hz) or periods ranging from 2.56 to 2.84 seconds. Additionally, the amplitudes of the HVSR curves are very consistent across the site. The HVSR results demonstrate that the resonant frequency is relatively consistent across the site, implying that the bedrock depth is deep and relatively consistent. Detailed HVSR results are shown in Appendix D.

2.5 LABORATORY TESTING

We performed the following laboratory tests on select samples recovered from Boring 1-B1.

TABLE 2.5-1: Laboratory Testing

SOIL CHARACTERISTIC	TESTING METHOD
Natural Unit Weight and Moisture Content	ASTM D7263, D2216
Plastic Limit	ASTM D4318
Particle Size Distribution	ASTM D1140, D6913
Unconsolidated Undrained Triaxial Compression	ASTM D2850
Unconfined Compressive Strength of Soil	ASTM D2166
Constant Rate of Strain Consolidation	ASTM D-4186

Many of the laboratory test results are shown on the borelog in Appendix A, with individual test results presented in Appendix B.

2.6 SURFACE AND SUBSURFACE CONDITIONS

As previously mentioned, the surface elevation of the site ranges from roughly 36 to 38 feet (WGS84) from north to south. The site is currently mostly paved, with a section of approximately 3 inches of asphalt concrete over roughly 8 inches of aggregate base encountered at 1-B1.

The subsurface stratigraphy encountered at the CPT and boring locations are consistent. In general, the project site is underlain by alluvial deposits consisting of sand, clay, and gravel layers with variable amounts of silt extending to the full depth of exploration of roughly 101½ feet bgs.

In the upper 30 feet, our boring encountered brown sand underlain by dark yellowish brown clayey layers. The consistency of the clayey and silty layers ranged from medium stiff to very stiff and were generally of medium plasticity. Between 30 and 40 feet below the existing ground surface, a layer of medium dense, well-graded gravel in a clay matrix content was encountered. This gravel layer was underlain by silt and lean clay ranging from medium stiff to stiff, with low to moderate plasticity, extending to approximately 75 feet bgs.

Below 75 feet, we encountered subsurface material consisting of sand with decreasing clay content with depth.

2.7 GROUNDWATER

We measured the approximate depth to groundwater with pore pressure dissipation tests at all CPT locations. In addition, we installed a VWP at boring location 1-B1 to collect continuous depth-to-groundwater measurements. Pore pressure dissipation tests indicate the groundwater table ranges from roughly 27 to 28½ feet below the ground surface at the time of drilling. Recent monitoring of the VWP indicates the depth to groundwater is approximately 24 to 25½ feet bgs at the vibrating wire piezometer location.

Plate 1.2 of the Seismic Hazard Zone Report for the Palo Alto Quadrangle (CGS, 2006), Figure 6 maps the highest historical groundwater within the site vicinity to be approximately 15 feet below the ground surface. For preliminary purposes of our analyses and recommendations and until we have collected more site-specific groundwater information, we considered an appropriate design groundwater depth of 15 feet below the ground surface.

3.0 SEISMIC HAZARD ANALYSIS

We developed seismic design criteria using the 2019 version of the CBC for this project. The 2019 CBC references the seismic design criteria in the 2016 version of the American Society of Civil Engineers document titled “Minimum Design Loads and Associated Criteria for Buildings and Other Structures,” (ASCE 7-16). The 2019 CBC became effective for projects beginning in January 2020.

We determined the Site Class in accordance with Section 20.3 of ASCE 7-16 based on shear wave velocity measurements at the site (discussed below). Based on the shear wave velocity data, we classify the site as Site Class D. ASCE 7-16 mandates seismic hazard analyses (not to be confused with seismic site response analyses) at Site Class D sites where the mapped spectral acceleration parameter at a period of 1 second (S_1) is greater than 0.2. Since S_1 is

greater than 0.2 at this site, a seismic hazard analysis is required. We performed this analysis as described below.

3.1 SEISMIC HAZARD ANALYSIS PROCEDURES

We evaluated the site-specific spectral response for a Site Class D condition in accordance with the methodologies described in Chapter 21 of ASCE 7-10 and 7-16. We performed the following steps to develop a site-specific, risk-targeted maximum considered earthquake (MCE_R) response spectrum for a Site Class D condition:

- A probabilistic seismic hazard analysis (PSHA) to develop a risk-targeted maximum rotated response spectrum corresponding to a 2-percent probability of exceedance in 50 years (2,500-year return period).
- A site-specific deterministic analysis (DSHA) to develop an 84th-percentile maximum rotated response spectrum.
- A comparison of the DSHA and the Deterministic Lower Limit defined in Supplement No. 1 of ASCE 7-16.
- A comparison of the PSHA and the DSHA response spectra to obtain the site-specific MCE_R response spectrum for the site.
- Multiplying the site-specific MCE_R response spectrum by two-thirds to obtain the site-specific design response spectrum (DE) for the site.

3.2 PROBABILISTIC SEISMIC HAZARD ANALYSIS

3.2.1 Fault Database and Probabilistic Model

We performed a probabilistic seismic hazard analysis for the project site for a return period of 2,475 years. We utilized the Third California Earthquake Rupture Forecast model (UCERF3, Field et al. 2015). This is the most up-to-date rupture forecast model for the state of California and is required by ASCE 7-16. We calculated the seismic hazard using the standard methodology for hazard analysis. The seismic-hazard calculations can be represented by the following equation, which is an application of the total-probability theorem.

$$H(a) = \sum_i v_i \iint P[A > a|m,r]\, f_{Mi}(\mathrm{m})\, f_{Ri|Mi}(\mathrm{r},\mathrm{m})\, dr\, dm$$

In this equation, the hazard **H*(a)*** is the annual frequency of earthquakes that produce a ground motion amplitude ***A*** higher than ***a***. Amplitude ***A*** may represent peak ground acceleration, velocity or displacement, or it may represent spectral pseudo-acceleration at a given frequency. The summation in the equation shown extends over all sources (i.e. over all faults and areas). In the above equation, v_i is the annual rate of earthquakes (with magnitude higher than some threshold M_i) in source ***i***, and f_{Mi} ***(m)*** and $f_{Ri|Mi}$ ***(r,m)*** are the probability density functions on magnitude and distance, respectively. ***P[A > a|m, r]*** is the probability that an earthquake of magnitude ***m*** at distance ***r*** produces a ground-motion amplitude ***A*** at the site that is greater than ***a***. Seismic sources may be either faults or area sources; the specification of source geometries and the calculation of $f_{Ri|Mi}$, are performed differently for these two types of sources.

3.2.2 Deaggregation of the Seismic Hazard

We performed a deaggregation of the seismic hazard for a Site Class D condition at periods of 0.01, 0.5, 1.0, and 2.0 seconds. These deaggregation results are shown in an attachment titled "Deaggregation Results" in Appendix F. At these periods, the hazard is dominated by moment magnitude (M_W) 7.0 to 7.9 events that are within 20 miles (32 kilometers) of the site. These events are related to the Monte Vista-Shannon, San Andreas, Pilarcitos and Hayward faults as shown in Table 3.2.2-1.

TABLE 3.2.2-1: Controlling Faults*

FAULT	CLOSEST DISTANCE TO THE SITE (miles|km)	MOMENT MAGNITUDE (Mw)	MECHANISM
Monte Vista – Shannon	8.3|13.3	7.04	Strike Slip
San Andreas	11.2|17.9	7.91	Strike Slip
Pilarcitos	12.6|20.2	7.61	Strike Slip
Hayward	19.5|31.2	7.39	Strike Slip

* Based on USGS Unified Hazard Tool Dynamic Conterminous U.S. 2014 (V4.2.0)

3.2.3 Ground Motion Models and Site Parameters

We used a total of four ground motion models (GMMs) from the Next Generation Attenuation West 2 (NGA West 2) project for this project. These include Abrahamson et al. (2014), Boore et al. (2014), Campbell and Bozorgnia (2014), and Chiou and Youngs (2014). We performed our analysis using all four empirical attenuation equations for a spectral damping of 5 percent and we assigned equal weights (0.25) to the results of each in the analysis. These GMMs provide median rotated (RotD50), 5-percent damped, pseudo-acceleration (PSa) response spectra. We ultimately applied maximum rotation factors to convert these RotD50 response spectra to maximum rotated response spectra.

We collected Vs data to a depth of 100 feet using seismic Cone Penetrometer Testing. We performed seismic testing in 1-SCPT1 and results indicate a V_{S30} of 846 ft/s (258 m/s). Additional inputs to the GMMs include V_{S30}; the depth at which V_S reaches 3,330 ft/s or 1.0 kilometers per second (km/s) ($z_{1.0}$); and the depth at which V_S reaches 8,200 ft/s or 2.5 km/s ($z_{2.5}$). For $z_{1.0}$ and $z_{2.5}$, we used the USGS Bay Area Velocity Model (BAVM) Release 8.3.0. This model estimates a $Z_{1.0}$ value of 1,575 feet (480 meters) and a $Z_{2.5}$ value of 2,800 feet (860 meters) at this location.

3.3 DETERMINISTIC SEISMIC HAZARD ANALYSIS

The deterministic seismic hazard analysis (DSHA) involves developing the 84th percentile (i.e., lognormal mean plus one standard deviation) maximum rotated response spectrum for a spectral damping of 5 percent of critical damping considering characteristic magnitudes of significant faults and the aforementioned attenuation equations. Deterministic analyses do not include background seismicity. However, it is important to note that the definition of the characteristic magnitude is ambiguous when using the UCERF3 model due to its complexity. Based on our communications with developers of UCERF3, in deterministic analysis, "scenario" earthquakes with higher contribution to hazard should be used in lieu of "characteristic" earthquakes when using UCERF3. To satisfy both characteristic and scenario earthquake approaches, we performed the following analyses and picked the maximum results as the deterministic spectrum.

- DSHA using UCERF2[1]
- DSHA using the rupture scenarios with contribution of more than 1-percent to hazard based on hazard deaggregation and UCERF3.

The results for the DSHA using UCERF3 for the sources presented in Table 3.3-1 indicate a controlling event on the San Andreas fault with a magnitude of 7.91 at a distance of 17.9 miles (11.2 kilometers) from the site. However, the results of the DSHA using UCERF2 indicate a moment magnitude of 8.05 on the San Andreas fault at a distance of 17.9 miles. This discrepancy is due to fundamental differences between UCERF3 and UCERF2 models.

TABLE 3.3-1: UCERF3 Controlling Scenarios Used in DSHA

SOURCE	R_{RUP} (km)	M_W	PERCENT CONTRIBUTION			
			PGA	0.5 SECONDS	1.0 SECONDS	2.0 SECONDS
San Andreas (Pen)	11.21	7.91	52.41	56.28	64.28	73.18
Hayward	19.53	7.39	11.56	12.84	9.85	6.4
Monte Vista-Shannon	8.3	7.04	8.04	7.65	7.01	4.79

Based on this comparison, we conservatively selected the UCERF2 DSHA results for our analyses.

3.4 RESULTING SITE-SPECIFIC SPECTRA

Following the steps described above, we developed probabilistic and deterministic RotD50 response spectra. To convert these mean RotD50 response spectra to mean maximum rotated response spectra, we applied the maximum rotation factors discussed in Shahi and Baker (2014). We also applied the mapped risk factors defined in Section 21.2.1.1 of ASCE 7-16 to the probabilistic response spectrum in order to develop a risk-targeted spectrum. We then compared the maximum rotated deterministic response spectrum with the lower limit deterministic response spectrum defined in Section 21.2.2 of ASCE 7-16 and Supplement No. 1 to finalize the deterministic spectrum.

Per Section 21.2.3 of ASCE 7-16, the MCE_R is controlled by the lesser of the maximum rotated and risk-targeted probabilistic and the 84th percentile maximum rotated deterministic response spectra. Additionally, the MCE_R and DE are not permitted to be lower than 80 percent of the mapped MCE_R and DE spectra (i.e., the code minimum), respectively. Figure 3.4-1 depicts the recommended MCE_R and DE response spectra for the project site. Table 3.4-1 presents the numerical values of the recommended spectra and Table 3.4-2 presents seismic design parameters based on ASCE 7-16 Section 21.4.

[1] Previous version of UCERF3 that is less complex.

FIGURE 3.4-1: Recommended MCE_R and DE Spectra

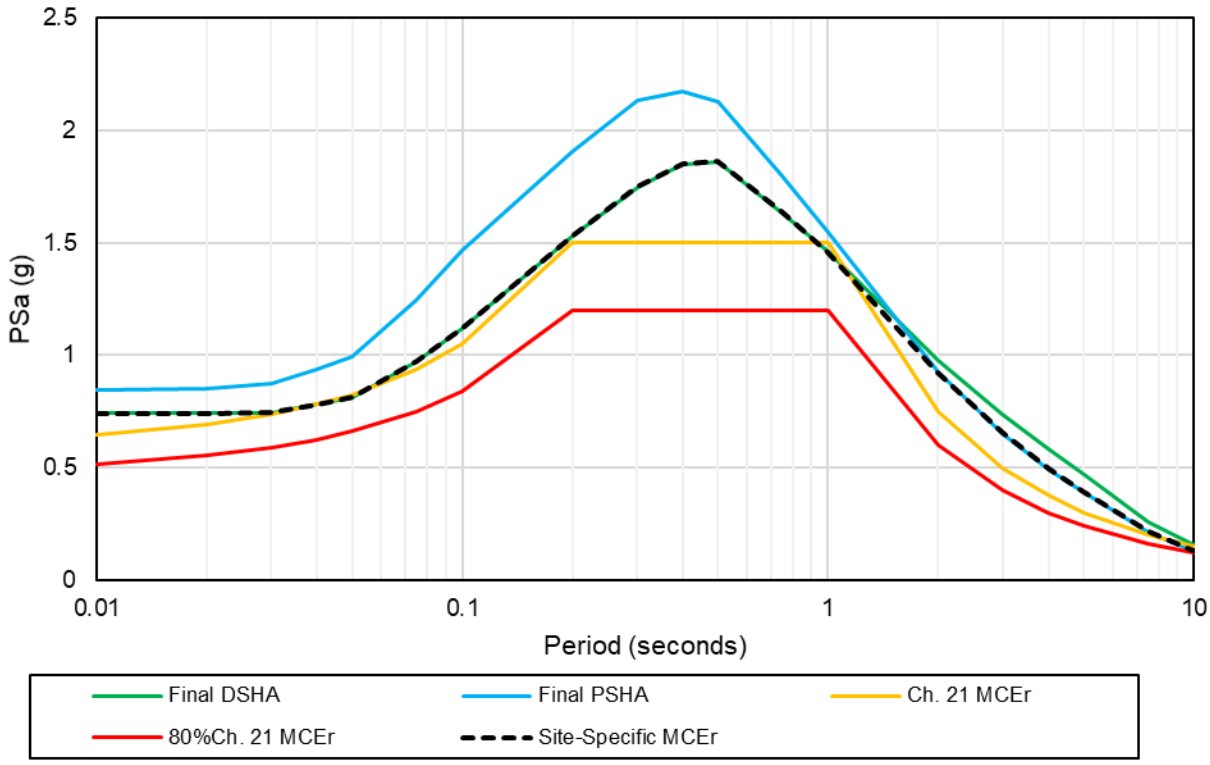


TABLE 3.4-1: Recommended MCE_R and DE Spectra

PERIOD (seconds)	RECOMMENDED SPECTRAL ACCELERATION (g)	
	RISK TARGETED - MAXIMUM ROTATED MCE_R	MAXIMUM ROTATED DE
0.01	0.742	0.495
0.02	0.742	0.495
0.03	0.745	0.497
0.04	0.782	0.521
0.05	0.813	0.542
0.075	0.972	0.648
0.1	1.120	0.747
0.2	1.532	1.021
0.3	1.747	1.165
0.4	1.851	1.234
0.5	1.862	1.242
0.75	1.634	1.090
1	1.459	0.973
2	0.924	0.616
3	0.653	0.435
4	0.494	0.329
5	0.391	0.261
7.5	0.215	0.143
10	0.128	0.085

TABLE 3.4-2: Design Acceleration Parameters based on ASCE 7-16 Section 21.4 (Latitude: 37.458704 Longitude: -122.142159)

PARAMETER	VALUE
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	1.50
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.60
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	1.676
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1} (g)	1.976
Design Spectral Response Acceleration at Short Periods, S_{DS} (g)	1.117
Design Spectral Response Acceleration at 1-second Period, S_{D1} (g)	1.317

4.0 DISCUSSION AND CONCLUSIONS

Based on the exploration and laboratory test results, the project site is feasible for the proposed development provided the recommendations contained in this report are properly incorporated into the design plans and specifications.

The primary geotechnical concerns for the proposed site redevelopment include:

- Strong ground motions.
- The presence of groundwater and its influence on below-grade construction.
- The need for shoring systems to protect the excavation walls, adjacent buildings, streets and improvements, and the potential need for dewatering of excavations extending below the groundwater surface.

These and other issues are discussed in the following sections.

4.1 STATIC CONSOLIDATION SETTLEMENT

We understand building loads are still being determined by the structural designer. For our use in preparation of this report, preliminary building loads were provided to us. Based on our exploration and the preliminary building loads, some static consolidation settlement is anticipated at the project site, below the base of the foundation. We anticipate consolidation settlement will be relatively minor and a majority will take place during construction as the subgrade material is reloaded. Provided the recommendations in this report are followed during design and construction, settlement can be appropriately managed. Preliminary static settlement estimates are provided in Table 6.1-1, based on initial findings.

4.2 EXISTING ARTIFICIAL FILL

Artificial fill was identified in Boring 1-B1 extending to a depth of approximately 5½ feet below existing ground. No documentation of fill placement was provided or discovered during the preparation of this report. Without documentation regarding the manner of placement, type of material used, and degree of compaction, the existing fill should be considered non-engineered.

Based on the proposed below grade garage elevations, we anticipate that existing fill at the project site will be removed as part of the basement excavation and do not pose a concern to the proposed development.

4.3 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and liquefaction. The following sections present a discussion of these hazards as they apply to the site. Based on topographic and lithologic data, the risk of regional subsidence or uplift, lurching, landslides, tsunamis, or seiches is low to negligible at the site.

4.3.1 Ground Rupture

As discussed in Section 2.3, no known active faults crossing the property. The risk of ground rupture is therefore low at the subject property.

4.3.2 Ground Shaking

Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the actual forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

4.3.3 Liquefaction / Cyclic Softening

The site is located within a State of California Seismic Hazard Zone (CDMG, 2006) for areas that may be susceptible to liquefaction (Figure 5).

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. The soil considered most susceptible to liquefaction is clean, loose, saturated, uniformly graded fine sand below the groundwater table. Empirical evidence indicates that loose silty sand is also potentially liquefiable. When seismic ground shaking occurs, the soil is subjected to cyclic shear stresses that can cause excess hydrostatic pressures to develop. If excess hydrostatic pressures exceed the effective confining stress from the overlying soil, it is said to have liquefied, and if the sand consolidates or vents to the surface during and following liquefaction, ground settlement and surface deformation may occur. In addition to liquefaction of sandy materials, clayey soil can also undergo “cyclic-softening” or strength loss as a result of cyclic loading. Since the site is composed of many thick clay layers, we considered this effect in our analyses.

4.3.3.1 Liquefaction Analysis Overview

We divided the soil into “sand-like” and “clay-like” behaviors using procedures presented in Boulanger and Idriss (2014). We then performed an initial liquefaction susceptibility assessment of the clay-like soil based on the methodologies presented by Bray and Sancio (2006). Section 4.3.3.2 presents our screening for liquefaction susceptibility.

We performed an analysis of liquefaction potential based on the CPT data using the computer software CLiq (Version 2.2.1.4) developed by GeoLogismiki to screen the soil profile for potentially liquefiable or cyclic softening soil. The software incorporates the procedure introduced by the 1996 National Center for Earthquake Engineering Research (NCEER) workshop and the 1998 NCEER/National Science Foundation (NSF) workshop. The workshops are summarized by Youd et al. (2001) and updated by Robertson (2009).

Next, we reviewed the in-situ data (blow counts and soil descriptions), laboratory data (PI, moisture content, and fines content), Boulanger and Idriss (2014) and Bray and Sancio (2006) methodologies obtained from adjacent "matched-pair" borings to further evaluate the risk of liquefaction of soil layers identified as potentially liquefiable by CLiq.

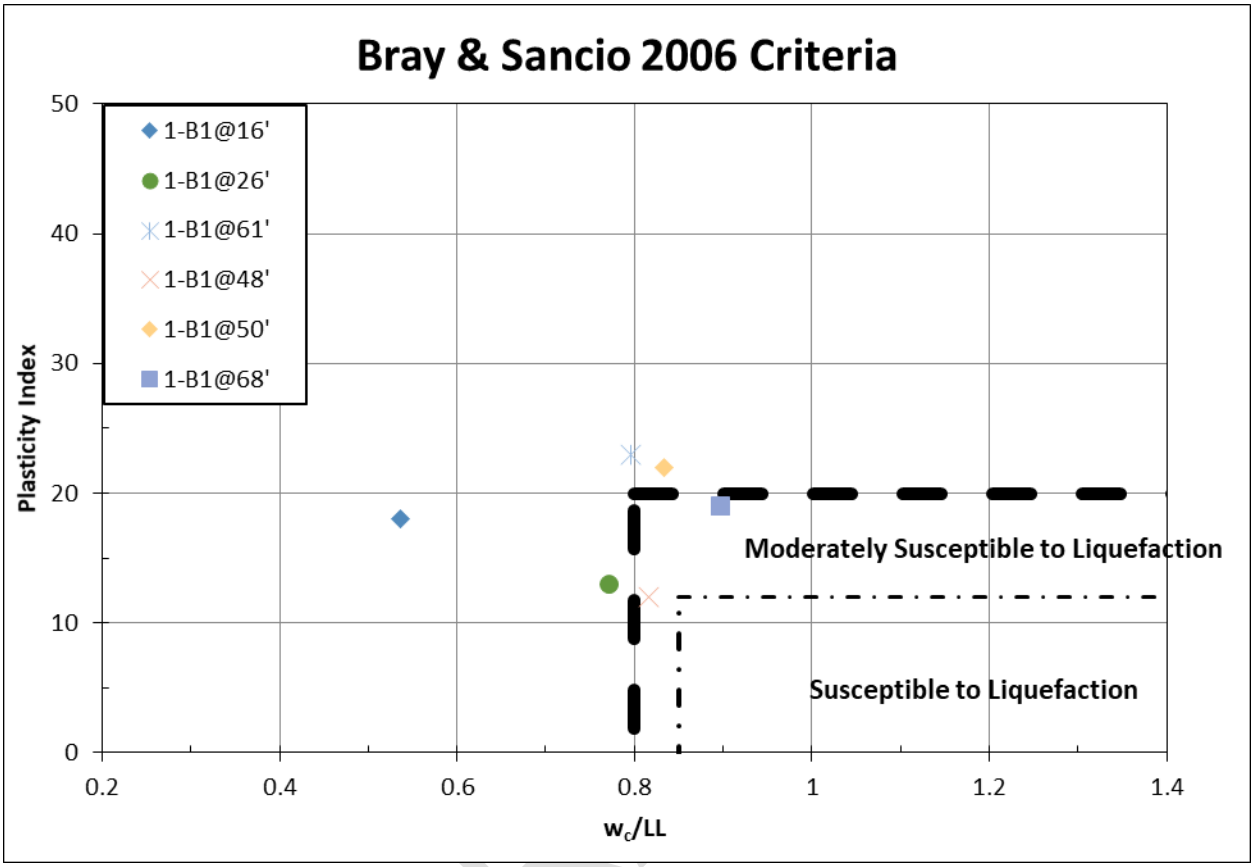
To assess seismically induced settlement, we considered the methodology presented by Zhang et al. (2002). The details and results of our analyses are presented in the following sections.

4.3.3.2 Liquefaction Susceptibility Screening of Soil Samples

Fine-grained soil samples collected below the assumed foundation bottom appear to be potentially liquefiable based on Boulanger and Idriss (2014). As such, we considered the criteria presented by Bray and Sancio to assess the potential for liquefaction triggering on this soil. Bray and Sancio observed that soil with a plasticity index (PI) less than 12 and a water content (w_c) to liquid limit (LL) ratio of more than 0.85 are susceptible to liquefaction/cyclic-softening. Soil with PI greater than 20 and/or w_c/LL less than 0.8 were deemed to be not susceptible to liquefaction because they are too plastic and/or their water contents are too low.

We considered the Bray and Sancio criteria at this site and plotted w_c/LL versus PI for our available laboratory data. As shown in Exhibit 4.3.3.2-1, soil samples collected at 48 and 68 feet bgs appear to be on the borderline of not susceptible to moderately susceptible to liquefaction based on these criteria. All other tested samples are not considered susceptible to liquefaction.

EXHIBIT 4.3.3.2-1: Assessment of the Liquefaction/Cyclic-Softening Potential of Fine-Grained based on the Bray and Sancio (2006) Criteria.



4.3.3.3 Liquefaction Analysis of CPT Data and Matched-Pair Boring

We performed an analysis of liquefaction potential based on the CPT data using the computer software CLiq (Version 2.2.1.4) developed by GeoLogismiki. Based on our Seismic Hazard Analysis, we used a Peak Ground Acceleration for a Maximum Considered Earthquake (MCE) (PGA_M) value of 0.62g with an earthquake magnitude of 8.1. We used a groundwater depth of 15 feet for this analysis and also considered the depth of excavation in the CLiq analysis. Appendix E presents the results of the CLiq analyses. We subsequently compared potentially liquefiable layers from our CLiq analysis to boring 1-B1 that was drilled as a matched-pair, offset approximately three feet from 1-SCPT1.

Comparison of soil between 40 to 44 feet bgs:

Our CLiq analysis estimates approximately 0.4 inches of liquefaction-inducted settlement occurring in soil between 40 and 44 feet bgs. The material encountered at this depth in 1-B1 is a well-graded Gravel with sand and clay (GW-GC) with an uncorrected SPT blowcount of 32 blows per foot (bpf). We followed the methodology outlined in Idriss and Boulanger (2008) to convert the uncorrected SPT blowcounts to a corrected blowcount, $(N_1)_{60}$ for clean sand $(N_1)_{60,CS}$. The analysis indicates a $(N_1)_{60,CS}$ blowcount of 37 bpf for this material and a corresponding cyclic resistance ratio (CRR) of 2.65. Comparing this to the cyclic stress ratio of 0.73, the factor of safety against liquefaction for this material is greater than 2.0.

Understanding that SPT blowcounts can potentially be artificially high in gravelly materials, we also evaluated the grain size distribution of the gravel. The particle size distribution report (Appendix B) indicates the material is well-graded, containing roughly 53 percent gravel, 37 percent sand, and 10 percent fines. Half of the gravel passes through the 1½ inch sieve and the remaining half passes through the ¾ inch sieve. In our opinion, the well-graded nature of this gravel, combined with the corrected $(N_1)_{60,CS}$ blowcounts indicates that this material has a low susceptibility to liquefaction, that the methods by Bray and Sancio do not apply, and total liquefaction-induced settlement between 40 and 44 feet bgs will be negligible.

Comparison of soil between 85 to 88 feet bgs:

Our CLiq analysis estimates approximately 0.3 inches of liquefaction-inducted settlement between 85 and 88 feet bgs. The material encountered at this depth in 1-B1 is a poorly graded Sand (SP) with an uncorrected SPT blowcount of 40 bpf. We again followed the methodology outlined in Idriss and Boulanger (2008) to convert the uncorrected SPT blowcount to a corrected blowcount, $(N_1)_{60}$ for clean sand $(N_1)_{60,CS}$. The analysis indicates a corrected $(N_1)_{60,CS}$ blowcount of 39 bpf for this material and a corresponding cyclic resistance ratio (CRR) of 3.41. Comparing this to the cyclic stress ratio of 0.91, the factor of safety against liquefaction for this material is greater than 2.0.

Additionally, as discussed in the paper Cetin et. al (2009), “the contribution of layers to surface settlement diminishes as the depth of layer increases, and beyond a certain [threshold] depth the settlement of an individual layer cannot be traced at the ground surface”. Based on a statistical assessment performed by the researchers, the threshold depth was found to be 59 feet. Therefore, the total liquefaction-induced settlement between 85 and 88 feet bgs will be negligible.

4.3.3.4 Liquefaction Analysis Conclusion

Based on our site-specific study of the liquefaction hazard, we estimate the overall total liquefaction-induced settlement to be less than ½ inch. We estimate that differential settlement due to liquefaction will be approximately half the total vertical settlement over a lateral distance of 40 feet.

4.3.4 Lateral Spreading

Lateral spreading involves lateral ground movement caused by earthquake vibrations. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass overlying a layer of liquefied sand or weak soil.

As previously mentioned, San Francisquito creek runs approximately 150 feet southwest of the site. We anticipate the bottom of the basement elevation will be below the bottom of the creek elevation, as such, lateral spreading of potentially liquefiable layers into free faces along the creek is unlikely to have any impact on the building, were it to occur.

4.3.5 Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soil. The potential for the formation of these cracks is considered greater at contacts between deep

alluvium and bedrock. Based on the site subsurface profile and consistent bedrock depth, it is our opinion that the offset is expected to be minor.

4.4 GROUNDWATER AND EXCAVATION CONSIDERATIONS

As discussed previously, an excavation approximately 35 to 40 feet deep will be necessary for the construction of the proposed basement. As such, the ground water conditions at the site may result in the following impacts:

1. Require construction dewatering.
2. Result in unstable conditions at the base of excavation requiring stabilization prior to foundation construction.
3. Cause moisture damage to sensitive floor coverings.
4. Require waterproofing for the proposed basement structures.

During excavation of the basement, the sides of the excavation should be shored. The primary considerations related to the selection of the shoring systems are:

1. Distance of the excavation from improvements sensitive to movement that will remain after building construction.
2. Potential presence of groundwater during construction, and the need for dewatering.

5.0 EARTHWORK RECOMMENDATIONS

The relative compaction and optimum moisture content of soil and aggregate base referred to in this report are based on the most recent ASTM D1557 test method. Compacted soil is not acceptable if it is unstable. It should exhibit only minimal flexing or pumping, as determined by a representative of our firm.

As used in this report, the term “moisture condition” refers to adjusting the moisture content of the soil by either drying if too wet or adding water if too dry. We define “structural areas” as any area sensitive to settlement of compacted soil. These areas include, but are not limited to building pads, sidewalks, pavement areas, and retaining walls.

5.1 DEMOLITION AND STRIPPING

Grading operations should be observed and tested by our qualified field representative. We should be notified a minimum of three days prior to grading and excavation operations in order to coordinate our schedule with the contractor.

Site development should commence with the removal of existing pavement and minor parking-related structures as well as buried structures such as utilities (unless they are to remain). All excavations from demolition should be cleaned to a firm undisturbed native soil surface determined by our representative in the field. This surface should then be scarified, moisture conditioned, and backfilled with compacted engineered fill. All backfill materials should be placed and compacted as engineered fill according to the recommendations in Section 5.5.

5.2 EXISTING FILL REMOVAL

As described in Section 2.6, artificial fill may be present onsite. Based on the findings in our exploratory boring, we anticipate all artificial fill material in the building footprint will be excavated during basement construction.

If unexpected existing fill is encountered below proposed improvements during construction, we recommend removal of the fill to competent native soil, as evaluated by our field representative. Within areas with planned fill, the ground surface receiving fill should be scarified, moisture conditioned (as needed), and compacted in accordance with the recommendations for engineered fill.

If existing fill is left in place in portions of the site that are being developed with walkways or other improvements that are not sensitive to settlement, on-going maintenance should be anticipated.

5.3 OVER-OPTIMUM SOIL MOISTURE CONDITIONS

The contractor should anticipate encountering excessively over-optimum soil moisture conditions during winter or spring grading, during or following periods of rain, within areas below the groundwater table, when preparing the building pad, or beyond the extent of the dewatering program. Wet soil can make proper compaction difficult or impossible. Wet soil conditions can be mitigated by:

1. Frequent spreading and mixing during warm dry weather.
2. Mixing with drier materials.
3. Mixing with a lime, lime-flyash, or cement product.
4. Stabilizing with aggregate, geotextile stabilization fabric, or both.

We should evaluate Options 3 and 4 prior to implementation.

5.4 ACCEPTABLE FILL

5.4.1 Soil

Most on-site soil material is suitable as fill material provided it has a Plasticity Index (PI) less than 20 and it is processed to remove concentrations of organic material, debris, and particles greater than 6 inches in maximum dimension.

Imported fill materials should meet the above requirements and have a plasticity index less than 25 and at least 20 percent passing the No. 200 sieve. It is important that we sample and test proposed imported fill materials at least 5 days prior to delivery to the site.

5.4.2 Reuse of Onsite Recycled Materials

If desired, the existing asphalt, aggregate, and concrete can be considered for use as recycled aggregate to replace some of the import aggregate base for pavements, as well as for structural fill. The material will need to be broken down, but not pulverized, to have a maximum particle size less than 6 inches if used for fill and should conform to the gradations of aggregate base if used to substitute for roadway base.

5.5 FILL COMPACTION

5.5.1 Engineered Fill

After removing the loose soil, the contractor should scarify to a depth of at least 8 inches then moisture condition and compact the subgrade in accordance with the table below. The loose lift thickness should not exceed 8 inches or the depth of penetration of the compaction equipment used, whichever is less.

TABLE 5.5.1-1: Fill Placement Requirements

MATERIALS		FILL LOCATION	MINIMUM RELATIVE COMPACTION (%)	MINIMUM MOISTURE CONTENT (PERCENTAGE POINTS ABOVE OPTIMUM)
Low-Expansive	PI < 20	General Fill	90	3
		Upper 6 inches in Pavement Areas	95	1

The contractor should compact the pavement Caltrans Class 2 Aggregate Base section to at least 95 percent relative compaction (ASTM D1557), at a moisture content above the optimum.

5.5.2 Landscape Fill

In landscaping areas, the contractor should process, place, and compact fill in accordance with Section 5.5.1, but to at least 85 percent relative compaction.

5.5.3 Underground Utility Backfill

The contractor is responsible for conducting trenching and shoring in accordance with CALOSHA requirements. Project consultants involved in utility design should specify pipe-bedding materials.

Jetting of backfill is not an acceptable means of compaction. Thicker loose lift thicknesses may be allowed based on acceptable density test results, where increased effort is applied to rocky fill, or for the first lift of fill over pipe bedding.

5.5.4 Controlled Low-Strength Material

Controlled low-strength material (CLSM) should consist of a fluid, workable mixture of aggregate, cement, and water. Aggregate should generally consist of sand, free of deleterious and organic material. The CLSM should have a maximum compressive strength of 50 psi. Prior to placement of CLSM, the base of the excavation should be cleared of loose material and standing water should be evacuated and controlled.

5.6 SITE DRAINAGE

The project Civil Engineer is responsible for designing surface drainage improvements. With regard to geotechnical engineering issues, finish grades should be sloped away from buildings and pavements to the maximum extent practical. The latest California Building Code Section 1804.4 specifies minimum slopes of 5 percent away from foundations.

5.7 STORMWATER BIORETENTION AREAS

A clay layer was generally observed directly beneath the aggregate base. Thus, we do not expect the existing site soil to have adequate permeability for stormwater infiltration, unless subdrains are installed. We recommend assuming little stormwater infiltration will occur through the existing site soil.

Where adjacent site improvements include buildings greater than three stories, streets steeper than 3 percent, or design elements that will experience lateral loads (such as from impact or traffic), additional design considerations may be required. In addition, although not recommended, if trees are to be planted within bioretention areas, HDPE Tree Boxes that extend below the bottom of the bioretention system should be installed to reduce potential impact to subdrain systems that may be part of the bioretention area design. For this condition, the waterproofing system should be connected to the HPDE Tree Box with a waterproof seal.

Given the nature of bioretention systems and possible proximity to improvements, we recommend that we be retained to review design plans and provide testing and observation services during the installation of linings, compaction of the filter material, and connection of designed drains.

It should be noted that the contractor is responsible for conducting all excavation and shoring in a manner that does not cause damage to adjacent improvements during construction and future maintenance of the bioretention areas. As with any excavation adjacent to improvements, the contractor should minimize the exposure time such that the improvements are not detrimentally impacted.

6.0 FOUNDATION RECOMMENDATIONS

The main consideration in foundation design for this project is the estimated static and seismic induced settlement. We developed the following foundation recommendations using data obtained from our exploration and engineering analyses. The following recommended foundation types are considered geotechnically feasible for the project:

1. A conventional mat foundation system.
2. Deep foundation system such as auger-cast piles.

It should be noted that regardless of the foundation type selected for the proposed building, differential movements up to the consolidation estimate of the proposed building may occur between the proposed building and the existing structures. Factors such as differences in design criteria and construction standards due to changes in building codes and advances in construction methods as well as changes in effective soil stress due to new building loads contribute to such differential movements. As such, the structural engineer should consider a minor gap, flexible joints and installation of compressive material between the new and existing buildings.

6.1 STRUCTURAL MAT FOUNDATION

A combination of a structural mat foundation and waterproofing is a common system for structures founded below the groundwater table. This option avoids the need for permanent dewatering. Based on the depth of the excavation and the design groundwater depth, additional

tie-down anchors or piers may be needed to resist hydrostatic uplift forces during construction and/or after construction of a structure supported on a mat foundation. Refer to Section 6.1.2 for uplift forces considerations.

The thickness of the structural mat will be driven by the structural design. The structural mat should be designed to impose an average allowable bearing pressure corresponding to the acceptable total and differential settlement, as presented in Table 6.1-1, below. The anticipated bearing pressures and corresponding settlements are intended to be net average values acting over the entire footprint of the mat foundation and are applicable for long-term loading (allowable dead plus live loads). In addition, as discussed in Section 4.3.3.4, we estimate the total estimated liquefaction-induced settlement to be less than ½ inch.

TABLE 6.1-1: Structural Mat Foundation Allowable Bearing Capacities

AVERAGE ALLOWABLE BEARING CAPACITY	TOTAL STATIC SETTLEMENT	TOTAL SEISMIC SETTLEMENT	TOTAL STATIC AND SEISMIC DIFFERENTIAL SETTLEMENT
4,000 psf	Less than 1 inch	½ inch	½ inch over 40 feet
4,500 psf	1 inch	½ inch	¾ inch over 40 feet
5,000 psf	2 inches	½ inch	1¼ inch over 40 feet

In addition, the bearing capacities may be increased for temporary loading conditions; we will assess reported short-term loads provided by the structural engineer with further iterative analyses. Resistance to short-duration lateral loads may be provided by frictional resistance between the base of the foundation and the bearing soil and by passive earth pressure acting against the side of the foundation and basement walls.

As the bottom of the mat will be underlain by a waterproofing membrane, the coefficient of friction will depend on membrane properties. There have been several published results of shear tests with geomembranes (typically HDPE, PPE, or PVC) in contact with different soil or with other geosynthetics. The U.S. Bureau of Reclamation (USBR) Design Standards for Embankment Dams (DS-13, 2014) provides a summary of typical interface strength values for geomembranes against various materials that were compiled in a database collected by Koerner and Narejo (2005). For smooth HDPE material against granular soil, DS-13 provides a typical peak interface friction angle ($\phi_{if,p}$) of 21 degrees and a residual friction angle ($\phi_{if,r}$) of 17 degrees, which correspond to ultimate friction coefficients of about 0.4 and 0.3, respectively. Shear displacement plots indicate that peak friction angle is reached at very small displacements, on the order of 1 to 2 millimeters, whereas residual friction remains relatively constant over larger displacements (e.g. 1 inch). Based on this, we recommend an allowable coefficient of friction of 0.15. This coefficient can be increased by one-third for use in dynamic analyses.

The passive pressure acting against the side of the foundation and basement walls can be estimated using an allowable passive pressure of 200 pcf. We recommend neglecting the uppermost 24 inches of embedment at the ground surface of the passive pressures provided above. Passive lateral pressure should not be used for foundations on or above slopes.

6.1.1 Subgrade Treatment for Structural Mat Foundations

To create a uniform surface to support the structural mat foundation, we recommend removing and re-compacting the upper one foot of exposed subgrade (anticipated to consist of well

graded gravel) to at least 95 relative compaction. The pad subgrade should be checked by our representative prior to waterproofing placement. Soft or loose soil present at the bottom of the excavation should be removed and replaced with engineered fill or lean concrete. If desired, the compacted subgrade may be protected by constructing a 2 to 3" thick mud slab using lean concrete. Alternatively, the contractor may choose to cement treat the subgrade during compaction.

6.1.2 Uplift Forces

The basement level will be below the design groundwater level, as such hydrostatic uplift load on the structure should be evaluated. We recommend assuming a groundwater level at a depth of 15 feet bgs for determination of hydrostatic forces. Hydrostatic uplift can be resisted by the weight of the foundation elements and structural loads. Additional resistance to uplift may be provided by constructing hold-down piers, micropiles, helical piers or anchors. For planning purposes, the pier/anchor capacity should be evaluated using an allowable skin friction of 500 pounds per square foot (psf); regardless of the method used for hold-down the tensile capacity of the element should be load tested to confirm the assumed skin friction or to make modifications. The piers/anchors should be spaced no closer than 3 times the shaft diameter and have a minimum embedment length of 15 feet. If drilled piers are used, a combination of dewatering, casing, and placement of concrete utilizing tremie methods may be required to facilitate construction. Hold-down anchors should be prestressed to 120 percent of the design capacity and then locked off at 75 percent of the design load.

6.2 DEEP FOUNDATIONS

Due to noise and vibration concerns, we understand that driven piles are not desired for deep foundation support for this project. As such, if the proposed structure is to be supported by a deep foundation system, it should consist of drilled piers or displacement auger-cast piles (ACP). Deep foundation elements can be used to resist downward structural loads, hydrostatic uplift loads as well as lateral loads. ACP are deep foundation elements that are constructed by rotating a continuous flight hollow-stem auger into the soil. Concrete or grout is pumped under pressure through the hollow stem as the auger is withdrawn and a reinforcing cage can be inserted while the concrete or grout is still in a fluid condition. Because of the uplift pressures, the floor slab will need to be structural, tied in to the pile caps and designed to resist uplift from a groundwater at 15 feet bgs. ACP would likely be designed and installed by a specialty contractor using proprietary means and methods. The contractor's design should be verified via full-scale load tests to assess the axial and uplift capacity.

Since the ACP foundations will essentially eliminate seismic-induced settlement, we anticipate differential settlement between the building on ACP and surrounding unmitigated areas to be up to approximately ½ inch after a major seismic event. Entry and pipe connections to pile-supported buildings should be assessed to confirm the anticipated differential settlement can be tolerated; otherwise, flexible entry and pipe connections may be considered.

6.2.1 Vertical Capacities

We understand that deep foundation pier type and sizes have not been finalized; however, for preliminary purposes we developed design parameters for 16 and 18-inch ACP. Based on review of project concept plans, we understand the finished floor (FF) elevation is at a depth of 34 feet. We considered a 6-foot-thick pile cap below the FF elevation to estimate the top of pile

elevation for purposes of estimating vertical pile capacities; a thinner pile cap is acceptable if the structural calculations allow.

We utilized boring 1-B1 to model the general soil conditions for design. We provide vertical pile capacity charts showing the calculated allowable vertical capacity versus foundation depth in Appendix G. Our analyses considered a Factor of Safety against downward and upward skin friction of 2 and an increase in short-term seismic capacity by a factor of 1/3.

Under seismic conditions, the allowable capacities presented include an unfactored downdrag force caused by the potential liquefaction-induced settlement. The Structural Engineer should confirm that the total structural load on the pile plus the downdrag load will not exceed the structural capacity of the pile. To reduce pile group effects on vertical capacity, piles should be placed at least three diameters apart, center to center.

On a preliminary basis, we estimate post-construction pile foundation settlement to be less than ½ inch assuming it is founded deeper than the bottom of the liquefiable soil zone (below a depth of 49 feet). Differential settlement between adjacent columns is dependent on the final design of these elements. Once final loads and pile group configurations are evaluated, we can review the foundation plans and loads to more accurately estimate potential foundation settlements.

6.2.2 Lateral Capacities

6.2.2.1 Soil-Structure Interaction

Lateral load resistance for pile-supported structures is developed through a combination of pile bending and soil resistance. The magnitude of the lateral load resistance is dependent on several factors, including the physical properties of the surrounding soil, the magnitude of allowable lateral deflections, pile stiffness, pile embedment length, conditions of fixity at the pile cap, and, to a limited extent, axial load on the pile. Based upon our review of the subsurface data, we developed the following parameters for lateral pile capacity and load-deflection computation.

TABLE 6.2.2.1-1: Lateral Analysis Parameters

PILE EMBEDMENT DEPTH (FEET)*	L-PILE SOIL TYPE	γ' (PCF)	f (°)	C (PSF)	E_{50}	K (PCI)
0 to 4	API Sand (O'Neill)	70	32	-	-	60
5 to 9	Very Stiff Clay Without Free Water (Matlock)	60	-	2500	0.006	-
10 to 34	Soft Clay Without Free Water (Matlock)	60	-	500	0.015	-
35 to 43	API Sand (O'Neill)	70	32	-	-	60
44 to 60	API Sand (O'Neill)	60	36	-	-	100

*Measured from assumed top of pile (Depth 40 feet)

Where: g' is Effective Unit Weight
C is Undrained Cohesion
φ is Friction Angle
E_{50} is Soil Strain Factor
K is Modulus of Soil Reaction

We will work with the Structural Engineer to determine the lateral pile capacities and load-deflection characteristics of the piles and pile caps once the pile type and depth have been finalized.

Research has shown that the lateral capacity of a group of piles is generally less than that of a single pile for pile spacing less than 6- to 8-pile diameters. In addition, the passive resistance against pile caps and grade beams will depend on the expected lateral movement of the piles. We recommend performing a group analysis and assessing passive resistance once the structural engineer has an initial foundation concept.

6.2.3 Auger-Cast Pile Installation and Testing

6.2.3.1 Construction

The following guidelines should be used during construction of ACPs.

1. We should observe drilling of the ACP holes prior to the installation of reinforcement. Extreme care is essential during auger removal and steel placement to avoid excessive disturbance of pile boring walls.
2. Drilling operations and grout placement should be coordinated so that pile holes are left open a minimum amount of time. Depressions at the tops of the piles, resulting from drilling operations or from any other cause, should be backfilled to prevent ponding. Grout collars occurring at the tops of the ACP piles as a result of overpouring must be removed to prevent unnecessary uplift forces from being applied to the piles.
3. At the time of grout placement, the volume of concrete entering the drilled holes should be monitored to verify that additional loss of ground has not occurred between drilling operations and the pouring of concrete.

6.2.3.2 Load Tests

We recommend performing a load test prior to production pile construction to aid in optimizing pile foundation design, and to likely reduce foundation costs by determining if the actual capacity is higher than our design estimates provided above. We will select the location of the load test once the foundation plans are available. We provide the following recommendations for performing a load test of piles at this site.

- The load test should be performed in accordance with ASTM D1143 (Reapproved 1994) *Standard Test Method for Piles Under Static Axial Compressive Load*, *Standard Loading Procedure.* The Standard Loading Procedure requires loading to 200 percent of the design load. Because testing a pile to failure can provide the best information for determining actual capacities, we recommend that additional loading be applied if the pile does not fail under 200 percent of the design load. In this case, we recommend that Section 5.1 of ASTM D1143 be followed, *Loading in Excess of Standard Test Load,* and the maximum load be increased to 300 percent of design load.

- If it is determined by the Structural Engineer that the structure will require uplift resistance from the piles, an uplift capacity load test should be performed in accordance with ASTM D3689-90 *Standard Test Method for Individual Piles Under Static Axial Tensile Load*.

The contractor is responsible for the design, operation, and safety of the load test system. This includes supplying and installing all of the necessary components, including the dial gauges and reference beams. We should be retained to review the load test program prior to mobilization of test equipment to the site. We should also be retained to monitor and evaluate the entire load test, including test pile installation. ACPs used in the load tests should not be used as production piles. Following our analysis of the load testing, we will consult with you and the Structural Engineer to establish the minimum and probable tip elevations of the ACPs to achieve the desired pile capacities. Production ACPs should be constructed using the same method as the load test piles.

6.2.4 Structural Floor Slab

For preliminary planning, we recommend interior concrete floor slabs be structurally supported by the deep foundations. Depending on the construction sequence, the interior concrete floor slabs for auger-cast-pile-supported structures may be constructed on finished subgrade as slab-on-grade floors when the subgrade is properly prepared.

6.3 WATERPROOFING

Due to operational concerns, potential settlement impacts on nearby buildings, and agency permissions, we do not recommend permanent dewatering for the proposed structure. Portions of the proposed structure below the design groundwater of 15 feet below ground surface should be waterproofed. The waterproofing should be designed by a consultant who specializes in permanent waterproofing construction.

7.0 BASEMENT WALLS AND NON-BUILDING WALLS

7.1 BASEMENT WALLS

The basement walls will act as restrained retaining walls and should be designed for at-rest lateral loading conditions. Other site retaining walls and landscaped walls may be designed for active lateral loading conditions, provided that they are located beyond a 1:1 projection from permanent structures. The recommended lateral equivalent fluid pressures (static case) are presented below:

TABLE 7.1-1: Lateral Earth Pressures

LOADING CONDITION	EQUIVALENT FLUID PRESSURES (PCF)	
	WITHOUT HYDROSTATIC PRESSURES (PCF)	WITH HYDROSTATIC PRESSURES (PCF)
Cantilevered (Active)	45	85
Restrained (At-Rest)	65	105

The above lateral earth pressures assume level backfill conditions. The design groundwater level should be assumed to be located at 15 feet below the existing ground surface; pressures assuming hydrostatic conditions should be used below the groundwater. Permanent dewatering is not recommended below the design groundwater level, and basement walls should be designed to resist hydrostatic pressures. We recommend placing a drain behind all walls above the design groundwater level to reduce hydrostatic pressure; if a drain is not feasible, the

basement walls should be designed with hydrostatic pressure for their entire height. Recommendations for wall drainage follow in the next section.

Where surcharge loads from vehicles or other loads are expected within a horizontal distance equal to the height of the walls, the walls should be designed for an additional uniform lateral pressure of 100 psf to be applied over the entire height of the wall or the uppermost 10 feet, whichever is less. Passive pressures acting on retaining walls may be assumed as 200 pounds pcf, provided that the area in front of the retaining walls is level for a distance of at least 10 feet or three times the depth of foundation, whichever is greater. The upper 1 foot of soil should be excluded from passive pressure computations unless it is confined by pavement or a concrete slab.

7.2 SITE RETAINING WALLS

Unrestrained drained retaining walls constructed on level ground and up to 6 feet in exposed height may be designed using active equivalent fluid pressures provided in the table below.

TABLE 7.2-1: Active Equivalent Fluid Pressures

BACKFILL SLOPE CONDITION (HORIZONTAL:VERTICAL)	ACTIVE PRESSURE (POUNDS PER CUBIC FOOT)
Level	45
3:1	55
2:1	65

Passive pressures acting on foundations may be assumed as 200 pcf provided that the area in front of the retaining wall is level for a distance of at least 10 feet or three times the depth of foundation and keyway, whichever is greater. The upper 1 foot of soil should be excluded from passive pressure computations. The friction factor for sliding resistance may be assumed as 0.30. It is recommended that retaining wall footings be designed using an allowable bearing pressure of 2,500 pounds per square foot (psf). Wall footings should extend to a depth of at least 24 inches.

Appropriate safety factors against overturning and sliding should be incorporated into the design calculations.

If structures or streets (with vehicular loading) are located within a 1:1 projection from the bottom of retaining walls, surcharge loads associated with structures and vehicles should be incorporated into the design. Surcharges from vehicular loads should be assumed to act as a uniform lateral pressure of 100 pounds per square foot (psf). For structures, a uniform lateral earth pressure equal to ½ of the surface bearing pressure from the structure should be assumed to act on the adjacent retaining wall.

7.3 RETAINING WALL DRAINAGE

Retaining wall drainage should be constructed for walls or portions of walls that are not designed for hydrostatic pressures. Wall drainage may be provided using a 4-inch-diameter perforated pipe embedded in Class-2 permeable material, or free-draining gravel surrounded by synthetic filter fabric. The width of the drain blanket should be at least 12 inches. The drain blanket should extend to about 1 foot below the finished grades. As an alternative, prefabricated synthetic wall drain panels can be used. The upper 1 foot of wall backfill should

consist of clayey soil. Drainage should be collected by perforated pipes and discharged by gravity or directed to a sump(s).

All wall backfill should be placed in accordance with recommendations provided in Section 5.5.1 for engineered fill. Light equipment should be used during backfill compaction to minimize possible overstressing of the walls. The foundation details and structural calculations for retaining walls should be submitted for our review.

7.4 SEISMIC DESIGN CONSIDERATIONS

Seismic conditions need to be considered in the design of the basement retaining walls and site retaining walls retaining over 6 feet of soil. Under seismic conditions, the active incremental seismic force along the face of a retaining wall should be added to the static active pressures for both restrained and unrestrained walls, and can be calculated as follows:

$$\Delta P = 13 \times H^2$$

H is the design height of the wall (in feet) and ΔP is the active incremental seismic force in pounds per foot of wall. This force has a horizontal direction and should be applied at 0.3 x H from the base of the wall. Since seismic loading requires soil movement, evaluation of the seismic case should include adding the seismic increment to the active soil pressure for all wall types. The above force has an equivalent triangular fluid pressure distribution of 26H.

8.0 TEMPORARY EXCAVATION SUPPORT AND DEWATERING

As noted earlier, the basement excavation will be on the order of 40 feet deep. Excavation, dewatering, shoring, and underpinning are temporary works that are typically the responsibility of the contractor to design, install, maintain and monitor. An experienced shoring and dewatering system designer should be retained to select and design these systems. The following sections provide some general considerations that should be incorporated into shoring and dewatering system design, but it is generally not the purpose of this report to provide specific criteria for the contractor's construction means and methods. It should be the responsibility of the shoring contractor to verify actual ground conditions and determine the construction methods and procedures needed to install an appropriate shoring system. Geotechnical shoring design recommendations are dependent on performance criteria, the type of system selected, and construction sequencing. We recommend we be provided the opportunity to discuss the conditions with the shoring and dewatering designers and review the geotechnical aspects of the shoring and dewatering design before construction.

All excavations, including utility trenches, should be properly excavated and shored as applicable to create a stable and safe condition. It is the responsibility of the Contractor to provide such stable, safe trench and construction slope conditions and to follow OSHA safety requirements. Since excavation procedures may be dangerous, it is also the responsibility of the Contractor to provide a trained "competent person" as defined by OSHA to supervise all excavation operations, ensure that all personnel are working in safe conditions, and have thorough knowledge of OSHA excavation safety requirements. Where possible, temporary construction slopes may be used above the groundwater level. The contractor should establish appropriate setback distances from the tops of the slopes for vehicles, equipment and spoil piles, and should establish appropriate protective measures for exposed slope faces.

8.1 SHORING AND DEWATERING SYSTEM CONSIDERATIONS

A section of excavation shoring will be installed adjacent to the basement walls of the existing podium structure. We anticipate the shoring components to extend below the foundation level of the existing structures. As such, the shoring and dewatering system should be designed to reduce impact to nearby structures. Significant ground deformation and settlement around shoring systems are typically results of excessive dewatering and uncontrolled deformation of the shoring system.

To reduce potential effects on the adjacent properties, shoring system should be designed to limit lateral deformation to levels tolerable by nearby structures. Moreover, the perimeter shoring system should consist of a watertight system designed to resist water pressures and earth pressures. The watertight shoring system should be embedded in the low-permeability clay layer (aquitard) at approximately 50 feet below ground surface in order to effectively cut off groundwater flow beyond the face of excavation. With a watertight shoring system, construction dewatering can be accomplished from inside the basement excavation.

Shoring systems such as cement deep soil mixing cut-off walls combined with anchored soldier pile and lagging, cross-lot/internal braces or racking system as well as secant piles and sheet piles systems are considered feasible for the project. Each shoring system results in different levels of lateral deformation, construction constraints and noise and vibrations. In general, a CDSM cut off wall combined with anchored soldier piles and lagging is the most cost effective system when nearby structures can tolerate the resulting lateral deformation. Alternatively, a more rigid shoring system may be selected to reduce the need for underpinning and/or to convert the shoring system to permanent basement walls.

Figure 7 presents lateral earth pressures for a temporary shoring system supported by tiebacks or bracing. It should be noted that values presented in Figure 7 are provided to support preliminary construction cost estimate. The figure should be updated based on the selected shoring system as well as the tolerable lateral deformation.

8.1.1 Sheet Piles

Interlocking steel sheet piles can provide adequate shoring capabilities in addition to providing a relatively watertight seal for internal dewatering. This method of shoring is considered to be flexible, and will require tie-backs or internal bracing for the assumed excavation depth. The largest amount of lateral deflection is expected to occur when compared to the other shoring methods. To limit reduction of the groundwater level outside the excavation, the sheets need to extend to a low-permeability clay layer below the excavation bottom.

8.1.2 Secant Pile Walls

Reinforced concrete secant piles are considered to be a relatively watertight rigid shoring system which has the ability to limit the lateral deflection and resulting surface settlement around the excavation. The configuration of the secant piles can add stability to the excavation. A secant pile shoring system for the assumed excavation depth will likely require internal bracing and struts or tie-backs. To limit reduction of the groundwater level outside the excavation, the secant piles should be specifically designed to reduce permeability, a high degree of construction quality control should be implemented to reduce gaps in the wall and the piles need to extend to a low-permeability clay layer below the excavation bottom.

8.1.3 CDSM Cut-Off Walls

Cement deep soil mixing (CDSM) cut-off walls are an increasingly common shoring method around the San Francisco Bay Area. This method integrates soldier piles or king piles into the shoring system with CDSM being used as the relatively watertight lagging. CDSM cut-off wall systems use a combined approach between soldier pile and wood lagging and slurry diaphragm walls because of the similar soldier pile configuration and the general type of equipment used. To limit reduction of the groundwater level outside the excavation, the CDSM wall should be specifically designed to reduce permeability, a high degree of construction quality control should be implemented to reduce gaps in the wall and the walls need to extend to a low-permeability clay layer below the excavation bottom.

8.2 UNDERPINNING

If the shoring system is not designed to support the nearby existing structure, underpinning should be constructed to support the adjacent building prior to construction of shoring and excavation of the proposed basement. Underpinning may consist of steel piles installed in slant-drilled shafts (slant piles), micropiles, or helical anchors that extend at least five feet below the planned bottom of excavation. The underpinning should be designed to resist existing building loads and lateral earth pressures. To limit settlement, underpinning should be pre-loaded by jacking against the foundation, and the top of the pier/pile should fit tightly with the base of the underpinned foundation. We should be retained to evaluate the performance characteristics of the proposed underpinning solution.

8.3 PRE-CONSTRUCTION SURVEY AND CONSTRUCTION MONITORING

Excavation dewatering and construction will take place adjacent to existing structures, roadways and underground utilities. We recommend that a pre-construction survey (e.g. crack survey) and monitoring program for the surrounding culverts, buildings, roadways, utilities, etc. which may be affected by construction activities be performed before and during construction. This will form a basis for any damage claims and also assist the contractor in assessing the performance of the shoring or excavation slopes. The pre-construction survey should record the elevation and horizontal position of all existing installations within a minimum of 50 feet and may consist of photographs, videos, topographic surveys, etc.

We recommend that a system of construction monitoring instruments be installed. This may consist of inclinometers, settlement points, and groundwater monitoring wells that are installed within a distance of 5 to 15 feet from the excavation towards the existing buildings. Vibration monitoring should be considered during operation of heavy equipment, demolition, etc. In addition, a settlement survey should initially be performed on a weekly basis during excavation and on a monthly basis, approximately one month after the excavation has been completed, at a minimum.

9.0 PAVEMENT DESIGN

We prepared pavement design recommendations based on assumed Traffic Index and subgrade resistance values (R-value). The Traffic Index should be determined by the Civil Engineer or appropriate public agency. The sections provided below should be reviewed and revised, if applicable, based on R-value tests performed on samples of actual subgrade materials recovered at the time of grading.

9.1 FLEXIBLE PAVEMENTS

We developed the following pavement sections for parking areas underlain by soil subgrade and neighboring streets using Traffic Indices of 5 to 8, based on an assumed R-value of 5 and Topic 633 of the Caltrans Highway Design Manual (including the asphalt factor of safety).

TABLE 9.1-1: Recommended Asphalt Concrete Pavement Sections

TRAFFIC INDEX	SECTION	
	ASPHALT CONCRETE (AC) (INCHES)	CLASS 2 AGGREGATE BASE (AB) (INCHES)
5	3	10
6	3½	13
7	4	16
8	4½	19

The civil engineer should determine the appropriate traffic indices based on the estimated traffic loads and frequencies. We recommend that representative bulk samples of subgrade soil be obtained during street grading operations to allow confirmation R-value testing for the design R-value assumed above.

9.2 RIGID PAVEMENTS

Concrete pavement sections can be used to resist heavy loads and turning forces in areas such as fire lanes or trash enclosures. Final design of rigid pavement sections and reinforcement should be performed based on estimated traffic loads and frequencies. We recommend the following minimum design sections for rigid pavements:

- Use a minimum section of 6 inches of Portland Cement concrete over 6 inches of Caltrans Class 2 Aggregate Base.
- Provide concrete with a minimum 28-day compressive strength of 3,500 psi.
- Provide minimum control joint spacing in accordance with Portland Cement Association guidelines.

9.3 PAVEMENT SUBGRADE PREPARATION

Pavement subgrade preparation should comply with the following minimum requirements:

- All pavement subgrade should be scarified to a depth of 10 inches below finished subgrade elevation and compacted in accordance with Section 5.5.1. Pavement subgrades should also be prepared in accordance with City of East Palo Alto requirements if they are located in public streets.
- Subgrade soil should be in a stable, non-pumping condition at the time aggregate baserock materials are placed and compacted. Proof-rolling with a heavy wheel-loaded piece of construction equipment should be implemented. Yielding materials should be appropriately mitigated, with suitable mitigation measures developed in coordination with the client, contractor, and Geotechnical Engineer.

- Adequate provisions must be made such that the subgrade soil and aggregate baserock materials are not allowed to become saturated.
- Aggregate baserock materials should meet current Caltrans specifications for Class 2 aggregate baserock and should be compacted in accordance with Section 5.5.1**Error! Reference source not found.**. Proof-rolling with a heavy wheel-loaded piece of construction equipment should be implemented after placement and compaction of the aggregate base. Yielding materials should be appropriately mitigated, with suitable mitigation measures developed in coordination with the client, contractor, and Geotechnical Engineer.

9.4 CUT-OFF CURBS

Saturated pavement subgrade or aggregate base can cause premature failure or increased maintenance of asphalt concrete pavements. This condition often occurs where landscape areas directly abut and drain towards pavement. If it is desired to install pavement cutoff barriers, they should be placed where pavement areas lie downslope of any landscape areas that are to be sprinklered or irrigated, and should extend to a depth of at least 6 inches below the base rock layer. Cutoff barriers may consist of deepened concrete curbs or deep-root moisture barriers.

If reduced pavement life and greater-than-normal pavement maintenance are acceptable to the owner, the cutoff barrier may be eliminated.

10.0 SECONDARY SLABS-ON-GRADE

Exterior flatwork includes items such as concrete sidewalks, steps, and outdoor plazas exposed to foot traffic only. Concrete flatwork should have a minimum thickness of 4 inches and include control and construction joints in accordance with current Portland Cement Association guidelines.

Exterior slabs should slope away from the buildings to prevent water from flowing toward the foundations. Site soil should be moistened just prior to concrete placement. We recommend that flatwork leading to a building entrance area be structurally independent of the building foundation to allow for differential movement between the flatwork and the building. Where smooth transition to provide access is necessary (ADA ramps), a hinge-slab should be designed to accommodate movements of approximately ½ inch. Flatwork should be reinforced to allow for the appropriate span in the event of settlement. Maintenance or replacement of entry slabs should also be expected following a seismic event as the ground settles at the perimeter of buildings.

11.0 CONSTRUCTION MONITORING

Our experience and that of our profession clearly indicate that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to:

1. Review the final grading and foundation plans and specifications prior to construction to evaluate whether our recommendations have been implemented, and to provide additional or modified recommendations, as needed. This also allows us to identify certain changes,

which may have occurred in the nature, design, or location of the proposed improvements and provides the opportunity to prepare a written response with updated recommendations.

2. Perform construction monitoring to check the validity of the assumptions we made to prepare this report. Earthwork operations should be performed under the observation of our representative to confirm that the site is properly prepared, the selected fill materials are satisfactory, and that the placement and compaction of the fills have been performed in accordance with our recommendations and the project specifications. Sufficient notifications to us prior to earthwork is important.

If we are not retained to perform the services described above, we are not responsible for any party's interpretation of our report (and subsequent addenda, letters, and verbal discussions).

12.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents geotechnical recommendations for design of the University Circle – Phase II project discussed in Section 1.3. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations. It is the responsibility of the owner to transmit the information and recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to developers, owners, buyers, architects, engineers, and designers. The conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.

We strived to perform our professional services in accordance with generally accepted principles and practices currently employed in the area; no warranty is express or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data are representative of the actual subsurface conditions across the site. Considering possible underground variability of soil, rock, fill, and groundwater, additional unexpected costs may be incurred in completing the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, ENGEO should be notified immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, the proper regulatory officials should be notified immediately.

This document must not be subject to unauthorized reuse, that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to ENGEO's recommendations. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include onsite construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

We determined the boundaries designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs, which represent our interpretation of the field logs.

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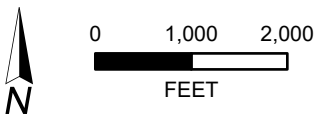
FIGURES

DRAFT



BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

ENGEO Expect Excellence

VICINITY MAP

PHASE II - UNIVERSITY CIRCLE PROJECT

EAST PALO ALTO, CALIFORNIA

PROJECT NO. :	16889.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: JFB

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS_16000 TO 17999\16889\16889000000\GEOTECH\GEX\UNIVERSITY CIRCLE – PHASE II.APRX
USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR

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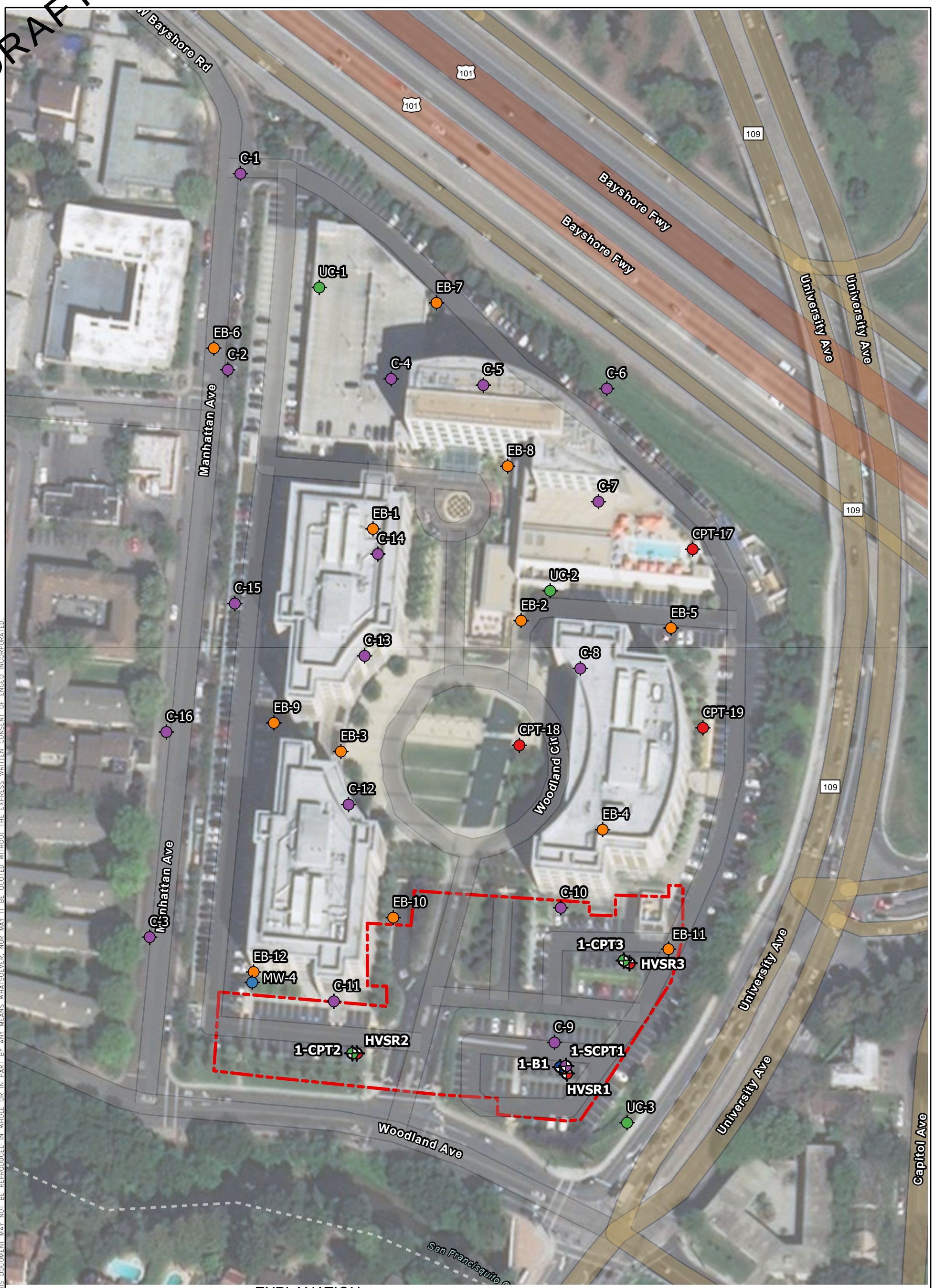

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

PROJECT SITE

PROPOSED EXPLORATION

- HORIZONTAL-VERTICAL SPECTRAL RATIO (ENGEO, 2020)
- BORING (ENGEO 2020)
- CONE PENETRATION TEST (ENGEO, 2020)
- SEISMIC CONE PENETRATION TEST (ENGEO, 2020)

PREVIOUS EXPLORATION

- CONE PENETRATION TEST (LOWNEY ASSOCIATES, 1999)
- MONITORING WELL (LOWNEY ASSOCIATES, 1999)
- MONITORING WELL (LOWNEY ASSOCIATES, 1992)
- CONE PENETRATION TEST (LOWNEY ASSOCIATES, 1991)
- BORING (LOWNEY ASSOCIATES, 1991)

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0 50 100

FEET

BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

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SITE PLAN

PHASE II - UNIVERSITY CIRCLE PROJECT

EAST PALO ALTO, CALIFORNIA

PROJECT NO. : 16889.000.000

SCALE: AS SHOWN

DRAWN BY: QRL CHECKED BY: JFB

FIGURE NO. 2

PATH: G:\DRAFTING\PROJECTS_16000 TO 17999\16889\16889000000\GEOTECH\GEX\UNIVERSITY CIRCLE – PHASE II.APRX
USER: QLIANG

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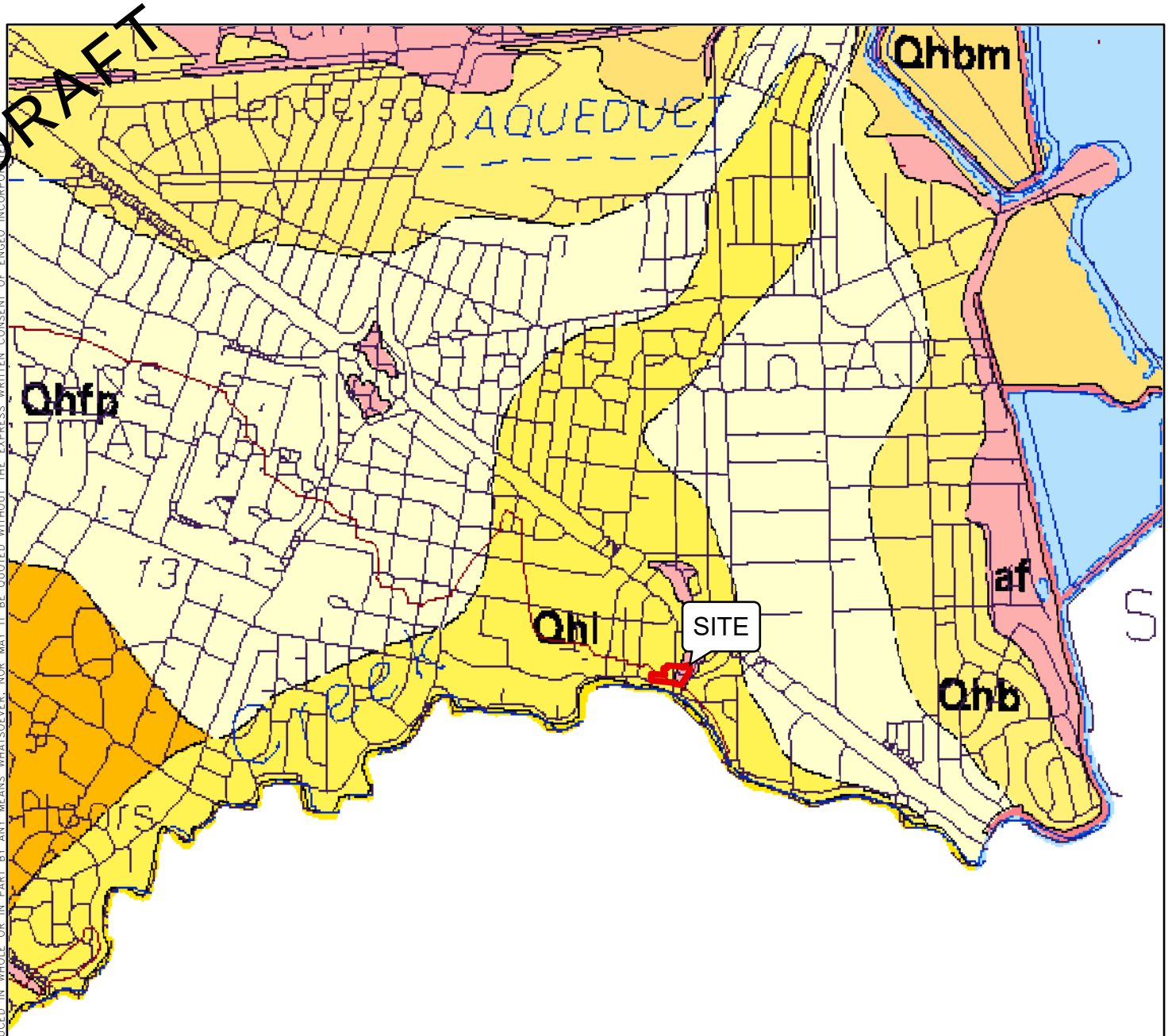

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

af	ARTIFICIAL FILL (HISTORIC)
Qhb	BASIN DEPOSITS (HOLOCENE)
Qhfp	FLOODPLAIN DEPOSITS (HOLOCENE)
Qhl	NATURAL LEVEE DEPOSITS (HOLOCENE)
Qpaf	ALLUCIAL FAN AND FLUVIAL DEPOSITS (PLEISTOCENE)

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FEET

BASEMAP SOURCE: GRAYMER 1998

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REGIONAL GEOLOGIC MAP

PHASE II - UNIVERSITY CIRCLE PROJECT

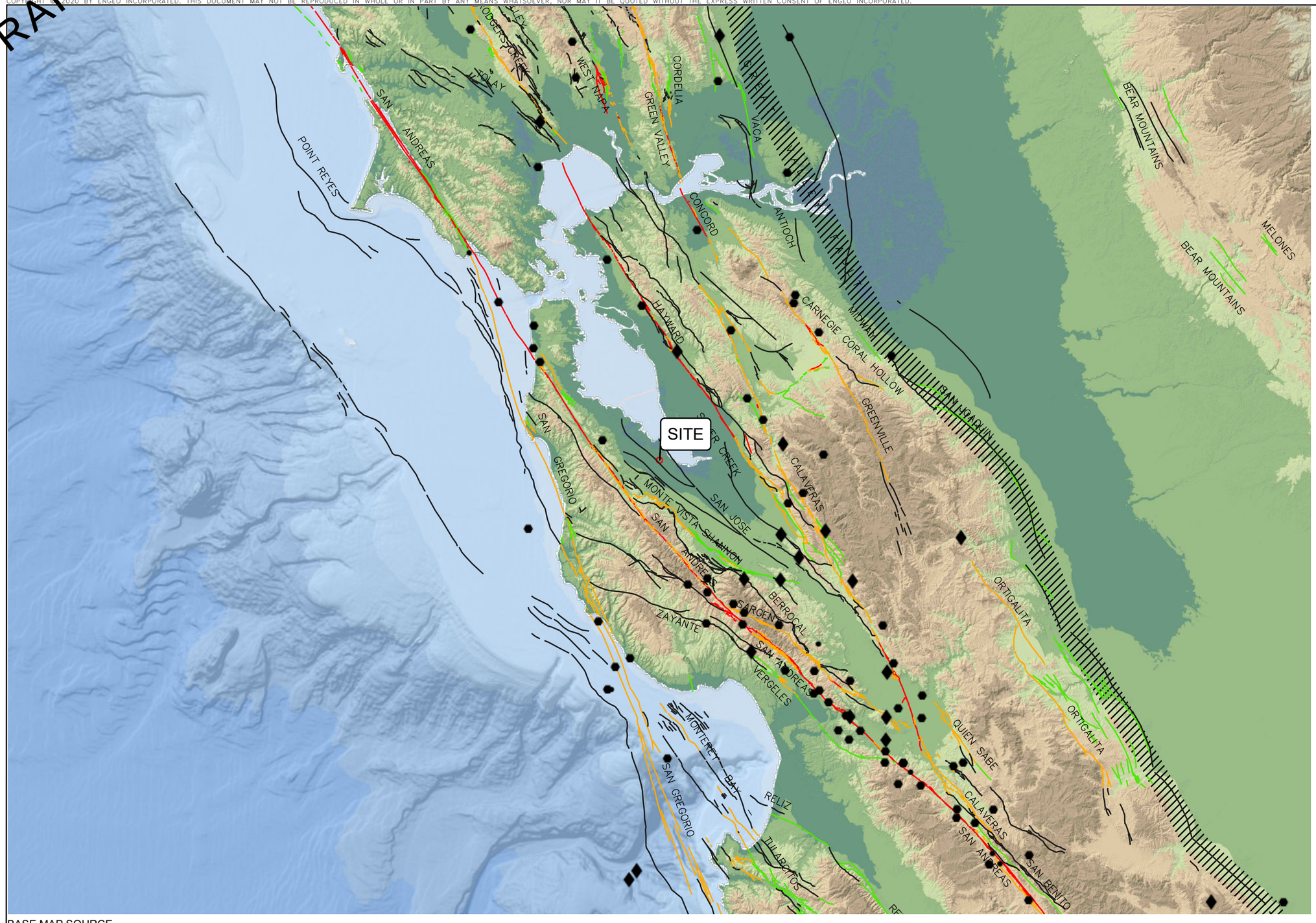
EAST PALO ALTO, CALIFORNIA

PROJECT NO. :	16889.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: JFB

FIGURE NO. 3

PATH: G:\DRAFTING\PROJECTS_16000 TO 17999\16889\16889000000\GEOTECH\GEX\UNIVERSITY CIRCLE – PHASE II.APRX
USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

EARTHQUAKE

- MAGNITUDE 7+
- MAGNITUDE 6-7
- MAGNITUDE 5-6

USGS QUATERNARY FAULTS

- HISTORICAL
- LATEST QUATERNARY
- LATE QUATERNARY
- UNDIFFERENTIATED QUATERNARY
- HISTORIC BLIND THRUST FAULT ZONE

BASE MAP SOURCE

ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS
COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATA SET (NED) AT 30 METER RESOLUTION
U.S.G.S. QUATERNARY FAULT DATABASE, 2018
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800-PRESENT)

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Expect Excellence

REGIONAL FAULTING AND SEISMICITY

PHASE II - UNIVERSITY CIRCLE PROJECT
EAST PALO ALTO, CALIFORNIA

PROJECT NO. :	16889.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: JFB

FIGURE NO. 4

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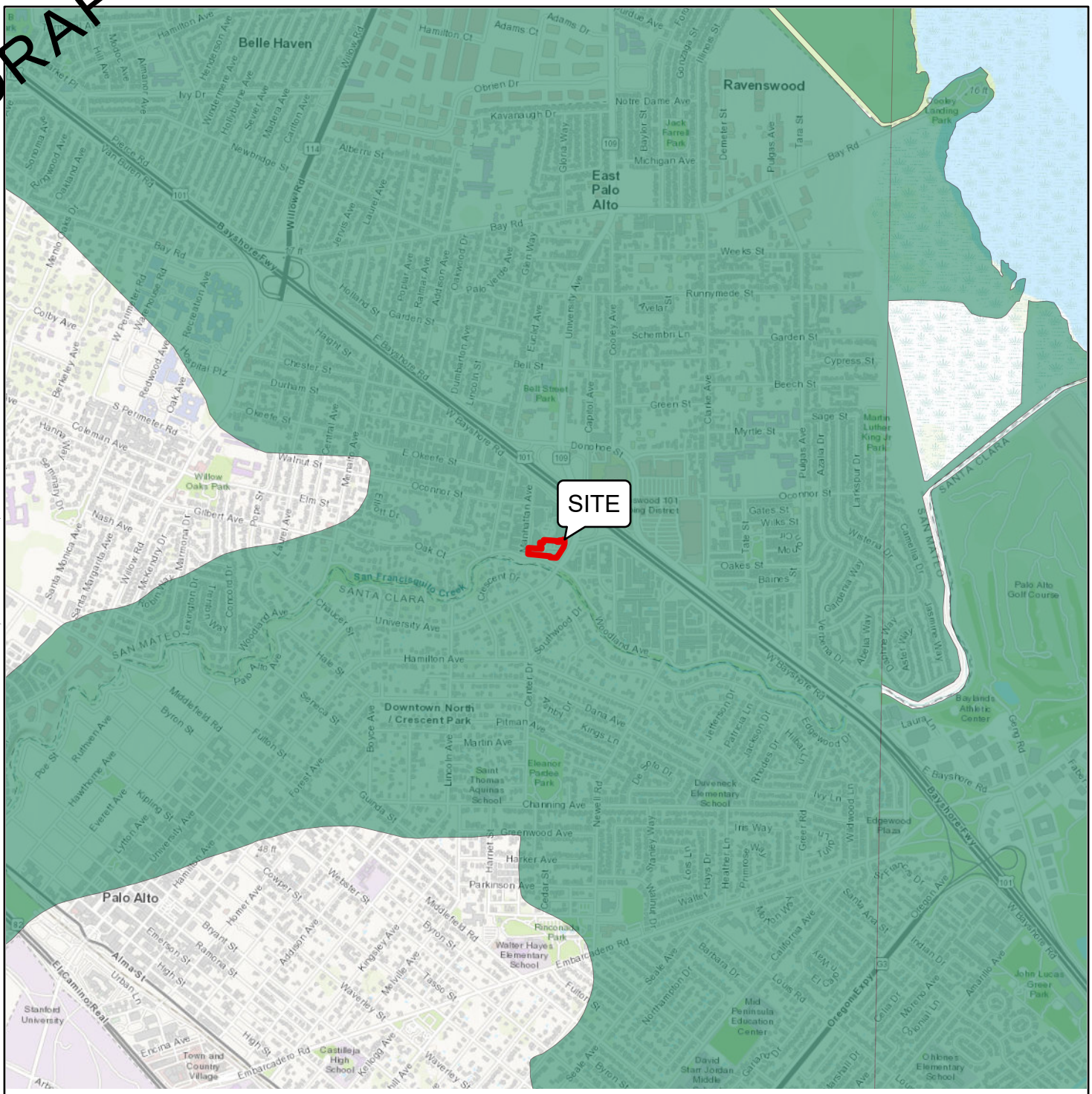

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

Liquefaction Zone

Areas where historical occurence of liquefaction, or local geological, geotehnical and ground water conditions indicate a potential l for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required

BASEMAP SOURCE: ESRI MAPPING SERVICE
CALIFORNIA DEPARTMENT OF CONSERVATION, CALIFORNIA GEOLOGICAL SURVEY

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SEISMIC HAZARDS ZONE MAP

PHASE II - UNIVERSITY CIRCLE PROJECT

EAST PALO ALTO, CALIFORNIA

PROJECT NO. :	16889.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: JFB

FIGURE NO. 5

PATH: G:\DRAFTING\PROJECTS_16000 TO 17999\16889\16889000000\GEOTECH\GEX\UNIVERSITY CIRCLE – PHASE II.APRX
USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR

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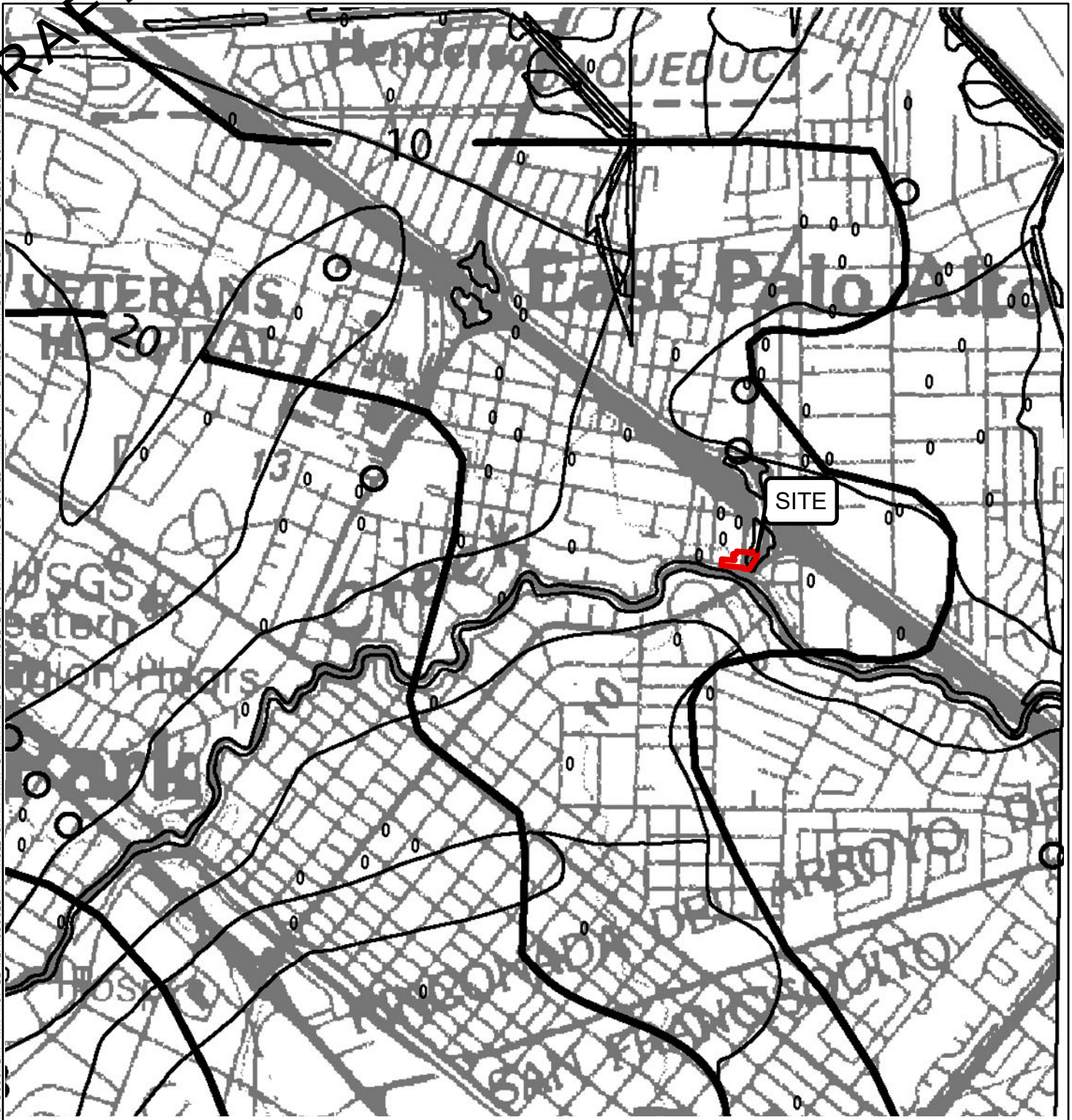

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FEET

BASEMAP SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION, CALIFORNIA GEOLOGICAL SURVEY

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HISTORIC HIGH GROUNDWATER MAP

PHASE II - UNIVERSITY CIRCLE PROJECT

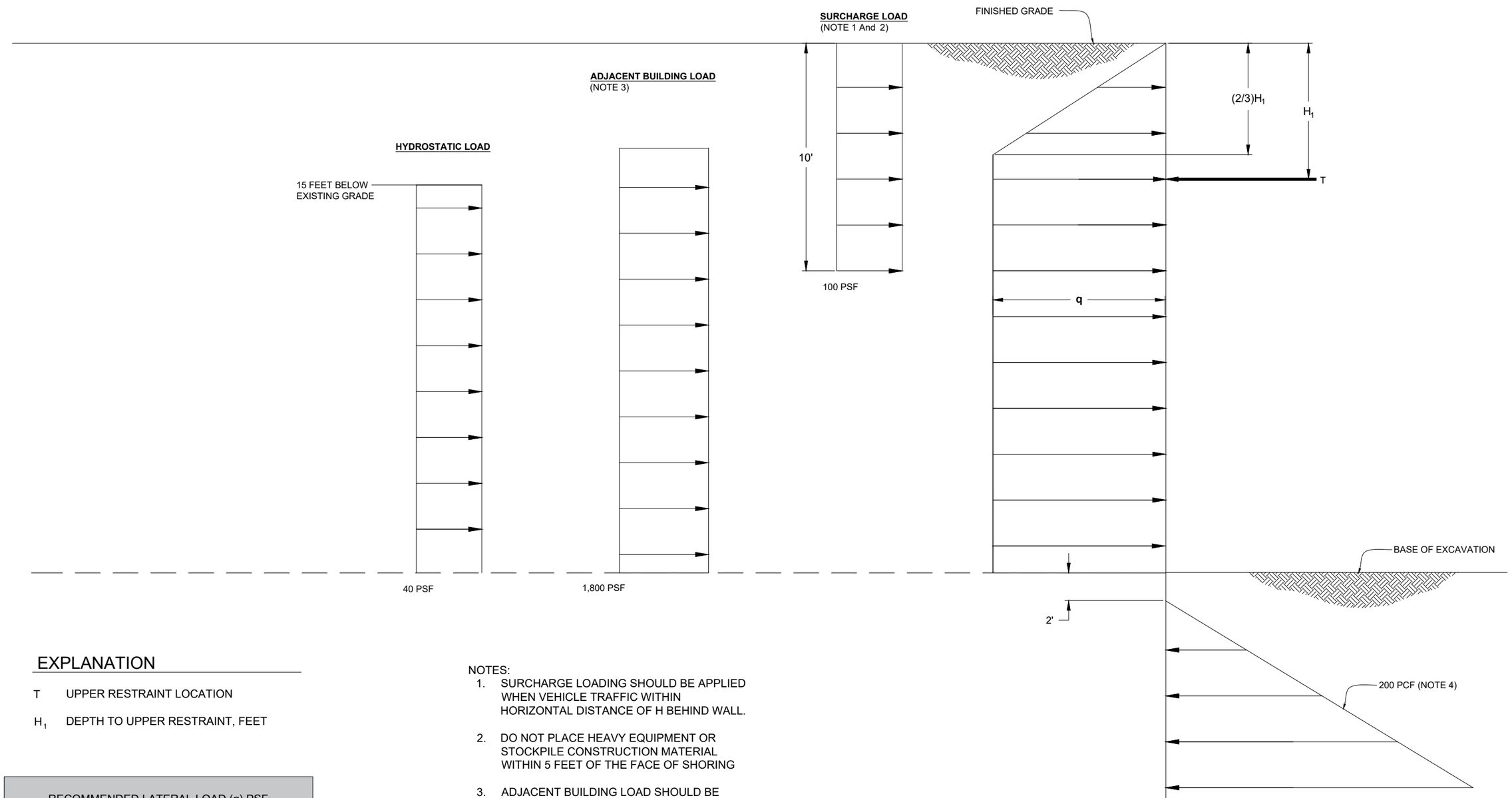
EAST PALO ALTO, CALIFORNIA

PROJECT NO. :	16889.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: JFB

FIGURE NO. 6

PATH: G:\DRAFTING\PROJECTS_16000 TO 17999\16889\16889000000\GEOTECH\GEX\UNIVERSITY CIRCLE – PHASE II.APRX
USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

T UPPER RESTRAINT LOCATION

H_1 DEPTH TO UPPER RESTRAINT, FEET

RECOMMENDED LATERAL LOAD (q) PSF	
ADJACENT TO STREETS	40H
ADJACENT TO BUILDING BELOW MAT	40H

NOTES:

1. SURCHARGE LOADING SHOULD BE APPLIED WHEN VEHICLE TRAFFIC WITHIN HORIZONTAL DISTANCE OF H BEHIND WALL.
2. DO NOT PLACE HEAVY EQUIPMENT OR STOCKPILE CONSTRUCTION MATERIAL WITHIN 5 FEET OF THE FACE OF SHORING
3. ADJACENT BUILDING LOAD SHOULD BE APPLIED ON THE SIDES OF THE SHORING ADJACENT TO THE EXISTING STRUCTURES.
4. PASSIVE PRESSURE SHOULD BEGIN 2 FEET BELOW THE BOTTOM OF THE EXCAVATION.

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TEMPORARY SHORING DESIGN RECOMMENDATIONS
PHASE II - UNIVERSITY CIRCLE PROJEC
EAST PALO ALTO, CALIFORNIA

PROJECT NO.: 16889.000.000
SCALE: AS SHOWN
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FIGURE NO. 7

ORIGINAL FIGURE PRINTED IN COLOR

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APPENDIX A

KEY TO BORING LOGS
BORING LOGS

KEY TO BORING LOGS

MAJOR TYPES			DESCRIPTION
COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW - Well graded gravels or gravel-sand mixtures GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES	GM - Silty gravels, gravel-sand and silt mixtures GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 5% FINES	SW - Well graded sands, or gravelly sand mixtures SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES	SM - Silty sand, sand-silt mixtures SC - Clayey sand, sand-clay mixtures
FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50 % OR LESS		ML - Inorganic silt with low to medium plasticity CL - Inorganic clay with low to medium plasticity OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50 %		MH - Elastic silt with high plasticity CH - Fat clay with high plasticity OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS		PT - Peat and other highly organic soils

For fine-grained soils with 15 to 29% retained on the #200 sieve, the words "with sand" or "with gravel" (whichever is predominant) are added to the group name.

For fine-grained soil with >30% retained on the #200 sieve, the words "sandy" or "gravelly" (whichever is predominant) are added to the group name.

GRAIN SIZES

U.S. STANDARD SERIES SIEVE SIZE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4 "	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT (S.P.T.)
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH*
VERY SOFT	0-1/4
SOFT	1/4-1/2
MEDIUM STIFF	1/2-1
STIFF	1-2
VERY STIFF	2-4
HARD	OVER 4

SAMPLER SYMBOLS

- Modified California (3" O.D.) sampler
- California (2.5" O.D.) sampler
- S.P.T. - Split spoon sampler
- Shelby Tube
- Dames and Moore Piston
- Continuous Core
- Bag Samples
- Grab Samples
- NR No Recovery

MOISTURE CONDITION

DRY	Dusty, dry to touch
MOIST	Damp but no visible water
WET	Visible freewater

LINE TYPES

- ———— Solid - Layer Break
- – – – – – Dashed - Gradational or approximate layer break

GROUND-WATER SYMBOLS

- Groundwater level during drilling
- Stabilized groundwater level

(S.P.T.) Number of blows of 140 lb. hammer falling 30" to drive a 2-inch O.D. (1-3/8 inch I.D.) sampler

* Unconfined compressive strength in tons/sq. ft., asterisk on log means determined by pocket penetrometer

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LOG OF BORING 1-B1

LATITUDE: 37.45846 LONGITUDE: -122.14201

Columbia Property Trust
University Circle - Phase II
1900 University Avenue
16889.000.000

DATE DRILLED: 1/3/2020
HOLE DEPTH: Approx. 101½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS84): Approx. 36 ft.

LOGGED / REVIEWED BY: M. Bromfield / JB
DRILLING CONTRACTOR: Exploration Geoservices
DRILLING METHOD: HSA/Mud Rotary
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			ASPHALT 3"												
	35		AGGREGATE BASE (AB) 8"												
			SILTY SAND WITH SOME CLAY (SM), dark brown, dense, slightly moist, fine gravel, fine- to coarse-grained sand, [FILL]			47									
5	30		LEAN CLAY (CL), dark yellowish brown, very stiff, moist			4					22.5	95		3.5*	PP
10	25														
15	20		Includes minor gravel			5	41	23	18						
20	15		SANDY LEAN CLAY (CL), dark yellowish brown to reddish brown, very stiff, moist			17					21.5	107.8	2800*		TV
			LEAN CLAY (CL), yellowish brown, medium stiff, moist, carbonates Includes fine- to coarse-grained sand												
25															

LOG - GEOTECHNICAL_SU+QU W/ ELEV 16889000000_1-B1 BORING LOG-GINTED.GPJ ENGEO INC.GDT 3/6/20

LOG OF BORING 1-B1

ENGEO Expect Excellence

LATITUDE: 37.45846 LONGITUDE: -122.14201

Columbia Property Trust
University Circle - Phase II
1900 University Avenue
16889.000.000

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HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
	10		LEAN CLAY (CL), yellowish brown, medium stiff, moist, carbonates Includes fine- to coarse-grained sand			8	35	22	13		27.1	99.5	484		UC
30			POORLY GRADED SAND (SP), bluish gray, medium dense, moist, fine gravel												
	5					30									
			WELL GRADED GRAVEL WITH CLAY (GW-GC), yellowish brown to dark yellowish brown, medium dense, moist, fine- to coarse-grained sand			21				10					
35	0					23									
40															
	-5					32	NP	NP	NP	6					
45			LEAN SILT (ML), dark yellowish brown mottled with light gray, stiff, moist, iron oxide staining												
	-10					17				79	30.8	93.9	2647		UU
						9	38	26	12						
50			SANDY LEAN CLAY (CL), pale olive mottled with light gray, medium stiff to stiff, moist												

LOG OF BORING 1-B1

LATITUDE: 37.45846 LONGITUDE: -122.14201

Columbia Property Trust
University Circle - Phase II
1900 University Avenue
16889.000.000

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HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
	-15		SANDY LEAN CLAY (CL), pale olive mottled with light gray, medium stiff to stiff, moist OCR = 1.1, Cc = 0.34, Cr = 0.013				42	20	22	80				0.75*	PP
55	-20														
60	-25					19	44	21	23	80			900*		TV
			LEAN CLAY (CL), bluish gray, medium stiff to stiff, moist, carbonates												
65	-30					15					34.8	89.7	499		UC
						12	39	20	19						
70	-35														
75			CLAYEY SAND (SC), olive brown to yellowish brown, medium stiff, moist												

LOG OF BORING 1-B1

LATITUDE: 37.45846 LONGITUDE: -122.14201

Columbia Property Trust
University Circle - Phase II
1900 University Avenue
16889.000.000

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Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
	-40		CLAYEY SAND (SC), olive brown to yellowish brown, medium stiff, moist			16									
80	-45		Interbedded with sandy lean clay (CL)			50/6"									
			POORLY GRADED SAND (SP), olive brown to dark yellowish brown, dense, moist												
85	-50					40									
90	-55														
95	-60		Grades to medium dense and wet			16					24.6	103.8			
100															

LOG OF BORING 1-B1

LATITUDE: 37.45846 LONGITUDE: -122.14201

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DRILLING METHOD: HSA/Mud Rotary
HAMMER TYPE: 140 lb. Auto Trip

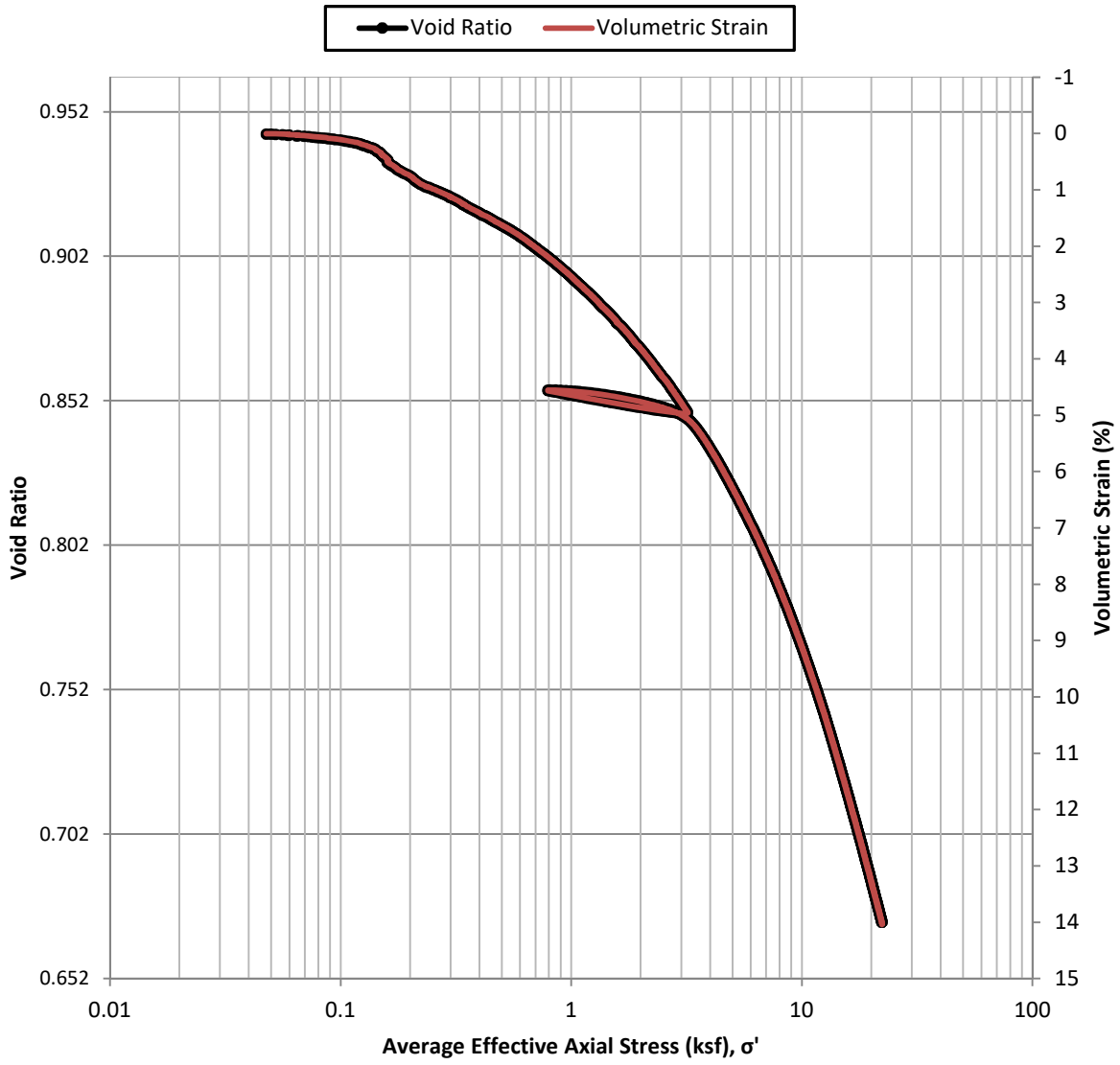
Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
	-65		LEAN CLAY (CL), light gray to bluish gray, stiff, moist			62					24.8	102.1		1.5*	PP
			Boring terminated at 101.5 feet bgs. Groundwater not encountred due to drilling method.												

APPENDIX B

LABORATORY TEST RESULTS

Constant Rate of Strain Consolidation
ASTM D4186

Void Ratio & Volumetric Strain Vs Average Effective Axial Stress (ksf), σ'

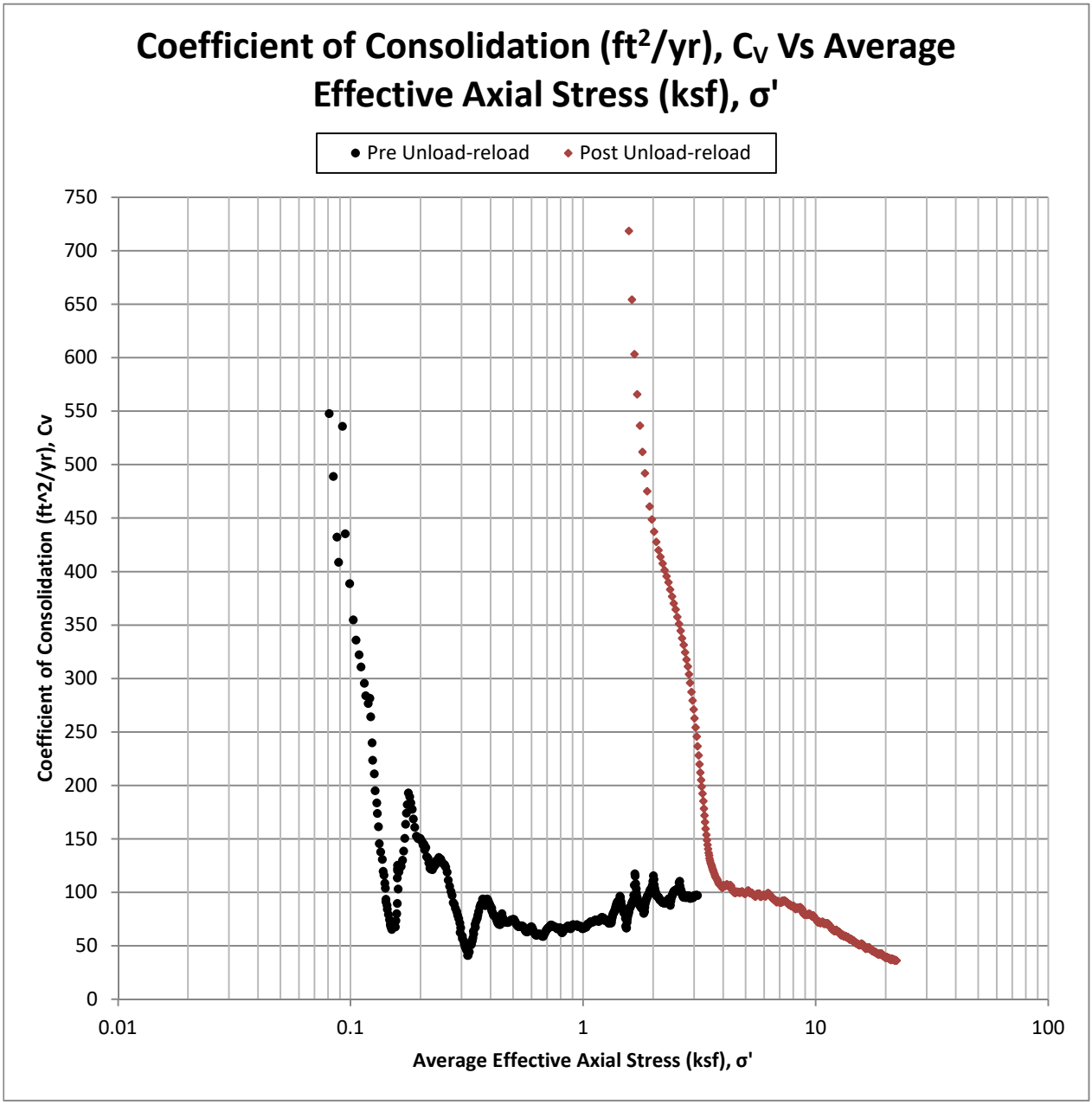


ASTM D2216			Test Date:	1/27/2020
	As Received	Final	ASTM D4318 - Wet Method	
Moisture (%):	33.95%	27.56%	Liquid Limit:	
Dry Density (pcf):	86.54	100.69	Plastic Limit:	
Saturation (%):	97.09%	100.00%	ASTM D854 - Measured	
Void Ratio:	0.9440	0.6710	Specific Gravity:	2.700
Strain Rate (in/min):	0.000450		Soil Description:	See exploration logs
Project Number:	16889.000.000		Depth: 50 ft.	
Sample Number:	1-B1		Boring #: 1-B1	
Project Name:	University Circle			
Client:	Paceline Investors			
Location:	East Palo Alto, CA			
Tested By:	W. Miller/D. Seibold		Reviewed By:	J. Bauer

Remarks:

ENGEO Expect Excellence

Constant Rate of Strain Consolidation
ASTM D4186



ASTM D2216

	As Received	Final
Moisture (%):	33.95%	27.56%
Dry Density (pcf):	86.54	100.69
Saturation (%):	97.09%	100.00%
Void Ratio:	0.9440	0.6710

Test Date: 1/27/2020

ASTM D4318 - Wet Method

Liquid Limit:	
Plastic Limit:	

ASTM D854 - Measured

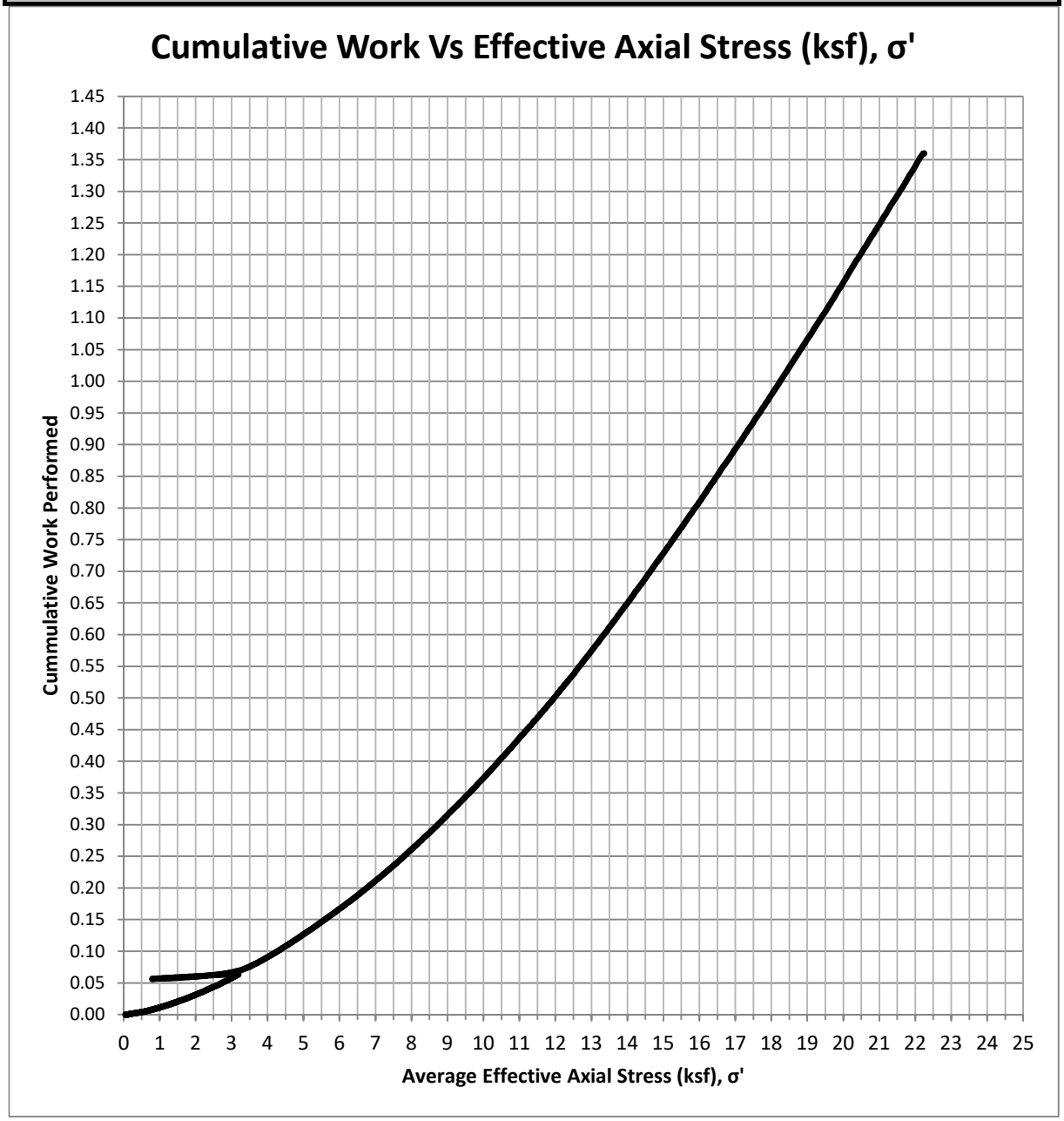
Specific Gravity:	2.700
Soil Description:	See exploration logs

Strain Rate (in/min):	0.000450		
Project Number:	16889.000.000	**Depth:**	50 ft.
Sample Number:	1-B1	**Boring #:**	1-B1
Project Name:	University Circle		
Client:	Paceline Investors		
Location:	East Palo Alto, CA		
Tested By:	W. Miller/D. Seibold	**Reviewed By:**	J. Bauer

ENGEO Expect Excellence

Remarks:

Constant Rate of Strain Consolidation
ASTM D4186



ASTM D2216			ASTM D4318 - Wet Method	
	As Received	Final		
Moisture (%):	33.95%	27.56%	Liquid Limit:	
Dry Density (pcf):	86.54	100.69	Plastic Limit:	
Saturation (%):	97.09%	100.00%	ASTM D854 - Measured	
Void Ratio:	0.9440	0.6710	Specific Gravity:	2.700

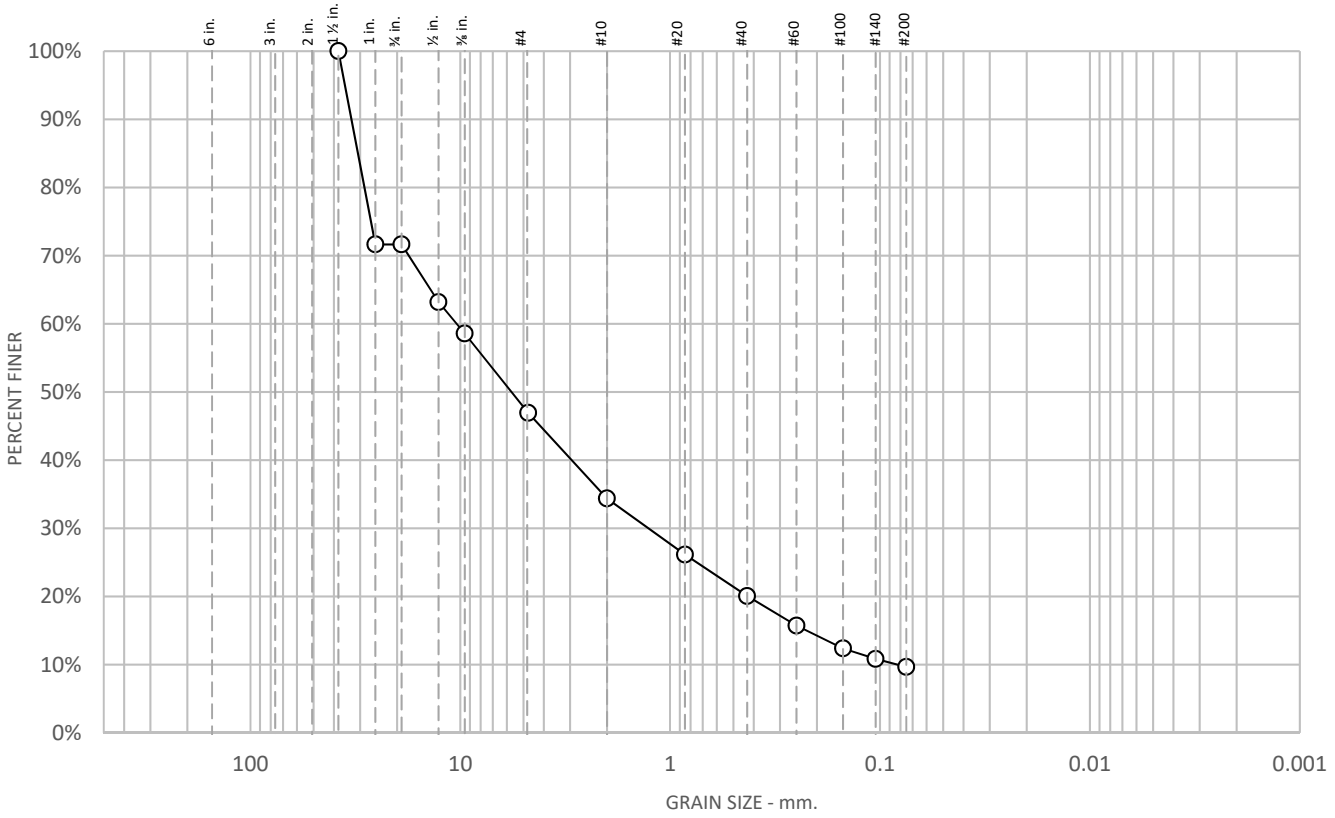
Test Date: 1/27/2020

Strain Rate (in/min):	0.000450	**Soil Description:**	See exploration logs
Project Number:	16889.000.000	**Depth:** 50 ft.	
Sample Number:	1-B1	**Boring #:** 1-B1	
Project Name:	University Circle		
Client:	Paceline Investors		
Location:	East Palo Alto, CA		
Tested By:	W. Miller/D. Seibold	**Reviewed By:**	J. Bauer

ENGEO Expect Excellence

Remarks:

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	28.4	24.7	12.6	14.3	10.4	9.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1-½ in.	100.0		
1 in.	71.6		
¾ in.	71.6		
½ in.	63.2		
⅜ in.	58.6		
#4	46.9		
#10	34.4		
#20	26.1		
#40	20.1		
#60	15.7		
#100	12.4		
#140	10.8		
#200	9.7		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = 33.0229 mm D_{85} = 30.7440 mm D_{60} = 10.4135 mm
D_{50} = 5.7039 mm D_{30} = 1.2691 mm D_{15} = 0.2239 mm
D_{10} = 0.0825 mm C_u = 126.22 C_c = 1.87

Classification

USCS = GW

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 373.17 g

Sample Number: 1-B1 @ 31.5-33

Client: Paceline Investors
Project: University Circle
Project location: Palo Alto, CA

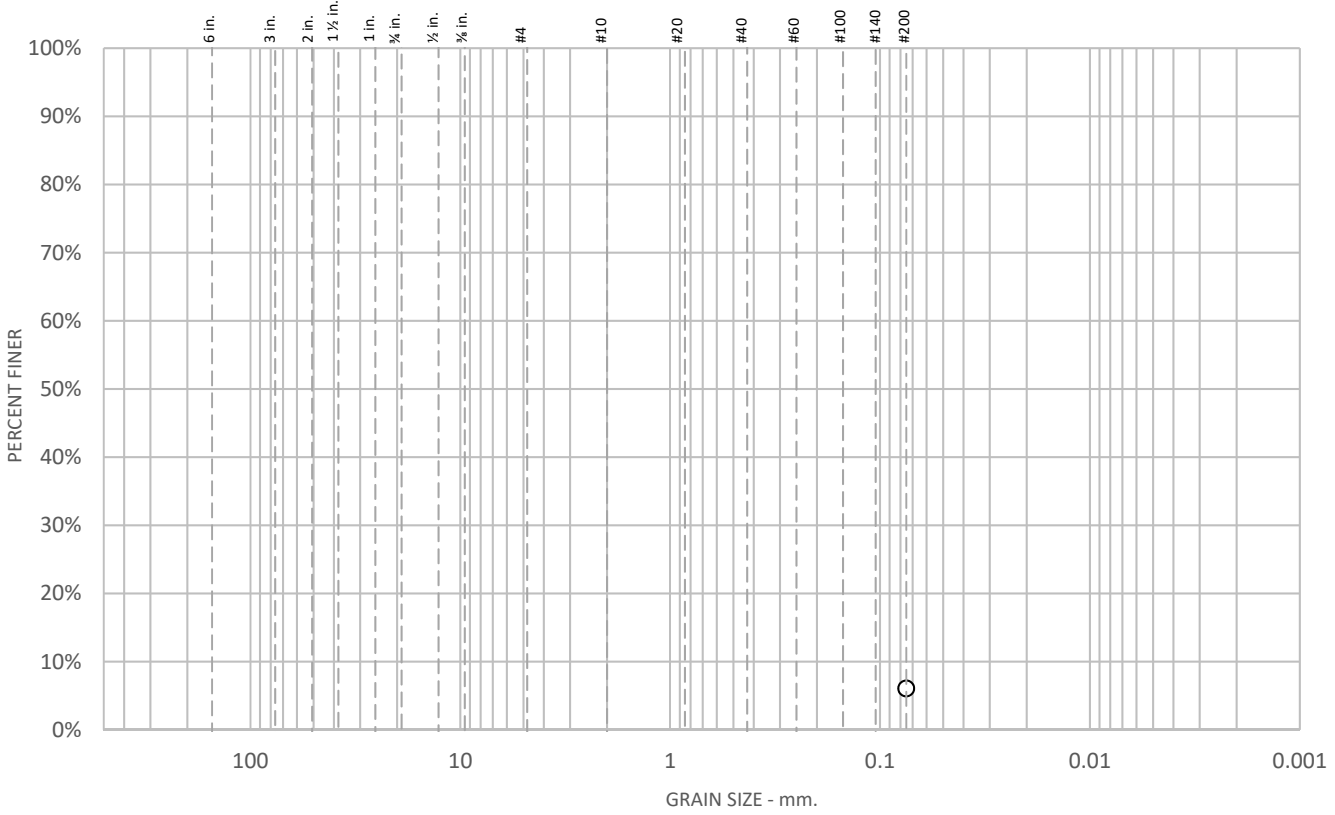
Project Number: 16889.000.000
Date: 1/16/2020

ENGEO Expect Excellence

Tested By: M. Quasem **Checked By:** W. Miller

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						6.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	6.0		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 355.5 g

Sample Number: 1-B1 @ 40-41.5

Client: Paceline Investors
Project: University Circle
Project location: Palo Alto, CA

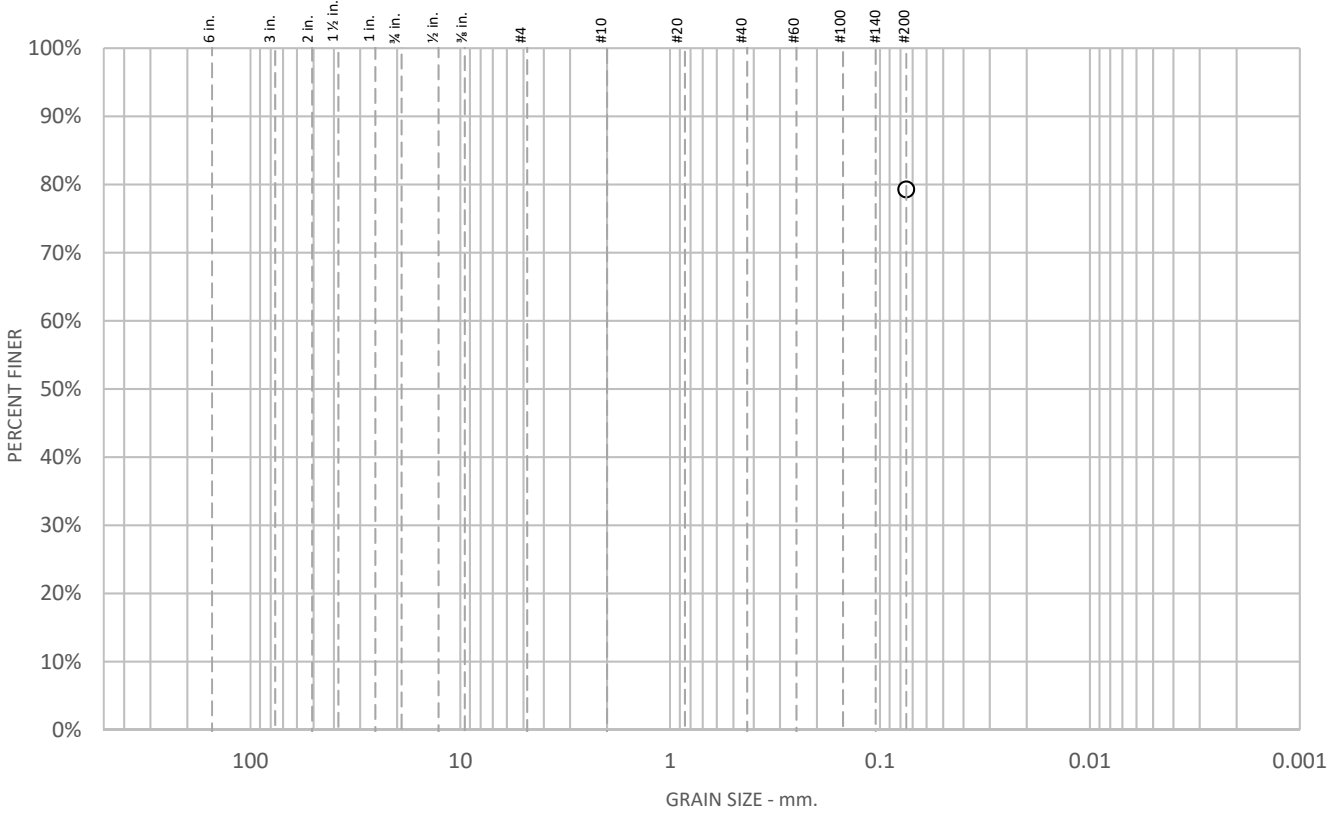
Project Number: 16889.000.000
Date: 1/16/2020

ENGEO Expect Excellence

Tested By: M. Quasem **Checked By:** W. Miller

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						79.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	79.3		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 103.62 g

Sample Number: 1-B1 @ 46-46.5

Client: Paceline Investors
Project: University Circle
Project location: Palo Alto, CA

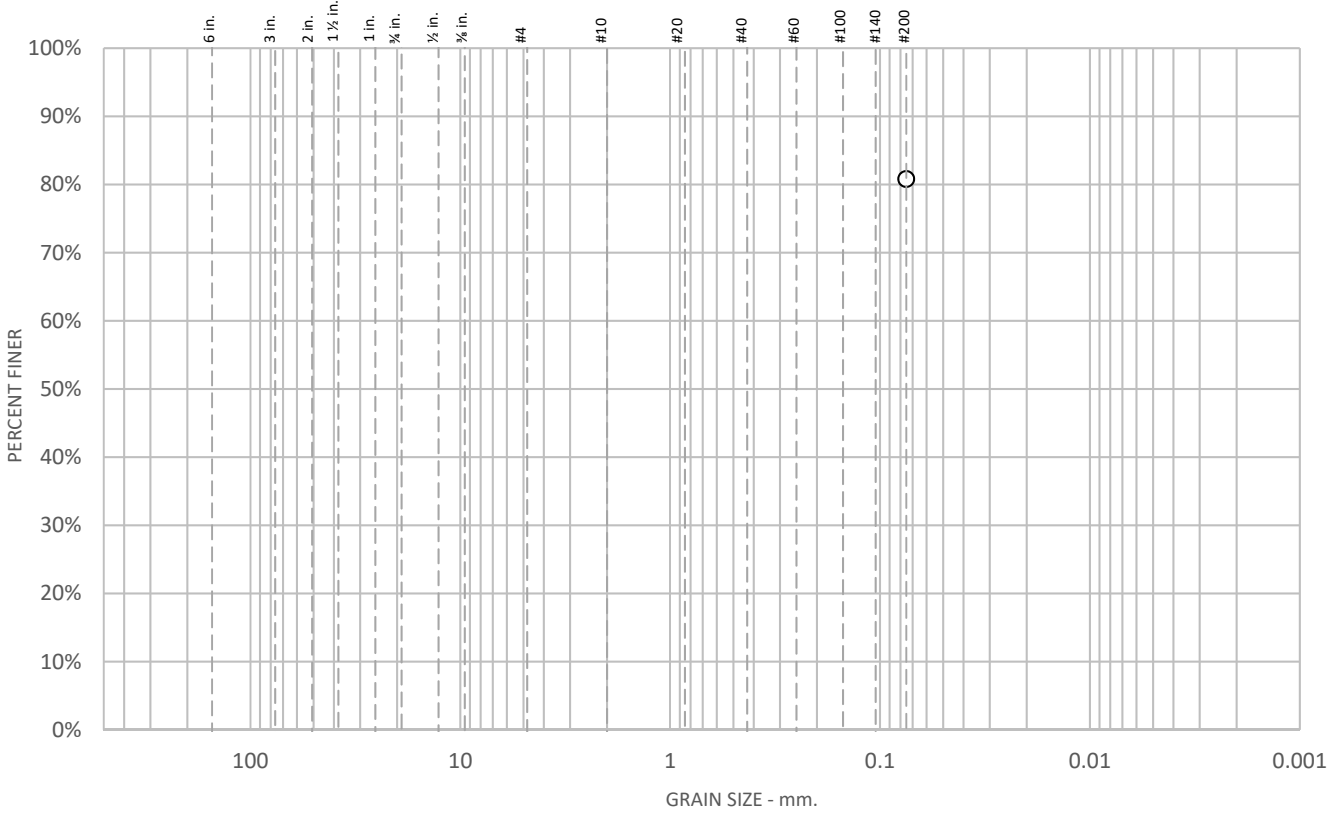
Project Number: 16889.000.000
Date: 1/16/2020

ENGEO Expect Excellence

Tested By: M. Quasem
Checked By: W. Miller

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						80.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	80.8		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 20 LL = 42 PI = 22

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

PI: ASTM D4318, Wet Method

ASTM D1140, Method B
Soak time = 300 min
Dry sample weight = 45.9 g

Sample Number: 1-B1 @ 50

Client: Paceline Investors
Project: University Circle
Project location: Palo Alto, CA

Project Number: 16889.000.000
Date: 1/22/2020

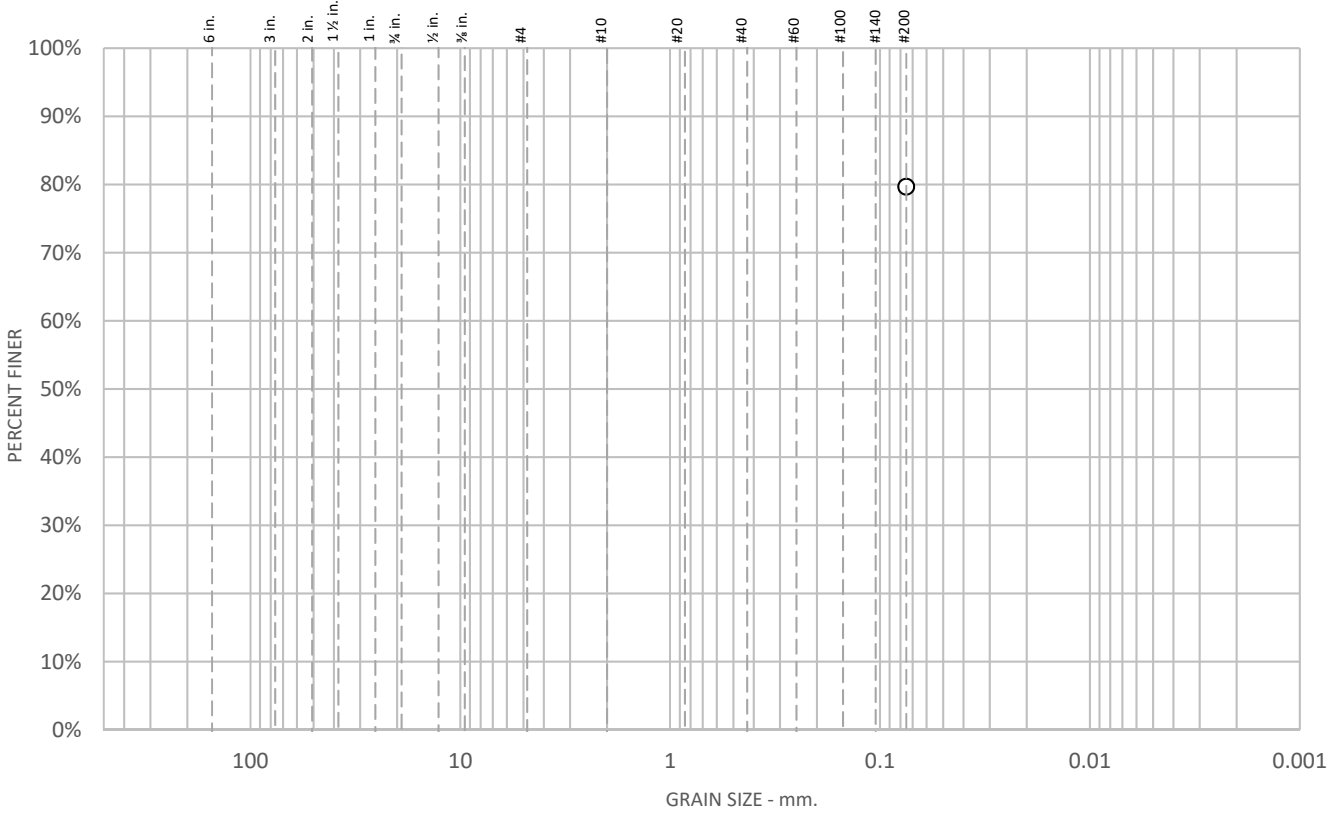
ENGEO Expect Excellence

Tested By: M. Quasem

Checked By: G. Criste

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						79.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	79.6		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 90.9 g

Sample Number: 1-B1 @ 61-61.5

Client: Paceline Investors
Project: University Circle
Project location: Palo Alto, CA

Project Number: 16889.000.000
Date: 1/16/2020

ENGEO Expect Excellence

Tested By: M. Quasem
Checked By: W. Miller

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

MOISTURE-DENSITY DETERMINATION
ASTM D7263

BORING ID:	1-B1	1-B1	1-B1	1-B1				
DEPTH (ft.):	8-8.5	21-21.5	95.5-96	100.5-101				
MOISTURE CONTENT (%):	22.5	21.5	24.6	24.8				
DRY DENSITY (lbs/ft^3):	95.0	107.8	103.8	102.1				

Testing remarks: For moisture content only, ASTM D2216

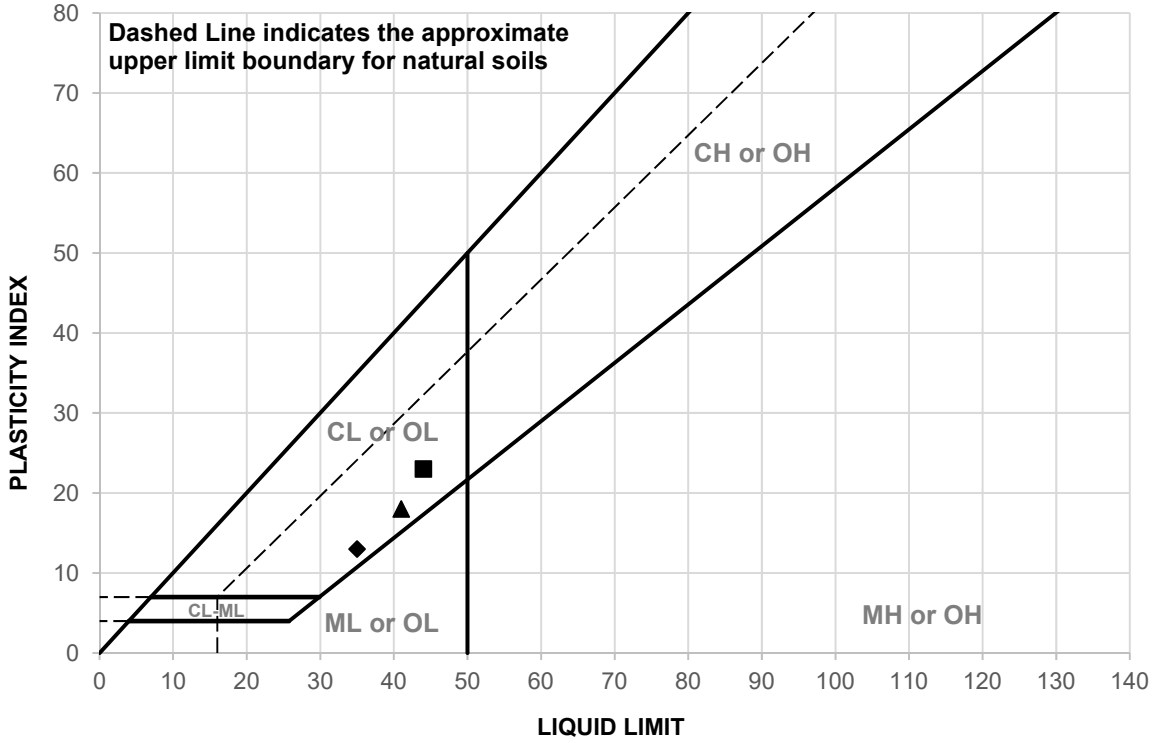
PROJECT NAME: University Circle
PROJECT NUMBER: 16889.000.000
CLIENT: Paceline Investors
PHASE NUMBER: 001

DATE: 01/14/20

ENGEO Expect Excellence

Tested by: M. Quasem Reviewed by: W. Miller

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



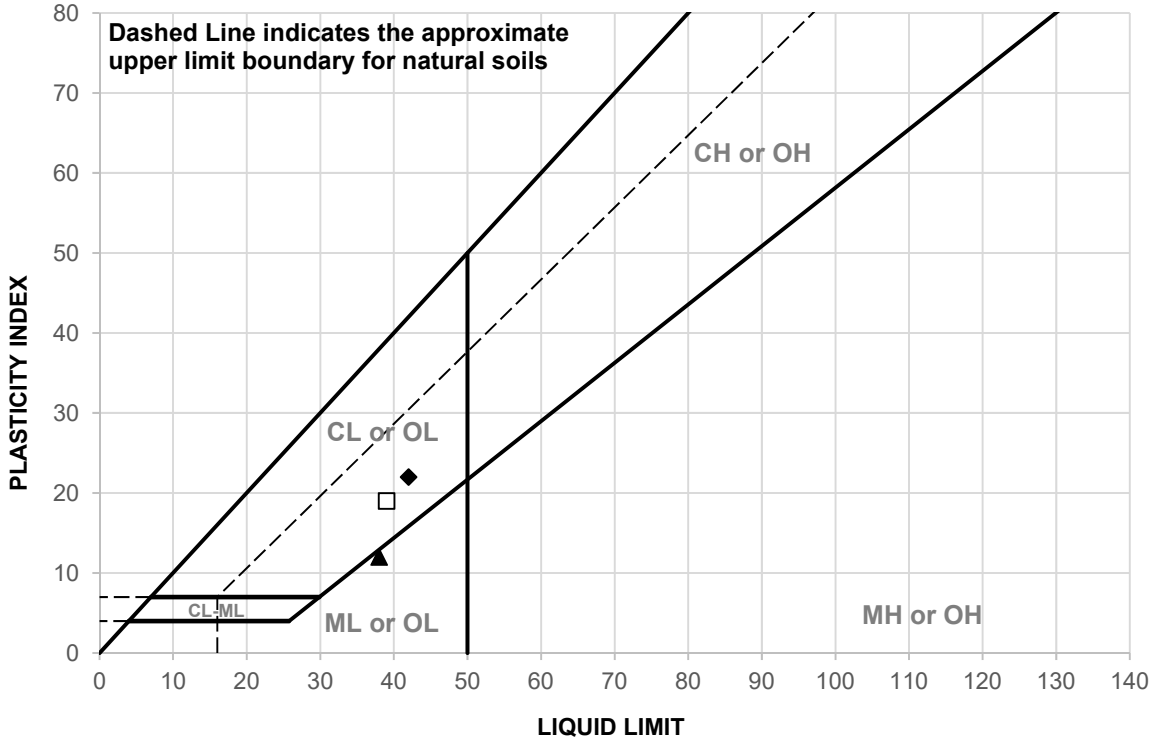
	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B1	15-16.5 feet	See exploration logs	41	23	18
◆	1-B1	26-26.5 feet	See exploration logs	35	22	13
□	1-B1	40-41.5 feet	See exploration logs	NV	NP	NP
●	1-B1	46-46.5 feet	See exploration logs	NV	NP	NP
■	1-B1	61-61.5 feet	See exploration logs	44	21	23

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B1	PI: ASTM D4318, Wet Method	
◆	1-B1	PI: ASTM D4318, Wet Method	
□	1-B1	PI: ASTM D4318, Wet Method	
●	1-B1	PI: ASTM D4318, Wet Method	
■	1-B1	PI: ASTM D4318, Wet Method	

ENGEO
Expect Excellence

CLIENT: Paceline Investors
PROJECT NAME: University Circle
PROJECT NO: 16889.000.000
PROJECT LOCATION: Palo Alto, CA
REPORT DATE: 1/16/2020
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



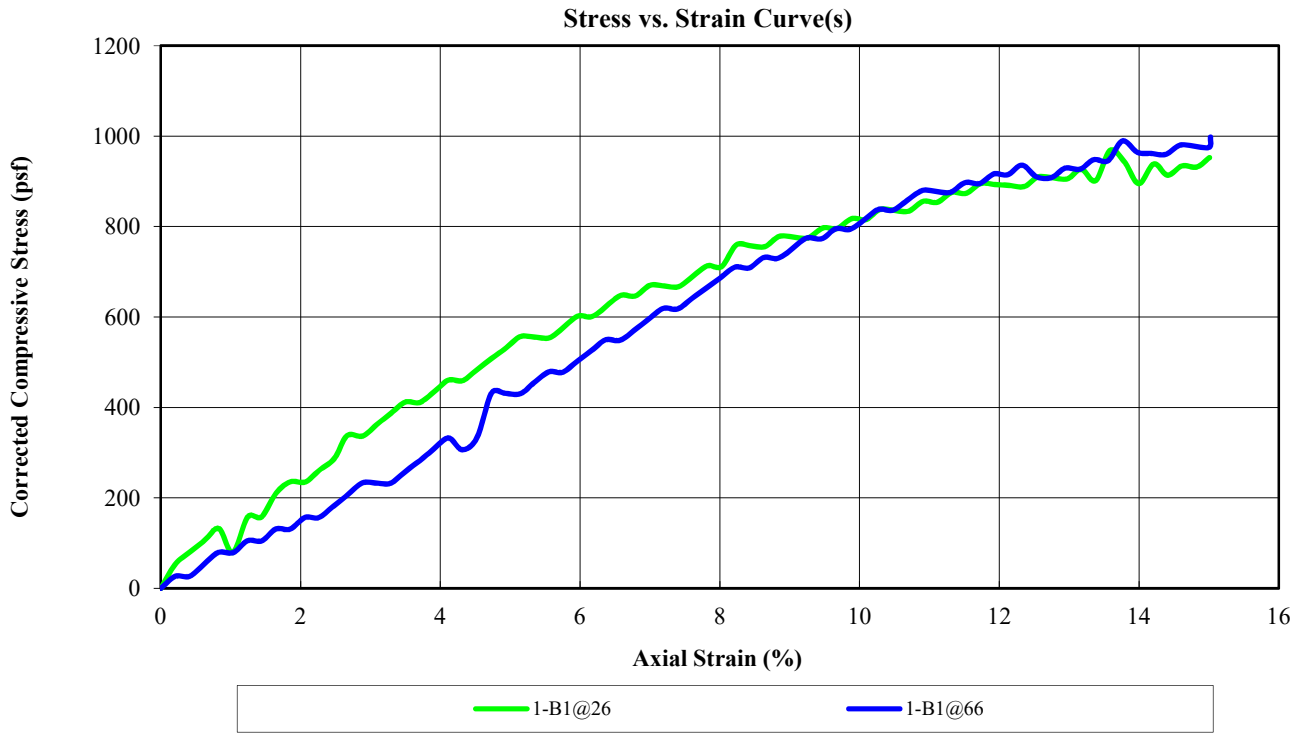
	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B1	46.5-48 feet	See exploration logs	38	26	12
◆	1-B1	50 feet	See exploration logs	42	20	22
□	1-B1	66.5-68 feet	See exploration logs	39	20	19

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B1	PI: ASTM D4318, Wet Method	
◆	1-B1	PI: ASTM D4318, Wet Method	
□	1-B1	PI: ASTM D4318, Wet Method	

ENGEO
Expect Excellence

CLIENT: Paceline Investors
PROJECT NAME: University Circle
PROJECT NO: 16889.000.000
PROJECT LOCATION: Palo Alto, CA
REPORT DATE: 1/16/2020
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

UNCONFINED COMPRESSION TEST REPORT
(ASTM D2166)



	SPECIMEN	
BEFORE TEST	**1-B1@26**	**1-B1@66**
Moisture Content (%)	27.1	34.8
Dry Density (pcf)	99.5	89.7
Saturation (%)	100.0	100.0
Void Ratio	0.66	0.84
Diameter (in)	2.380	2.380
Height (in)	5.01	5.02
Height-To-Diameter Ratio	2.11	2.11
TEST DATA		
Unconfined Compressive Strength (psf)	969	998
Undrained Shear Strength (psf)	484	499
Strain Rate (in./min.)	0.05	0.05
Specific Gravity (Assumed)	2.650	2.650
Strain at Failure (%)	13.58	15.02
Liquid Limit		
Plastic Limit		
Test Remarks		

SPECIMEN	**DESCRIPTION**
1-B1@26	See exploration logs
1-B1@66	See exploration logs

PROJECT NAME: University Circle
PROJECT NO: 16889.000.000
CLIENT: Paceline Investors
LOCATION: Palo Alto, CA
PHASE NO: 001

Test Date: 01/15/20
Tested By: M. Quasem
Reviewed By: W. Miller

ENGEO
Expect Excellence

Isotropic Unconsolidated Undrained Triaxial Test

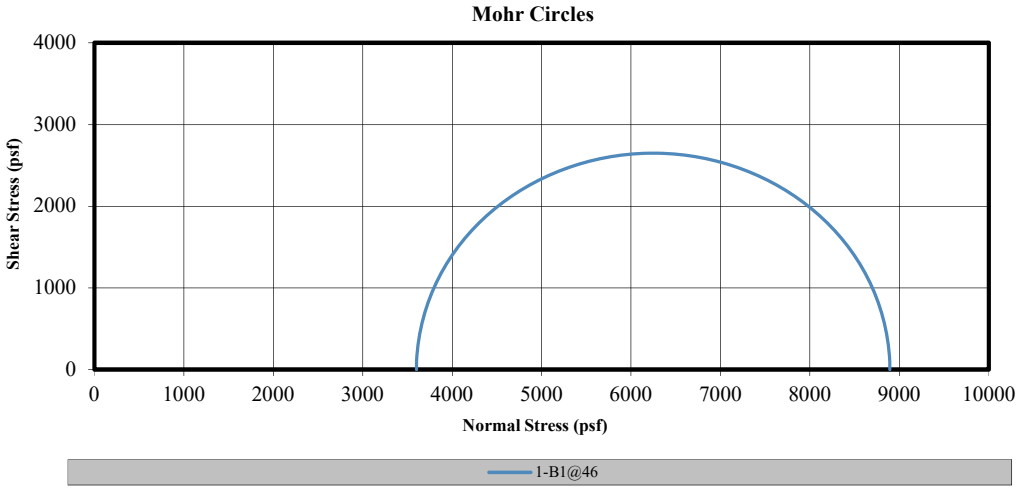
ASTM D2850

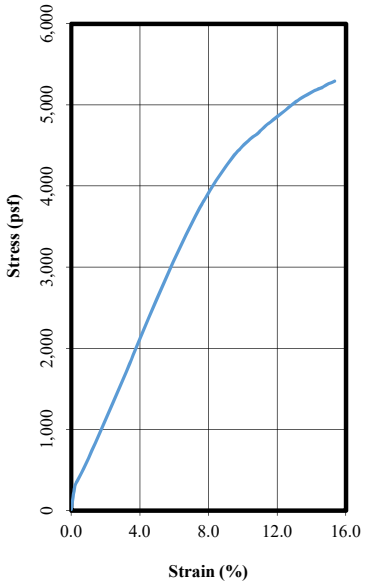
Date: 01/15/20

Checked By: G. Criste

Date: 1/14/2020

Tested By: M. Quasem





Specimen				
Before Test	**1-B1@46**			
Water Content (%)	30.84			
Dry Density (pcf)	93.90			
Saturation (%)	100.28			
Void Ratio	0.86			
Diameter (in)	2.420			
Height (in)	5.000			
Height-to-Diameter Ratio	2.066			
ASTM D4318 - Wet Method				
Liquid Limit				
Plastic Limit				
ASTM D854 - Assumed				
Specific Gravity	2.800			
After Test	**1-B1@46**			
Water Content (%)	30.84			
Saturation (%)	100.00			
Strain Rate (in/min)	0.05			
Peak Deviator Stress (psf)	5294.1			
Axial Strain @ Failure (%)	15.347			
	Cell Pressure			
Cell (psf)	3600.0			
Back (psf)	n/a			
	Principle Stresses at Failure			
σ1 (psf)	8894.1			
σ3 (psf)	3600.0			
Corrected Peak Deviator Stress				

Mohr-Coulomb Parameters with a Non-zero Friction Angle (Ø≠0)			**Cohesion at Failure with a Zero Friction Angle (Ø=0)**			
Cohesion, c (psf)	n/a		2647.0			
Friction Angle Ø	n/a		n/a			

Project Information	
Project Name:	University Circle
Project Number:	16889.000.000
Project Location:	Palo Alto, CA
Client:	Paceline Investors
Description:	See exploration logs
Test Remarks:	

ENGEO Expect Excellence

Isotropic Unconsolidated Undrained Triaxial Test

ASTM D2850

Date: 01/15/20

Checked By: G. Criste

Date: 1/14/2020

Tested By: M. Quasem

SPECIMEN PHOTOS

SAMPLE NUMBER: 1-B1@46	SAMPLE NUMBER:
	
SAMPLE NUMBER:	**SAMPLE NUMBER:**

Project Information	
Project Name:	University Circle
Project Number:	16889.000.000
Project Location:	Palo Alto, CA
Client:	Paceline Investors
Description:	See exploration logs
Test Remarks:	

ENGEO Expect Excellence

APPENDIX C

CONE PENETRATION TEST REPORT

PRESENTATION OF SITE INVESTIGATION RESULTS

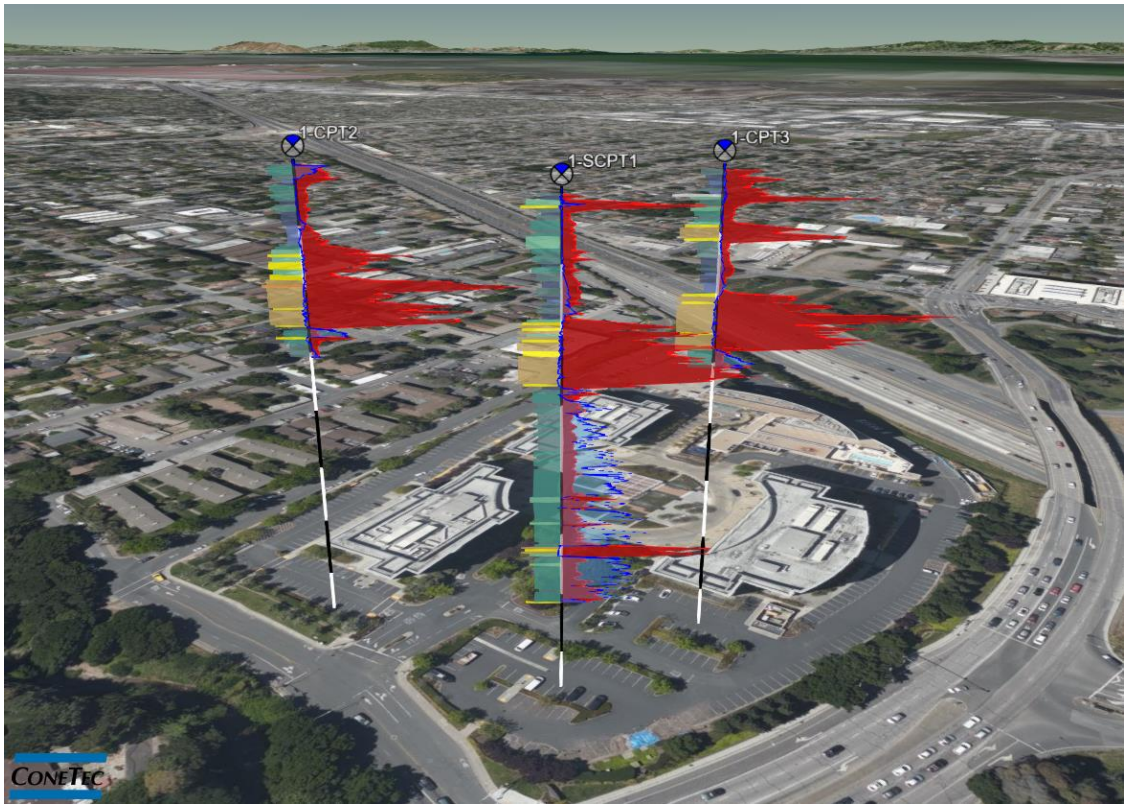
University Circle Phase II

Prepared for:

ENGEO Incorporated

ConeTec Job No: 19-56192

Project Start Date: 19-Dec-2019
Project End Date: 19-Dec-2019
Report Date: 20-Dec-2019



Prepared by:

ConeTec Inc.
820 Aladdin Avenue
San Leandro, CA 94577

Tel: (510) 357-3677

ConeTecCA@conetec.com
www.conetec.com
www.conetecdataservices.com

CONETEC

Introduction

The enclosed report presents the results of the site investigation program conducted by ConeTec Inc. for ENGEO Incorporated of San Ramon, CA. The program consisted of cone penetration testing (CPTu) at three (3) locations. Shear wave velocities were recorded in one (1) of the soundings.

Project Information

Project	
Client	ENGEO Incorporated
Project	University Circle Phase II
ConeTec Project #	19-56192

An aerial overview from Google Earth including the CPT test locations is presented below.

Rig Description	Deployment System	Test Type
CPT truck rig	30-ton truck mounted cylinder	CPTu/SCPT

Coordinates		
Test Type	Collection Method	EPSG Number
CPTu/SCPT	Consumer grade GPS	32610

Cone Penetrometers Used for this Project						
Cone Description	Cone Number	Cross Sectional Area (cm^2)	Sleeve Area (cm^2)	Tip Capacity (bar)	Sleeve Capacity (bar)	Pore Pressure Capacity (psi)
367:T1500F15U500	367	15	225	1500	15	500
Cone 367 was used in all soundings.						

Cone Penetration Test	
Depth reference	Depths are referenced to the existing ground surface at the time of test.
Tip and sleeve data offset	0.1 Meter This has been accounted for in the CPT data files.
Additional Comments	Standard plots with expanded scales, Advanced plots with Ic, Phi, Su(Nkt), and N1(60)Ic, Seismic plots, as well as Soil Behavior Type (SBT) Scatter plots have been included in the data release package.

Calculated Geotechnical Parameter Tables	
Additional information	The Normalized Soil Behaviour Type Chart based on Q_{tn} (SBT Q_{tn}) (Robertson, 2009) was used to classify the soil for this project. A detailed set of calculated CPTu parameters have been generated and are provided in Excel format files in the release folder. The CPTu parameter calculations are based on values of corrected tip resistance (q_t) sleeve friction (f_s) and pore pressure (u_2). Effective stresses are calculated based on unit weights that have been assigned to the individual soil behaviour type zones and the assumed equilibrium pore pressure profile. Soils were classified as either drained or undrained based on the Q_{tn} Normalized Soil Behaviour Type Chart (Robertson, 2009). Calculations for both drained and undrained parameters were included for materials that classified as silt mixtures (zone 4).

Limitations

This report has been prepared for the exclusive use of ENGEO Incorporated (Client) for the project titled "University Circle Phase II". The report's contents may not be relied upon by any other party without the express written permission of ConeTec, Inc. (ConeTec). ConeTec has provided site investigation services, prepared the factual data reporting, and provided geotechnical parameter calculations consistent with current best practices. No other warranty, expressed or implied, is made.

The information presented in the report document and the accompanying data set pertain to the specific project, site conditions and objectives described to ConeTec by the Client. In order to properly understand the factual data, assumptions and calculations, reference must be made to the documents provided and their accompanying data sets, in their entirety.

The cone penetration tests (CPTu) are conducted using an integrated electronic piezocone penetrometer and data acquisition system manufactured by Adara Systems Ltd. of Richmond, British Columbia, Canada.

ConeTec's piezocone penetrometers are compression type designs in which the tip and friction sleeve load cells are independent and have separate load capacities. The piezocones use strain gauged load cells for tip and sleeve friction and a strain gauged diaphragm type transducer for recording pore pressure. The piezocones also have a platinum resistive temperature device (RTD) for monitoring the temperature of the sensors, an accelerometer type dual axis inclinometer and a geophone sensor for recording seismic signals. All signals are amplified down hole within the cone body and the analog signals are sent to the surface through a shielded cable.

ConeTec penetrometers are manufactured with various tip, friction and pore pressure capacities in both 10 cm^2 and 15 cm^2 tip base area configurations in order to maximize signal resolution for various soil conditions. The specific piezocone used for each test is described in the CPT summary table presented in the first Appendix. The 15 cm^2 penetrometers do not require friction reducers as they have a diameter larger than the deployment rods. The 10 cm^2 piezocones use a friction reducer consisting of a rod adapter extension behind the main cone body with an enlarged cross sectional area (typically 44 mm diameter over a length of 32 mm with tapered leading and trailing edges) located at a distance of 585 mm above the cone tip.

The penetrometers are designed with equal end area friction sleeves, a net end area ratio of 0.8 and cone tips with a 60 degree apex angle.

All ConeTec piezocones can record pore pressure at various locations. Unless otherwise noted, the pore pressure filter is located directly behind the cone tip in the "u_2" position (ASTM Type 2). The filter is 6 mm thick, made of porous plastic (polyethylene) having an average pore size of 125 microns (90-160 microns). The function of the filter is to allow rapid movements of extremely small volumes of water needed to activate the pressure transducer while preventing soil ingress or blockage.

The piezocone penetrometers are manufactured with dimensions, tolerances and sensor characteristics that are in general accordance with the current ASTM D5778 standard. ConeTec's calibration criteria also meet or exceed those of the current ASTM D5778 standard. An illustration of the piezocone penetrometer is presented in Figure CPTu.

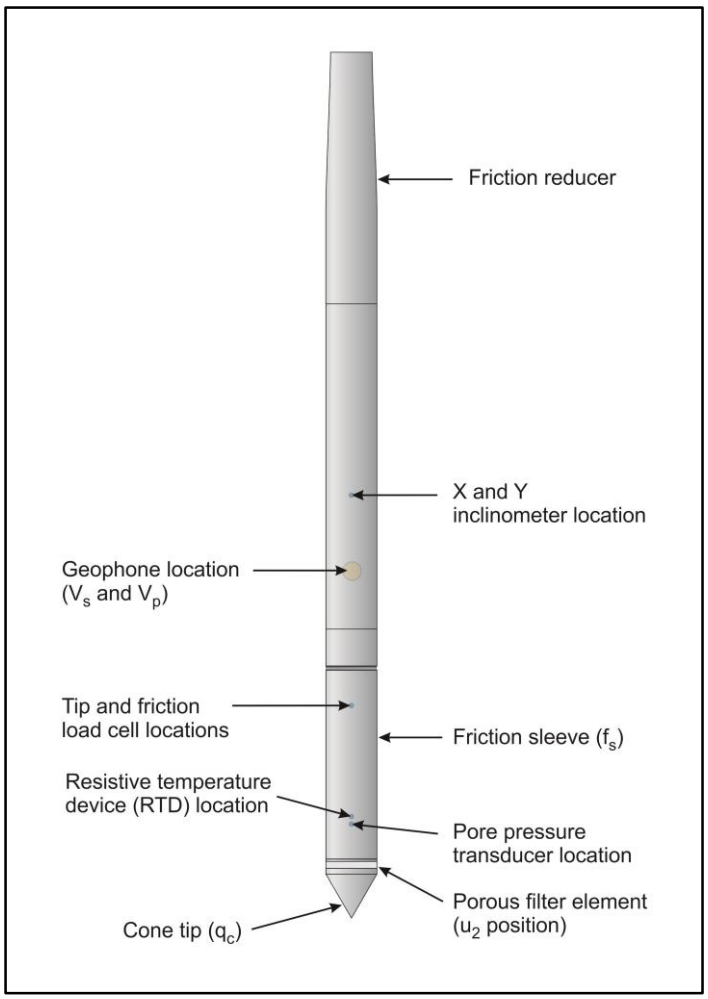


Figure CPTu. Piezocone Penetrometer (15 cm^2)

The ConeTec data acquisition systems consist of a Windows based computer and a signal conditioner and power supply interface box with a 16 bit (or greater) analog to digital (A/D) converter. The data is recorded at fixed depth increments using a depth wheel attached to the push cylinders or by using a spring loaded rubber depth wheel that is held against the cone rods. The typical recording intervals are either 2.5 cm or 5.0 cm depending on project requirements; custom recording intervals are possible. The system displays the CPTu data in real time and records the following parameters to a storage media during penetration:

- Depth
- Uncorrected tip resistance (q_c)
- Sleeve friction (f_s)
- Dynamic pore pressure (u)
- Additional sensors such as resistivity, passive gamma, ultra violet induced fluorescence, if applicable

All testing is performed in accordance to ConeTec's CPT operating procedures which are in general accordance with the current ASTM D5778 standard.

Prior to the start of a CPTu sounding a suitable cone is selected, the cone and data acquisition system are powered on, the pore pressure system is saturated with either glycerin or silicone oil and the baseline readings are recorded with the cone hanging freely in a vertical position.

The CPTu is conducted at a steady rate of 2 cm/s, within acceptable tolerances. Typically one meter length rods with an outer diameter of 1.5 inches are added to advance the cone to the sounding termination depth. After cone retraction final baselines are recorded.

Additional information pertaining to ConeTec's cone penetration testing procedures:

- Each filter is saturated in silicone oil or glycerin under vacuum pressure prior to use
- Recorded baselines are checked with an independent multi-meter
- Baseline readings are compared to previous readings
- Soundings are terminated at the client's target depth or at a depth where an obstruction is encountered, excessive rod flex occurs, excessive inclination occurs, equipment damage is likely to take place, or a dangerous working environment arises
- Differences between initial and final baselines are calculated to ensure zero load offsets have not occurred and to ensure compliance with ASTM standards

The interpretation of piezocone data for this report is based on the corrected tip resistance (q_t), sleeve friction (f_s) and pore water pressure (u). The interpretation of soil type is based on the correlations developed by Robertson (1990) and Robertson (2009). It should be noted that it is not always possible to accurately identify a soil type based on these parameters. In these situations, experience, judgment and an assessment of other parameters may be used to infer soil behavior type.

The recorded tip resistance (q_c) is the total force acting on the piezocone tip divided by its base area. The tip resistance is corrected for pore pressure effects and termed corrected tip resistance (q_t) according to the following expression presented in Robertson et al, 1986:

$$q_t = q_c + (1\text{-}a) \bullet u_2$$

where: q_t is the corrected tip resistance
q_c is the recorded tip resistance
u_2 is the recorded dynamic pore pressure behind the tip (u_2 position)
a is the Net Area Ratio for the piezocone (0.8 for ConeTec probes)

The sleeve friction (f_s) is the frictional force on the sleeve divided by its surface area. As all ConeTec piezocones have equal end area friction sleeves, pore pressure corrections to the sleeve data are not required.

The dynamic pore pressure (u) is a measure of the pore pressures generated during cone penetration. To record equilibrium pore pressure, the penetration must be stopped to allow the dynamic pore pressures to stabilize. The rate at which this occurs is predominantly a function of the permeability of the soil and the diameter of the cone.

The friction ratio (Rf) is a calculated parameter. It is defined as the ratio of sleeve friction to the tip resistance expressed as a percentage. Generally, saturated cohesive soils have low tip resistance, high

friction ratios and generate large excess pore water pressures. Cohesionless soils have higher tip resistances, lower friction ratios and do not generate significant excess pore water pressure.

A summary of the CPTu soundings along with test details and individual plots are provided in the appendices. A set of interpretation files were generated for each sounding based on published correlations and are provided in Excel format in the data release folder. Information regarding the interpretation methods used is also included in the data release folder.

For additional information on CPTu interpretations, refer to Robertson et al. (1986), Lunne et al. (1997), Robertson (2009), Mayne (2013, 2014) and Mayne and Peuchen (2012).

Shear wave velocity testing is performed in conjunction with the piezocone penetration test (SCPTu) in order to collect interval velocities. For some projects seismic compression wave (Vp) velocity is also determined.

ConeTec's piezocone penetrometers are manufactured with a horizontally active geophone (28 hertz) that is rigidly mounted in the body of the cone penetrometer, 0.2 meters behind the cone tip.

Shear waves are typically generated by using an impact hammer horizontally striking a beam that is held in place by a normal load. In some instances an auger source or an imbedded impulsive source maybe used for both shear waves and compression waves. The hammer and beam act as a contact trigger that triggers the recording of the seismic wave traces. For impulsive devices an accelerometer trigger may be used. The traces are recorded using an up-hole integrated digital oscilloscope which is part of the SCPTu data acquisition system. An illustration of the shear wave testing configuration is presented in Figure SCPTu-1.

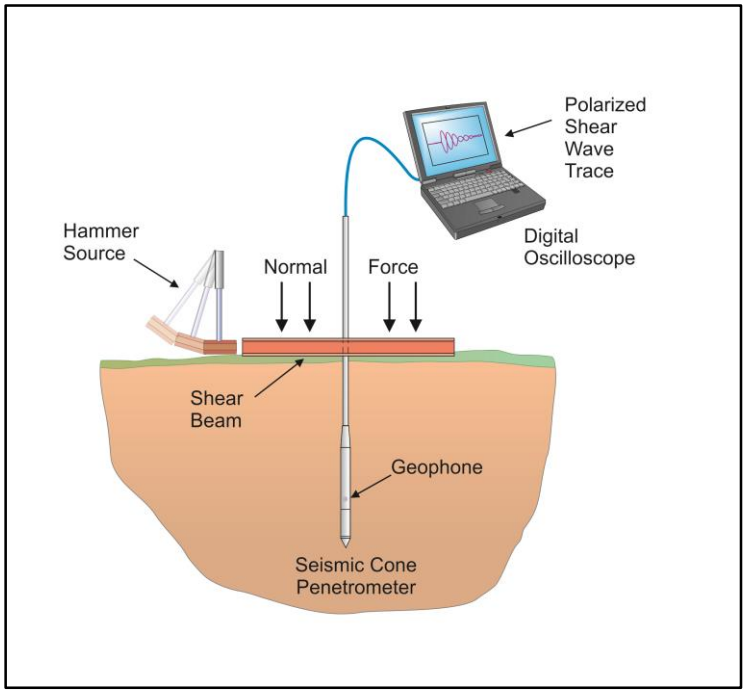


Figure SCPTu-1. Illustration of the SCPTu system

All testing is performed in accordance to ConeTec's SCPTu operating procedures.

Prior to the start of a SCPTu sounding, the procedures described in the Cone Penetration Test section are followed. In addition, the active axis of the geophone is aligned parallel to the beam (or source) and the horizontal offset between the cone and the source is measured and recorded.

Prior to recording seismic waves at each test depth, cone penetration is stopped and the rods are decoupled from the rig to avoid transmission of rig energy down the rods. Multiple wave traces are recorded for quality control purposes. After reviewing wave traces for consistency the cone is pushed to the next test depth (typically one meter intervals or as requested by the client). Figure SCPTu-2 presents an illustration of a SCPTu test.

For additional information on seismic cone penetration testing refer to Robertson et.al. (1986).

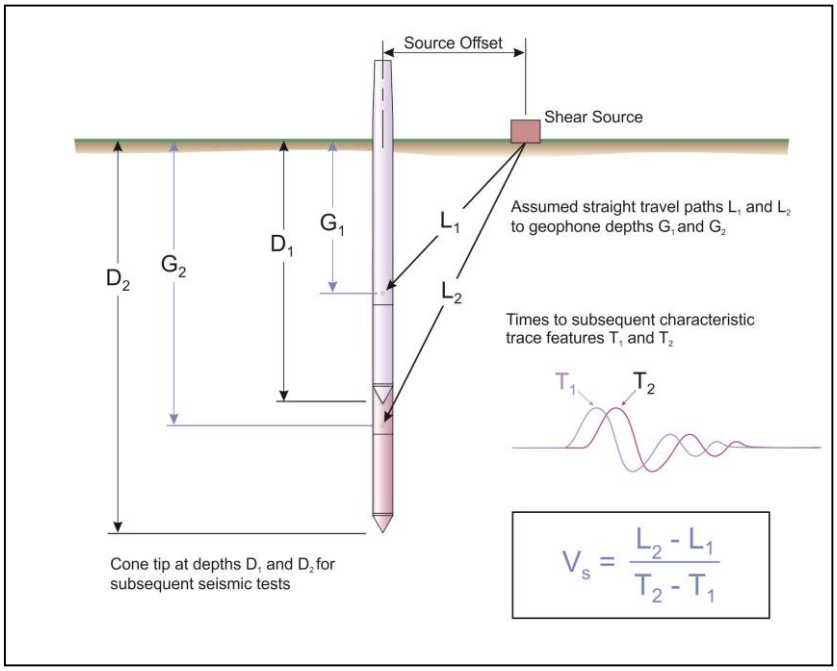


Figure SCPTu-2. Illustration of a seismic cone penetration test

Calculation of the interval velocities are performed by visually picking a common feature (e.g. the first characteristic peak, trough, or crossover) on all of the recorded wave sets and taking the difference in ray path divided by the time difference between subsequent features. Ray path is defined as the straight line distance from the seismic source to the geophone, accounting for beam offset, source depth and geophone offset from the cone tip.

The average shear wave velocity to a depth of 100 feet (30 meters) ($\bar{v}_s$) has been calculated and provided for all applicable soundings using the following equation presented in ASCE, 2010.

$$\bar{v}_s = \frac{\sum_{i=1}^{n} d_i}{\sum_{i=1}^{n} \frac{d_i}{v_{si}}}$$

where: $\bar{v}_s$ = average shear wave velocity ft/s (m/s)
d_i = the thickness of any layer between 0 and 100 ft (30 m)
v_{si} = the shear wave velocity in ft/s (m/s)
$\sum_{i=1}^{n} d_i$ = 100 ft (30 m)

Average shear wave velocity, $\bar{v}_s$ is also referenced to V_{s100} or V_{s30}.

The layer travel times refers to the travel times propagating in the vertical direction, not the measured travel times from an offset source.

Tabular results and SCPTu plots are presented in the relevant appendix.

The cone penetration test is halted at specific depths to carry out pore pressure dissipation (PPD) tests, shown in Figure PPD-1. For each dissipation test the cone and rods are decoupled from the rig and the data acquisition system measures and records the variation of the pore pressure (u) with time (t).

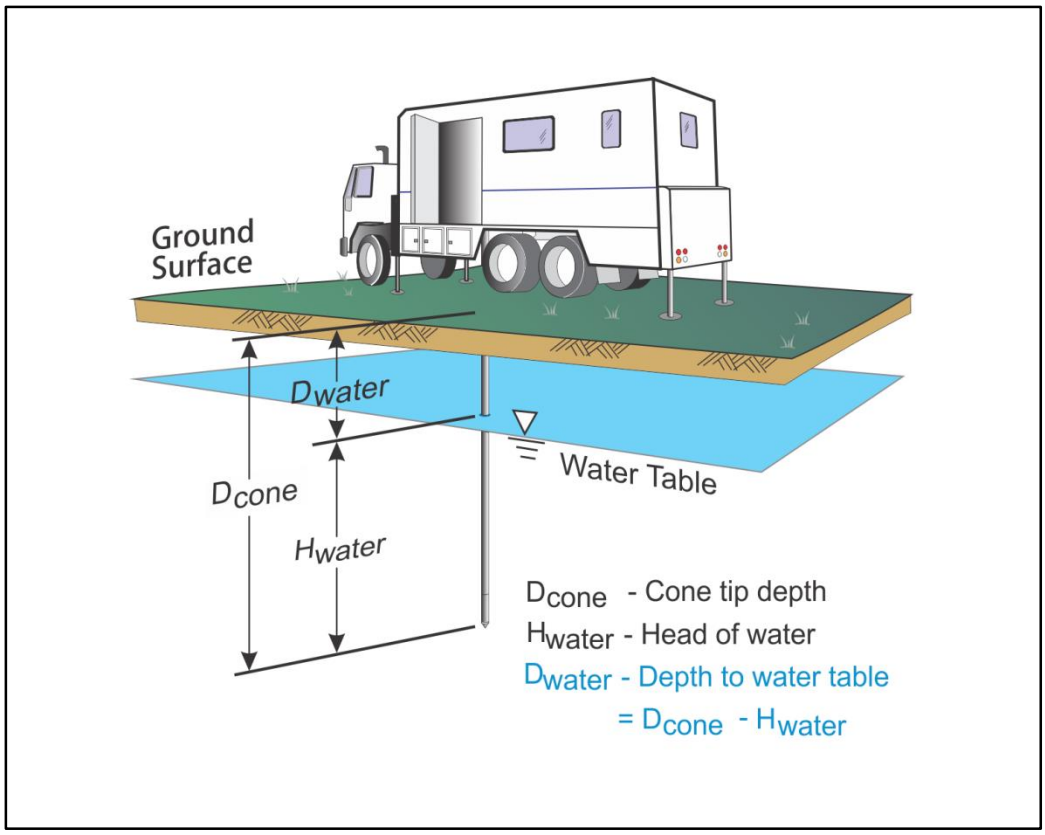


Figure PPD-1. Pore pressure dissipation test setup

Pore pressure dissipation data can be interpreted to provide estimates of ground water conditions, permeability, consolidation characteristics and soil behavior.

The typical shapes of dissipation curves shown in Figure PPD-2 are very useful in assessing soil type, drainage, in situ pore pressure and soil properties. A flat curve that stabilizes quickly is typical of a freely draining sand. Undrained soils such as clays will typically show positive excess pore pressure and have long dissipation times. Dilative soils will often exhibit dynamic pore pressures below equilibrium that then rise over time. Overconsolidated fine-grained soils will often exhibit an initial dilatory response where there is an initial rise in pore pressure before reaching a peak and dissipating.

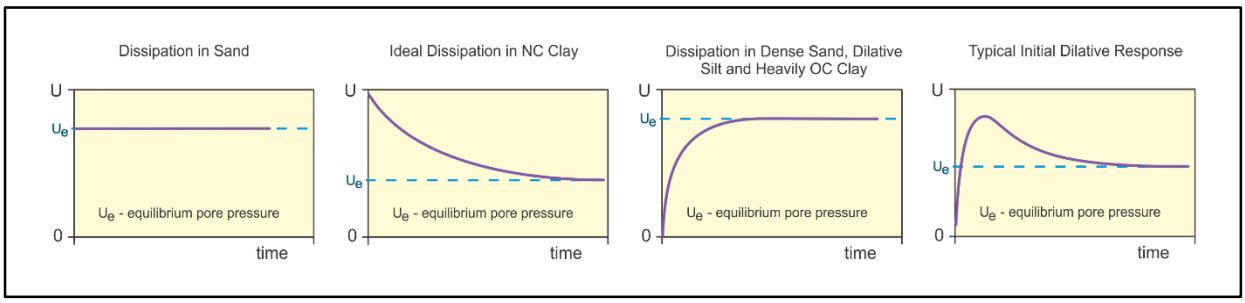


Figure PPD-2. Pore pressure dissipation curve examples

In order to interpret the equilibrium pore pressure (u_{eq}) and the apparent phreatic surface, the pore pressure should be monitored until such time as there is no variation in pore pressure with time as shown for each curve of Figure PPD-2.

In fine grained deposits the point at which 100% of the excess pore pressure has dissipated is known as t_{100}. In some cases this can take an excessive amount of time and it may be impractical to take the dissipation to t_{100}. A theoretical analysis of pore pressure dissipations by Teh and Houlsby (1991) showed that a single curve relating degree of dissipation versus theoretical time factor (T*) may be used to calculate the coefficient of consolidation (c_h) at various degrees of dissipation resulting in the expression for c_h shown below.

$$c_h = \frac{T^* \cdot a^2 \cdot \sqrt{I_r}}{t}$$

Where:

T* is the dimensionless time factor (Table Time Factor)
a is the radius of the cone
I_r is the rigidity index
t is the time at the degree of consolidation

Table Time Factor. T* versus degree of dissipation (Teh and Houlsby, 1991)

Degree of Dissipation (%)	20	30	40	50	60	70	80
T* (u_2)	0.038	0.078	0.142	0.245	0.439	0.804	1.60

The coefficient of consolidation is typically analyzed using the time (t_{50}) corresponding to a degree of dissipation of 50% (u_{50}). In order to determine t_{50}, dissipation tests must be taken to a pressure less than u_{50}. The u_{50} value is half way between the initial maximum pore pressure and the equilibrium pore pressure value, known as u_{100}. To estimate u_{50}, both the initial maximum pore pressure and u_{100} must be known or estimated. Other degrees of dissipations may be considered, particularly for extremely long dissipations.

At any specific degree of dissipation the equilibrium pore pressure (u at t_{100}) must be estimated at the depth of interest. The equilibrium value may be determined from one or more sources such as measuring the value directly (u_{100}), estimating it from other dissipations in the same profile, estimating the phreatic surface and assuming hydrostatic conditions, from nearby soundings, from client provided information, from site observations and/or past experience, or from other site instrumentation.

For calculations of c_h (Teh and Houlsby, 1991), t_{50} values are estimated from the corresponding pore pressure dissipation curve and a rigidity index (I_r) is assumed. For curves having an initial dilatory response in which an initial rise in pore pressure occurs before reaching a peak, the relative time from the peak value is used in determining t_{50}. In cases where the time to peak is excessive, t_{50} values are not calculated.

Due to possible inherent uncertainties in estimating I_r, the equilibrium pore pressure and the effect of an initial dilatory response on calculating t_{50}, other methods should be applied to confirm the results for c_h.

Additional published methods for estimating the coefficient of consolidation from a piezocone test are described in Burns and Mayne (1998, 2002), Jones and Van Zyl (1981), Robertson et al. (1992) and Sully et al. (1999).

A summary of the pore pressure dissipation tests and dissipation plots are presented in the relevant appendix.

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Robertson, P.K., Sully, J.P., Woeller, D.J., Lunne, T., Powell, J.J.M. and Gillespie, D.G., 1992, "Estimating coefficient of consolidation from piezocone tests", Canadian Geotechnical Journal, 29(4): 551-557.

Sully, J.P., Robertson, P.K., Campanella, R.G. and Woeller, D.J., 1999, "An approach to evaluation of field CPTU dissipation data in overconsolidated fine-grained soils", Canadian Geotechnical Journal, 36(2): 369-381.

Teh, C.I., and Houlsby, G.T., 1991, “An analytical study of the cone penetration test in clay”, Geotechnique, 41(1): 17-34.

The appendices listed below are included in the report:

- Cone Penetration Test Summary and Standard Cone Penetration Test Plots
- Standard Cone Penetration Test Plots with Expanded Range
- Advanced Cone Penetration Test Plots with Ic, Su(Nkt), Phi and N1(60)Ic
- Soil Behavior Type (SBT) Scatter Plots
- Seismic Cone Penetration Test Plots
- Seismic Cone Penetration Test Tabular Results
- Seismic Cone Penetration Test Shear Wave (Vs) Traces
- Pore Pressure Dissipation Summary and Pore Pressure Dissipation Plots

Cone Penetration Test Summary and Standard Cone Penetration Test Plots

CONETEC

Job No:	19-56192
Client:	ENGEO Incorporated
Project:	University Circle Phase II
Start Date:	19-Dec-2019
End Date:	19-Dec-2019

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface[1] (ft)	Final Depth (ft)	Northing[2] (m)	Easting[2] (m)	Elevation[3] (ft)	Refer to Notation Number
1-SCPT1	19-56192_SP01	19-Dec-2019	367:T1500F15U500	27.4	100.56	4146081	575878	36	
1-CPT2	19-56192_CP02	19-Dec-2019	367:T1500F15U500	28.2	50.52	4146080	575810	38	
1-CPT3	19-56192_CP03	19-Dec-2019	367:T1500F15U500	28.4	50.52	4146119	575897	38	

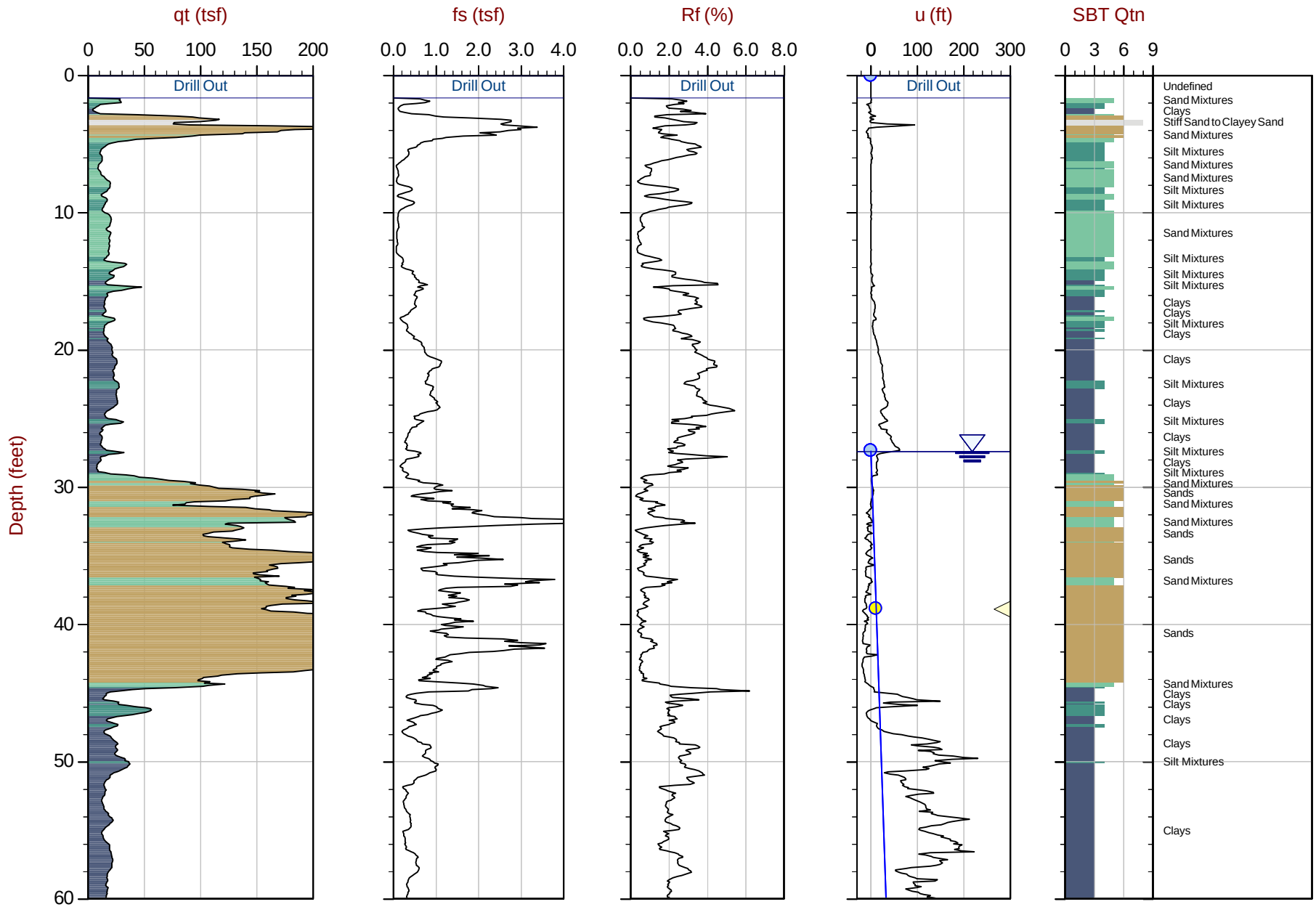
1. The assumed phreatic surface was based off the shallowest pore pressure dissipation test to reach equilibrium in the sounding. Hydrostatic conditions were assumed for the calculated parameters.
2. The coordinates were acquired using consumer grade GPS equipment, datum: WGS 1984 / UTM Zone 10 North.
3. Elevations are refrenced to the ground surface and are derived from Google Earth Elevation for the recorded coordinates.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500



Max Depth: 30.650 m / 100.56 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1SP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146081m E: 575878m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

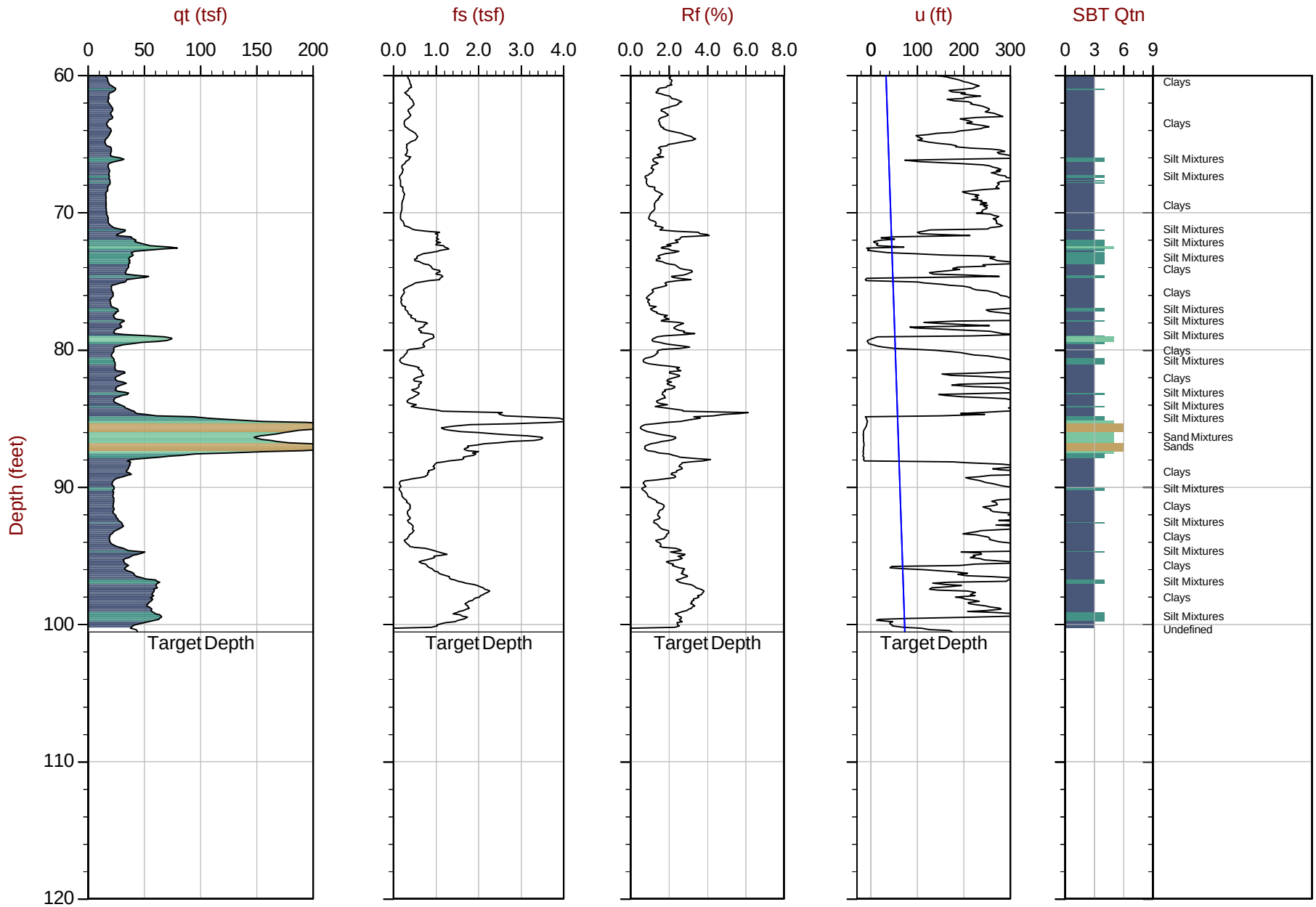
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500



Max Depth: 30.650 m / 100.56 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1SP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146081m E: 575878m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

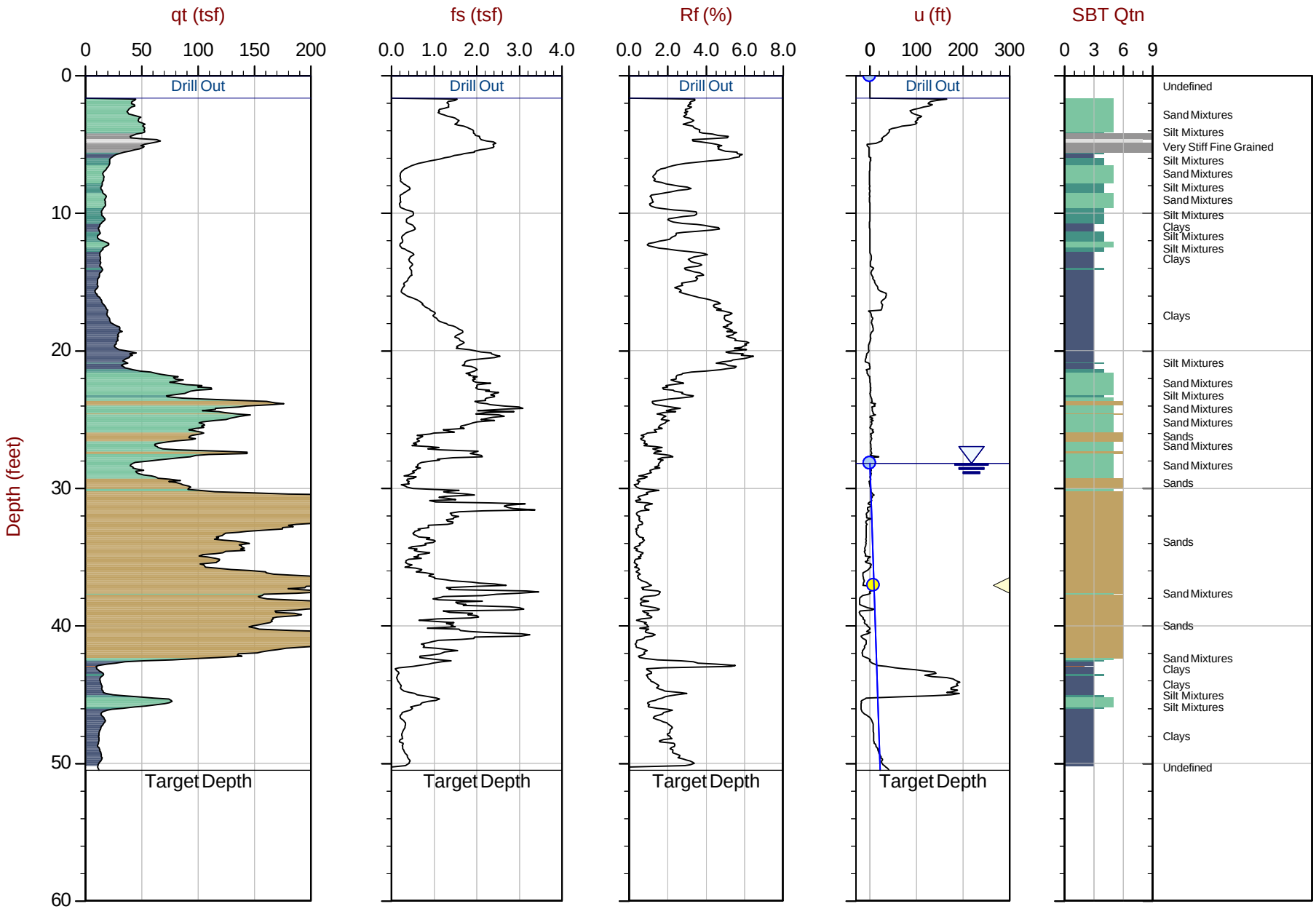
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 10:39
Site: University Circle Phase II

Sounding: 1-CPT2
Cone: 367:T1500F15U500



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1CP02.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146080m E: 575810m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

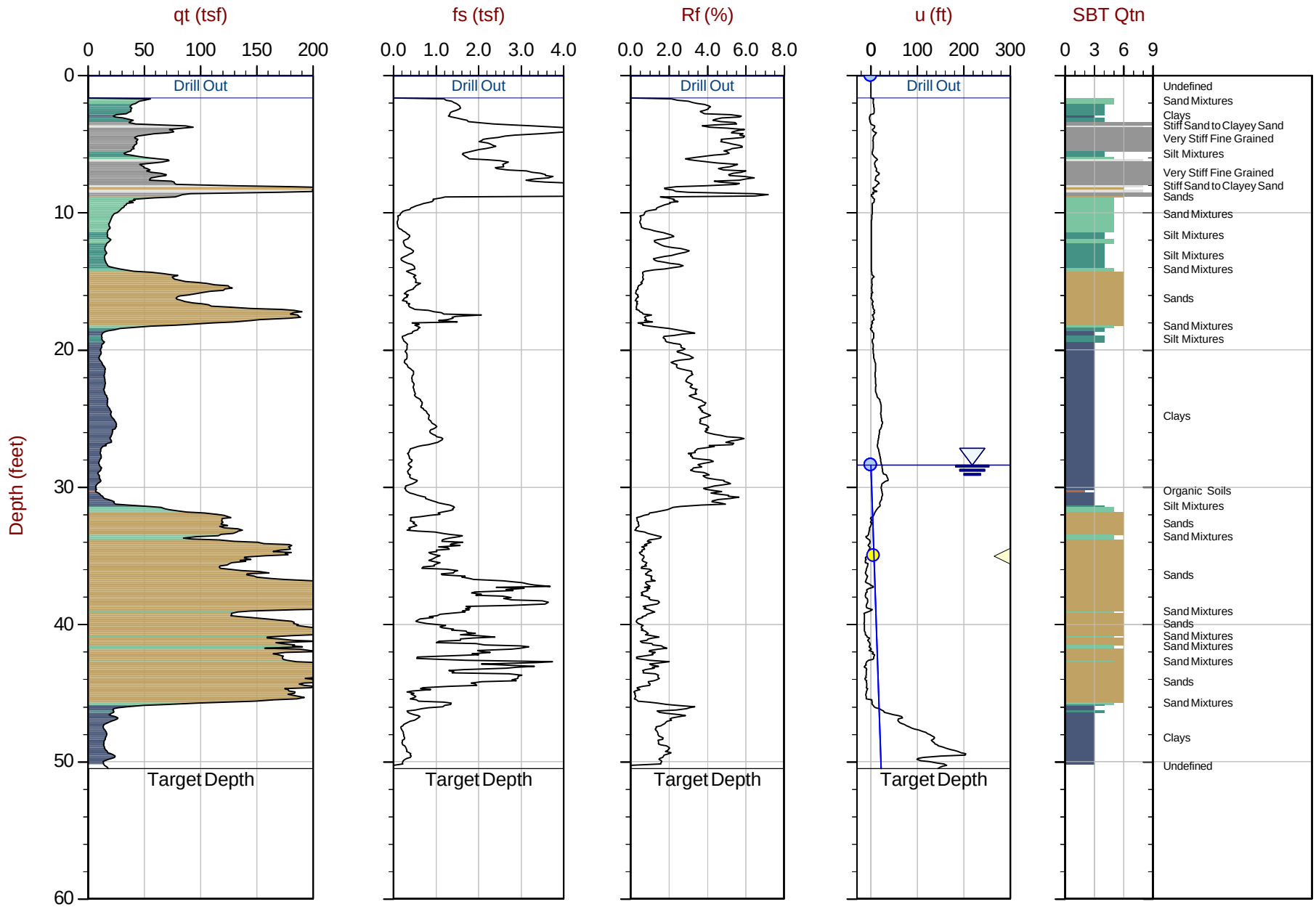
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 07:36
Site: University Circle Phase II

Sounding: 1-CPT3
Cone: 367:T1500F15U500



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1CP03.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146119m E: 575897m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Standard Cone Penetration Test Plots with Expanded Range

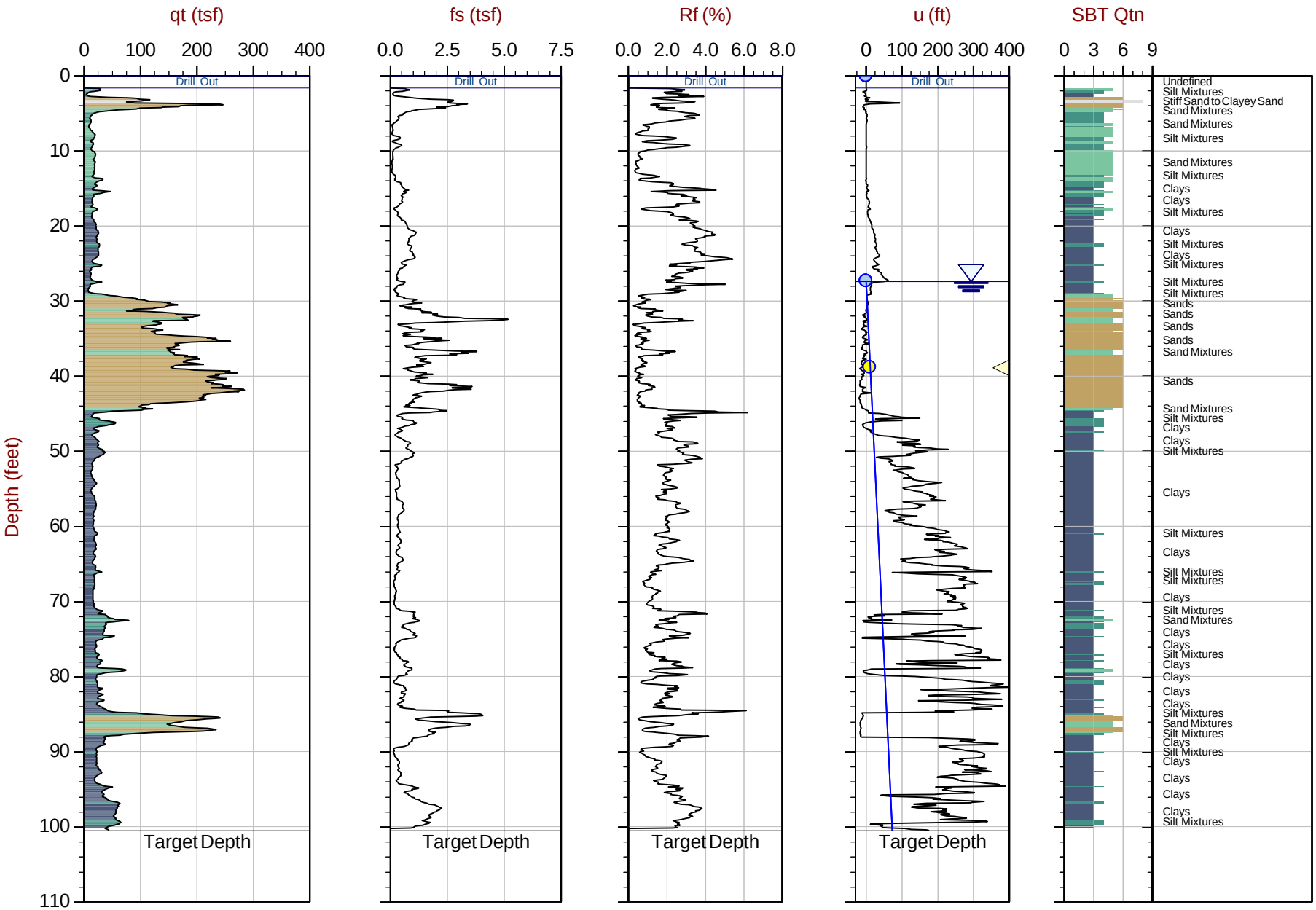
CONETEC

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500



Max Depth: 30.650 m / 100.56 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1SP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146081m E: 575878m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

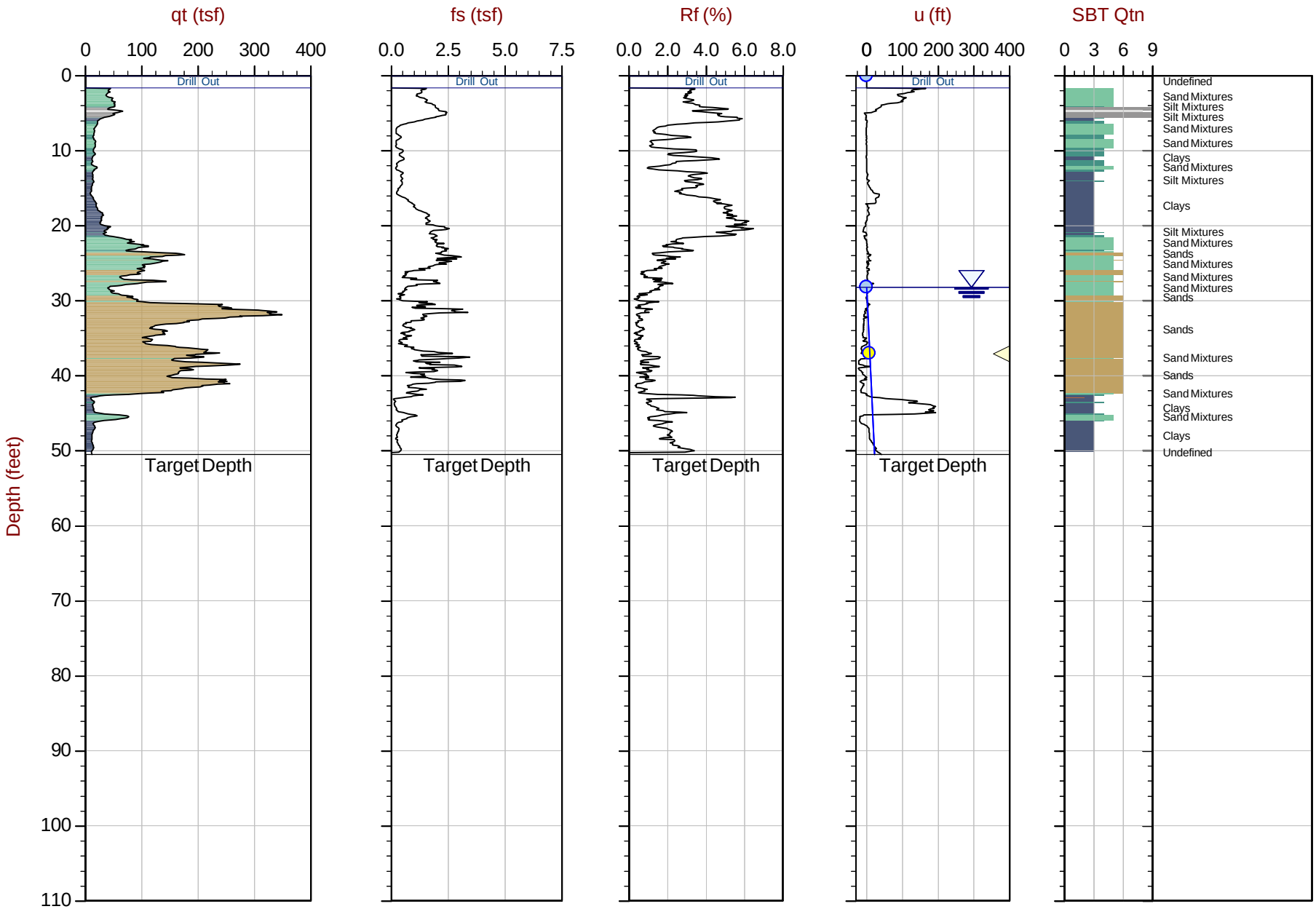
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 10:39
Site: University Circle Phase II

Sounding: 1-CPT2
Cone: 367:T1500F15U500



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Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1CP02.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146080m E: 575810m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

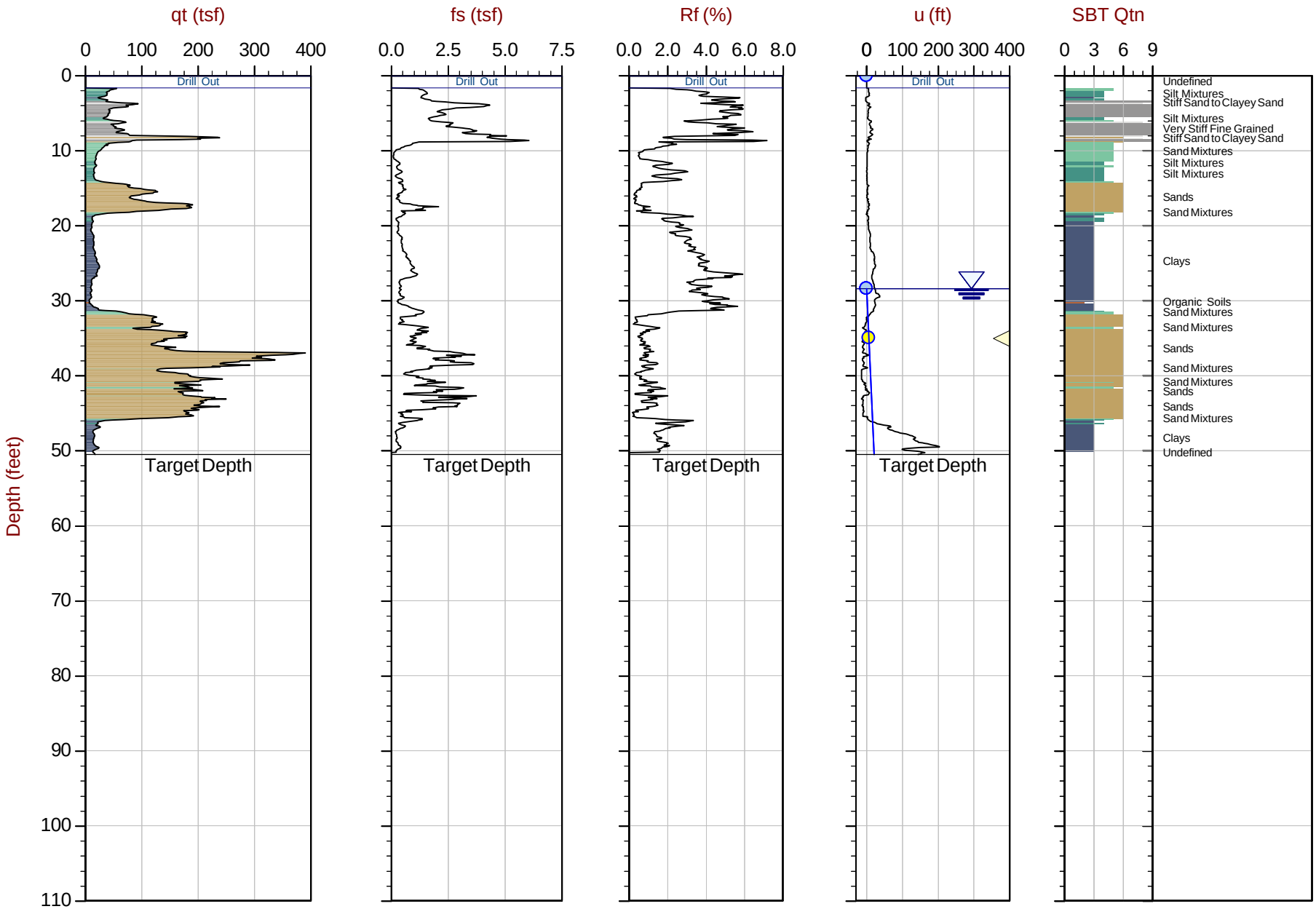
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 07:36
Site: University Circle Phase II

Sounding: 1-CPT3
Cone: 367:T1500F15U500



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1CP03.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146119m E: 575897m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Advanced Cone Penetration Test Plots with Ic, Phi, Su(Nkt), and N1(60)Ic

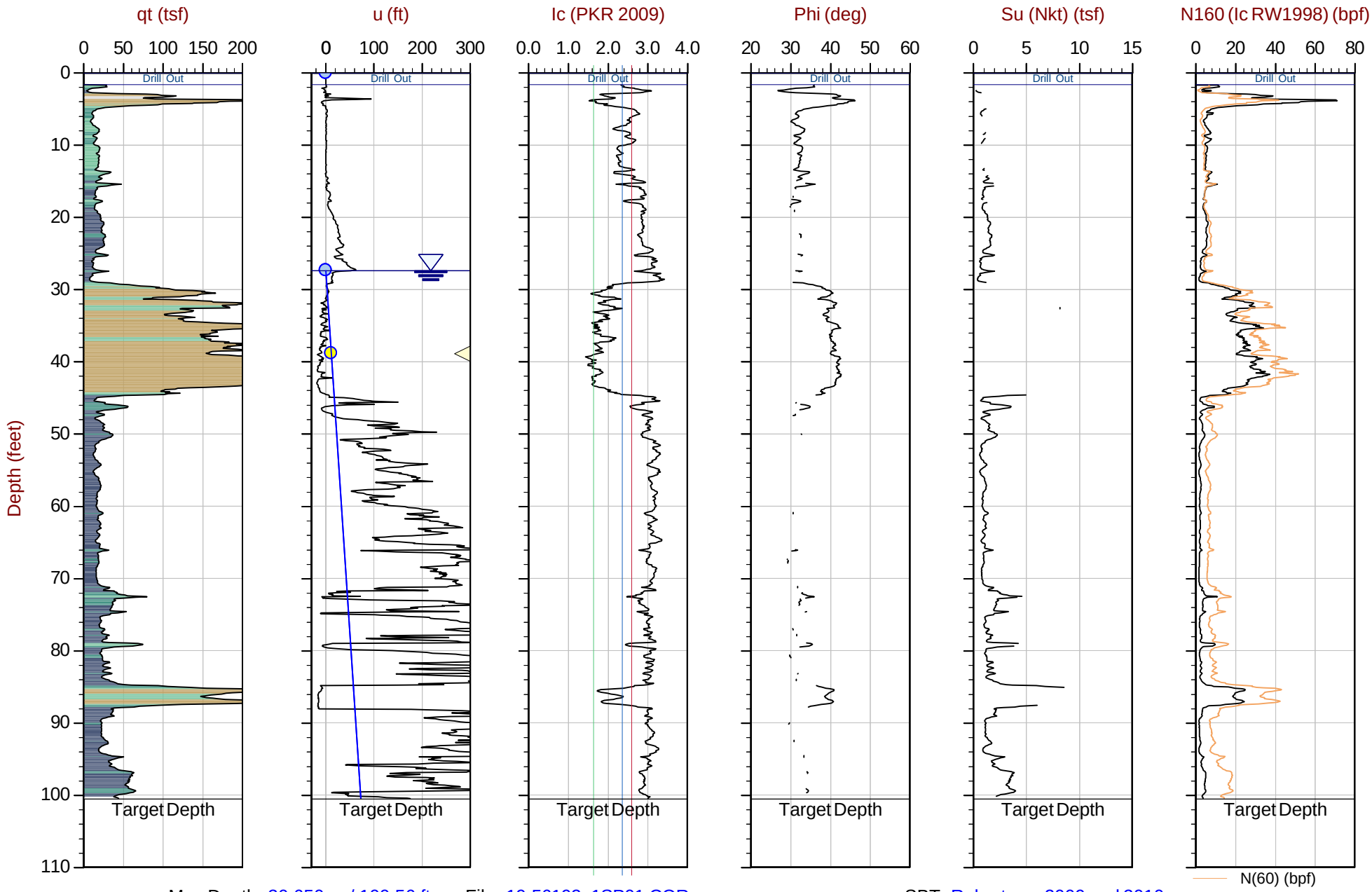
CONETEC

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500



Max Depth: 30.650 m / 100.56 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1SP01.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt: 15.0

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146081m E: 575878m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

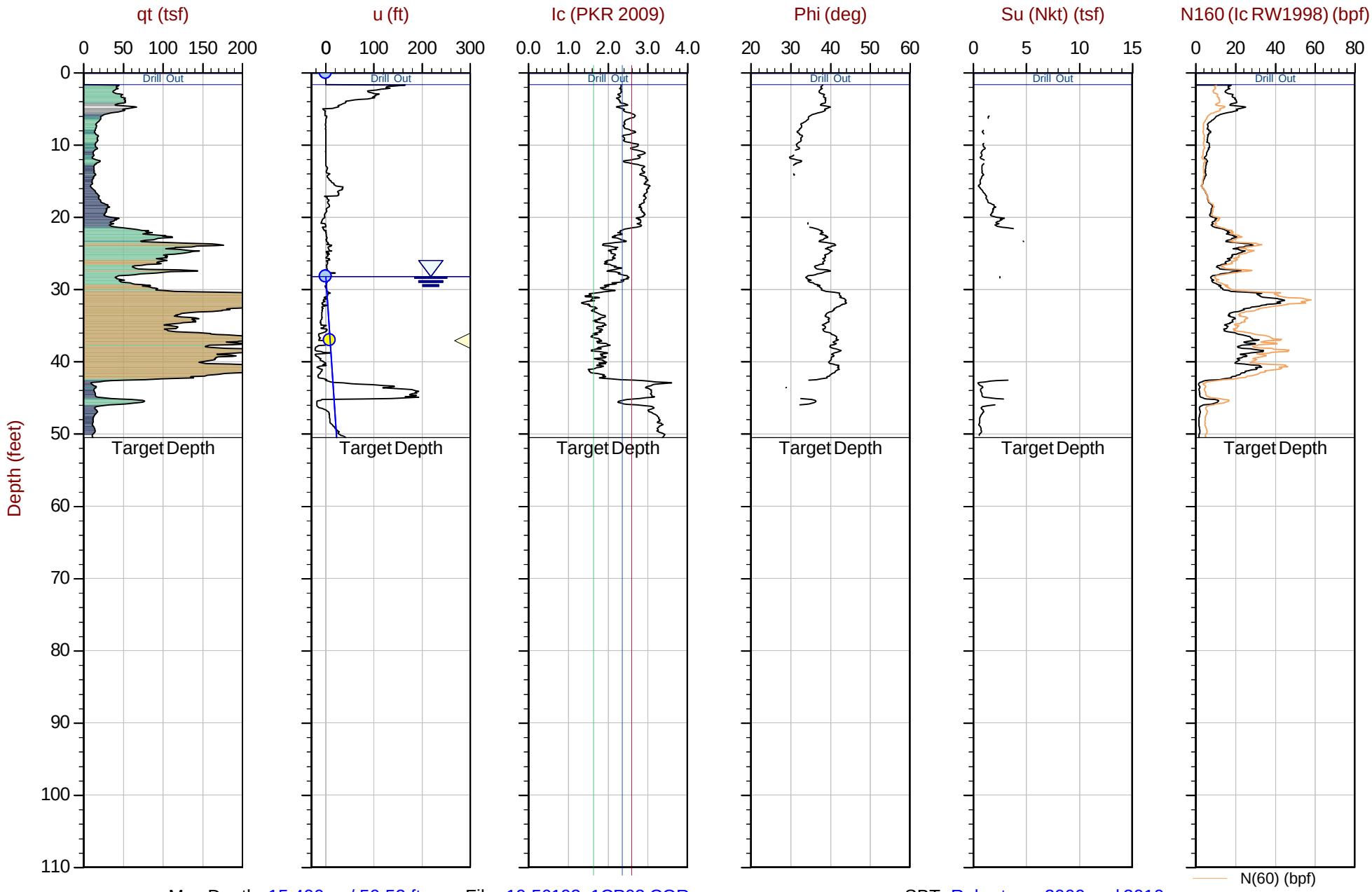
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

ENGEO

Job No: 19-56192
Date: 2019-12-19 10:39
Site: University Circle Phase II

Sounding: 1-CPT2
Cone: 367:T1500F15U500



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1CP02.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt: 15.0

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146080m E: 575810m

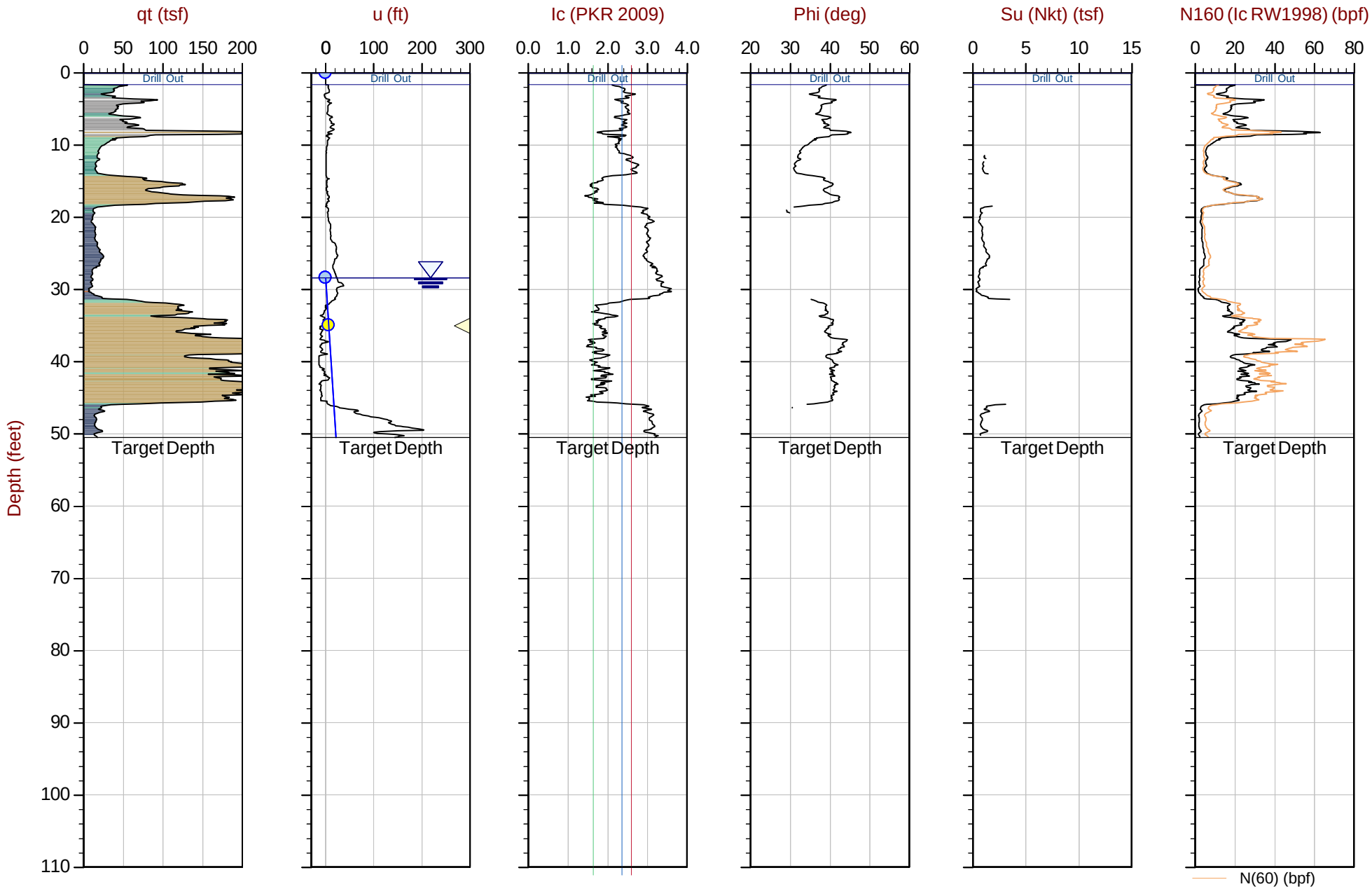
Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ENGEO

Job No: 19-56192
Date: 2019-12-19 07:36
Site: University Circle Phase II

Sounding: 1-CPT3
Cone: 367:T1500F15U500



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1CP03.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt: 15.0

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146119m E: 575897m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Soil Behavior Type (SBT) Scatter Plots

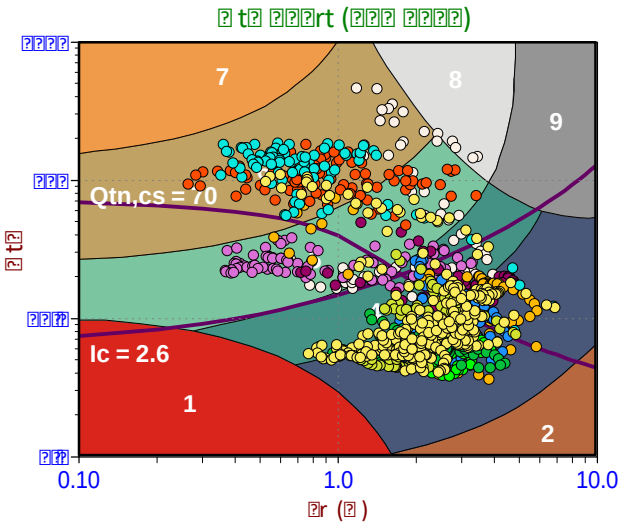
CONETEC

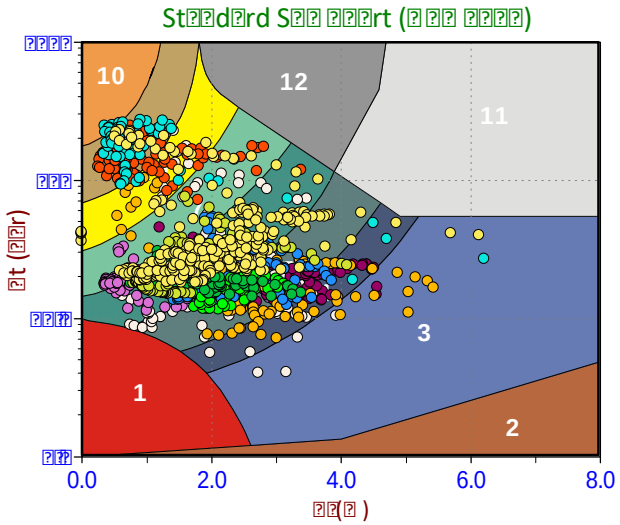
CONETEC

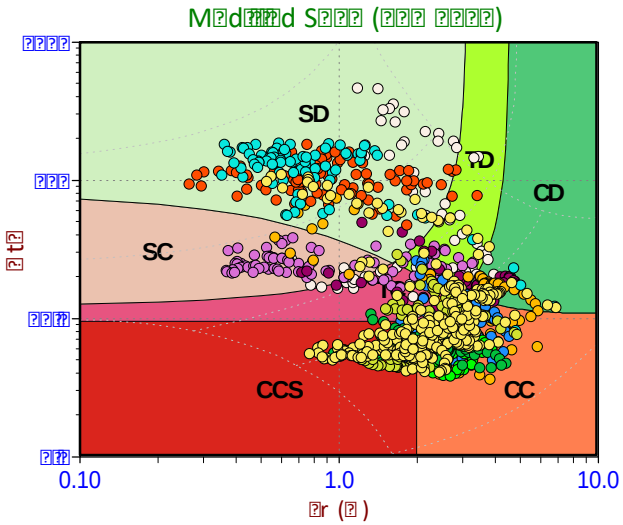
ENGEO

Job No: 19-56192
Date: 2019-12-19 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500







Depth Ranges

- >0.0 to 7.5 ft
- >7.5 to 15.0 ft
- >15.0 to 22.5 ft
- >22.5 to 30.0 ft
- >30.0 to 37.5 ft
- >37.5 to 45.0 ft
- >45.0 to 52.5 ft
- >52.5 to 60.0 ft
- >60.0 to 67.5 ft
- >67.5 to 75.0 ft
- >75.0 ft

Legend

- Sensitive, Fine Grained
- Organic Soils
- Clays
- Silt Mixtures
- Sand Mixtures
- Sands
- Gravelly Sand to Sand
- Stiff Sand to Clayey Sand
- Very Stiff Fine Grained

Legend

- Sensitive Fines
- Organic Soil
- Clay
- Silty Clay
- Clayey Silt
- Silt
- Sandy Silt
- Silty Sand/Sand
- Sand
- Gravelly Sand
- Stiff Fine Grained
- Cemented Sand

Legend

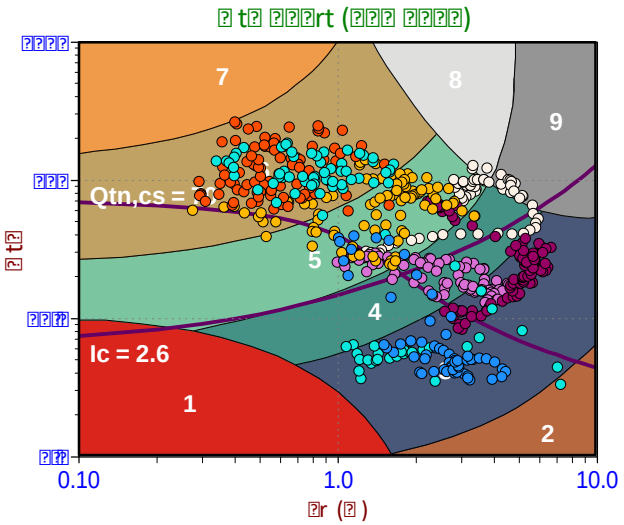
- CCS (Cont. sensitive clay like)
- CC (Cont. clay like)
- TC (Cont. transitional)
- SC (Cont. sand like)
- CD (Dil. clay like)
- TD (Dil. transitional)
- SD (Dil. sand like)

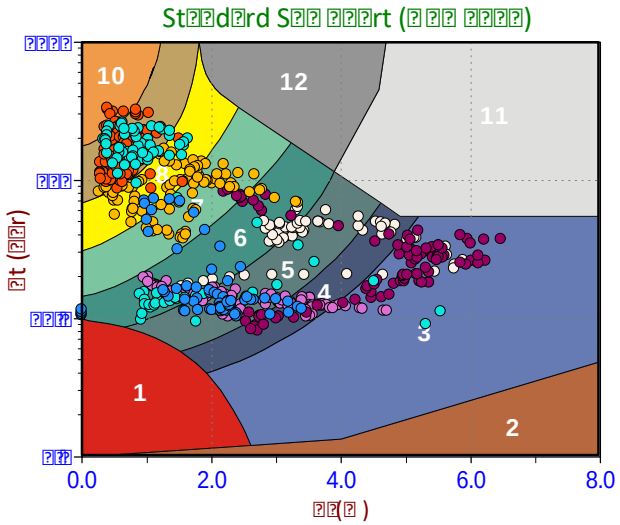
CONETEC

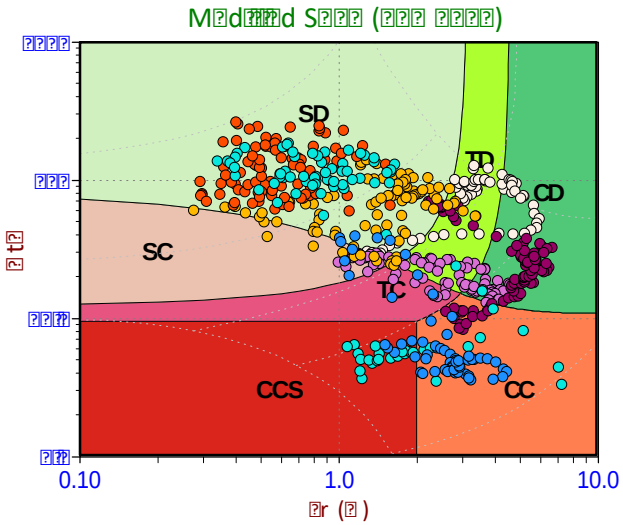
ENGEO

Job No: 19-56192
Date: 2019-12-19 10:39
Site: University Circle Phase II

Sounding: 1-CPT2
Cone: 367:T1500F15U500







Depth Ranges

- >0.0 to 7.5 ft
- >7.5 to 15.0 ft
- >15.0 to 22.5 ft
- >22.5 to 30.0 ft
- >30.0 to 37.5 ft
- >37.5 to 45.0 ft
- >45.0 to 52.5 ft
- >52.5 to 60.0 ft
- >60.0 to 67.5 ft
- >67.5 to 75.0 ft
- >75.0 ft

Legend

- Sensitive, Fine Grained
- Organic Soils
- Clays
- Silt Mixtures
- Sand Mixtures
- Sands
- Gravelly Sand to Sand
- Stiff Sand to Clayey Sand
- Very Stiff Fine Grained

Legend

- Sensitive Fines
- Organic Soil
- Clay
- Silty Clay
- Clayey Silt
- Silt
- Sandy Silt
- Silty Sand/Sand
- Sand
- Gravelly Sand
- Stiff Fine Grained
- Cemented Sand

Legend

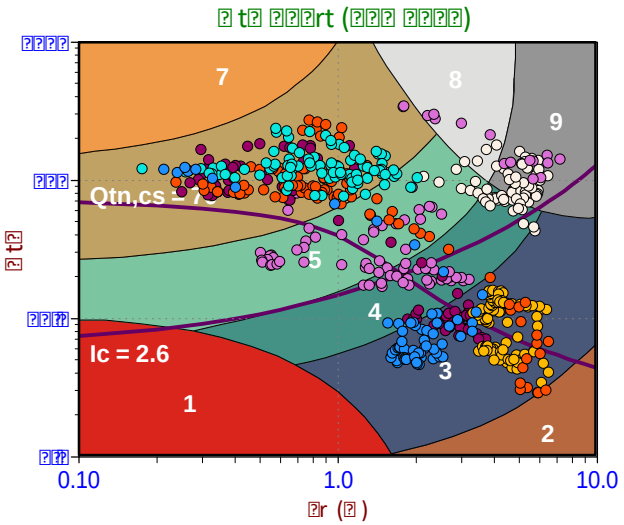
- CCS (Cont. sensitive clay like)
- CC (Cont. clay like)
- TC (Cont. transitional)
- SC (Cont. sand like)
- CD (Dil. clay like)
- TD (Dil. transitional)
- SD (Dil. sand like)

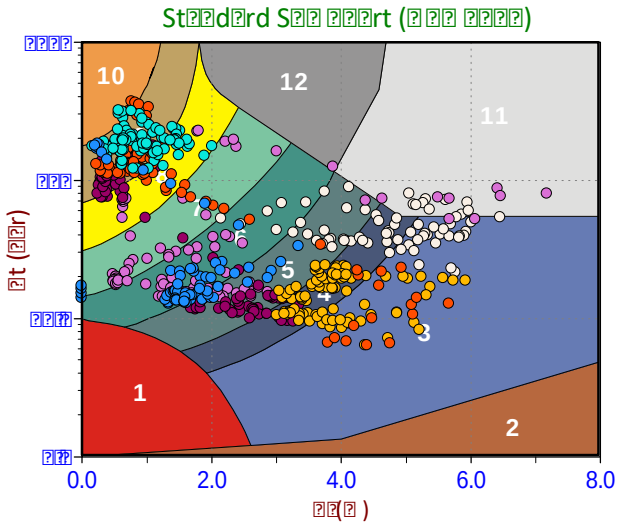
CONETEC

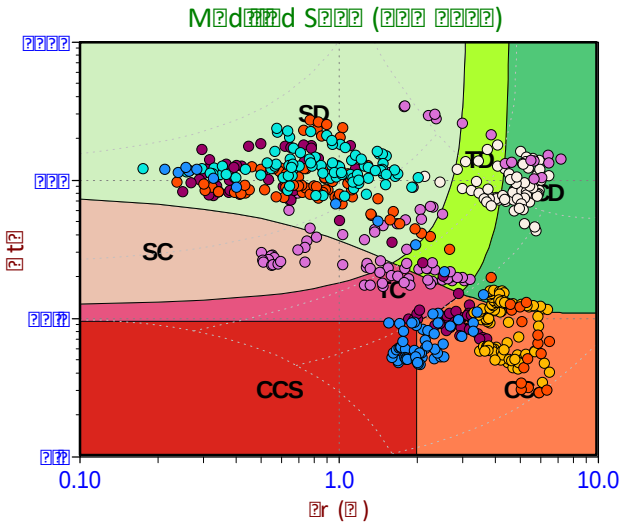
ENGEO

Job No: 19-56192
Date: 2019-12-19 07:36
Site: University Circle Phase II

Sounding: 1-CPT3
Cone: 367:T1500F15U500







Depth Ranges
- >0.0 to 7.5 ft
- >7.5 to 15.0 ft
- >15.0 to 22.5 ft
- >22.5 to 30.0 ft
- >30.0 to 37.5 ft
- >37.5 to 45.0 ft
- >45.0 to 52.5 ft
- >52.5 to 60.0 ft
- >60.0 to 67.5 ft
- >67.5 to 75.0 ft
- >75.0 ft

Legend
- Sensitive, Fine Grained
- Organic Soils
- Clays
- Silt Mixtures
- Sand Mixtures
- Sands
- Gravelly Sand to Sand
- Stiff Sand to Clayey Sand
- Very Stiff Fine Grained

Legend
- Sensitive Fines
- Organic Soil
- Clay
- Silty Clay
- Clayey Silt
- Silt
- Sandy Silt
- Silty Sand/Sand
- Sand
- Gravelly Sand
- Stiff Fine Grained
- Cemented Sand

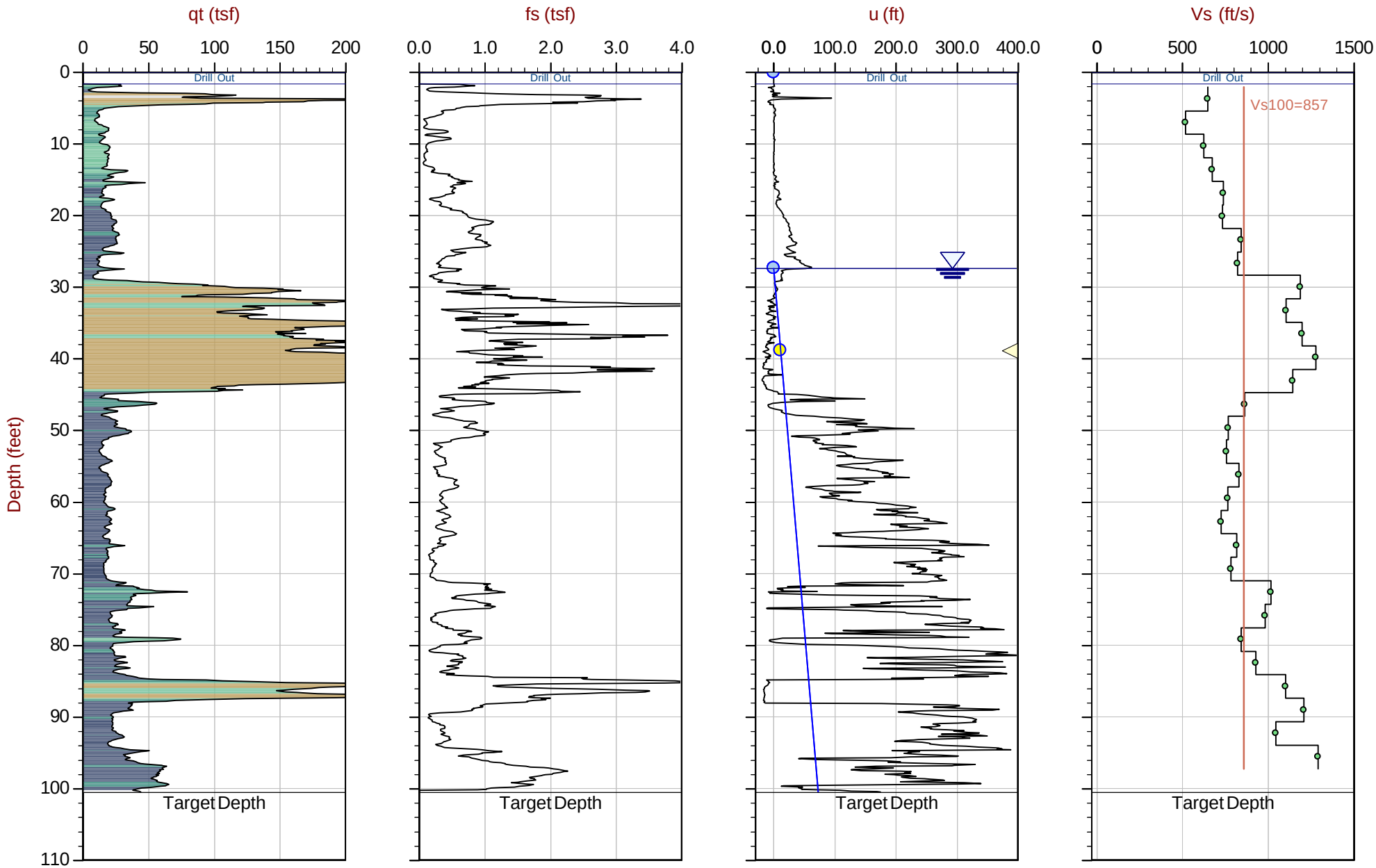
Legend
- CCS (Cont. sensitive clay like)
- CC (Cont. clay like)
- TC (Cont. transitional)
- SC (Cont. sand like)
- CD (Dil. clay like)
- TD (Dil. transitional)
- SD (Dil. sand like)

Seismic Cone Penetration Test Plots

ENGEO

Job No: 19-56192
Date: 2019-12-19 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500



Max Depth: 30.650 m / 100.56 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 19-56192_1SP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4146081m E: 575878m

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Seismic Cone Penetration Test Tabular Results

CONETEC

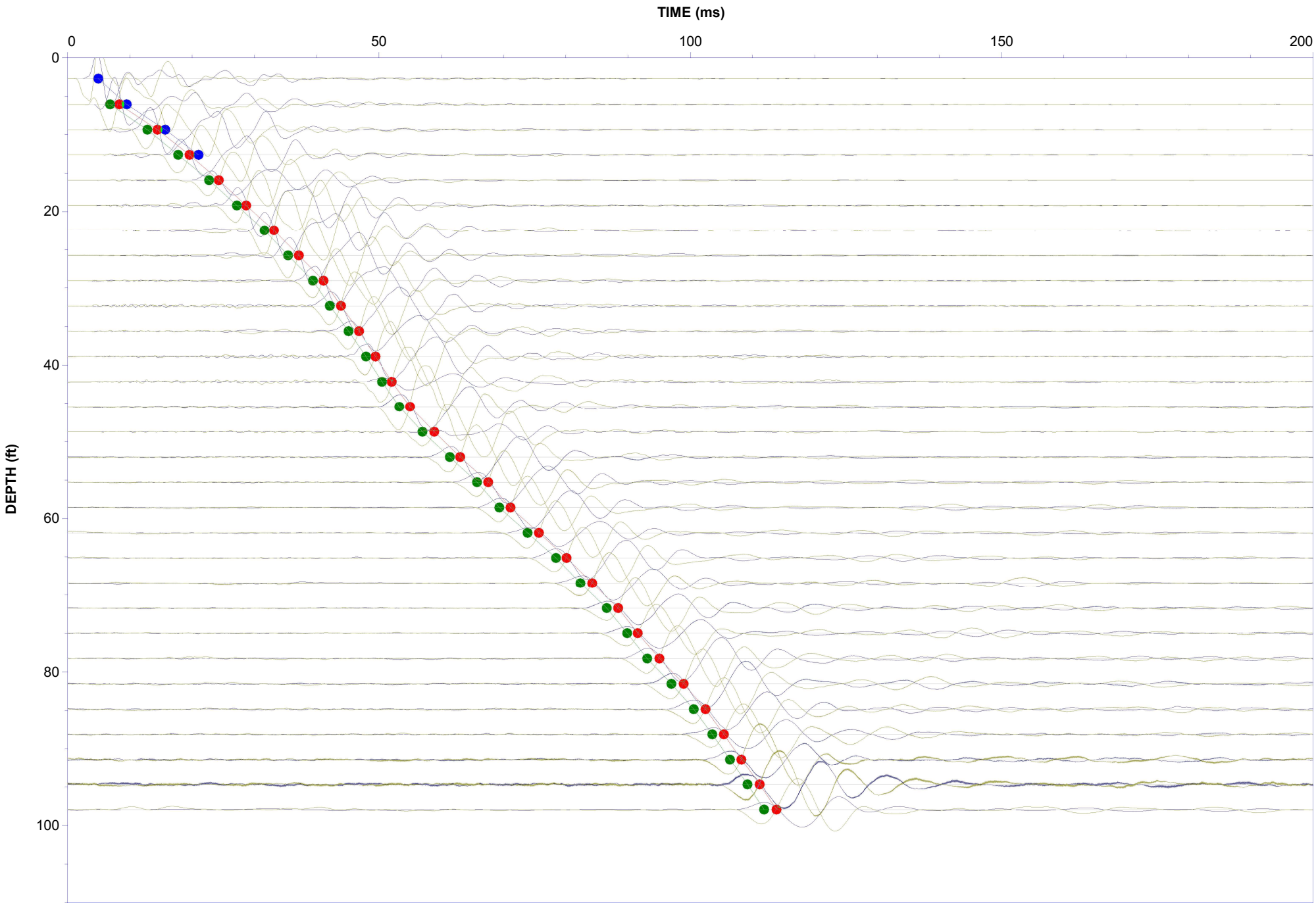
Job No:	19-56192
Client:	ENGEO
Project:	University Circle Phase II
Sounding ID:	1-SCPT1
Date:	19-Dec-2019
Seismic Source:	Beam
Source Offset (ft):	1.87
Source Depth (ft):	0.00
Geophone Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Geophone Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
2.72	2.07	2.79			
6.07	5.41	5.73	2.94	4.54	647
9.35	8.69	8.89	3.17	6.10	519
12.63	11.97	12.12	3.23	5.15	626
15.91	15.26	15.37	3.25	4.83	673
19.19	18.54	18.63	3.26	4.42	738
22.47	21.82	21.90	3.27	4.46	733
25.75	25.10	25.17	3.27	3.88	843
29.04	28.38	28.44	3.27	3.98	823
32.32	31.66	31.72	3.27	2.76	1188
35.60	34.94	34.99	3.28	2.96	1105
38.88	38.22	38.27	3.28	2.73	1198
42.16	41.50	41.54	3.28	2.56	1278
45.44	44.78	44.82	3.28	2.87	1143
48.72	48.06	48.10	3.28	3.80	863
52.00	51.35	51.38	3.28	4.27	767
55.28	54.63	54.66	3.28	4.34	756
58.56	57.91	57.94	3.28	3.95	830
61.84	61.19	61.22	3.28	4.28	766
65.12	64.47	64.50	3.28	4.51	727
68.41	67.75	67.78	3.28	4.02	816
71.69	71.03	71.05	3.28	4.19	783
74.97	74.31	74.33	3.28	3.23	1016
78.25	77.59	77.61	3.28	3.34	982
81.53	80.87	80.89	3.28	3.89	843
84.81	84.15	84.17	3.28	3.54	928
88.09	87.43	87.45	3.28	2.97	1103
91.37	90.72	90.73	3.28	2.71	1209
94.65	94.00	94.01	3.28	3.14	1044
97.93	97.28	97.29	3.28	2.54	1291

Seismic Cone Penetration Test Shear Wave (Vs) Traces

Job No: 19-56192 Client: ENGEO Project Title: University Circle Phase II Filter: BP 0-200 Hz Hole: 1-SCPT1 Date: 12:19:19 08:30
Cone: 367:T1500F15U500



Pore Pressure Dissipation Summary and Pore Pressure Dissipation Plots

Job No:	19-56192
Client:	ENGEO Incorporated
Project:	University Circle Phase II
Start Date:	19-Dec-2019
End Date:	19-Dec-2019

CPTu PORE PRESSURE DISSIPATION SUMMARY

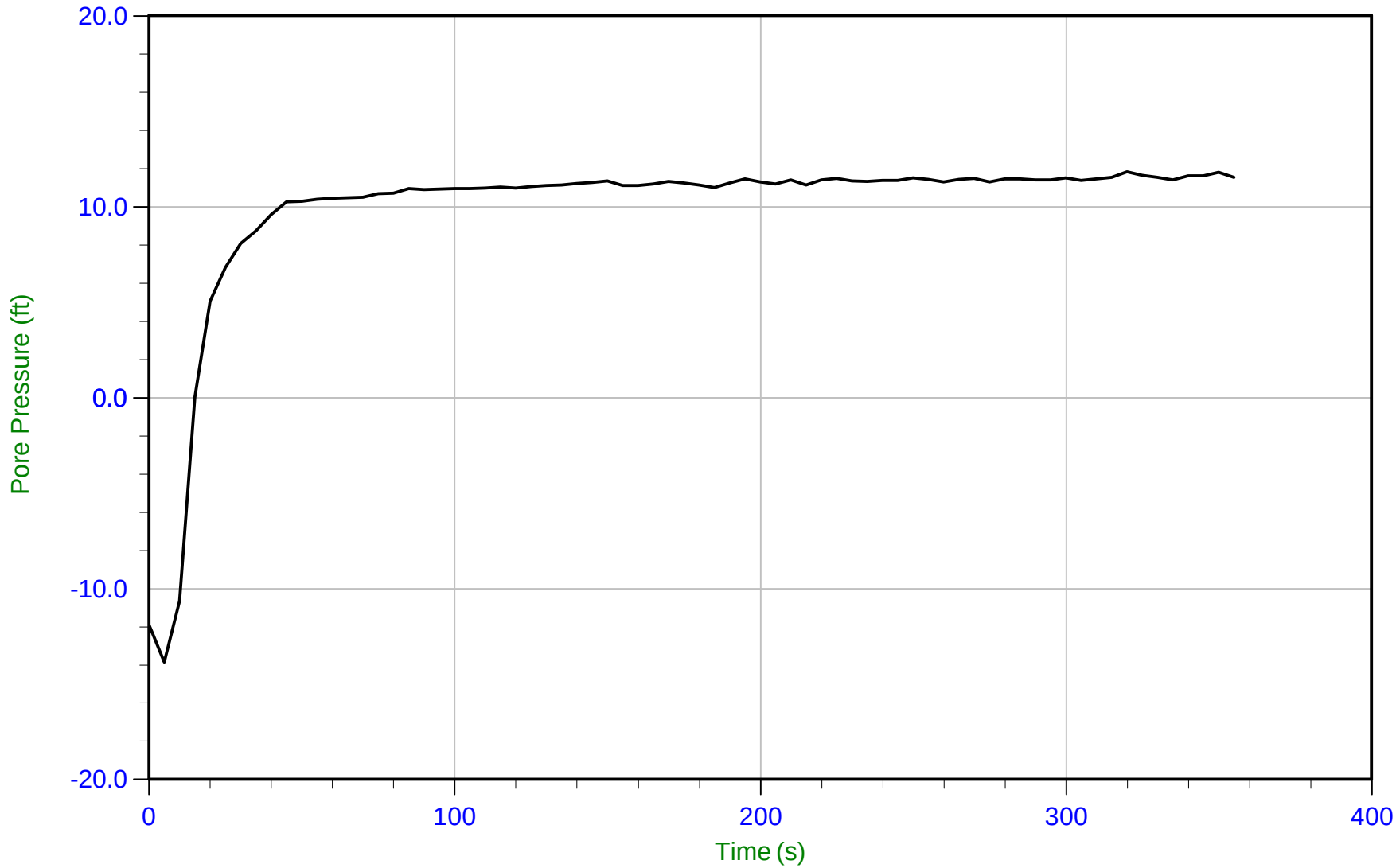
Sounding ID	File Name	Cone Area (cm^2)	Duration (s)	Test Depth (ft)	Estimated Equilibrium Pore Pressure U_{eq} (ft)	Calculated Phreatic Surface (ft)
1-SCPT1	19-56192_SP01	15	355	38.88	11.5	27.4
1-CPT2	19-56192_CP02	15	300	37.07	8.9	28.2
1-CPT3	19-56192_CP03	15	325	35.02	6.6	28.4

CONETEC

ENGEO

Job No: 19-56192
Date: 12/19/2019 08:30
Site: University Circle Phase II

Sounding: 1-SCPT1
Cone: 367:T1500F15U500 Area=15 cm²



Trace Summary:

Filename: 19-56192_SP01.PPF
Depth: 11.850 m / 38.877 ft
Duration: 355.0 s

u Min: -13.8 ft
u Max: 11.8 ft
u Final: 11.5 ft

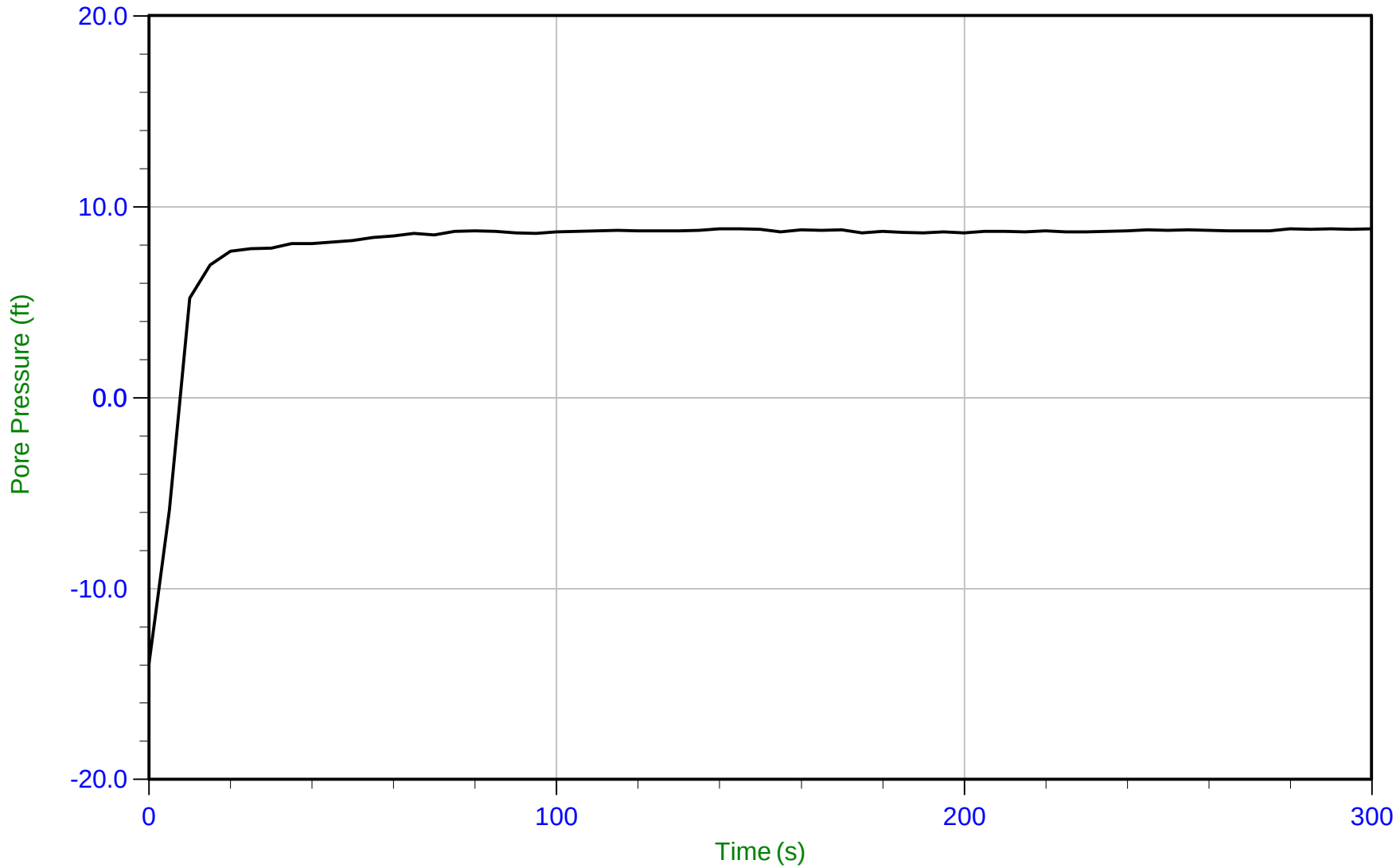
WT: 8.343 m / 27.370 ft
Ueq: 11.5 ft

CONETEC

ENGEO

Job No: 19-56192
Date: 12/19/2019 10:39
Site: University Circle Phase II

Sounding: 1-CPT2
Cone: 367:T1500F15U500 Area=15 cm²



Trace Summary:

Filename: 19-56192_CP02.PPF
Depth: 11.300 m / 37.073 ft
Duration: 300.0 s

u Min: -13.9 ft
u Max: 8.9 ft
u Final: 8.9 ft

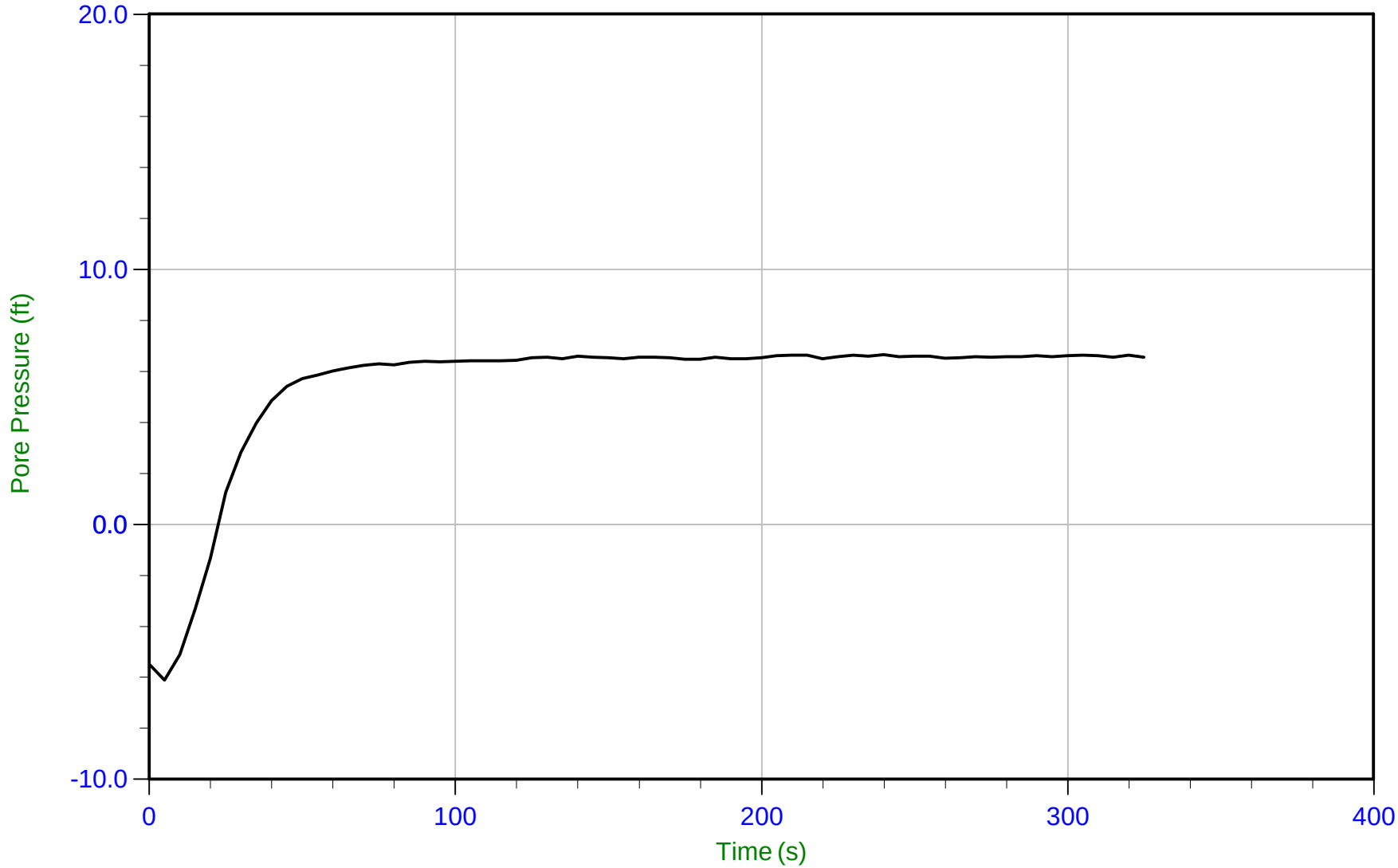
WT: 8.601 m / 28.220 ft
Ueq: 8.9 ft

CONETEC

ENGEO

Job No: 19-56192
Date: 12/19/2019 07:36
Site: University Circle Phase II

Sounding: 1-CPT3
Cone: 367:T1500F15U500 Area=15 cm²



Trace Summary:

Filename: 19-56192_CP03.PPF
Depth: 10.675 m / 35.023 ft
Duration: 325.0 s

u Min: -6.1 ft
u Max: 6.7 ft
u Final: 6.6 ft

WT: 8.664 m / 28.424 ft
Ueq: 6.6 ft

APPENDIX D

HORIZONTAL-VERTICAL SPECTRAL RATIO TEST RESULTS

ENGEO Expect Excellence	HORIZONTAL-TO-VERTICAL SPECTRAL RATIO (HVSR) TEST RESULTS	HVSR ID. 1-HV1

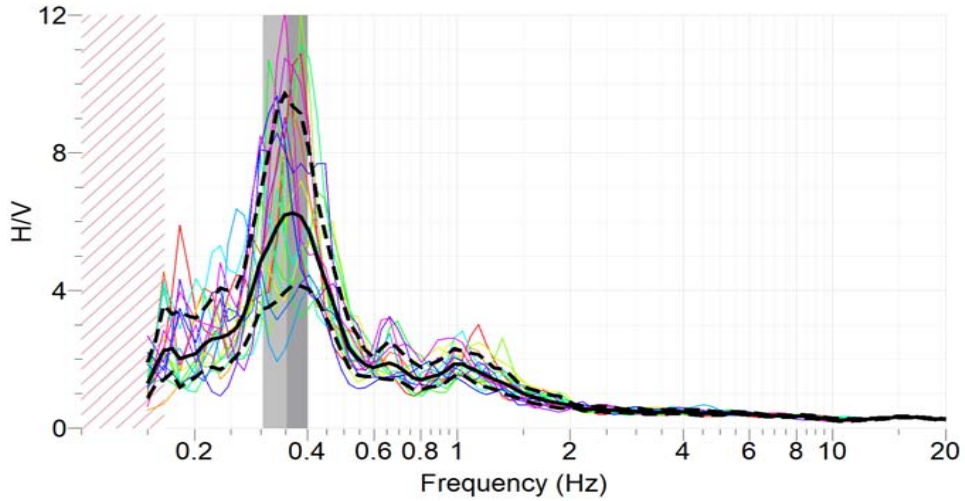
Project Name:	University Circle	Project No.:	16889.000.000
Project Location:	East Palo Alto, California		
Latitude:	37.45847	Longitude:	-122.14198
Tested by:	D. Teague	Test Date:	December 13, 2019
Start Time (PST):	9:38 AM	End Time (PST)	10:08 AM

Inferred Resonant Frequency, f_0 (Hz): **0.352**

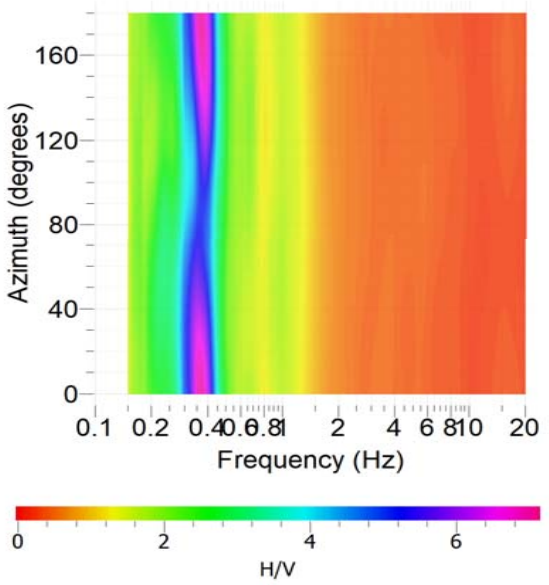
Standard Deviation, σ_{f0} (Hz): **0.048**

Site Period (s) 2.840909091

Horizontal-to-Vertical Spectral Ratios:



Horizontal-to-Vertical Spectral Ratio Directionality:



ENGEO Expect Excellence	HORIZONTAL-TO-VERTICAL SPECTRAL RATIO (HVSR) TEST RESULTS	HVSR ID. 1-HV2

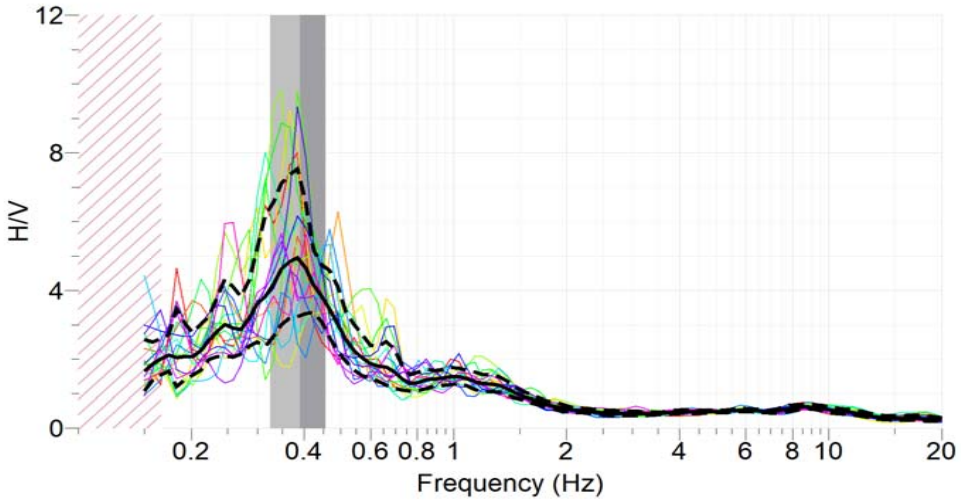
Project Name:	University Circle	Project No.:	16889.000.000
Project Location:	East Palo Alto, California		
Latitude:	37.45851	Longitude:	-122.14281
Tested by:	D. Teague	Test Date:	December 13, 2019
Start Time (PST):	10:15 AM	End Time (PST)	10:55 AM

Inferred Resonant Frequency, f_0 (Hz): **0.390**

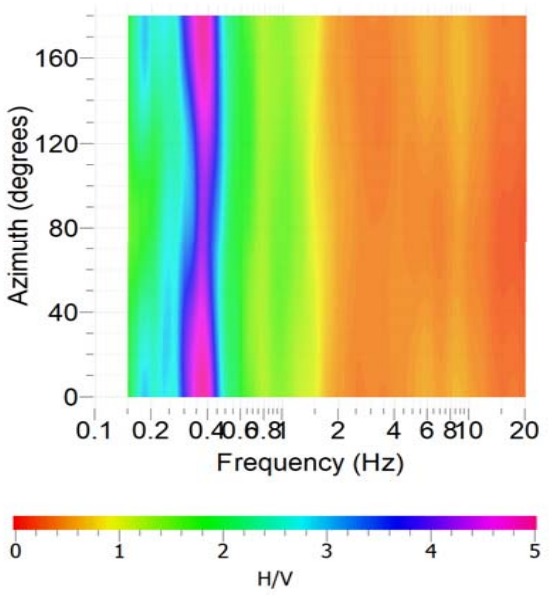
Standard Deviation, σ_{f0} (Hz): **0.065**

Site Period (s) 2.564102564

Horizontal-to-Vertical Spectral Ratios:



Horizontal-to-Vertical Spectral Ratio Directionality:

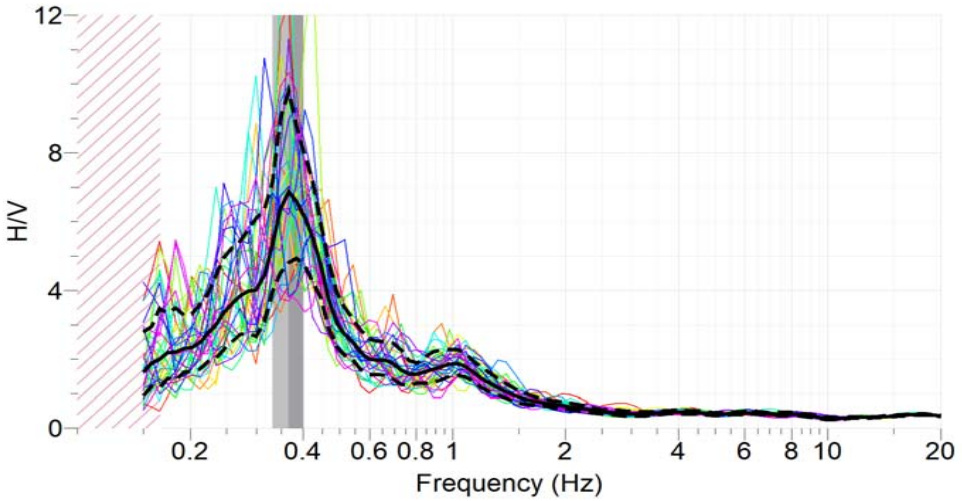


ENGEO Expect Excellence	HORIZONTAL-TO-VERTICAL SPECTRAL RATIO (HVSR) TEST RESULTS	HVSR ID. 1-HV3

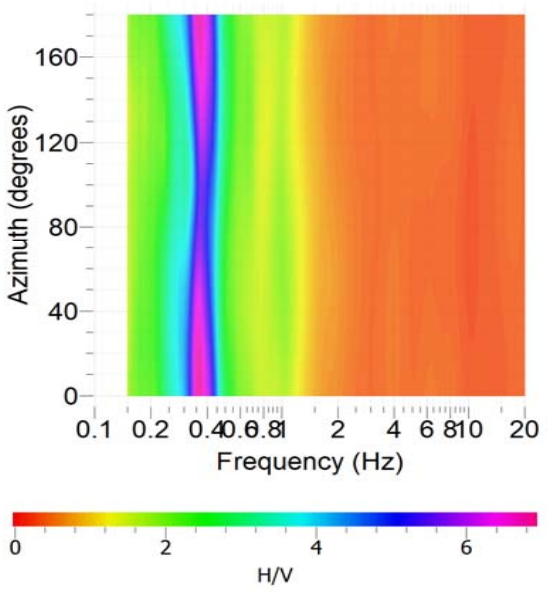
Project Name:	University Circle	Project No.:	16889.000.000
Project Location:	East Palo Alto, California		
Latitude:	37.45878	Longitude:	-122.14174
Tested by:	D. Teague	Test Date:	December 13, 2019
Start Time (PST):	8:35 AM	End Time (PST)	9:15 AM

Inferred Resonant Frequency, f_0 (Hz):	**0.366**	**Standard Deviation, σ_{f0} (Hz):**	**0.035**
Site Period (s)	2.732240437		

Horizontal-to-Vertical Spectral Ratios:



Horizontal-to-Vertical Spectral Ratio Directionality:



APPENDIX E

LIQUEFACTION ANALYSIS

ENGEO
2010 Crow Canyon Place, Suite 250
San Ramon
http://www.engeo.com

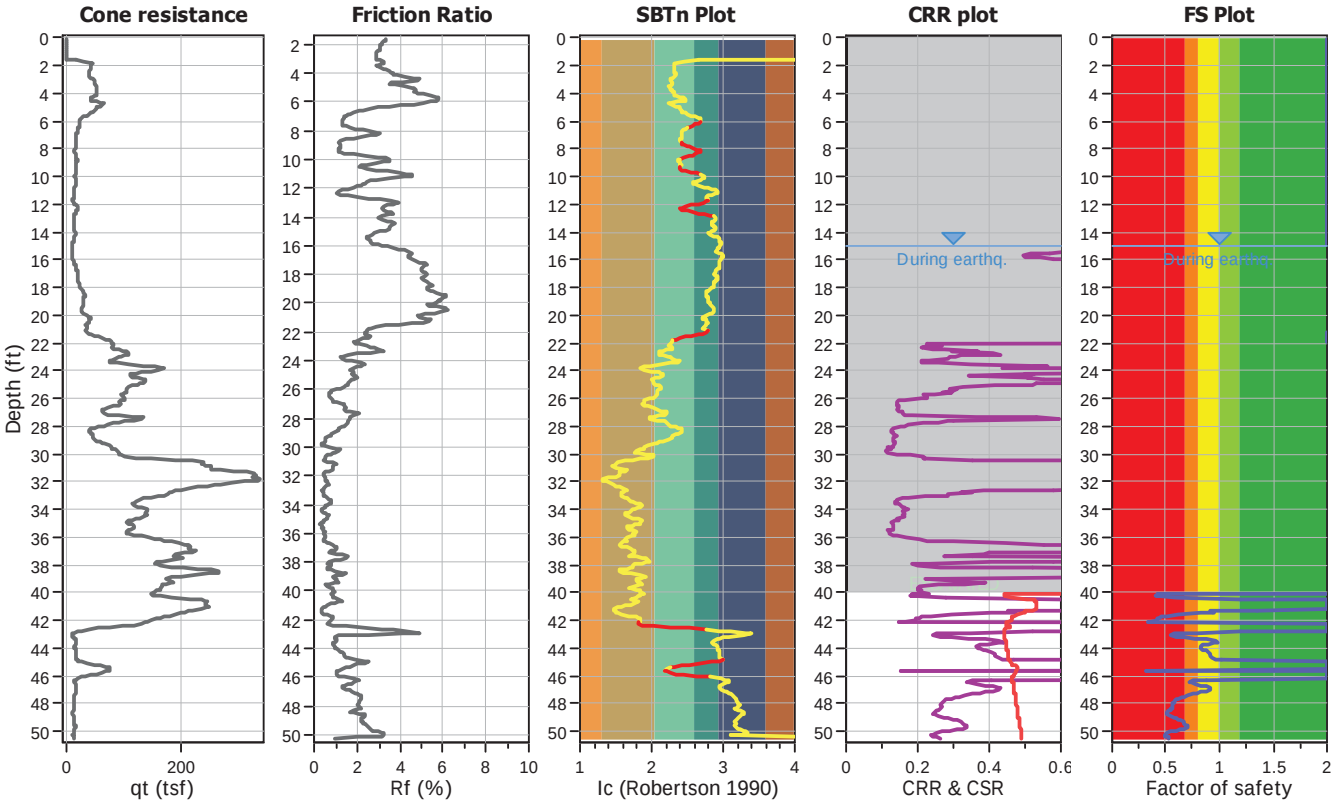
LIQUEFACTION ANALYSIS REPORT

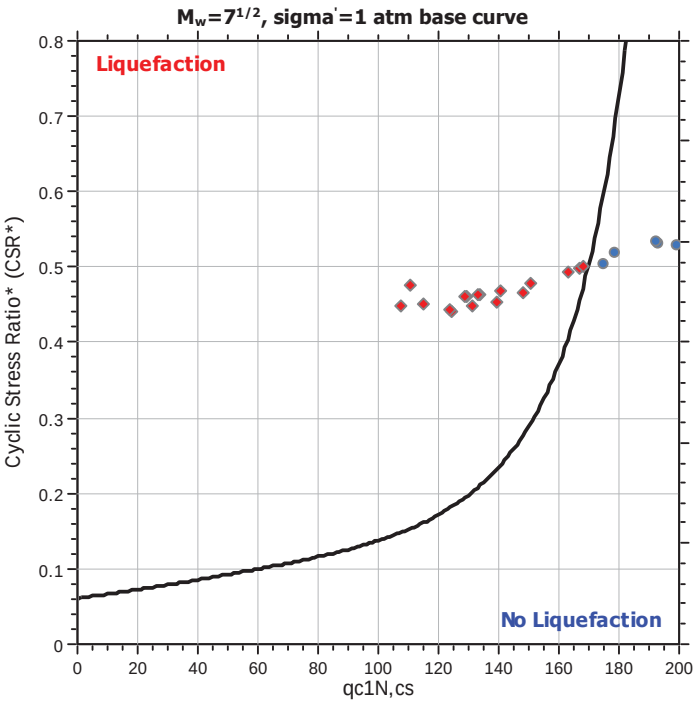
Project title : University Circle **Location : 1950 University Circle, East Palo Alto**

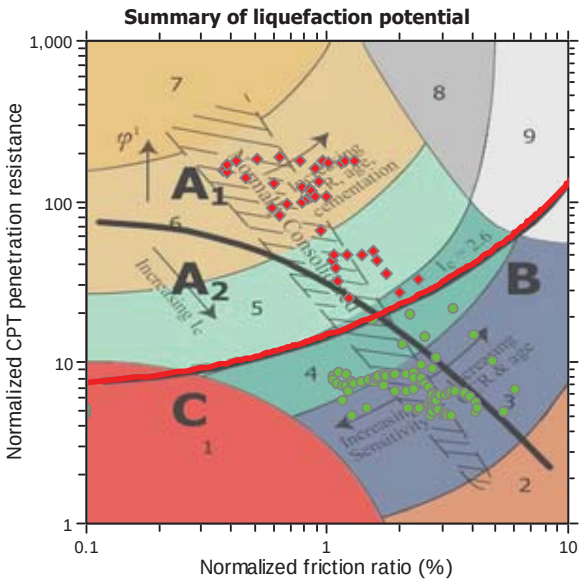
CPT file : 1-CPT2

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	15.00 ft	Excavation:	Yes	Clay like behavior applied:	Sand & Clay
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	15.00 ft	Excavation depth:	40.00 ft	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Footing load:	1.50 tsf	Limit depth:	N/A
Earthquake magnitude M_w:	8.10	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method
Peak ground acceleration:	0.62	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

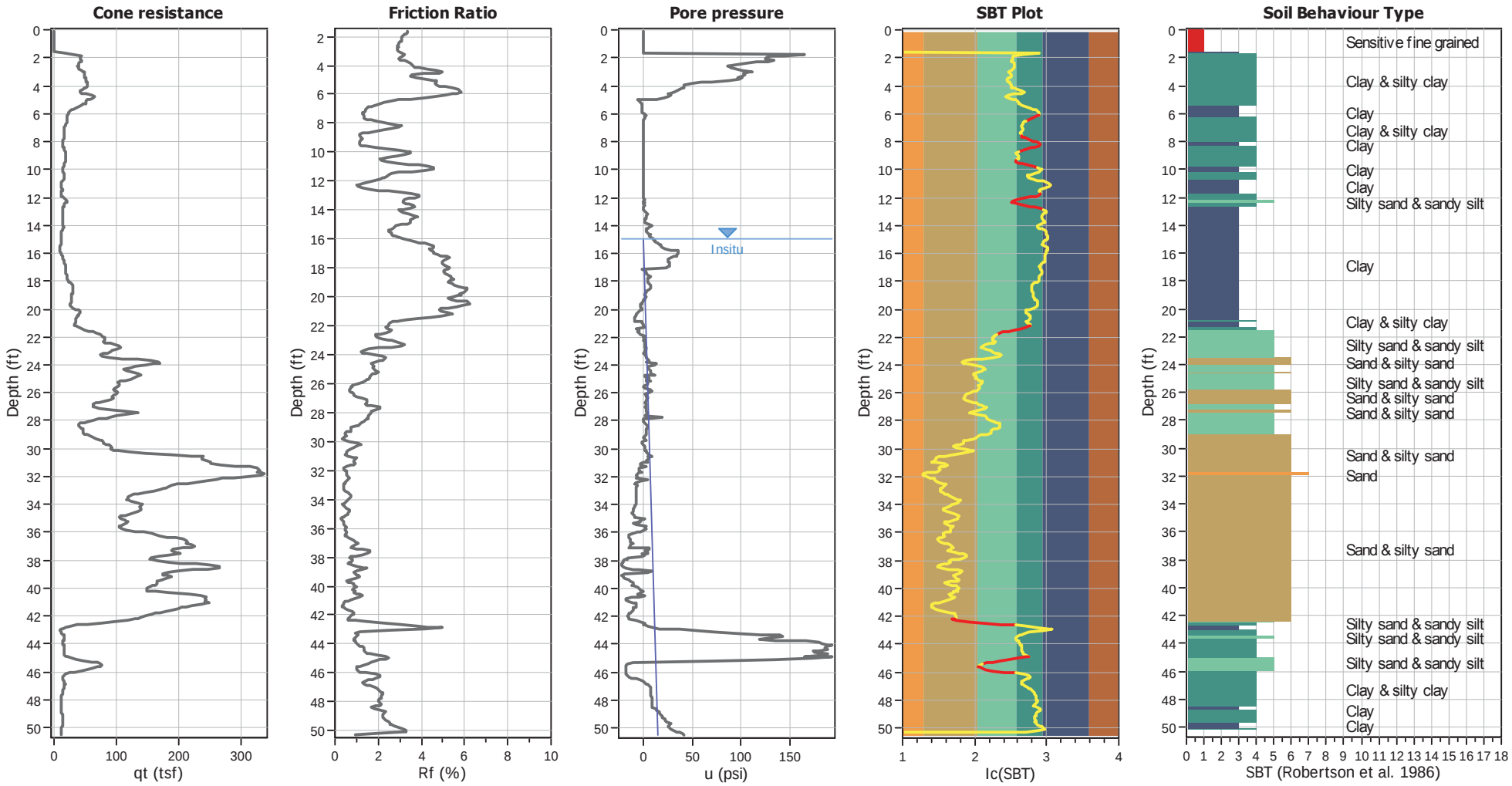






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



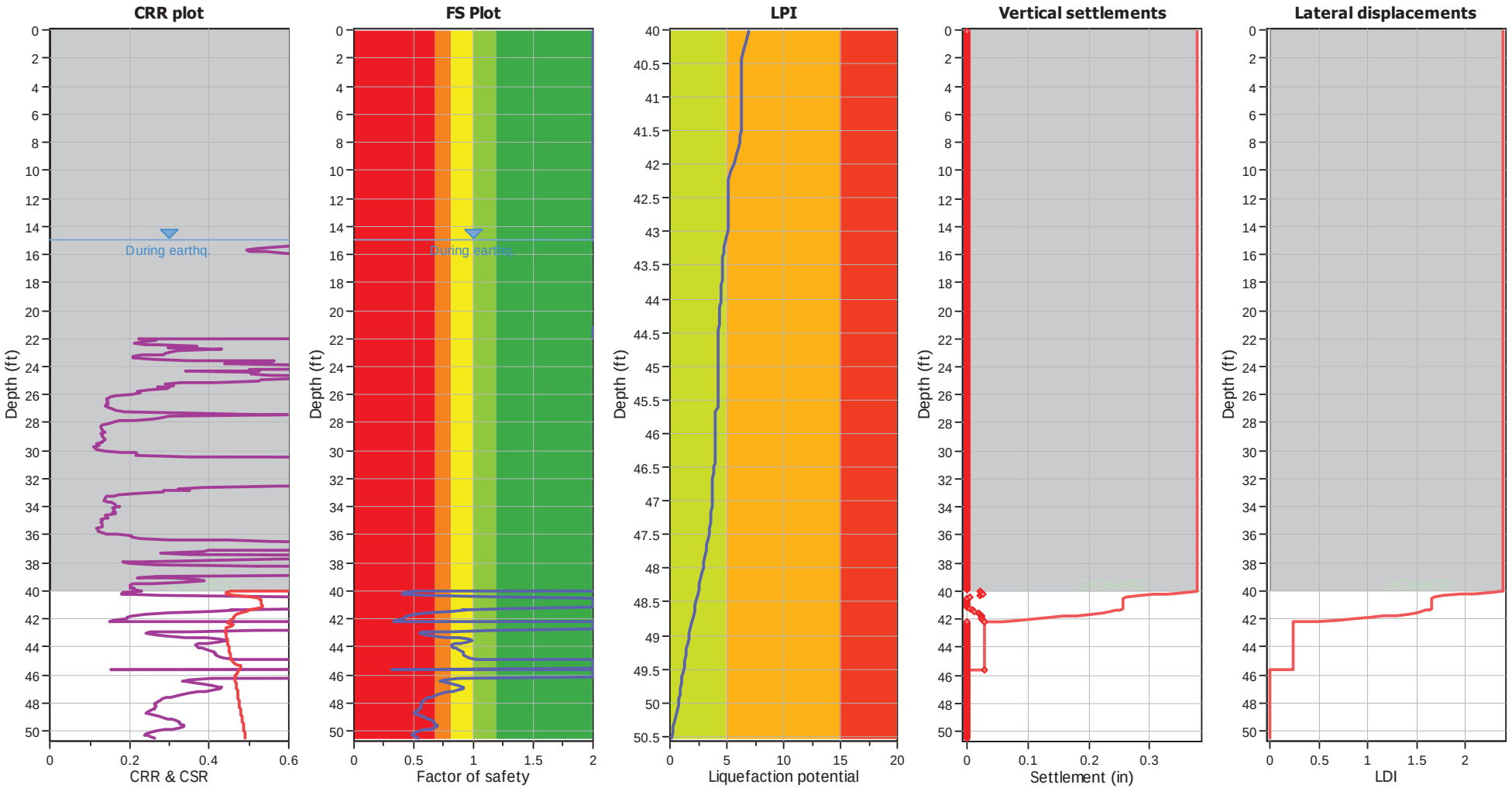
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Footing load:	1.50 tsf
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	8.10	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.62	Excavation:	Yes	Limit depth applied:	No
Depth to water table (insitu):	15.00 ft	Excavation depth:	40.00 ft	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Footing load:	1.50 tsf
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	8.10	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.62	Excavation:	Yes	Limit depth applied:	No
Depth to water table (insitu):	15.00 ft	Excavation depth:	40.00 ft	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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2010 Crow Canyon Place, Suite 250
San Ramon
http://www.engeo.com

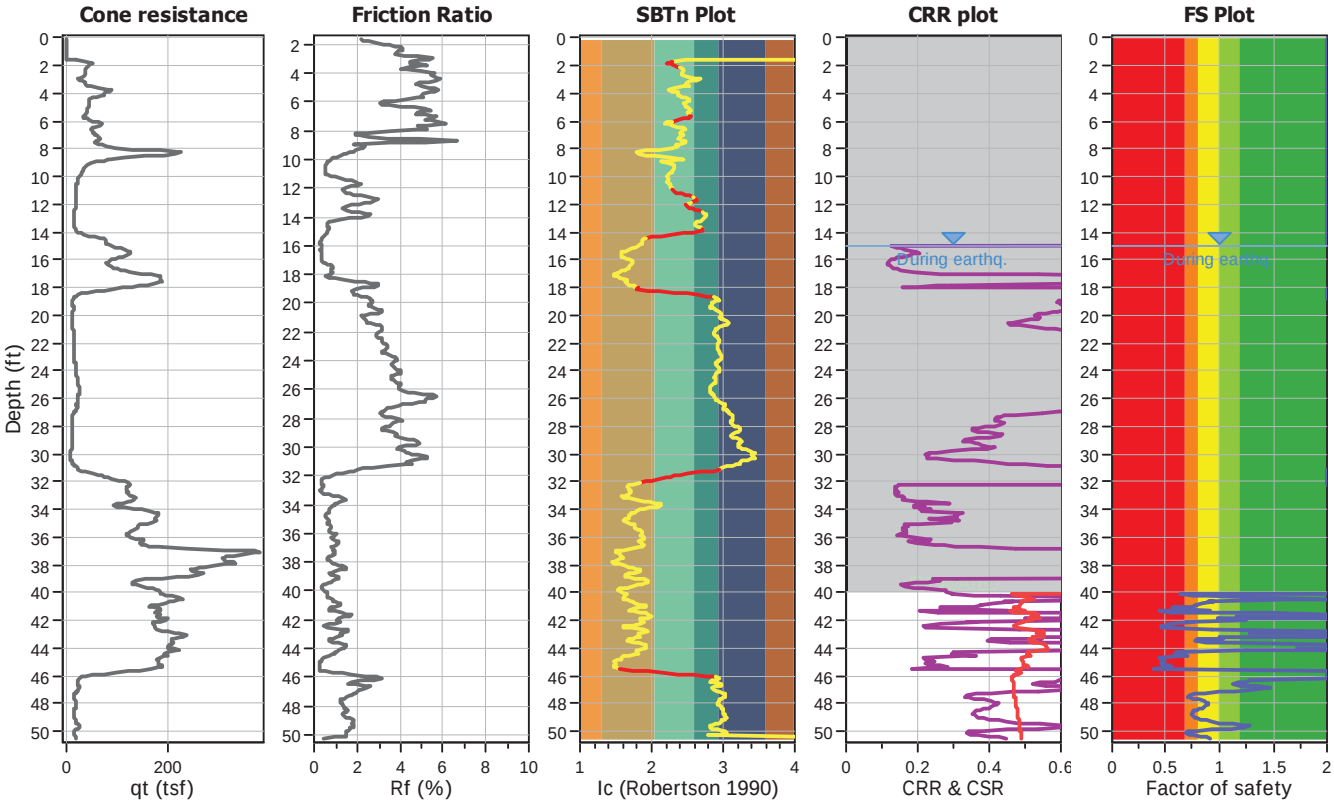
LIQUEFACTION ANALYSIS REPORT

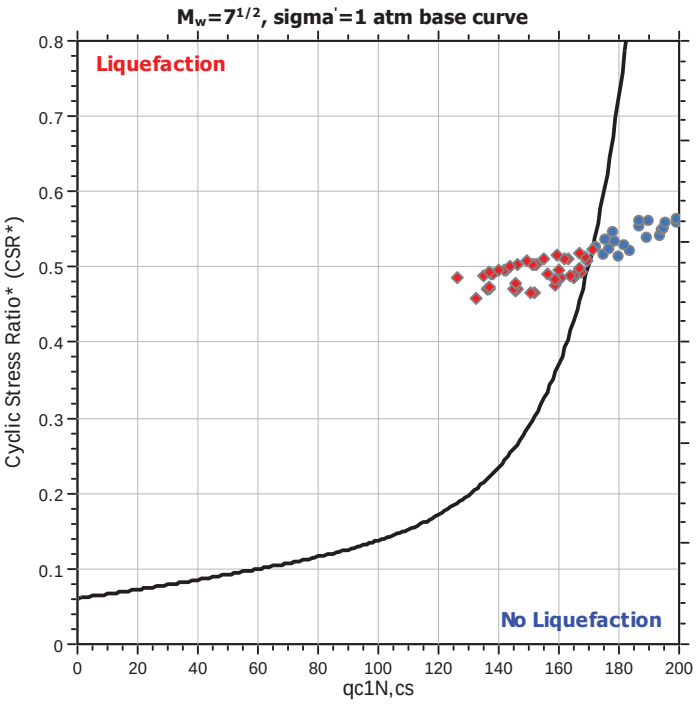
Project title : University Circle **Location : 1950 University Circle, East Palo Alto**

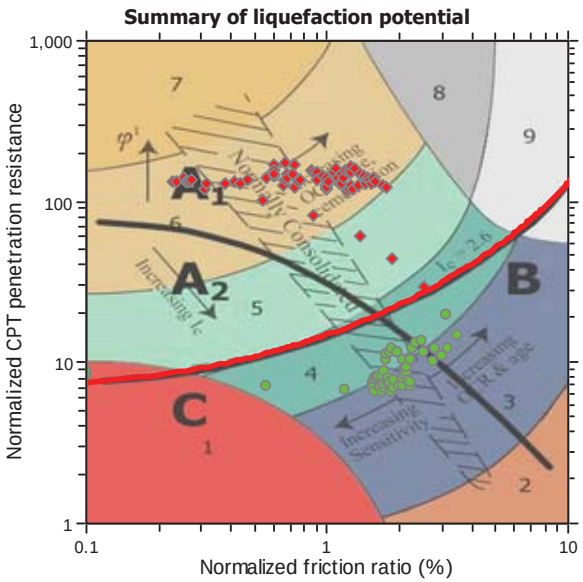
CPT file : 1-CPT3

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	15.00 ft	Excavation:	Yes	Clay like behavior applied:	Sand & Clay
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	15.00 ft	Excavation depth:	40.00 ft	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Footing load:	1.50 tsf	Limit depth:	N/A
Earthquake magnitude M_w:	8.10	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method
Peak ground acceleration:	0.62	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

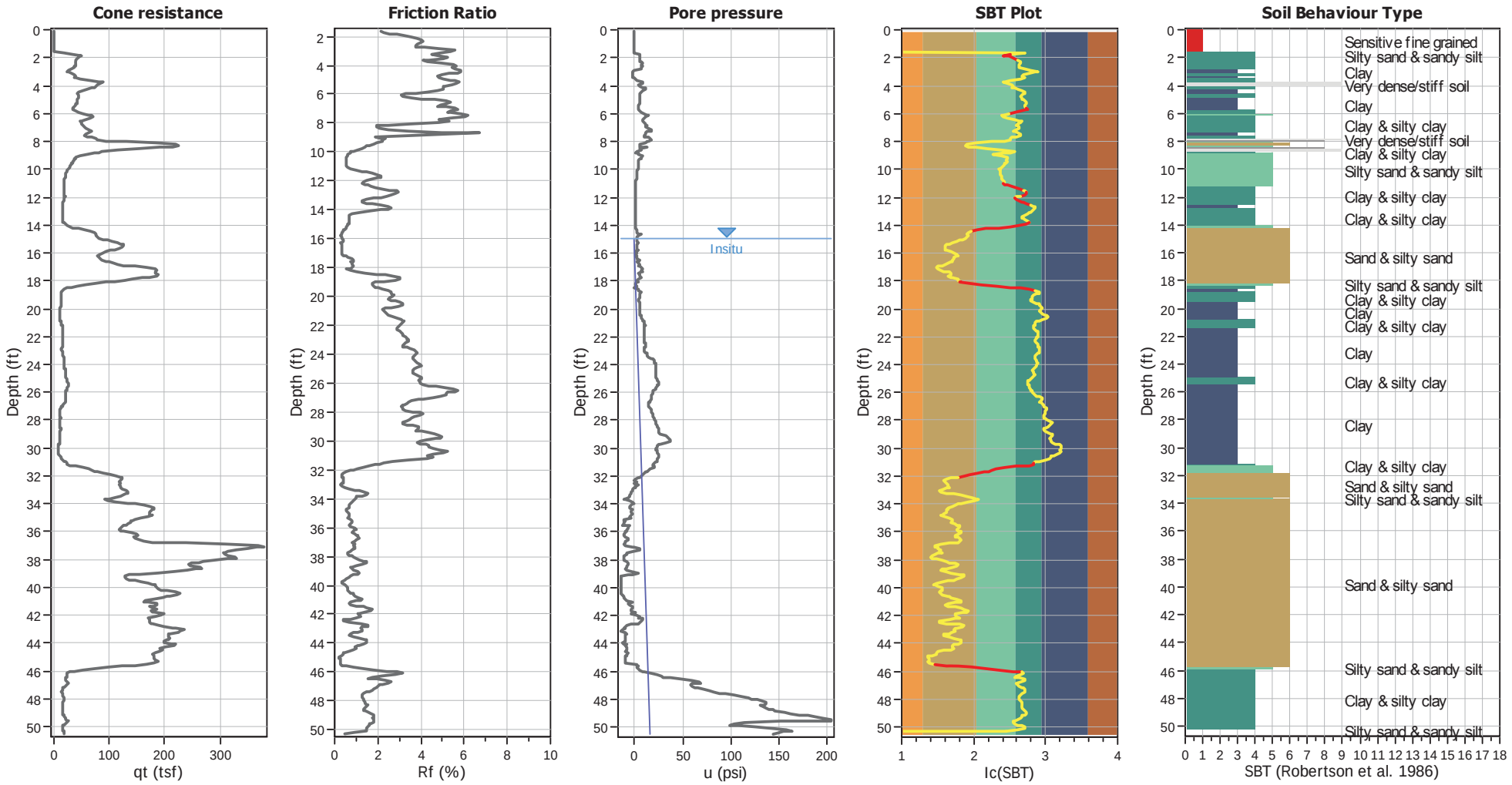






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



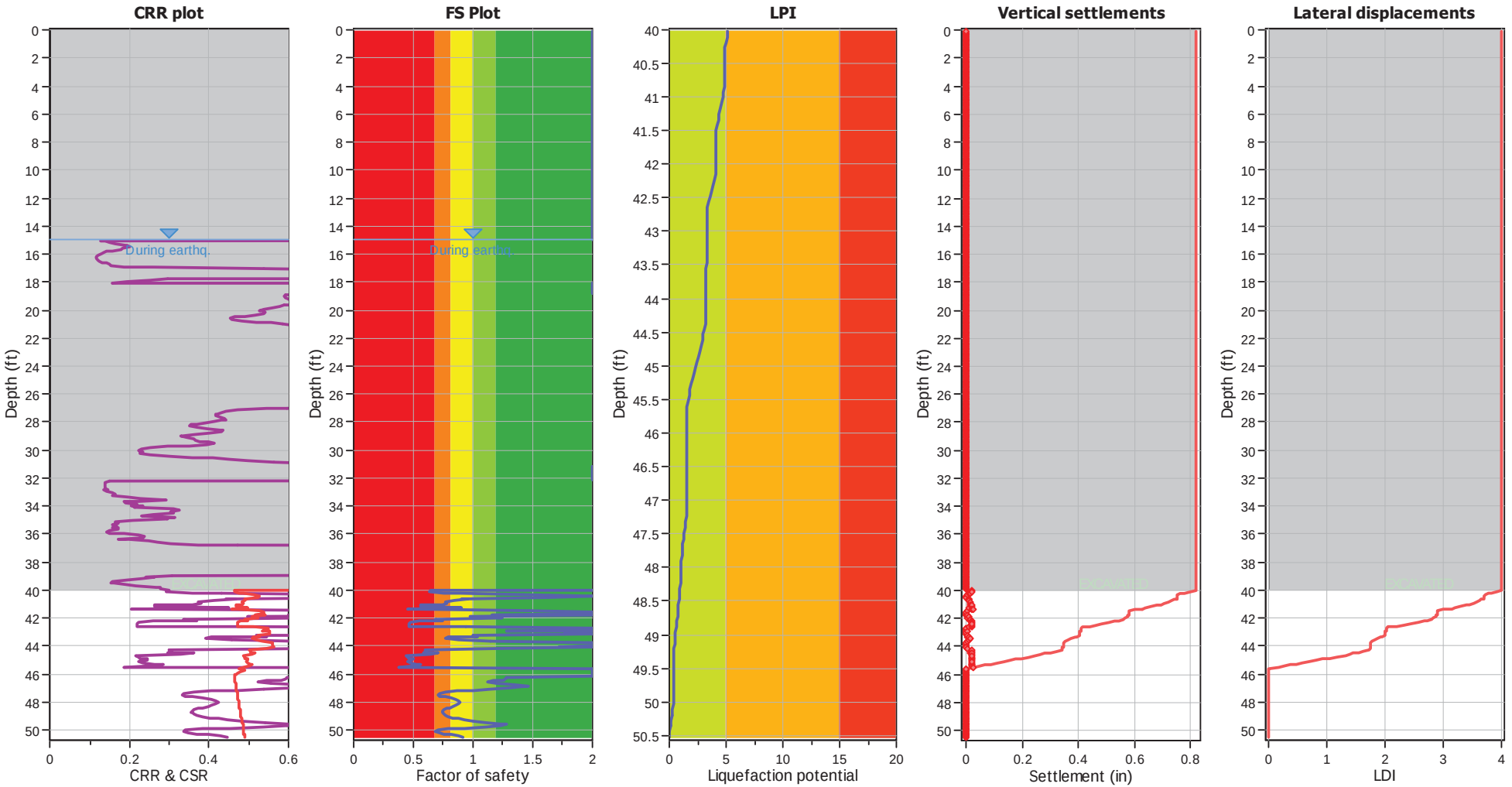
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Footing load:	1.50 tsf
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	8.10	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.62	Excavation:	Yes	Limit depth applied:	No
Depth to water table (insitu):	15.00 ft	Excavation depth:	40.00 ft	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Footing load:	1.50 tsf
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	8.10	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.62	Excavation:	Yes	Limit depth applied:	No
Depth to water table (insitu):	15.00 ft	Excavation depth:	40.00 ft	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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San Ramon
http://www.engeo.com

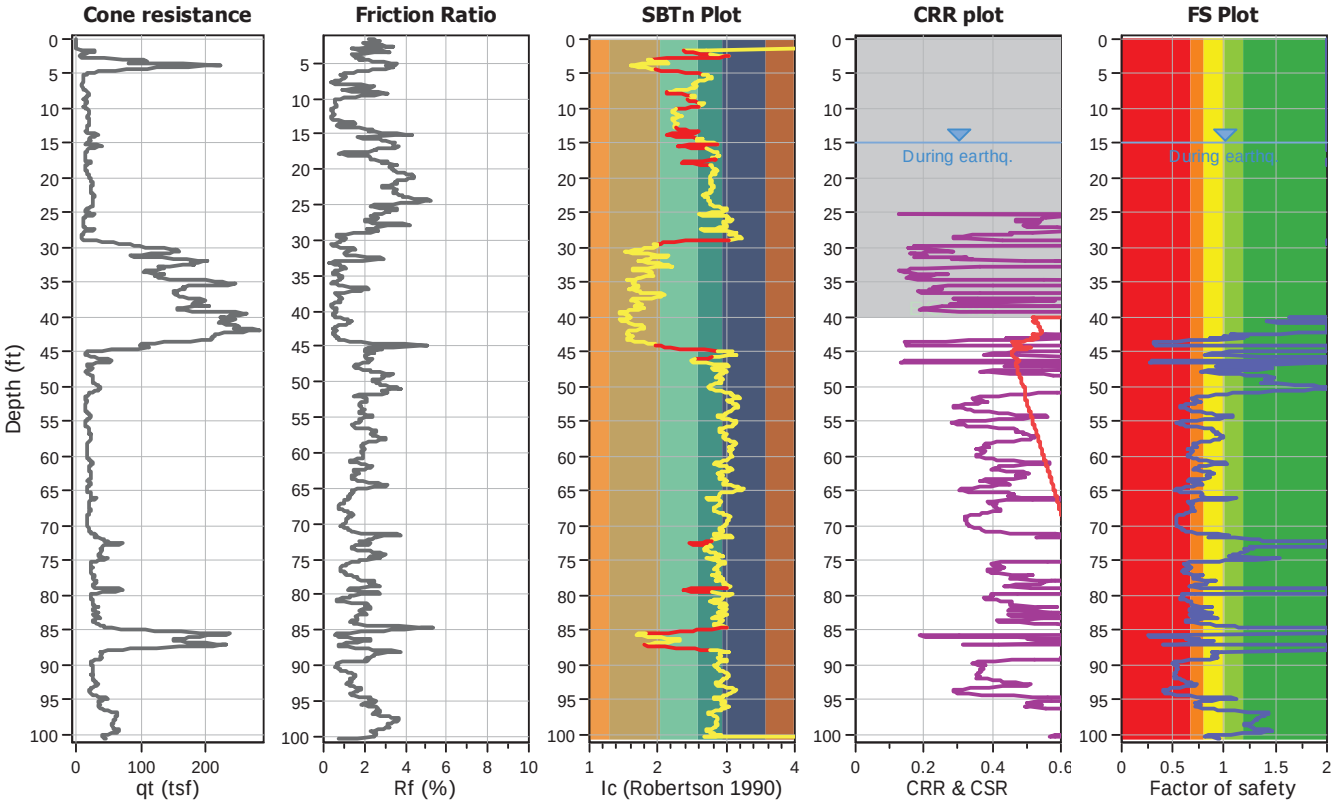
LIQUEFACTION ANALYSIS REPORT

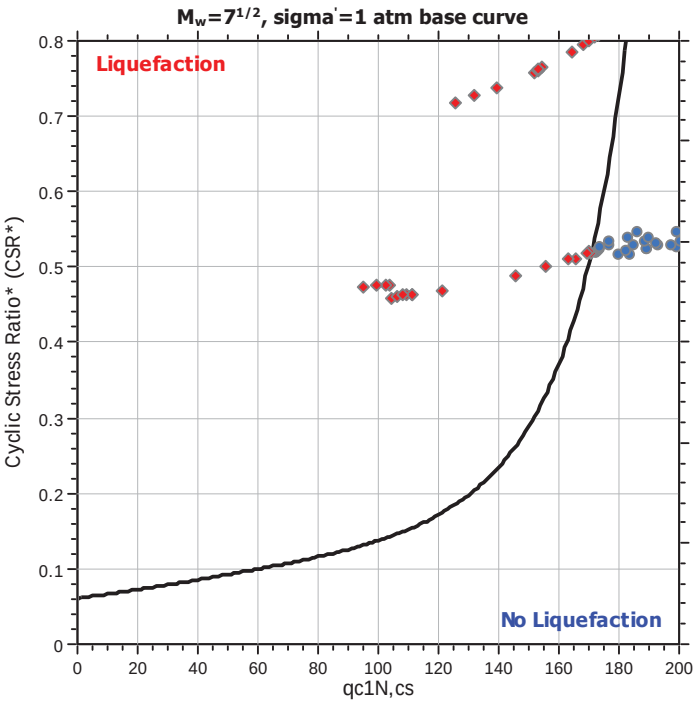
Project title : University Circle **Location : 1950 University Circle, East Palo Alto**

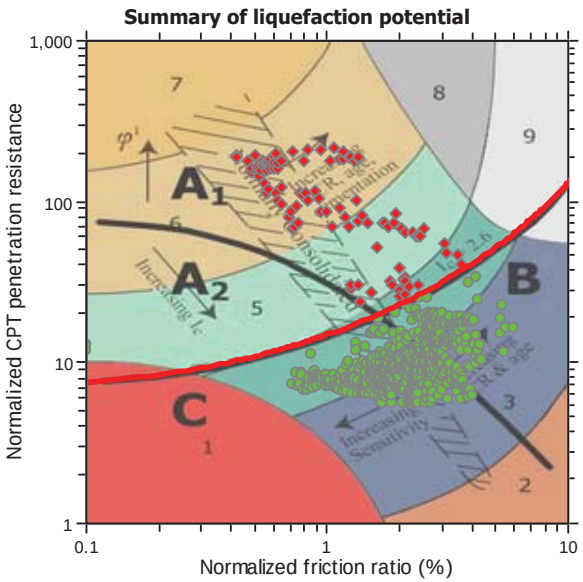
CPT file : 1-SCPT1

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	15.00 ft	Excavation:	Yes	Clay like behavior applied:	Sand & Clay
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	15.00 ft	Excavation depth:	40.00 ft	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Footing load:	1.50 tsf	Limit depth:	N/A
Earthquake magnitude M_w:	8.10	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method
Peak ground acceleration:	0.62	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

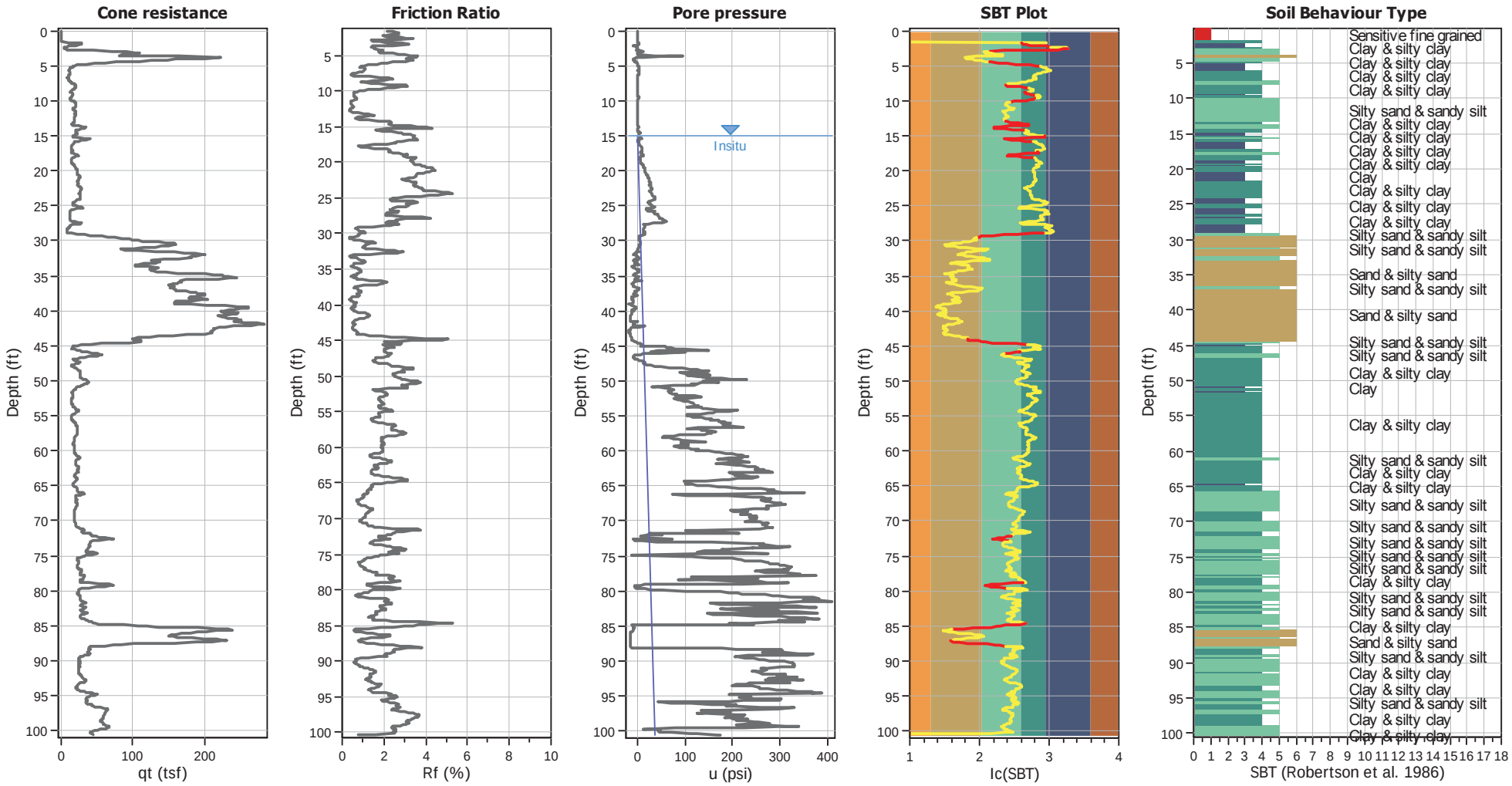






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



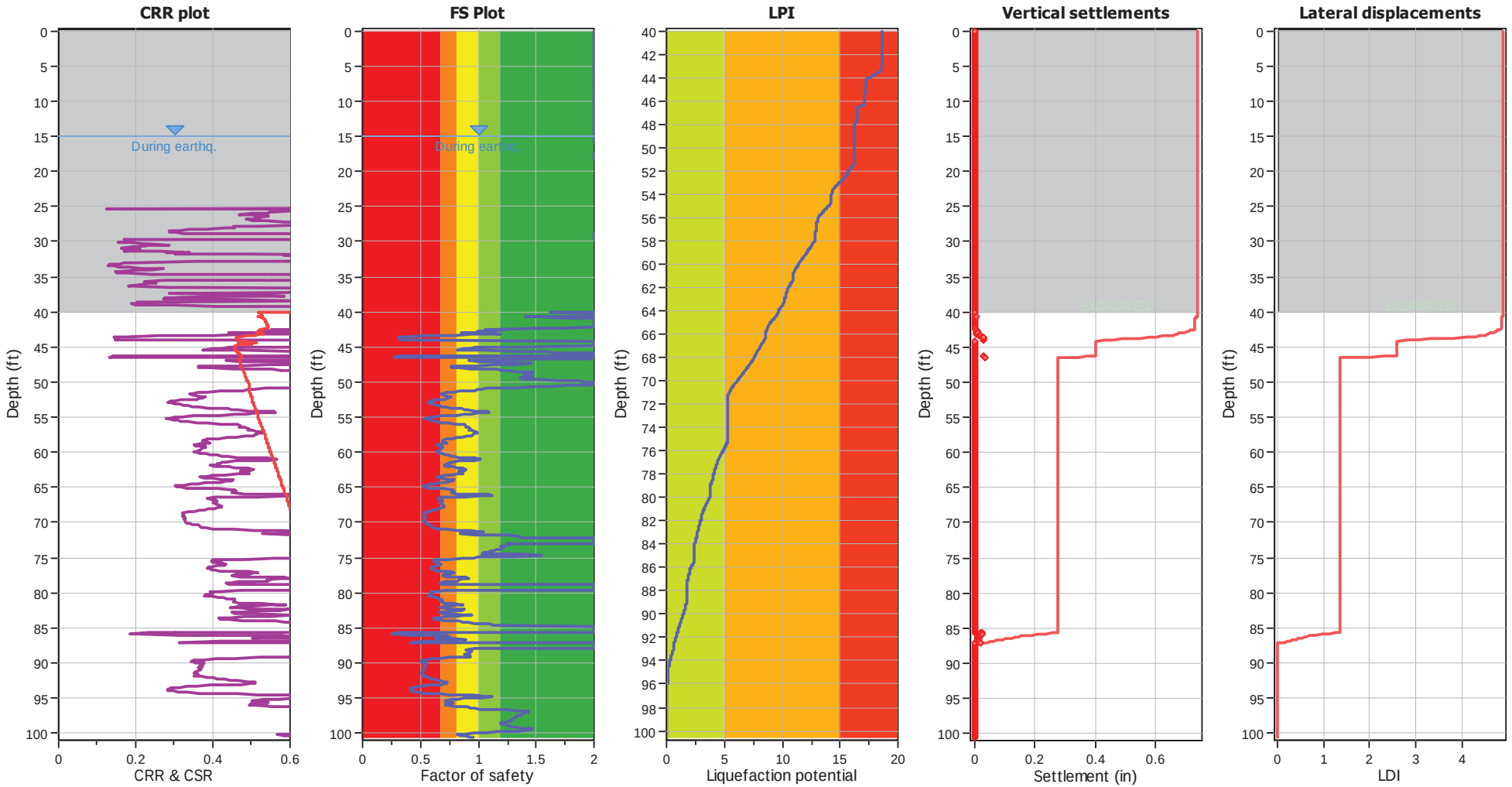
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Footing load:	1.50 tsf
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	8.10	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.62	Excavation:	Yes	Limit depth applied:	No
Depth to water table (insitu):	15.00 ft	Excavation depth:	40.00 ft	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Footing load:	1.50 tsf
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	8.10	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.62	Excavation:	Yes	Limit depth applied:	No
Depth to water table (insitu):	15.00 ft	Excavation depth:	40.00 ft	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

APPENDIX F

SEISMIC HAZARD RESULTS

U.S. Geological Survey - Earthquake Hazards Program

Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the U.S. Seismic Design Maps web tools (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

Input

Edition

Dynamic: Conterminous U.S. 2014 (upd

Spectral Period

Peak Ground Acceleration

Latitude

Decimal degrees

37.458704

Time Horizon

Return period in years

2475

Longitude

Decimal degrees, negative values for western longitudes

-122.142159

Site Class

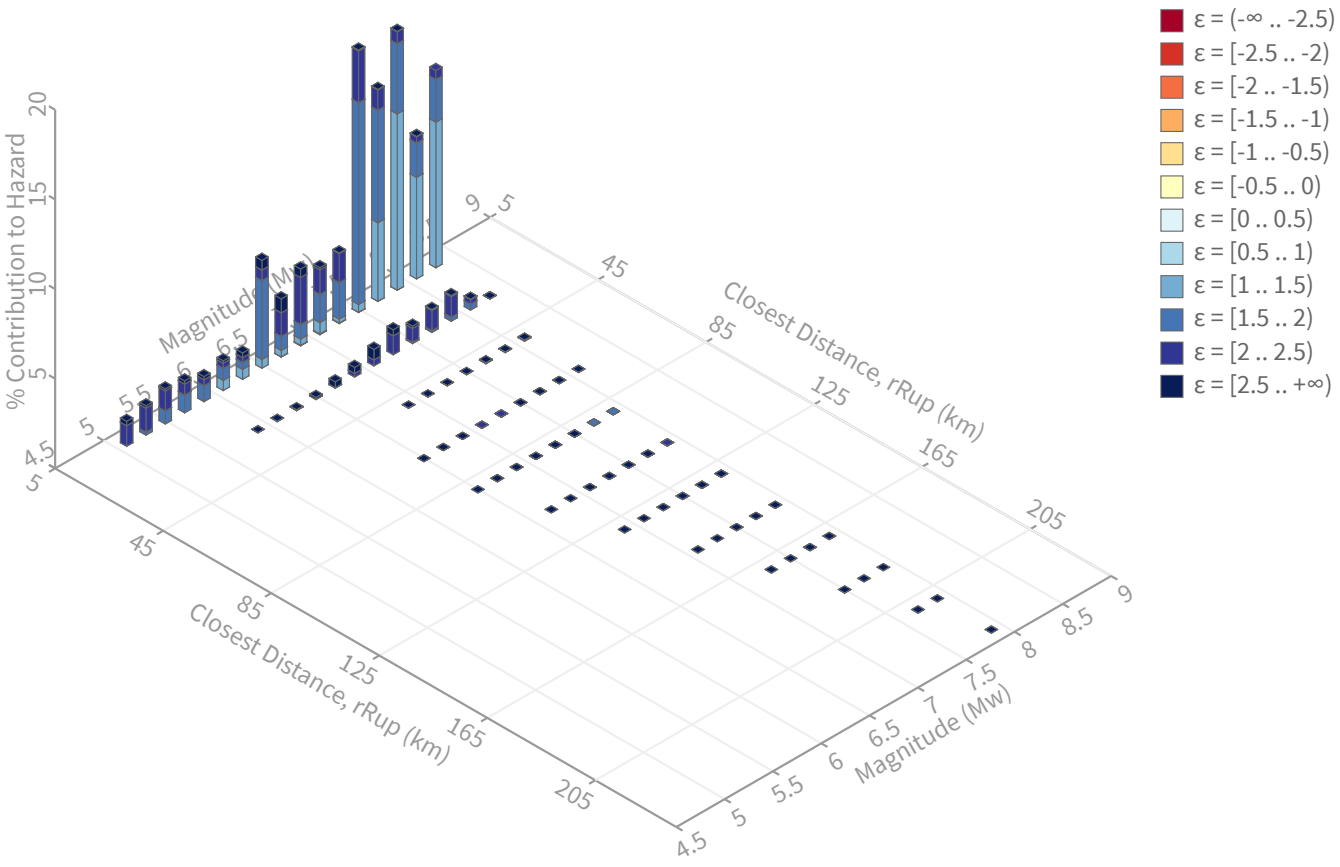
259 m/s (Site class D)

Deaggregation

2475 year return period, 0.01 seconds

Component

Total

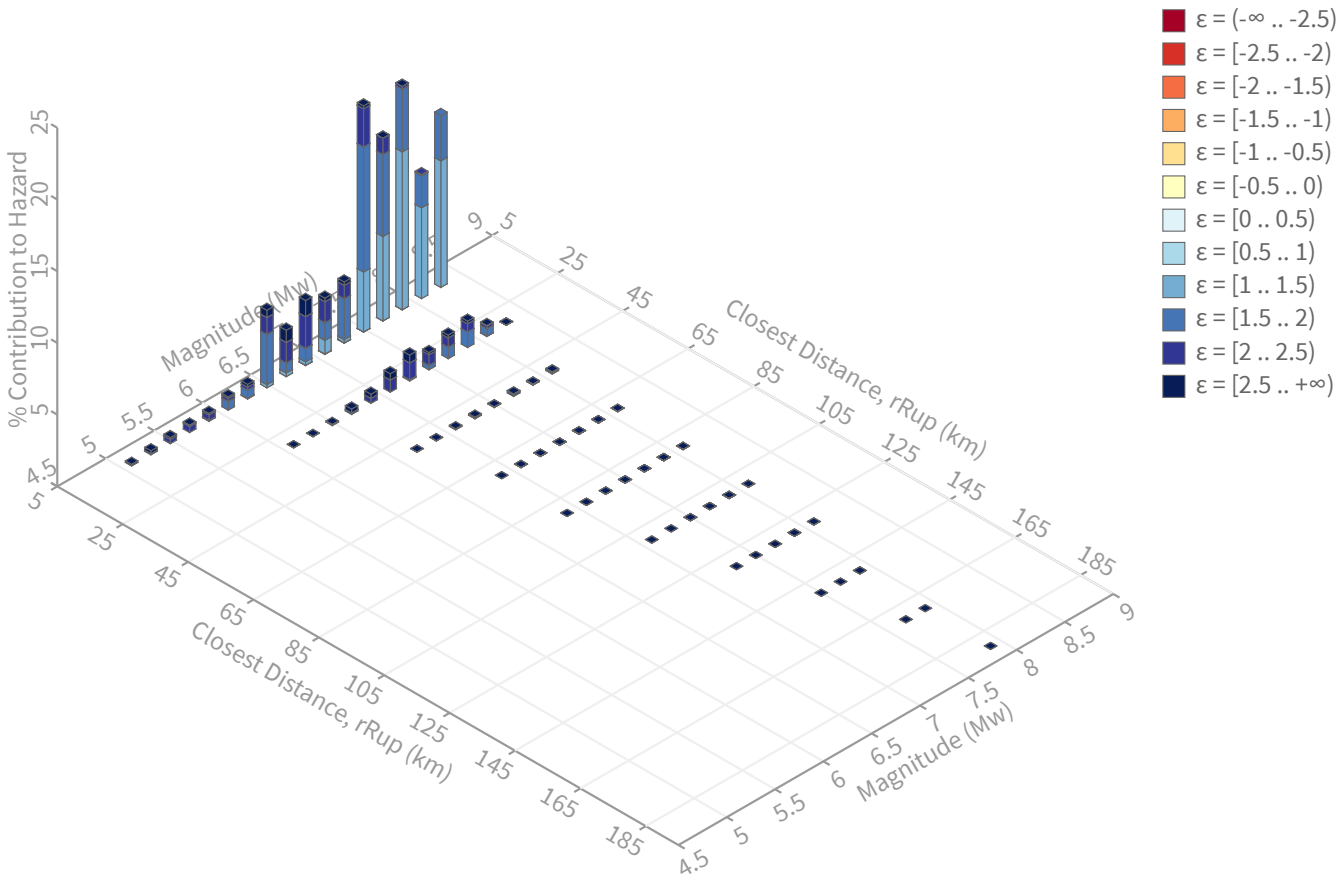


Deaggregation

2475 year return period, 0.5 seconds

Component

Total

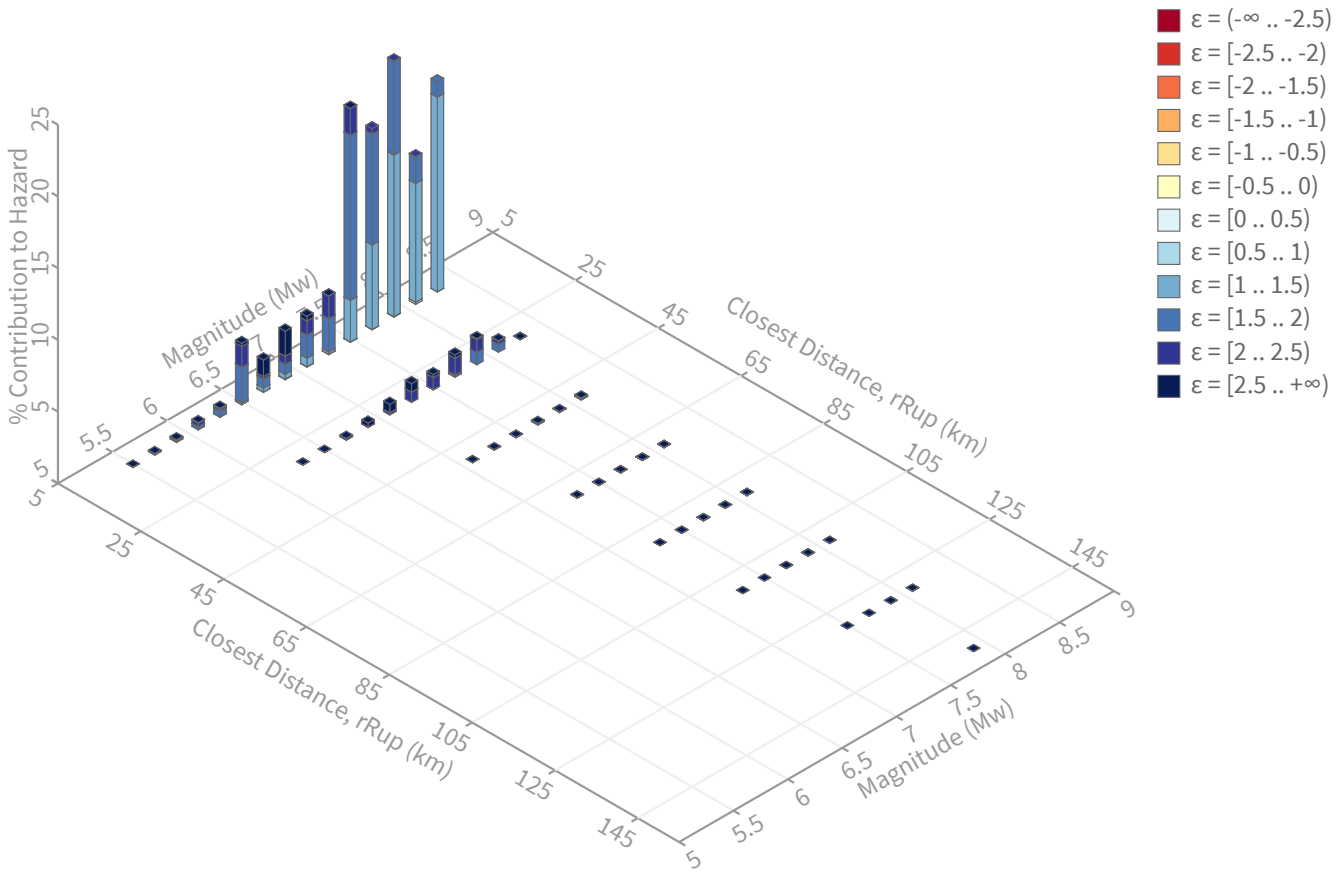


Deaggregation

2475 year return period, 1 second

Component

Total

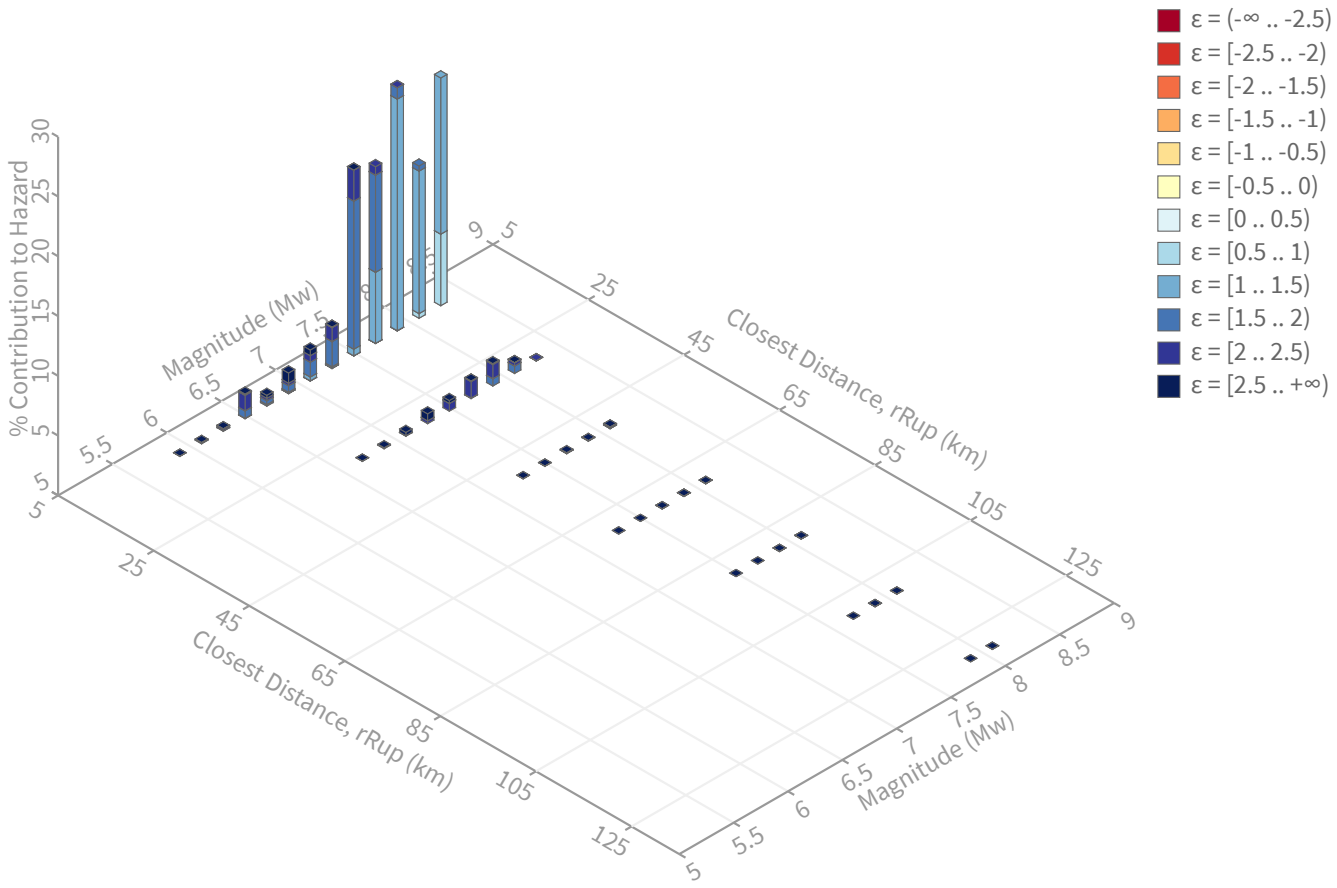


Deaggregation

2475 year return period, 2 seconds

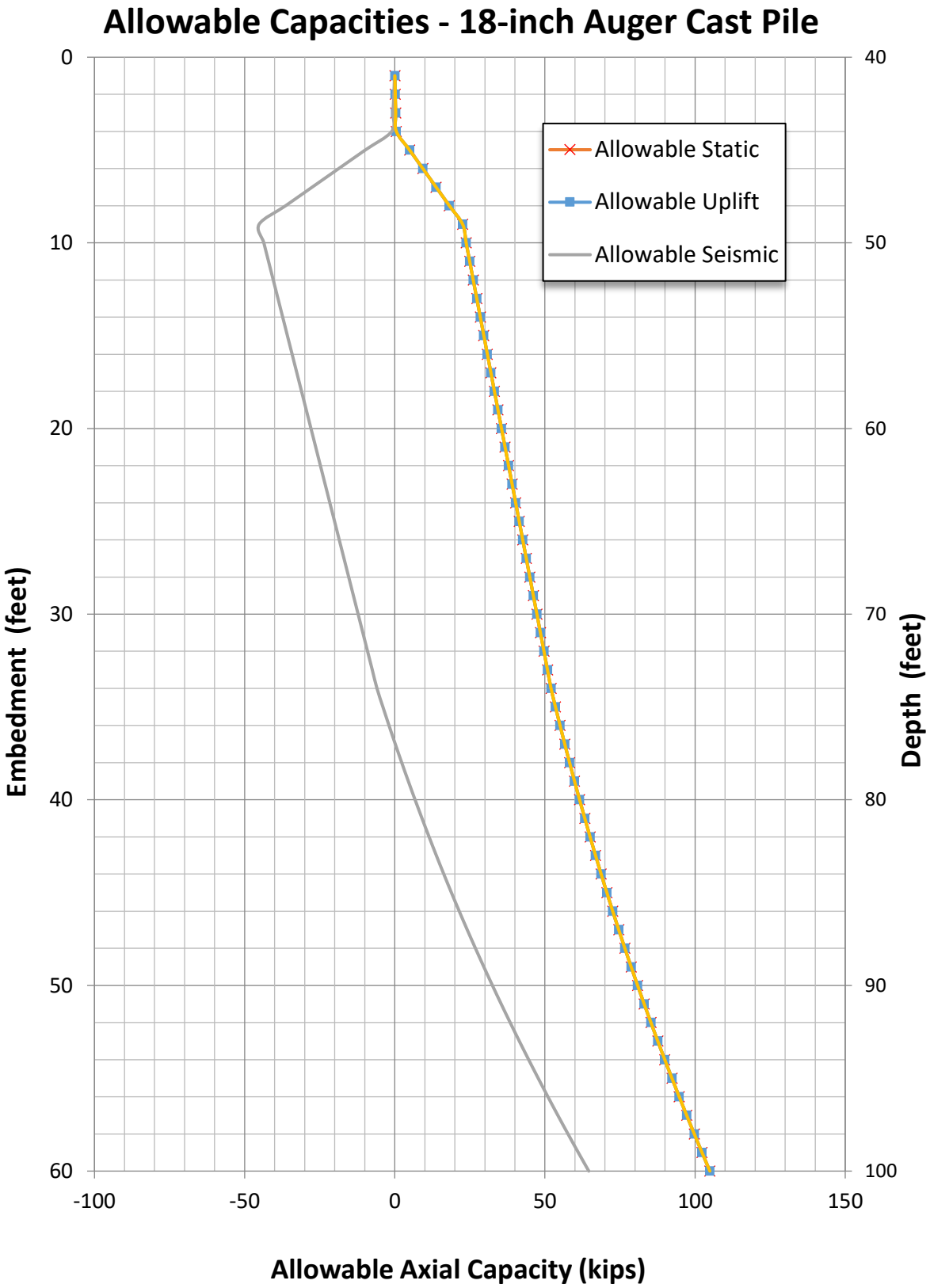
Component

Total

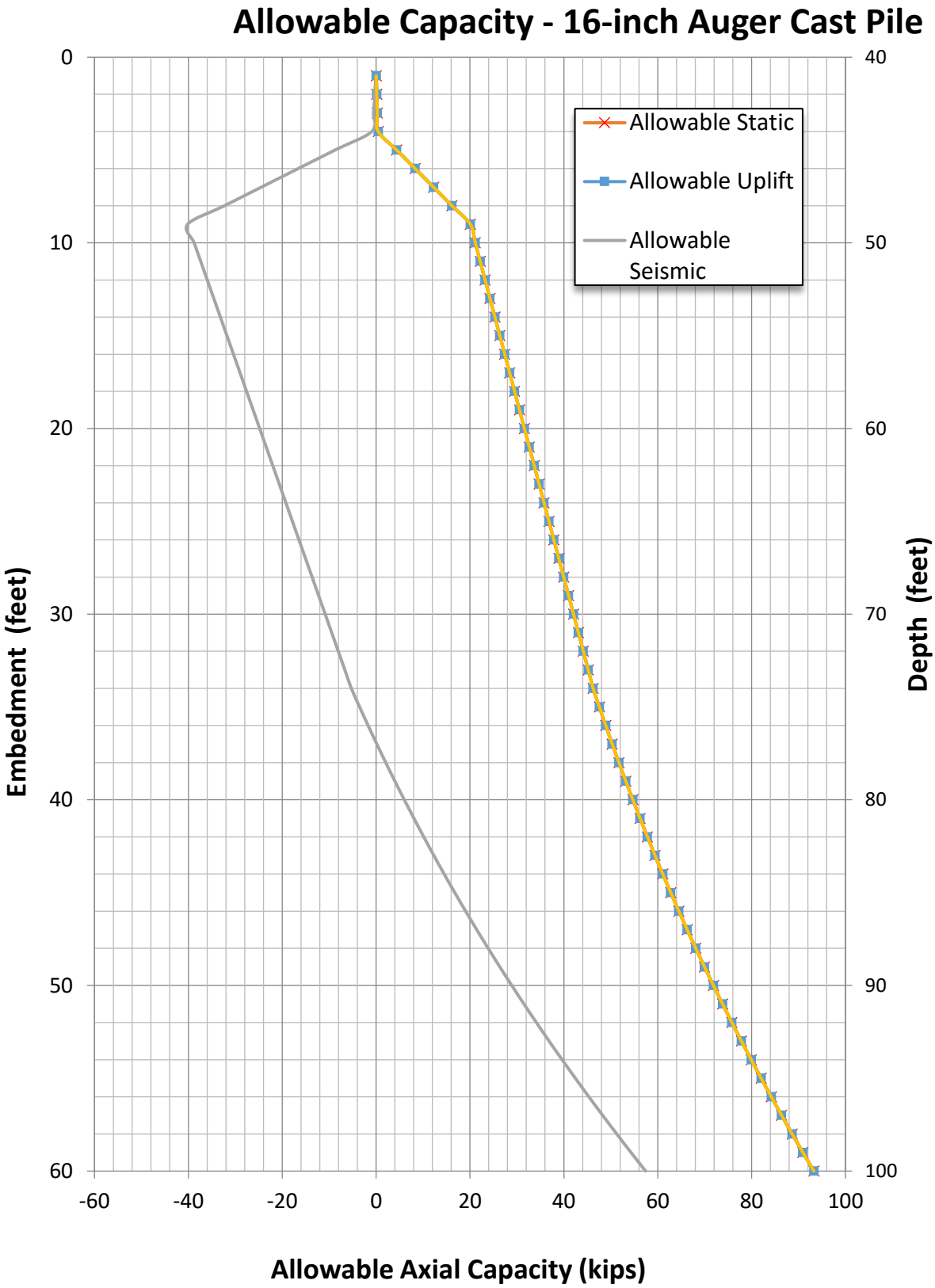


APPENDIX G

PILE CAPACITY CHARTS



ENGEO
Expect Excellence



ENGEO
Expect Excellence

APPENDIX H

PREVIOUS BORING LOGS, LABORATORY TESTING AND CPT SOUNDINGS BY OTHERS

PRIMARY DIVISIONS			SOIL TYPE		SECONDARY DIVISIONS
COARSE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE)	GRAVELS (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE)	CLEAN GRAVELS (Less than 5% Fines)	GW		Well graded gravels, gravel–sand mixtures, little or no fines
			GP		Poorly graded gravels or gravel–sand mixtures, little or no fines
		GRAVEL WITH FINES	GM		Silty gravels, gravel–sand–silt mixtures, plastic fines
			GC		Clayey gravels, gravel–sand–clay mixtures, plastic fines
	SANDS (MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE)	CLEAN SANDS (Less than 5% Fines)	SW		Well graded sands, gravelly sands, little or no fines
			SP		Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH FINES	SM		Silty sands, sand–silt–mixtures, non–plastic fines
			SC		Clayey sands, sand–clay mixtures, plastic fines
FINE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE)	SILTS AND CLAYS (LIQUID LIMIT IS LESS THAN 50 %)		ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL		Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS (LIQUID LIMIT IS GREATER THAN 50 %)		MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH		Inorganic clays of high plasticity, fat clays
			OH		Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PT		Peat and other highly organic soils

DEFINITION OF TERMS

U.S. STANDARD SIEVE SIZE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

GRAIN SIZES

TERZAGHI SPLIT SPOON STANDARD PENETRATION

MODIFIED CALIFORNIA

D & M UNDERWATER SAMPLER

SHELBY TUBE

NO RECOVERY

SAMPLERS

SAND AND GRAVEL	BLOWS/FOOT*
VERY LOOSE	0–4
LOOSE	4–10
MEDIUM DENSE	10–30
DENSE	30–50
VERY DENSE	OVER 50

RELATIVE DENSITY

SILTS AND CLAYS	STRENGTH+	BLOWS/FOOT*
VERY SOFT	0–1/4	0–2
SOFT	1/4–1/2	2–4
MEDIUM STIFF	1/2–1	4–8
STIFF	1–2	8–16
VERY STIFF	2–4	16–32
HARD	OVER 4	OVER 32

CONSISTENCY

*Number of blows of 140 pound hammer falling 30 inches to drive a 2–inch O.D. (1–3/8 inch I.D.) split spoon (ASTM D–1586).
+Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D–1586), pocket penetrometer, torvane, or visual observation.

KEY TO EXPLORATORY BORING LOGS

Unified Soil Classification System (ASTM D–2487)

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE A–1

EXPLORATORY BORING: EB-6

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-5-99 FINISH DATE: 11-5-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 45.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
		SURFACE ELEVATION: 22.9 FT. (+/-)						
22.9	0							
22.7		2½ inches asphalt concrete over 2½ inches aggregate base						
22.5		**SILTY CLAY (CL)** very stiff, moist, dark brown with trace of fine sand, moderate plasticity		25		21	110	
				11		22	106	
	5	trace of subangular fine gravel	CL	15		22	109	
	10			22		23	109	
10.9		**SAND (SP-SC)** dense, moist, brown, fine to coarse sand, trace of subrounded fine gravel and clay		31		13		
	15		SP-SC					
	20	medium dense		18		13		5
0.4		**SILTY CLAY (CL)** stiff, wet, light brown with orange mottles, trace of subangular medium gravel, moderate plasticity		14		32	99	
	25							
	30		CL	17		29	101	
-12.1	35	very stiff, color grades to grayish brown		30		24	111	

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-6 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-5-99 FINISH DATE: 11-5-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 45.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-12.1	35		**SILTY CLAY (CL)** stiff, wet, light brown with orange mottles, trace of subangular medium gravel, moderate plasticity						
	40		very stiff, color grades to light brown with orange mottles, trace fine sand	CL	55		21	117	
-22.1	45		grayish brown with orange mottles		16		27		
	50		Bottom of Boring at 45 feet						
	55								
	60								
	65								
	70								

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-7

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 10-29-99 FINISH DATE: 10-29-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
22.6	0	SURFACE ELEVATION: 22.6 FT. (+/-)						
22.4		3 inches asphalt concrete over 2½ inches aggregate base						
22.2		**SANDY CLAY (CL)** stiff, moist, light brown, fine to coarse sand, trace of subangular fine gravel, low plasticity	CL	21		15	105	
20.1		**SILTY CLAY (CL)** very stiff, moist, dark brown, trace of fine sand, moderate plasticity		15		24	86	
	5			9		21	105	
	10		CL	21		24	102	
		trace of subrounded fine to medium gravel						
	15	medium stiff, trace of fine to medium sand		8		20	109	
5.6		**SAND (SP-SC)** medium dense, wet, fine to coarse sand, trace of sub-rounded fine gravel and clay		22		15		6
	20		SP-SC					
	25			22				
-4.4		**SILTY CLAY (CL)** stiff, wet, light brown, trace of fine to medium sand, low to moderate plasticity		16		27	99	
	30		CL	125psi		24	94	
		[consolidation test performed]						
		very stiff		28		24	100	
-12.4	35	*Continued Next Page*						

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-7 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 10-29-99 FINISH DATE: 10-29-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-12.4	35	**SILTY CLAY (CL)** stiff, wet, light brown, trace of fine to medium sand, low to moderate plasticity	CL	100psi		21	107	
				35		25	100	
	40	color grades to brown with orange mottles						
				16				
	45			125psi		21	105	
-25.9	50	**CLAYEY SAND (SC)** very dense, wet, brown, fine to coarse sand, trace of subrounded fine gravel and clay	SC					
	55			64				
-34.4		**SILTY CLAY (CL)** very stiff, moist, light brown with orange mottles, low to moderate plasticity	CL	450psi		22	89	
-37.4	60	**SILTY SAND (SM)**	SM					
-41.4	65	**SILTY CLAY (CL)** stiff, moist, brown, low to moderate plasticity	CL	220psi		25	98	
-46.9								
-47.4	70	*Continued Next Page*						

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-7 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 10-29-99 FINISH DATE: 10-29-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-47.4	70		This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.						
-47.9			**SILTY SAND (SM)** very dense, wet, gray, fine to medium sand	SM	47		30	93	
			SILTY CLAY (CL) very stiff, wet, gray, trace of fine sand, moderate plasticity						
	75			CL					
					34		31	94	
-57.4	80		Bottom of Boring at 80 feet						
	85								
	90								
	95								
	100								
	105								

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

I:A_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-8

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-2-99 FINISH DATE: 11-2-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 60.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
		SURFACE ELEVATION: 22.4 FT. (+/-)						
22.4	0	3 inches asphalt concrete over 2½ inches aggregate base						
22.2								
22.0		**SILTY CLAY (CL)** hard, moist, dark brown with trace of fine sand, moderate plasticity	CL	16		19	100	
				10		16	96	
18.4		increasing sand						
	5	**SANDY CLAY (CL)** very stiff, most, dark brown, fine to coarse sand, low plasticity	CL	17		24	99	
16.4		**SILTY CLAY (CL)** very stiff, moist, brown with trace of fine sand, low to moderate plasticity						
		color grades to dark brown		28		24	102	
	10							
		color grades to grayish brown with orange mottles		58		22	105	
	15		CL					
		color grades to light brown with orange mottles, trace of subrounded/ medium gravel [consolidation test performed]		175psi				
	20							
		stiff		20		31	93	
	25							
-6.1		**SILTY SAND (SM)**	SM	21		27	98	
-7.1		medium dense, wet, brown, fine to medium sand						
	30	**SILTY CLAY (CL)** stiff, wet, brown, moderate plasticity	CL					
		color grades to gray with orange and brown mottles		33		22	105	
-12.6	35							

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-8 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-2-99 FINISH DATE: 11-2-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 60.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-12.6	35	**SILTY CLAY (CL)** stiff, wet, brown, moderate plasticity						
	40	very stiff, color grades to light brown with orange mottles, trace of fine to medium sand	CL	46		21	108	
-21.1		**CLAYEY SAND (SC)** medium dense, wet, brown, fine to coarse sand, trace of subrounded fine gravel and clay	SC	42				
-22.6	45	**SILTY CLAY (CL)** stiff, wet, grayish brown with orange mottles, trace of fine sand, moderate plasticity	CL	26		34	85	
	50							
-28.6		**CLAYEY SAND (SC)** very dense, wet, dark brown, fine to coarse sand, trace of subrounded fine gravel and clay		55				
	55		SC					
		medium dense, trace of subangular fine gravel		21				
-37.6	60	Bottom of Boring at 60 feet						
	65							
	70							

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP GDT 1/17/00 MV

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-9

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-1-99 FINISH DATE: 11-1-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
		SURFACE ELEVATION: 27.0 FT. (+/-)						
27.0	0	3 inches asphalt concrete over 3 inches aggregate base						
26.8								
26.5		**SILTY CLAY (CL)** stiff, moist, dark brown with trace of fine sand, moderate plasticity	CL	9		23	91	
				12		21	96	
	5	very stiff		13		20	99	
		color grades to dark brown		20		24	99	
	10							
	15	trace gravel		39		21	116	
8.0								
	20	**SAND (SP-SC)** medium dense, wet, brown, fine to coarse sand, trace of subangular fine gravel and clay	SP-SC	26		13		
	25			42				12
1.0		**SANDY CLAY (CL)** dense, wet, brown, fine to coarse sand, trace of subrounded fine gravel and clay	CL	17				
	30							
-8.0	35			14		24	103	

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-9 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-1-99 FINISH DATE: 11-1-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)
-8.0	35	**SANDY CLAY (CL)** dense, wet, brown, fine to coarse sand, trace of subrounded fine gravel and clay [consolidation test performed]	CL	300psi		
-12.0	40	**CLAYEY SAND (SC)** dense, wet, brown, fine to coarse sand, trace of subrounded fine gravel and clay	SC	66		
-16.5	45	**SILTY CLAY (CL)** very stiff, wet, dark brown, trace of fine to medium sand, moderate plasticity	CL	52	20	109
		trace coarse sand and subrounded fine gravel		22	29	95
	50	stiff, color grades to gray with brown and orange mottles				
	55					
	60			150psi		
	65					
		trace fine to coarse sand and subangular fine to coarse gravel		16	28	
-43.0	70	*Continued Next Page*				

SAMPLER

PERCENT PASSING NO. 200 SIEVE

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Traxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-9 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-1-99 FINISH DATE: 11-1-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-43.0	70		**SILTY CLAY (CL)** very stiff, wet, dark brown, trace of fine to medium sand, moderate plasticity						
	75			CL					
			very stiff		34		35	90	
-53.0	80		Bottom of Boring at 80 feet						
	85								
	90								
	95								
	100								
	105								

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-10

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-2-99 FINISH DATE: 11-2-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 45.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
		SURFACE ELEVATION: 27.0 FT. (+/-)						
27.0	0							
26.8		3 inches asphalt concrete over 2½ inches aggregate base						
26.6		**SILTY CLAY (CL)** stiff, moist, dark brown with trace of fine sand, moderate plasticity	CL	9		22	96	
23.0				14		20		
22.5		Silty sand seam						
	5	**SILTY CLAY (CL)** stiff, moist, dark brown with trace of fine sand, moderate plasticity	CL	8				
19.5		**CLAYEY SAND (SC)** medium dense, moist, dark brown, fine to coarse sand	SC					
18.0		**SILTY CLAY (CL)** stiff, moist, dark brown, moderate plasticity		8		27		
	10		CL					
		very stiff, trace of fine to coarse sand		32		20	114	
	15							
9.0		**SAND (SC)** medium dense, wet, dark brown, fine to coarse sand, trace clay	SC	24		15		15
	20							
5.0		**SAND (SP-SC)** dense, wet, dark brown, fine to coarse sand, trace clay and subrounded fine gravel		31		14		
	25							
		medium dense	SP-SC	26				6
	30							
		dense		33				
-8.0	35							

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

I:A CORP GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-10 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-2-99 FINISH DATE: 11-2-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 45.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-8.0	35	**SAND (SP-SC)** dense, wet, dark brown, fine to coarse sand, trace clay and subrounded fine gravel	SP-SC					
-11.0	40	**SILTY CLAY (CL)** very stiff, moist, brown with orange mottles, trace of fine sand	CL	150psi				
-17.3	45	**SILTY SAND (SM)** dense, wet, brown, fine to medium sand, trace coarse sand and silt	SM	55		19	113	
-18.0		Bottom of Boring at 45 feet						

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-11

DRILL RIG: FAILING 1500	PROJECT NO: 838-1M
BORING TYPE: 5 7/8-INCH ROTARY WASH	PROJECT: UNIVERSITY CIRCLE
LOGGED BY: MAY	LOCATION: EAST PALO ALTO, CA
START DATE: 11-4-99 FINISH DATE: 11-4-99	COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
26.5		SURFACE ELEVATION: 26.5 FT. (+/-)						
26.3	0	3 inches asphalt concrete over 2½ inches aggregate base						
26.1		**SILTY CLAY (CL)** hard, moist, dark brown, trace fine sand, moderate plasticity	CL	10		19	102	
				12		27	96	
	5			11		25	96	
19.0		**CLAYEY SAND (SC)** medium dense, moist, fine to coarse sand, trace of subrounded fine gravel	SC					
18.0		**SILTY CLAY (CL)** stiff, moist, dark brown with trace of fine sand, moderate plasticity		5		36		
	10							
				15		27	101	
	15		CL					
		light brown with orange mottles		180psi		25	99	
	20							
4.0		**SANDY CLAY (CL)** stiff, wet, light brown with orange mottles, fine to medium sand, low plasticity	CL	21		25	112	
2.0		**SILTY SAND (SM)** medium dense, wet, light brown, fine sand, trace of medium to coarse sand and silt	SM			27		49
	25							
-1.0		**CLAYEY SAND (SC)** dense, wet, brown, fine to coarse grained, trace of subrounded fine gravel and clay	SC	33				
	30							
-6.0		**SILTY SAND (SM)** very dense, wet, brown, fine to medium sand, trace of subrounded fine to medium gravel	SM	59				
-8.5	35							

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

EXPLORATORY BORING: EB-11 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-4-99 FINISH DATE: 11-4-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO 200 SIEVE
-8.5	35	**SILTY SAND (SM)** very dense, wet, brown, fine to medium sand, trace of subrounded fine to medium gravel	SM					
-12.0	40	**SANDY CLAY (CL)** stiff, wet, light brown, fine to medium sand, low plasticity	CL	12		49		
	45			150psi		34	87	
	50			240psi		28	95	
	55							
-33.5	60	**SILTY CLAY (CL)** very stiff, wet, gray with brown-orange mottles, with trace of fine sand, moderate plasticity color grades to gray	CL	100psi		27	93	
	65			200psi		27	96	
-43.5	70							

Continued Next Page

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-11 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 11-4-99 FINISH DATE: 11-4-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-43.5	70	**SILTY CLAY (CL)** very stiff, wet, gray with brown-orange mottles, with trace of fine sand, moderate plasticity	CL	26		23	110	
	75			43		33	92	
-53.0				50/6"				
-53.5	80	**SILTY SAND (SM)** very dense, wet, gray, fine sand, trace of medium to coarse sand and silt Bottom of Boring at 80 feet	SM					
	85							
	90							
	95							
	100							
	105							

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP.GDT 1/17/00 MV*

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

EXPLORATORY BORING: EB-12

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 10-28-99 FINISH DATE: 10-28-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

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ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
29.5	0	SURFACE ELEVATION: 29.5 FT. (+/-)						
29.3		2 inches asphalt concrete over 4 inches aggregate base						
29.0		**SILTY CLAY (CL)** hard, moist, dark brown with trace of fine to medium sand, moderate plasticity Liquid Limit = 35, Plasticity Index = 17	CL	14		16	102	
				11		13	94	
	5			17		12	108	
				15		17	97	
	10							
	15	hard		58		19	119	
12.0		**CLAYEY GRAVEL (GC)** dense, wet, brown, fine to coarse sand, fine to medium gravel, trace clay	GC	58				
	20							
8.0		**POORLY GRADED GRAVEL (GP)** dense, moist, grayish brown, subangular fine to medium gravel	GP	34				
4.5	25	**CLAYEY SAND/CLAYEY GRAVEL (SC-GC)** dense, wet, grayish brown, coarse sand, subangular fine to medium gravel, trace clay		34		13		5
				41				
	30		SC-GC					
				39				
-5.5	35	*Continued Next Page*						

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA_CORP.GDT 1/17/00 MV*

EXPLORATORY BORING: EB-12 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 10-28-99 FINISH DATE: 10-28-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-5.5	35	**CLAYEY SAND/CLAYEY GRAVEL (SC-GC)** dense, wet, grayish brown, coarse sand, subangular fine to medium gravel, trace clay	SC-GC					
-8.0		**SILTY CLAY (CL)** very stiff, wet, brown with trace of fine sand, low to moderate plasticity		37	■	25	128	
	40			34	○			
	45	trace orange mottles		31	■	24	109	
	50	color grades to gray with orange-brown mottles	CL	27	■	27	106	
	55							
	60			47	■	22	110	
	65							
-40.5	70			50/6"	■	21	130	

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

Continued Next Page

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

I:A_CORP.GDT 1/17/00 MV*

EXPLORATORY BORING: EB-12 Cont'd

DRILL RIG: FAILING 1500
BORING TYPE: 5 7/8-INCH ROTARY WASH
LOGGED BY: MAY
START DATE: 10-28-99 FINISH DATE: 10-28-99

PROJECT NO: 838-1M
PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA
COMPLETION DEPTH: 80.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE
-40.5	70	very stiff **SILTY CLAY (CL)** very stiff, wet, brown with trace of fine sand, low to moderate plasticity	CL					
	75							
-50.5	80	stiff Bottom of Boring at 80 feet		58		32	110	
	85							
	90							
	95							
	100							
	105							

Undrained Shear Strength (ksf)
○ Pocket Penetrometer
△ Torvane
● Unconfined Compression
▲ U-U Triaxial Compression
1.0 2.0 3.0 4.0

GROUND WATER OBSERVATIONS:
NO FREE GROUNDWATER ENCOUNTERED

LA CORP GDT 1/17/00 MV

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

PROJECT: UNIVERSITY CIRCLE
LOCATION: EAST PALO ALTO, CA

WELL / BORING NO: MW-4

STARTED: 10/28/99 COMPLETED: 10/28/99
DRILLING RIG: FAILING 1500
DRILLING METHOD: 5 7/8-INCH ROTARY WASH

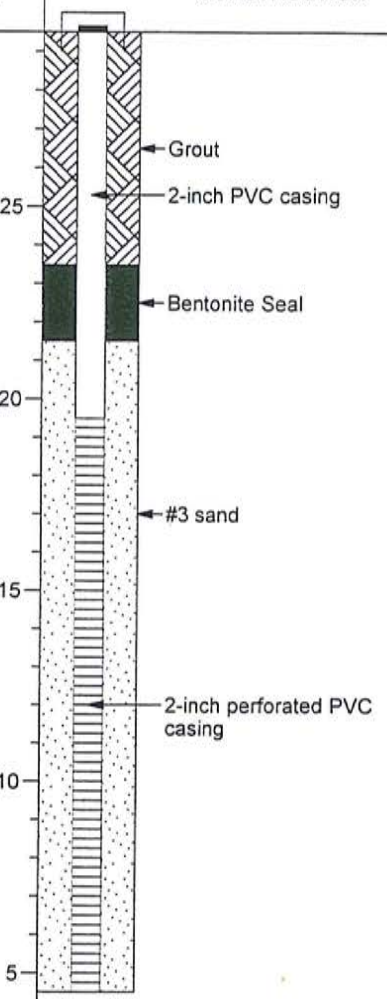
NORTHING: EASTING:
ELEVATION: 29.5 M.P. ELEV: 29.24
WATER: TOTAL DEPTH: 25.0
LOGGED BY: MAY

DEPTH (ft)	GRAPHIC LOG	USCS	DESCRIPTION
0		CL	2 inches asphalt concrete over 4 inches aggregate base **SILTY CLAY (CL)** very stiff, moist, dark brown with trace of fine to medium sand, moderate plasticity
20		GC	**CLAYEY GRAVEL (GC)** dense, wet, brown, fine to coarse sand, fine to medium gravel, trace clay
25		GP	**POORLY GRADED GRAVEL (GP)** dense, moist, grayish brown, subangular fine to medium gravel
			Bottom of Well at 25 feet

SAMPLE | MOISTURE (%) | BLOW COUNTS | PID (ppm)

ELEV (ft): 25, 20, 15, 10, 5, 0, -5, -10

WELL CONSTRUCTION



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MW-4
838-1M

LAEWNN04.GDT 1/18/00

APPENDIX B
LABORATORY INVESTIGATION

The laboratory testing program was directed toward a quantitative and qualitative evaluation of the physical and mechanical properties of the soils underlying the site and to aid in verifying soil classification.

Moisture Content: The natural water content was determined (ASTM D2216) on 82 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

Dry Densities: In place dry density determinations (ASTM D2937) were performed on 68 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Plasticity Index: One Plasticity Index determination (ASTM D4318) was performed on a sample of the subsurface soil to measure the range of water contents over which this material exhibits plasticity. The Plasticity Index was used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of this test is presented on Figure B-1 and on the log of the boring at the appropriate sample depth. Two Plasticity Index tests were performed during the previous investigation. The results are presented on Figure B-4 and on the logs at the appropriate samples depths.

Washed Sieve Analyses: The percent soil fraction passing the No. 200 sieve (ASTM D1140) was determined on seven samples of the subsurface soils to aid in the classification of these soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

UU-Triaxial Compression: Unconsolidated-undrained triaxial compression tests (ASTM D2850) were performed on ten undisturbed samples of the clayey subsurface soils to evaluate the undrained shear strengths of these materials. Failure was taken as the peak normal stress. Results of these tests are presented on the boring logs at the appropriate sample depths.

Unconfined Compression: One unconfined compression test (ASTM D2166) was performed on an undisturbed sample of the clayey subsurface soils from Boring EB-11 to evaluate the undrained shear strengths of these materials. Samples tested had a diameter of 2.8 inches and a height-to-diameter ratio of at least 2. Failure was taken as the peak normal stress. Results of this test is presented on the boring log at the appropriate sample depth.

Consolidation: Consolidation tests (ASTM D2435) were performed on three undisturbed samples of the subsurface clayey soils to assist in evaluating the compressibility properties

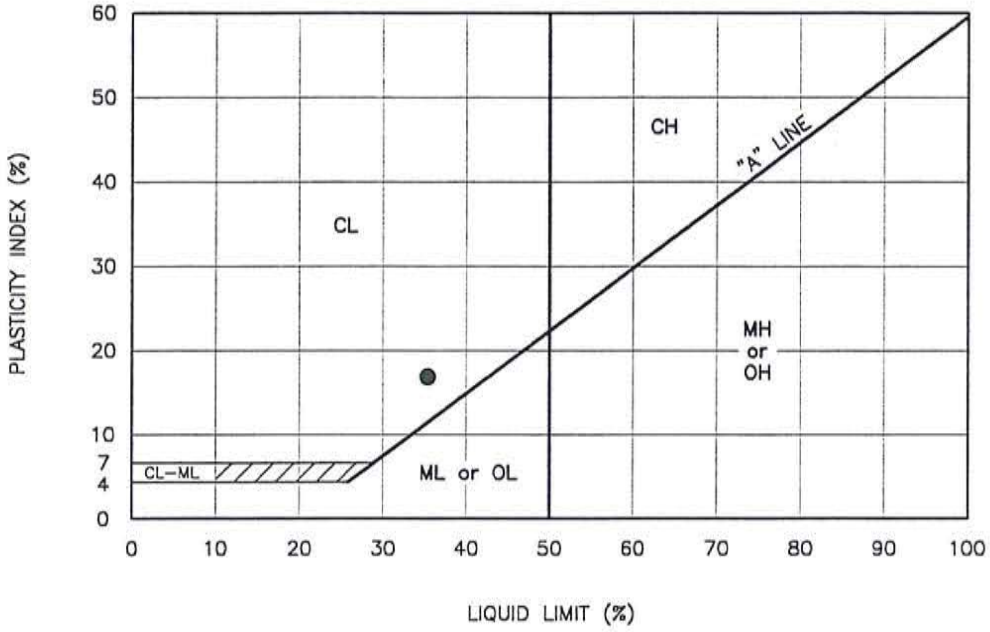
of these soils. Results of the consolidation tests are presented graphically on Figures B-2 through B-4.

R-Value: An R-value resistance test (California Test Method No. 301) was performed on a representative sample of the surface soils at the site to provide data for the pavement design. The test indicated an R-value of 40 at an exudation pressure of 300 pounds per square inch. The results of the test are presented on Table B-1.

TABLE B-1. Results of R-Value Tests

Sample	Description of Material	Water Content (%)	Dry Density (pcf)	Exudation Pressure (psi)	"R" value	Expansion Pressure (psf)
EB-12 (bulk)	Silt - Brown with Sand and Clay	14.7	116.0	122	2	0
		11.1	123.9	237	29	0
		9.5	128.1	531	78	129

* * * * * * * * * * * * *

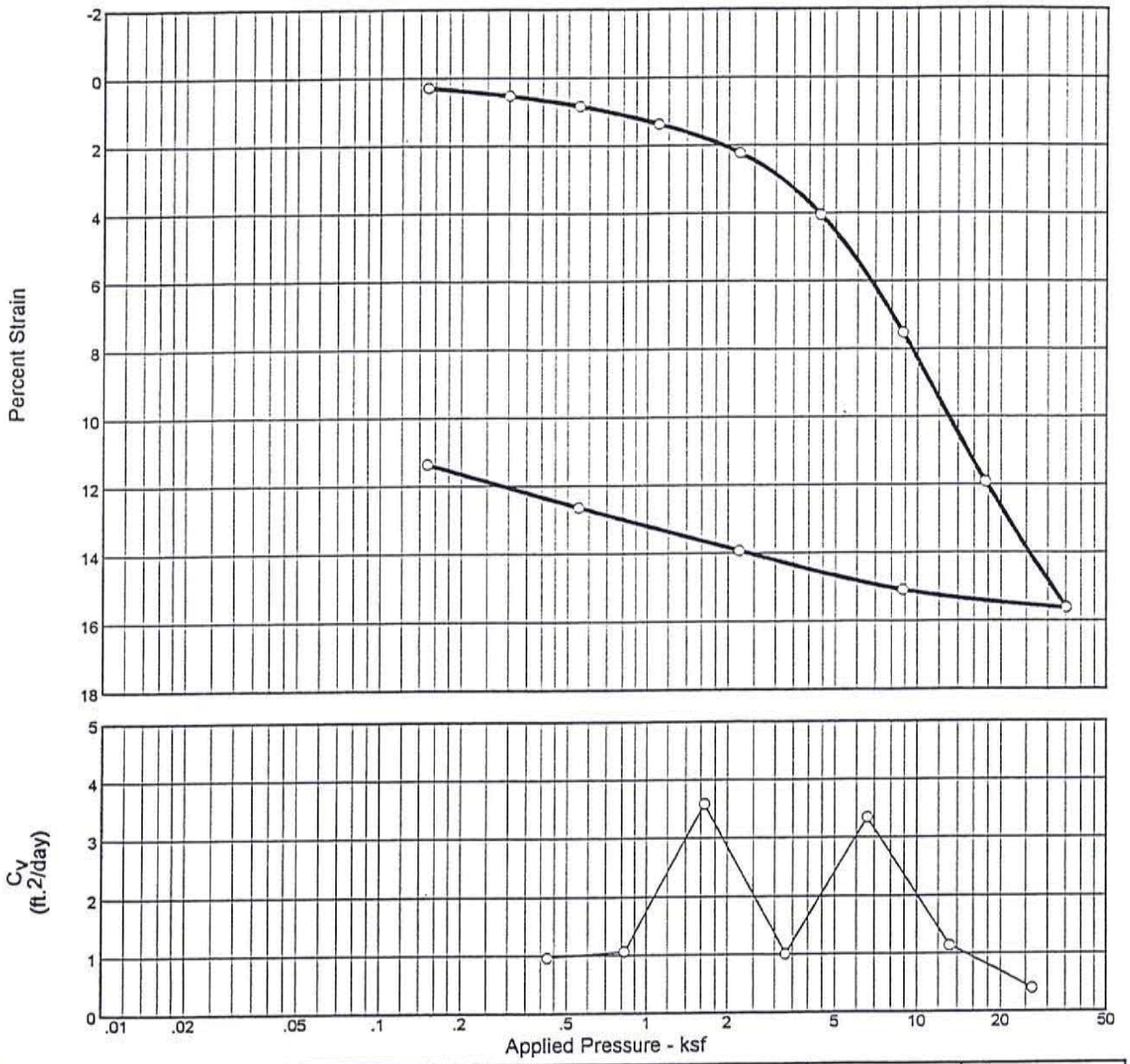


KEY SYMBOL	BORING NO.	SAMPLE DEPTH (feet)	NATURAL WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	PASSING #200 SIEVE (%)	LIQUIDITY INDEX	UNIFIED SOIL CLASSIFICATION SYMBOL
●	EB-12/1	--	--	35	17	--	--	CL

PLASTICITY CHART AND DATA

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE B-1
838-1M



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							
84.9 %	24.3 %	95.1			2.7			0.773

MATERIAL DESCRIPTION

tan sandy CLAY w/white nodules

Source: EB-7 **Sample No.:** 9 **Elev./Depth:** 30'

CONSOLIDATION TEST

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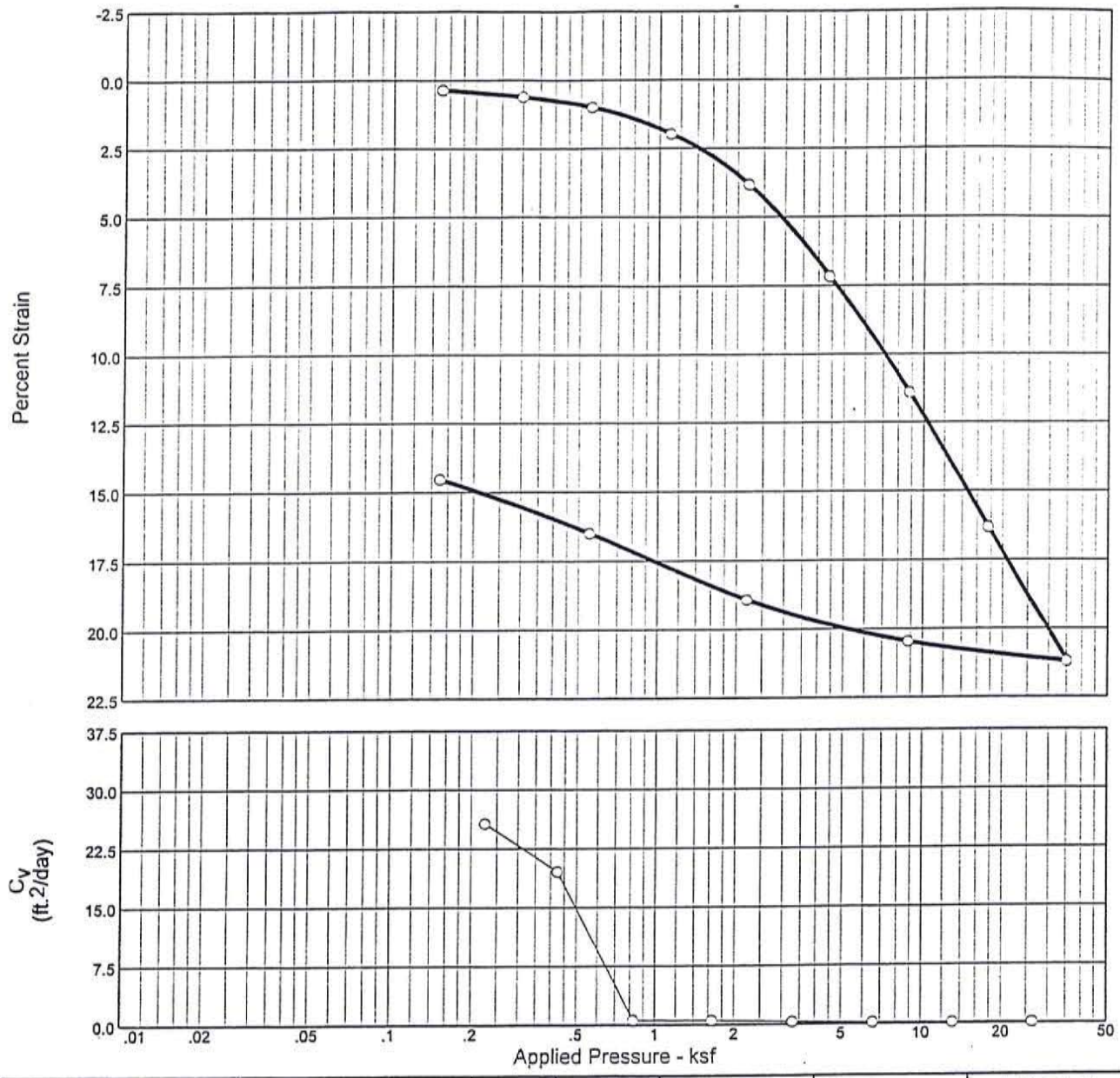
FIGURE B–2
838–1M



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							

MATERIAL DESCRIPTION

brown mottled orange CLAY w/sand

Source: EB-8 **Sample No.:** 6 **Elev./Depth:** 18.5-20'

CONSOLIDATION TEST

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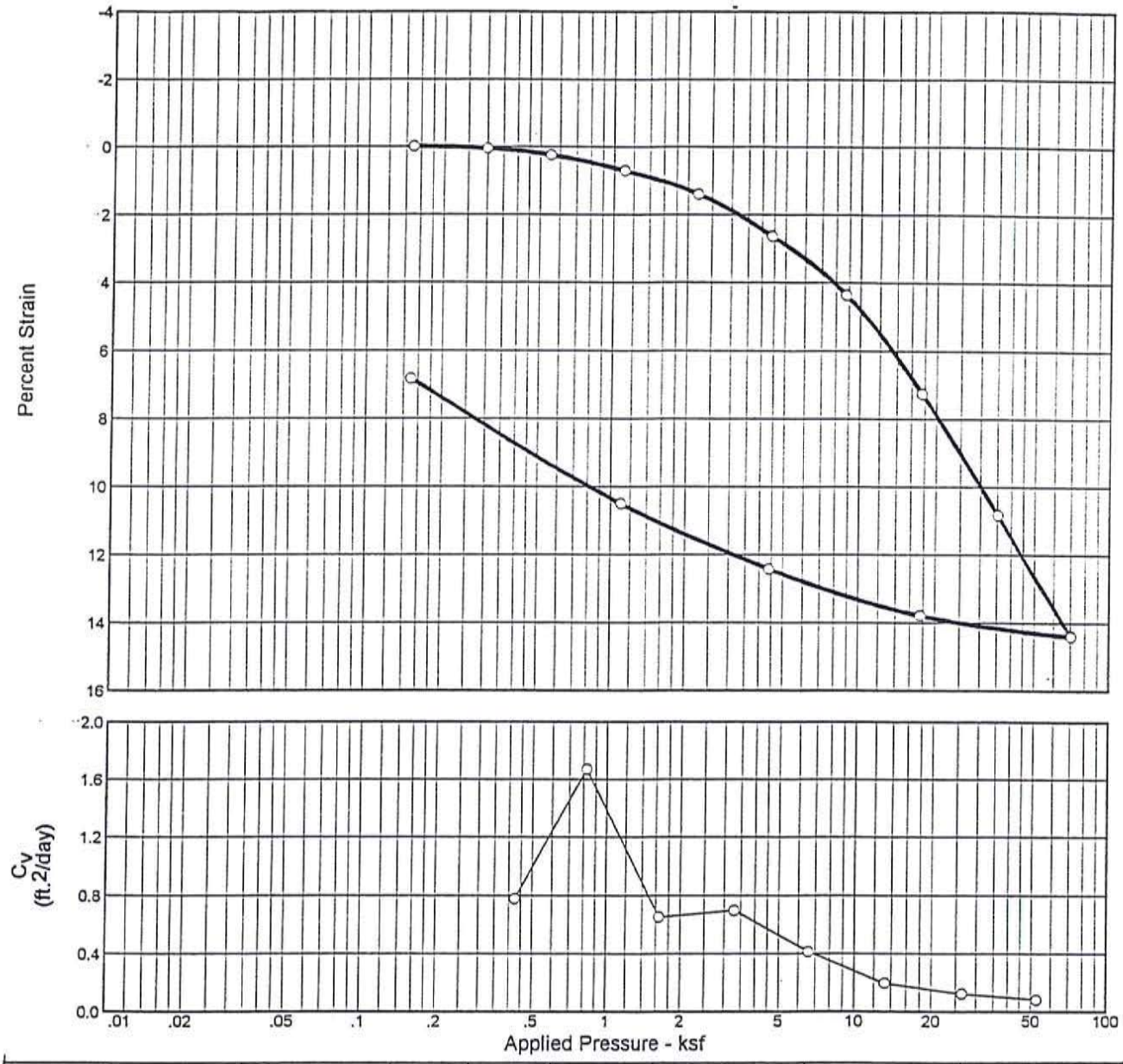
Environmental/Geotechnical/Engineering Services

FIGURE B-3
838-1M



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							
92.4 %	21.4 %	103.7			2.7			0.625

MATERIAL DESCRIPTION

brown mottled orange sandy CLAY

Source: EB-9 **Sample No.:** 9 **Elev./Depth:** 35'

CONSOLIDATION TEST

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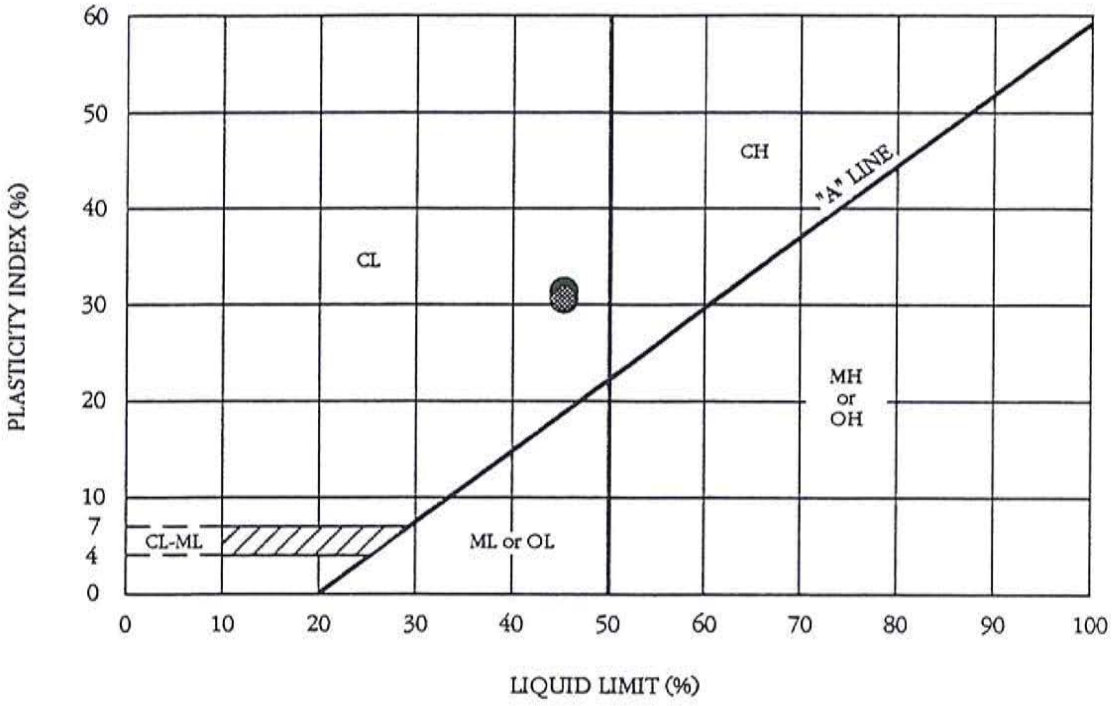
FIGURE B–4
838–1M



KEY SYMBOL	BORING NO.	SAMPLE DEPTH (feet)	NATURAL WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	PASSING NO. 200 SIEVE (%)	LIQUIDITY INDEX	UNIFIED SOIL CLASSIFICATION SYMBOL
●	EB-1	13.5 - 15.0	22	46	14	--	0.3	CL - CH
●	EB-2	13.5 - 15.0	23	46	14	--	0.3	CL - CH

838-1,10/24 GAR*JC

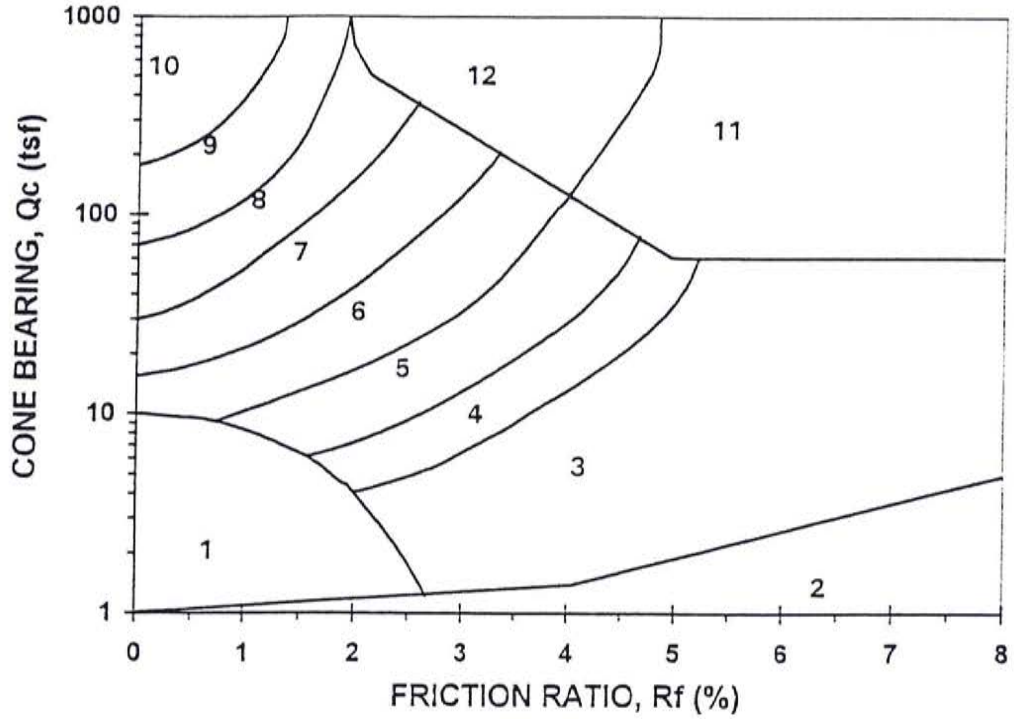
PLASTICITY CHART AND DATA

UNIVERSITY CENTER
East Palo Alto, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE B–5
838-1, October 1991

SIMPLIFIED SOIL BEHAVIOR TYPE CLASSIFICATION FOR STANDARD ELECTRONIC CONE PENETROMETER



ZONE	Qc/N[1]	Su Factor (Nk)[2]	SOIL BEHAVIOR TYPE[1]
1	2	15 (10 for Qc < = 9 tsf)	Sensitive Fine Grained
2	1	15 (10 for Qc < = 9 tsf)	Organic Material
3	1	15 (10 for Qc < = 9 tsf)	CLAY
4	1.5	15	Silty CLAY to CLAY
5	2	15	Clayey SILT to Silty CLAY
6	2.5	15	Sandy SILT to Clayey SILT
7	3	---	Silty SAND to Sandy SILT
8	4	---	SAND to Silty SAND
9	5	---	SAND
10	6	---	Gravelly SAND to SAND
11	1	15	Very Stiff Fine Grained (*)
12	2	---	SAND to Clayey SAND (*)

(*) Overconsolidated or Cemented

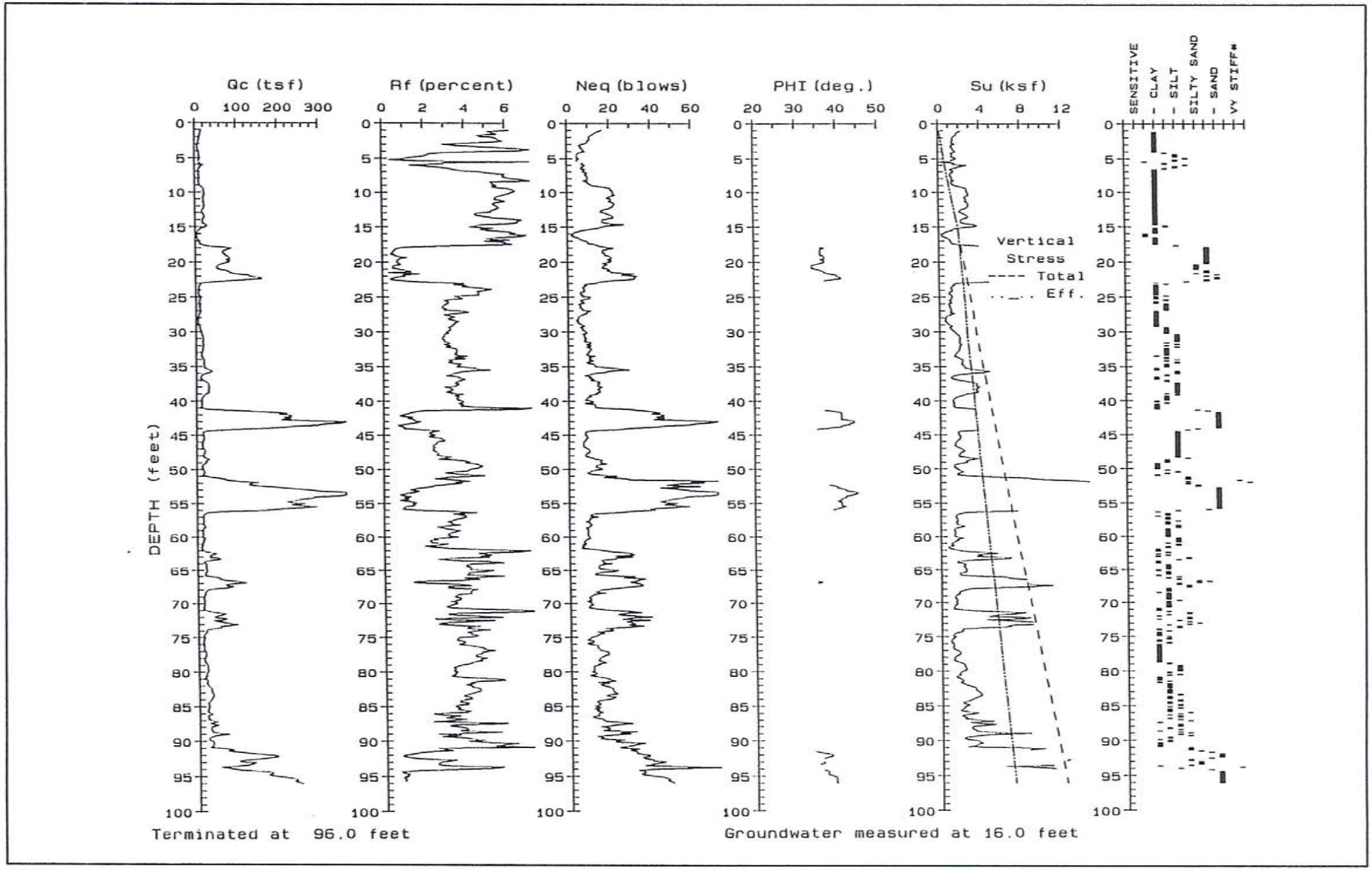
Qc = Tip Bearing
Fs = Sleeve Friction
Rf = Fs/Qc*100 = Friction Ratio

References: [1]Robertson, 1986, Olsen, 1988
[2]Bonaparte & Mitchell, 1979 (young bay mud Qc < = 9)
[2]Estimated from local experience (fine grained soils Qc > 9)

Note: Testing performed in accordance with ASTM D3441

11/96-CB

KEY TO CONE PENETROMETER TESTS



12/99*EB

CONE PENETRATION TEST LOG - CPT-17

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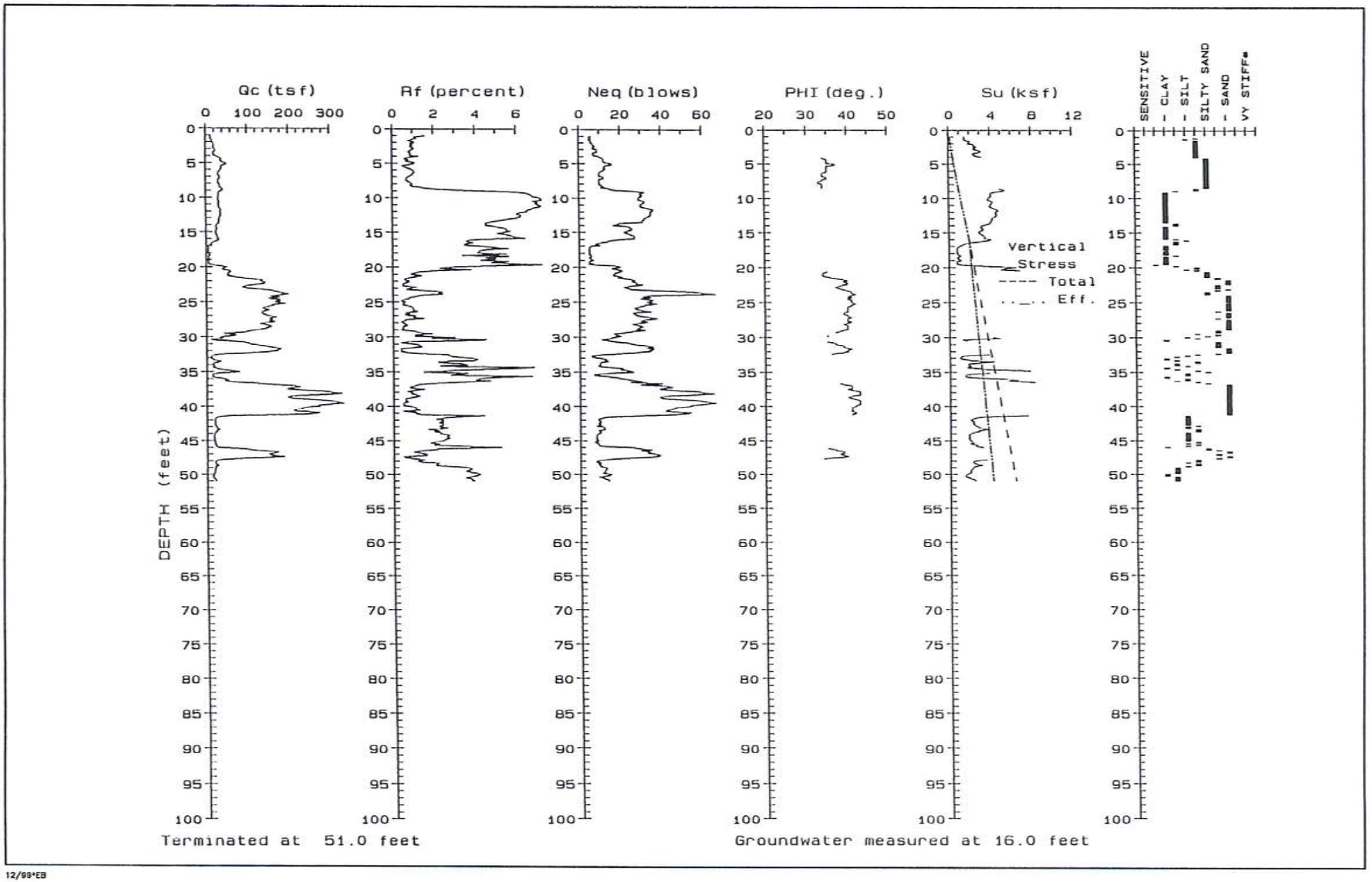
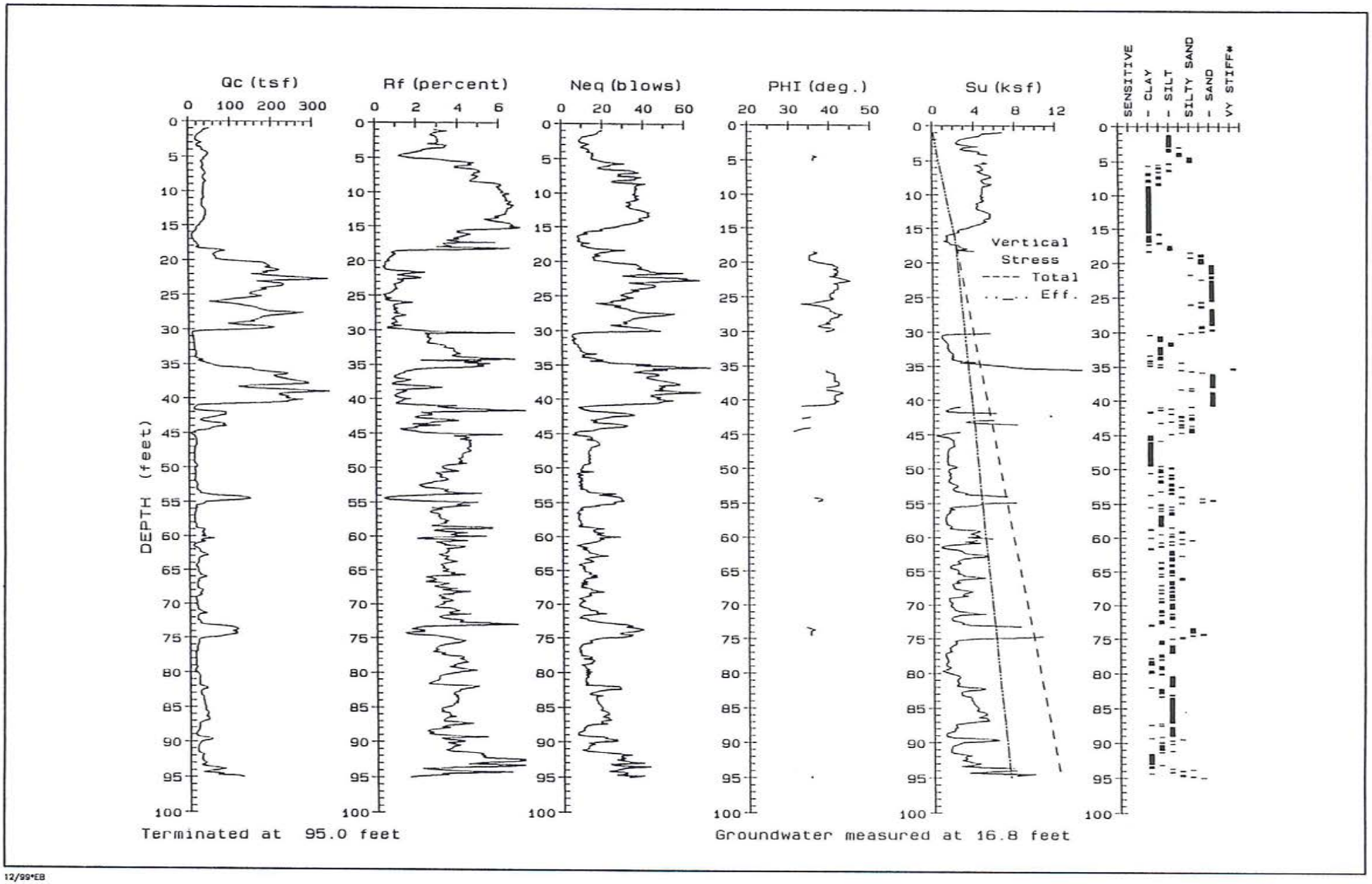


12/99*EB

CONE PENETRATION TEST LOG - CPT-18

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services



12/99*EB

CONE PENETRATION TEST LOG - CPT-19

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Appendix E

PARTNER
Engineering and Science, Inc.®

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

University Circle
1900, 1950 & 2000 East University Avenue
East Palo Alto, California 94303

Report Date: February 27, 2020
Partner Project No. 20-275203.1

Prepared for:

Columbia REIT – University Circle, LP
c/o Columbia Property Trust
650 California Street, Suite 200
San Francisco, CA 94108

PARTNER
Engineering and Science, Inc.

February 27, 2020

Columbia REIT – University Circle, LP
c/o Columbia Property Trust
650 California Street, Suite 200
San Francisco, CA 94108

Subject: Phase I Environmental Site Assessment
University Circle
1900, 1950 & 2000 East University Avenue
East Palo Alto, California 94303
Partner Project No. 20-275203.1

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (704) 994-8423.

Sincerely,

DRAFT

Michael T. Chang
Relationship Manager

EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by Columbia REIT – University Circle, LP c/o Columbia Property Trust for the property located at 1900, 1950 & 2000 East University Avenue in East Palo Alto, San Mateo County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide Columbia REIT – University Circle, LP c/o Columbia Property Trust with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located on the western side of East University Avenue, northern side of Woodland Avenue and the eastern side of Manhattan Avenue within a mixed commercial and residential area of San Mateo County. Please refer to the table below for further description of the subject property:

Subject Property Data	
Addresses:	1900, 1950 & 2000 East University Avenue, East Palo Alto, California
Historical Addresses:	1918-2024 Manhattan Avenue (Even Addresses) 1557-1591 Woodland Avenue (Odd Addresses) 1900, 1906-1975 University Avenue (All Addresses)
Property Use:	Commercial Office
Land Acreage (Ac):	9.264 Ac
Number of Buildings:	Three
Number of Floors:	Six with One-Story Subgrade Parking Garage
Net Rentable Area (SF):	142,620 SF (1900 Building); 166,797 SF (1950 Building); 142,872 SF (2000 Building)
Date of Construction:	2000-2003
Assessor's Parcel Number (APN):	063-680-130, 063-680-190, and 063-680-020
Type of Construction:	Steel-Framed
Current Tenants:	University Circle (multiple commercial office tenants; see Rent Roll in Appendix B for a complete tenant listing)
Site Assessment Performed By:	Christopher Olsen of Partner
Site Assessment Conducted On:	February 20, 2020

The subject property is currently occupied by University Circle for commercial office use. On-site operations consist of commercial office activities, medical and dental office uses, restaurant, cellular telephone equipment uses and facility maintenance. The subject property consists of three 6-story office buildings over a subgrade parking garage. The buildings are located on the western and eastern sides of University Circle, an internal roadway. The interiors of the buildings are subdivided into various tenant spaces, offices, conference rooms, employee break areas, and restrooms. A decorative water feature, seating areas and an outdoor kitchen/lounge are located near the center of the subject property, with asphalt-paved parking/drive areas around the perimeter, and associated landscaping at various locations. Other than California Ear Institute (1900 #101B), Kasey K. Li DDS (1900 #105B), San Francisco Soup

Company (1950 #101A) and Cingular Wireless PCS & Sprint Spectrum (cellular equipment), the subject property is occupied exclusively by various professional office tenants.

According to review of available historical data, it appears that the subject property was developed for commercial use prior to 1939. University Avenue formerly bisected the eastern portion of the subject, with multiple commercial structures on either side of University Avenue. Land use remained relatively unchanged until 1999. The former structures were subsequently demolished, and the current improvements were constructed in 2000 through 2003. Various tenants of environmental concern were formerly located on and in the vicinity of the subject property, including gasoline stations, two dry cleaners, auto repair facilities, print shops, paint stores, and a research facility. Since completion of the existing improvements, various professional and medical office tenants have occupied the buildings.

The immediately surrounding properties consist of The Four Seasons Hotel (2050 East University Avenue) and parking lots to the north, with U.S. Highway 101 farther north; residential development (79-95 Crescent Drive & 1875 University Avenue) and San Francisquito Creek to the south across Woodland Avenue; The Four Seasons Hotel (2050 East University Avenue) and East University Avenue to the east, beyond which are multi-family residences (1609 Woodland Avenue & 1943 Capitol Avenue) and a Highway 101 onramp; and Woodland Park Apartments (1901-1991, 2001 & 2033 Manhattan Avenue) and Launderland (1997 Manhattan Avenue) to the west across Manhattan Avenue.

According to groundwater monitoring conducted at the subject property, the depth to groundwater in the vicinity of the subject property is inferred to be approximately eight feet below ground surface (bgs) with flow toward the northeast.

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Partner did not identify any recognized environmental conditions during the course of this assessment.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify any controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria

established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Prior to redevelopment with the existing improvements, the subject property and adjacent properties were developed with several residential and commercial structures. Former tenants of concern on the subject property and the adjacent properties include two dry cleaners, gas stations, auto repair facilities, print shops, photographers, paint stores, and one former research facility. Extensive soil and groundwater investigations had been performed at the subject property, which indicated that concentrations of chemicals of concern in soil and groundwater were low, and that impacts were of limited extent. In addition, the subgrade parking garage was excavated to a depth of at least 15 feet below ground surface (bgs), and analytical results of soil and groundwater associated with former dry cleaners were non-detect in downgradient wells, suggesting that any residual source soil is likely limited in extent.

  Two Leaking Underground Storage Tank (LUST) cases are associated with former gasoline stations adjacent to the south (1901 University Avenue) and the northeast (1998 University Avenue) of the subject property. A significant number of soil samples were collected from depths ranging from 0.5 to 25 feet bgs at these locations. Analytical results of soil samples generally did not indicate the presence of petroleum hydrocarbons and gasoline constituents. The highest remaining concentrations were found at the former gasoline station at 1901 University Avenue; toluene, ethylbenzene, xylenes, and total petroleum hydrocarbons as gasoline (TPHg) were reported in a sample collected from 24 feet bgs at maximum concentrations of 0.14 milligrams per kilogram (mg/kg); 0.043 mg/kg; 0.009 mg/kg; and 2.0 mg/kg, respectively. The former commercial use of the subject property and adjacent properties by environmentally-sensitive tenants, and the associated closure of the LUST cases, is considered a historical recognized environmental condition. Based on the extensive environmental investigations conducted, regulatory case closure, and extensive soil excavation conducted to accommodate the subgrade parking garage, no further investigation of the subject property appears warranted at this time.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Partner did not identify any environmental issues during the course of this assessment.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 1900, 1950 & 2000 East University Avenue in East Palo Alto, San Mateo County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of recognized environmental conditions or environmental issues in connection with the subject property. Historical recognized environmental conditions were identified as described above. Based on the conclusions of this assessment, Partner recommends no further investigation of the subject property at this time.

TABLE OF CONTENTS

Figures

Appendices

1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 1900, 1950 & 2000 East University Avenue in East Palo Alto, San Mateo County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject

property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

Columbia REIT – University Circle, LP c/o Columbia Property Trust engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of Columbia REIT – University Circle, LP c/o Columbia Property Trust. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third

parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner was not able to document the historical use of the subject property prior to 1939. The following sources were reviewed during the course of this assessment and found to be limited: aerial photographs were not available prior to 1939; city directories were not available prior to 1970; topographic maps prior to 1943 were of inadequate resolution; and other historical sources such as fire insurance maps did not provide coverage of the subject property prior to 1954. This data failure is not considered critical and does not change the conclusions of this report, as the 1939 aerial photograph revealed the subject property to be developed with commercial and residential structures.
- Partner submitted a Freedom of Information Act (FOIA) request to the San Mateo County Environmental Health Department for information pertaining to hazardous substances, underground storage tanks, releases, inspection records, etc. for the subject property and/or adjacent properties. As of this writing, this agency has not responded to Partner's request. Based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.
- Partner observed approximately 20% of all interior units and all common areas. Based on the size and nature of use of the unobserved units (offices), this limited method of survey is not expected to alter the overall findings of this assessment.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 1900, 1950 & 2000 East University Avenue in East Palo Alto, California is located on the western side of East University Avenue, northern side of Woodland Avenue and the eastern side of Manhattan Avenue. According to the San Mateo County Assessor, the subject property is identified as Assessor Parcel Numbers 063-680-130, 063-680-190, and 063-680-020, and ownership is currently vested in Columbia REIT – University Circle LP since 2005.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property is currently occupied by University Circle for commercial office use. On-site operations consist of commercial office activities, medical and dental office uses, restaurant, cellular telephone equipment uses and facility maintenance. The subject property consists of three 6-story office buildings over a subgrade parking garage. The buildings are located on the western and eastern sides of University Circle, an internal roadway. The interiors of the buildings are subdivided into various tenant spaces, offices, conference rooms, employee break areas, and restrooms. A decorative water feature, seating areas and an outdoor kitchen/lounge are located near the center of the subject property, with asphalt-paved parking/drive areas around the perimeter, and associated landscaping at various locations. Other than California Ear Institute (1900 #101B), Kasey K. Li DDS (1900 #105B), San Francisco Soup Company (1950 #101A) and Cingular Wireless PCS & Sprint Spectrum (cellular equipment), the subject property is occupied exclusively by various professional office tenants.

The subject property is designated for commercial development by the City of East Palo Alto.

The subject property was identified on the San Mateo County Business Inventory (SMCBI), Facility and Manifest (HAZNET), Facility Index System (FINDS), California Environmental Reporting System (CERS), Enforcement Compliance History Information (ECHO), Resource Conservation Recovery Act Non-Generator (RCRA Non-Gen), Air Emissions (EMI), EDR Historical Cleaners and RCRA Small Quantity Generator (RCRA-SQG) databases in the regulatory database report, as further discussed in Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a mixed commercial and residential area of San Mateo County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

Immediately Surrounding Properties

North: The Four Seasons Hotel (2050 East University Avenue) and U.S. Highway 101.

South: Woodland Avenue, beyond which is residential development (79-95 Crescent Drive & 1875 University Avenue) and San Francisquito Creek.

East: East University Avenue, beyond which are multi-family residences (1609 Woodland Avenue & 1943 Capitol Avenue) and a Highway 101 on-ramp.

West: Manhattan Avenue, beyond which are Woodland Park Apartments (1901-1991, 2001 & 2033 Manhattan Avenue) and Launderland (1997 Manhattan Avenue).

The adjacent properties to the north, east and west were identified on the Leaking Underground Storage Tank (LUST), SMCBI, Statewide Environmental Evaluation and Planning System UST (SWEEPS UST), California Facility Inventory Database UST (CA FID UST), EDR Historical Auto Station, Historical UST (HIST UST), Historical Cortese, CERS, CERS Hazardous Waste, HAZNET, RCRA-SQG and EDR Historical Cleaners databases in the regulatory database report of Section 4.2.

2.4 Physical Setting Sources

2.4.1 Topography

The United States Geological Survey (USGS) *Palo Alto, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. The subject property lies at an approximate elevation of 32 feet above mean sea level (msl) with a local topographic gradient toward the northeast. No site-specific details are depicted on the 2015 map.

A copy of the most recent topographic map is included as Figure 3 of this report.

2.4.2 Hydrology

The nearest surface water in the vicinity of the subject property is San Francisquito Creek located adjacent to the south of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed on the subject property during this assessment.

According to available information, a public water system operated by American Water Enterprises serves the subject property vicinity. According to American Water Enterprises website, shallow groundwater directly beneath the subject property is not utilized for domestic purposes. American Water Enterprises obtains water from the San Francisco Public Utilities Commission (CPUC), who obtains water from the Hetch Hetchy Watershed in the Sierra Nevada Mountains.

According to groundwater monitoring conducted at the subject property, groundwater in the vicinity of the subject property is encountered at approximately eight feet below ground surface (bgs) and flows towards the northeast.

2.4.3 Geology/Soils

The subject property is situated within close proximity to the southwestern side of San Francisco Bay in the coastal region of the State of California. The rocks that underlie the basin surrounding San Francisco Bay and form the surrounding mountains are primarily marine sediments and metamorphic and igneous rocks, all of which are Mesozoic age but locally include rocks of the Cenozoic age. The estimated depth to bedrock at the subject property is approximately 1,200 to 1,300 feet below the ground surface.

The U. S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) National Cooperative Soil Survey soil maps were reviewed. According to the USDA, the soils underlying the subject property are currently mapped as Urban Land. The Urban Land unit consists of areas that are more than 85 percent developed with structures such as office buildings, hotels, multiple-unit dwellings, shopping centers, streets, sidewalks, and parking areas. The soils in Urban Land areas have been altered to the extent that they can no longer be separated into individual soil units. The Urban Land unit includes small areas of soils that have been covered by fill material.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06081C0309F, dated April 5, 2019, the subject property appears to be located in Zone X, an area located outside of the 100-year and 500-year flood plains.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

Historical Use Information		
Period/Date	**Source**	**Description/Use**
1887-1902	Topographic Maps	Vacant land with the former University Avenue bisecting the eastern portion in a north-south direction
1939-1999	Aerial Photographs, Topographic Maps, Sanborn Maps, Previous Report	Commercial and residential buildings
2000/2003-Present	Aerial Photographs, Topographic Maps, City Directories, Previous Report	Commercial office buildings

According to review of available historical data, it appears that the subject property was developed for commercial use prior to 1939. University Avenue formerly bisected the eastern portion of the subject, with multiple commercial structures on either side of University Avenue. Land use remained relatively unchanged until 1999. The former structures were subsequently demolished, and the current improvements were constructed in 2000 through 2003. Various tenants of environmental concern were formerly located on and in the vicinity of the subject property, including gasoline stations, two dry cleaners, auto repair facilities, print shops, paint stores, and a research facility. Since completion of the existing improvements, various professional and medical office tenants have occupied the buildings.

Potential environmental concerns were identified in association with the former uses of the subject property, as further discussed in Section 5.2.6.

3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Data Resources (EDR) and Google Earth. The following was observed on the subject property and adjacent properties during the aerial photograph review:

Date: 1939	***Scale: 1"=500'***
Subject Property:	The subject property appears to be developed with multiple residential and commercial-type buildings and a roadway, and contains vacant land.
North:	The area adjacent to the north appears to be developed with residential and commercial-type buildings, an apparent gasoline service station and roads.
South:	The area adjacent to the south appears to be developed with a residential-type building and a road, with a creek, residential development and vacant land farther south.
East:	The area adjacent to the east appears to be developed with residential and commercial-type buildings, an apparent gasoline service station and roads.
West:	The area adjacent to the west appears to be developed with residential-type buildings and roads, and contains vacant land.

Date: 1943	***Scale: 1"=500'***
Subject Property:	No significant changes visible
North:	No significant changes visible

Date: 1943		***Scale: 1"=500'***
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Date: 1948		***Scale: 1"=500'***
Subject Property:	No significant changes visible, except additional commercial-type buildings are visible on the property	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	The area adjacent to the west of a road appears to be developed with residential and commercial-type buildings, and contains vacant land.	

Date: 1950		***Scale: 1"=500'***
Subject Property:	No significant changes visible	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Date: 1958		***Scale: 1"=500'***
Subject Property:	The subject property appears to be developed with multiple commercial-type buildings, parking lots and a roadway.	
North:	The area adjacent to the north appears to be developed with commercial-type buildings, an apparent gasoline service station and roads.	
South:	The area adjacent to the south appears to be developed with a commercial-type building and a road, with a creek and residential development farther south.	
East:	The area adjacent to the east of a road appears to be developed with residential-type buildings and freeway on and off-ramps.	
West:	No significant changes visible	

Dates: 1963, 1968, 1974, 1982, 1991 and 1998		***Scale: 1"=500'***
Subject Property:	No significant changes visible	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Date: 2005		***Scale: 1"=500'***
Subject Property:	The subject property appears to be developed with the existing commercial-type buildings, central courtyard and paved parking/drive areas.	
North:	The area adjacent to the north appears to be developed with the existing hotel, parking garage and paved areas, with US Highway 101 farther north.	
South:	The area adjacent to the south appears to be developed with a parking lot and a road, with a creek and residential development farther south.	
East:	The area adjacent to the east appears to be developed with a hotel, parking garage and a road, with residential development and freeway on and off-ramps farther east.	

Date: 2005	*Scale: 1"=500'*
West:	The area adjacent to the west appears to be developed with residential and commercial-type buildings, and a road.

Dates 2009, 2010, 2012 and 2017	*Scale: 1"=500'*
Subject Property:	No significant changes visible
North:	No significant changes visible
South:	No significant changes visible
East:	No significant changes visible
West:	No significant changes visible

Copies of aerial photographs are included in Appendix B of this report.

3.2 Fire Insurance Maps

Partner reviewed the collection of Sanborn Fire insurance maps from EDR. The following was observed on the subject property and adjacent properties during the fire insurance map review:

Date: 1947	
Subject Property:	The subject property is not depicted on the Sanborn map.
North:	The area adjacent to the north is not depicted on the Sanborn map.
South:	The area adjacent to the south is not depicted on the Sanborn map with the exception of a creek.
East:	The area adjacent to the east is not depicted on the Sanborn map.
West:	The area adjacent to the west is not depicted on the Sanborn map.

Dates: 1948 and 1949	
Subject Property:	No significant changes depicted
North:	No significant changes depicted
South:	No significant changes depicted
East:	No significant changes depicted
West:	No significant changes depicted

Date: 1954	
Subject Property:	The subject property is depicted as developed with several residences, stores, restaurants, warehouses, paint store, dry cleaning shop, offices, a bank and a portion of an electronics manufacturing facility.
North:	The area adjacent to the north is depicted as developed with offices, residences, restaurant, stores, electronics manufacturing facility, and a gasoline service station.
South:	The area adjacent to the south is depicted as developed with residences, a gasoline service station and Woodland Avenue, with Francisquito Creek farther south.
East:	The area adjacent to the east is depicted as developed with residences, stores, gasoline service stations, electronics manufacturing facility, offices and garages.
West:	The area adjacent to the of Manhattan Avenue is depicted as developed with residences and a road.

Date: 1956	
Subject Property:	The subject property is not depicted on the Sanborn map.
North:	The area adjacent to the north is not depicted on the Sanborn map.
South:	The area adjacent to the south is not depicted on the Sanborn map with the exception of a creek.
East:	The area adjacent to the east is not depicted on the Sanborn map.
West:	The area adjacent to the west is not depicted on the Sanborn map.

Date: 1968	
Subject Property:	The subject property is depicted as developed with several residences, stores, lab, print shop, bank, warehouses, electronic lab, electronic manufacturing facility, paint store, dry cleaning facility, restaurants, roads and offices.
North:	The area adjacent to the north is depicted as developed with offices, auto laundry, parking lot, stores, restaurants, offices, auto body shop and gasoline services station.
South:	The area adjacent to the south is depicted as developed with residences, a gasoline service station and Woodland Avenue, with Francisquito Creek farther south.
East:	The area adjacent to the east is depicted as developed with an auto laundry, parking lots, stores, restaurants, offices, gasoline service station, auto body shop and a road, with residential development and freeway on and off-ramps farther east.
West:	The area adjacent to the of Manhattan Avenue is depicted as developed with residences, a store and a road.

Date: 1978	
Subject Property:	The subject property is not depicted on the Sanborn map.
North:	The area adjacent to the north is not depicted on the Sanborn map.
South:	The area adjacent to the south is not depicted on the Sanborn map with the exception of a creek.
East:	The area adjacent to the east is not depicted on the Sanborn map.
West:	The area adjacent to the west is not depicted on the Sanborn map.

Copies of reviewed Sanborn Maps are included in Appendix B of this report.

3.3 City Directories

Partner reviewed historical city directories obtained from EDR for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

City Directory Search for 1900, 1950 & 2000 East University Avenue,* and 1900, 1906-1975 University Avenue (All Addresses) *(Subject Property)	
Year(s)	**Occupant Listed**
1970	Various individuals and businesses (multiple addresses on University Avenue); and Crescent Cleaners (1930 University Avenue).
1977 and 1980	Various individuals and businesses (multiple addresses on University Avenue); Crescent Cleaners (1930 University Avenue); and Cost Less Cleaners (1968 University Avenue)
1985	Various individuals and businesses (multiple addresses on University Avenue); and Crescent Cleaners (1930 University Avenue)
1992, 1995 and 1999	Various individuals and businesses (multiple addresses on University Avenue); and Cost Less Cleaners (1968 University Avenue)

City Directory Search for 1900, 1950 & 2000 East University Avenue,* and 1900, 1906-1975 University Avenue (All Addresses) *(Subject Property)	
Year(s)	**Occupant Listed**
2003, 2008 and 2013	Various commercial office listings – no environmentally significant information identified (1900, 1950 and 2000 University Avenue)

According to the city directory review, the subject property has been occupied dry cleaning tenants. Refer to Section 5.2.6 for a discussion of the former uses of the subject property of potential environmental concern.

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
1970	Various individuals and businesses (multiple addresses on University Avenue); and Kimballs Union Station (1901 University Avenue)
1977	Various individuals and businesses (multiple addresses on University Avenue); Kimballs Union Station (1901 University Avenue); and University Richfield Service (1988 University Avenue)
1980	Various individuals and businesses (multiple addresses on University Avenue); Kimballs Union Station (1901 University Avenue); and University Arco (1988 University Avenue)
1985	Various individuals and businesses (multiple addresses on University Avenue); and University Union Service (1901 University Avenue)
1992	Various individuals and businesses (multiple addresses on University Avenue); and Smog Check Stations (1901 University Avenue)
1995 and 1999	Various individuals and businesses (multiple addresses on University Avenue)
2003	Clark Pacific Corp (2050 University Avenue)
2008	East Palo Alto Hotel Development and Four Seasons Hotel (2050 University Avenue)
2013	Four Seasons Hotel Silicon Valley (2050 University Avenue)

According to the city directory review, the adjacent properties have been occupied by various gasoline service stations dating back to 1970. Refer to Section 4.2.3 for a discussion of the adjacent property uses of potential environmental concern.

Copies of reviewed city directories are not included in Appendix B of this report.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from EDR. The following was observed on the subject property and adjacent properties during the topographic map review:

Date: 1897	
Subject Property:	The subject property is depicted as undeveloped land and a road.
North:	The area adjacent to the north is depicted as undeveloped land and a road.
South:	The area adjacent to the south is depicted as undeveloped land and a road.
East:	The area adjacent to the east is depicted as undeveloped land and a road.
West:	The area adjacent to the west is depicted as undeveloped land.

Dates: 1899 and 1902

Subject Property: No significant changes depicted
North: No significant changes depicted
South: No significant changes depicted
East: No significant changes depicted
West: No significant changes depicted

Date: 1943

Subject Property: The subject property is depicted as developed with a road, and is located in a developed urban area.
North: The area adjacent to the north is depicted as a road, and is located in a developed urban area.
South: The area adjacent to the south is depicted as a road, creek and developed urban area.
East: The area adjacent to the east is depicted as roads and a developed urban area.
West: The area adjacent to the west of a road is located in a developed urban area.

Dates: 1947, 1948 and 1953

Subject Property: No significant changes depicted
North: No significant changes depicted
South: No significant changes depicted
East: No significant changes depicted
West: No significant changes depicted

Date: 1961

Subject Property: No significant changes depicted
North: No significant changes depicted
South: No significant changes depicted
East: The area adjacent to the east is depicted as a road, developed urban area and University Avenue, with freeway on and off-ramps and a developed urban area farther east.
West: No significant changes depicted

Dates: 1968, 1973, 1994 and 1999

Subject Property: No significant changes depicted
North: No significant changes depicted
South: No significant changes depicted
East: No significant changes depicted
West: No significant changes depicted

Date: 2012

Subject Property: The subject property is depicted as a developed urban area and University Circle.
North: The area adjacent to the north is depicted as a developed urban area.
South: The area adjacent to the south is depicted as roads, a developed urban area and Francisquito Creek.
East: No significant changes depicted
West: No significant changes depicted

Copies of reviewed topographic maps are included in Appendix B of this report.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 Health Department

Regulatory Agency Data	
Name of Agency:	San Mateo County Health Services Department (SMCHSD)
Point of Contact:	Ms. Jean De Tar
Agency Address:	2000 Alameda da las Pulgas, Suite 100, San Mateo, California 94403
Agency Phone Number:	(650) 372-6200
Date of Contact:	February 17, 2020
Method of Communication:	Online
Summary of Communication:	As of the date of this report, Partner has not received a response from the SMCHSD for inclusion in this report. However, during Partner's previous Phase I Environmental Site Assessment conducted in 2017 and discussed in Section 5.2.6, SMCHSD records were obtained, as summarized below.

According to records reviewed, Wells REIT II-University Circle maintains a permit for the storage of diesel fuel in the emergency generators. The current permit (number 13-0616) expires on April 1, 2018. Hazardous Materials Business Plans (HMBPs) from 2011 and 2015 indicated diesel fuel stored in the ASTs associated with the generators is the only hazardous material onsite; each AST is listed as 600 gallons in capacity. A HMBP Inspection Report from 2013 noted a fire pump room floor containment drain plug was not observed; no other violations were noted.

AT&T maintains a permit for the storage of hazardous materials. The current permit (number 16-0131) expires in February 2021. A HMBP from 2011 identified lead-acid batteries as the only hazardous materials onsite. No violations were noted in the most recent HMBP Inspection Report from February 2016.

4.1.2 Fire Department

Regulatory Agency Data	
Name of Agency:	Menlo Park Fire District (MPFD)
Agency Address:	170 Middlefield Road, Menlo Park, California 94025
Agency Phone Number:	(650) 688-8400
Date of Contact:	February 18, 2020
Method of Communication:	Telephone
Summary of Communication:	No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the MPFD.

4.1.3 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	Bay Area Air Quality Management District (BAAQMD)
Point of Contact:	Rochelle Reed
Agency Address:	939 Ellis Street, San Francisco, California 94109
Agency Phone Number:	(415) 771-6000
Date of Contact:	February 18, 2020
Method of Communication:	Email and Telephone
Summary of Communication:	The subject property, identified as University Circle at 1900 University Avenue, maintains a current Permit to Operate (PTO) for the three emergency generators. No other PTOs, Notices of Violation (NOV), or Notices to Comply (NTC) or the presence of AULs, dry cleaning machines, or USTs were on file for the subject property with the BAAQMD.

4.1.4 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	San Francisco Bay Regional Water Quality Control Board (RWQCB)
Point of Contact:	Geotracker database (http://geotracker.waterboards.ca.gov/)
Agency Address:	1515 Clay Street #1400, Oakland, California 94601
Agency Phone Number:	(510) 622-2300
Date of Contact:	February 17, 2020
Method of Communication:	Online
Summary of Communication:	The subject property is not identified on the RWQCB Geotracker database.

4.1.5 Department of Toxic Substances Control

Regulatory Agency Data	
Name of Agency:	California Department of Toxic Substances Control (DTSC) Envirostor and Hazardous Waste Tracking System (HWTS)
Point of Contact:	http://www.envirostor.dtsc.ca.gov/public/ http://hwts.dtsc.ca.gov/report_search.cfm?id=5
Agency Address:	1001 I Street, Sacramento, California 94601
Agency Phone Number:	(916) 324-1826
Date of Contact:	February 17, 2020
Method of Communication:	Online
Summary of Communication:	The subject property is not identified on the Envirostor database. The subject property is identified on the HWTS database: • The subject property, identified as University Circle Investors, maintained three EPA ID numbers, which are all listed as inactive. According to the HWTS, 0.58 tons of hazardous waste was generated in 2001. • The subject property, identified as California Ear Institute at 1900 University Avenue, is identified on the HWTS. This former tenant generated hazardous waste in 1994 through 1997, with annual quantities ranging from 0.88 to 1.15 tons. • Kasey Li MD, Inc. (1900 University Avenue, Suite 105) is listed as an active hazardous waste transporter site as of December 27, 2019. No manifest records were available for review. • Palo Alto Medical Foundation (1950 University Avenue) is listed as an inactive hazardous waste transporter site as of September 15, 2017. Manifest records identified the removal and offsite disposal of off-specification, aged or surplus organic wastes, inorganic waste and pharmaceutical wastes under manifest in 2017 and 2018. • Sutter Bay Medical Foundation (1950 University Avenue) is listed as an active hazardous waste transporter site as of August 22, 2019. No manifest records were available for review.

4.1.6 Building Department

Regulatory Agency Data	
Name of Agency:	East Palo Alto Building Department (EPABD)
Point of Contact:	Ms. Maria Buell
Agency Address:	1960 Tate Street, East Palo Alto, California 94303
Agency Phone Number:	(650) 853-3189
Date of Contact:	February 18 and 20, 2020
Method of Communication:	Telephone and In Person
Summary of Communication:	Multiple building, electrical, plumbing, and mechanical permits were on file for various tenant improvements and renovations at the subject property. According to building department records, the subject property buildings were constructed in 2000 through 2003. The original building permits or Certificates of Occupancy were not on file for the previous structures.

4.1.7 Planning Department

Regulatory Agency Data	
Name of Agency:	East Palo Alto Community Development Department (EPACDD)
Agency Address:	1960 Tate Street, East Palo Alto, California 94303
Agency Phone Number:	(650) 853-3189
Date of Contact:	February 18, 2020
Method of Communication:	Online
Summary of Communication:	According to records reviewed, the subject property is zoned PUD ("Planned Unit Development") for commercial use by the City of East Palo Alto.

4.1.8 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Division of Oil, Gas and Geothermal Resources (DOGGR)
Point of Contact:	http://maps.conservation.ca.gov/doggr/index.html#close
Agency Address:	801 K Street, MS 18-05, Sacramento, California 94612
Agency Phone Number:	(916) 445-9686
Date of Contact:	February 17, 2020
Method of Communication:	Online
Summary of Communication:	According to DOGGR, no oil or gas wells are located on or adjacent to the subject property.

4.1.9 Assessor's Office

Regulatory Agency Data	
Name of Agency:	San Mateo County Assessor (SMCA)
Agency Phone Number:	(650) 363-4500
Date of Contact:	February 17, 2020
Method of Communication:	Online
Summary of Communication:	According to records reviewed, the subject property is identified by APNs 063-680-130, -190, and -020, and ownership has been vested in Columbia Reit – University Circle, LP since 2005. The subject property buildings total 457,982 SF and were constructed in 2001 and 2002.

Copies of pertinent documents are included in Appendix B of this report.

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by Environmental Data Resources, Inc. (EDR). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Radius Report Data				
Database	**Search Radius (mile)**	**Subject Property**	**Adjacent Properties**	**Sites of Concern**
Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG, Non-Gen)	0.25	**Y**	**Y**	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	N	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site	0.50	N	**Y**	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	N	N	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.50	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
EDR MGP	Varies	N	N	N
EDR US Hist Auto Station	Varies	N	**Y**	N
EDR US Hist Cleaners	Varies	**Y**	**Y**	N
SMCBI	0.25	**Y**	**Y**	N
HAZNET	Varies	**Y**	**Y**	N
FINDS	Varies	**Y**	N	N
CERS	0.25	**Y**	**Y**	N
ECHO	Varies	**Y**	N	N
EMI	Varies	**Y**	N	N
SWEEPS UST, CA FID UST, HIST UST	0.25	N	**Y**	N
Historic Cortese	0.50	N	**Y**	N
CERS Hazardous Waste	0.25	N	**Y**	N

4.2.2 Subject Property Listings

The subject property was identified on the SMCBI, HAZNET, FINDS, CERS, ECHO, RCRA Non-Gen, EMI, EDR Historical Cleaners and RCRA-SQG databases in the regulatory database report, as discussed below:

- University Circle, at 1900 University Avenue, is listed in the San Mateo County BI database. This listing indicates the subject property is regulated by SMCHSD as a motor vehicle fuel storage facility and refers to the AST associated with the emergency generator. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- University Circle Investors, at 1950 University Avenue, is listed in the San Mateo County BI database. This listing indicates the subject property is regulated by SMCHSD as a motor vehicle

fuel storage facility and refers to the AST associated with the emergency generator. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.

- California Ear Institute, at 1900 University Avenue, is listed in the HAZNET database for the removal and offsite disposal of photo chemical/photo processing wastes, metal sludge and unspecified wastes from 1994 to 1997. There are no listings pertaining to any spills or releases of hazardous substances associated with this former occupant of the subject property. Based on the regulatory oversight, these listings are not expected to represent a recognized environmental condition.
- University Circle, at 1900 University Avenue, is listed in the FINDS, CERS and EMI databases. The EMI and CERS listings indicate the subject property was permitted for air emissions in 2007 through 2016, which corresponds to the emergency generators. The FINDS listing is a 'pointer' indicator referring to the EMI listing. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, these listings are not expected to represent a recognized environmental condition.
- University Circle Investors, at 1900 University Avenue, is listed in the HAZNET database. The HAZNET listing indicates 0.08 tons of alkaline wastes and 0.5 tons of organic wastes were generated in 2001. Based on the regulatory oversight and minor quantities generated, this listing is not expected to represent a recognized environmental condition.
- AT&T Corporation, at 2000 University Avenue, is listed in the CERS database as a registered chemical storage facility with no reported violations. There are no listings pertaining to any spills or releases of hazardous substances associated with this former occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- Sutter Bay Medical Foundation/PAMF, at 1950 University Avenue, is listed in the FINDS and ECHO databases as a RCRA facility. The FINDS listing is a 'pointer' indicator referring to the RCRA listing. The San Mateo County BI Listing indicated that this site is a registered small quantity hazardous waste generator site. The RCRA Non-Gen database indicated that this site is a registered non-generator of hazardous wastes with no reported violations. There are no listings pertaining to any spills or releases of hazardous substances associated with this former occupant of the subject property. Based on the regulatory oversight, these listings are not expected to represent a recognized environmental condition.
- University Circle Investors, at 2000 University Avenue, is listed in the San Mateo County BI database. This listing indicates the subject property is regulated by SMCHSD as a motor vehicle fuel storage facility and storm water annual fee site, and refers to the AST associated with the emergency generator and storm water discharges. There are no listings pertaining to any spills or releases of hazardous substances associated with this former occupant of the subject property.

Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.

- SF Soup Company at 1950 University Avenue, is listed in the San Mateo County BI database as an annual storm water annual fee site. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- NTT Advanced Technology, at 1950 University Avenue, is listed in the FINDS database. The FINDS listing is a 'pointer' indicator referring to the Toxic Substances Control Act listing. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, these listings are not expected to represent a recognized environmental condition.
- Wells REIT II University Circle, at 1900 University Avenue, is listed in the FINDS database. The FINDS listing is a 'pointer' indicator referring to the State Master database. The San Mateo County BI listing indicated that this site is an inactive motor vehicle fuel storage, storm water annual fee and hazardous material storage site. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, these listings are not expected to represent a recognized environmental condition.
- AT&T Mobility, at 1900 University Avenue, is listed in the CERS database as a registered chemical storage facility. The FINDS listing indicated that this site is listed in the State Master database. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- CEI Medical Group at 1900 University Avenue, is listed in the San Mateo County BI database as a small quantity generator site. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- AT&T California, at 1950 University Avenue, is listed in the CERS database as a registered chemical storage facility. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- University Circle Investors, at University, Woodland and Manhattan, is listed in the HAZNET database. The HAZNET listing indicates that other inorganic solid wastes, oil/water separation sludge and other empty containers were transported to an offsite disposal facility under manifest in 2000. Based on the regulatory oversight and minor quantities generated, this listing is not expected to represent a recognized environmental condition.

- Fuel at 1950 University Avenue, is listed in the San Mateo County BI database as a storm water annual fee site. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.
- Cost Less Cleaners, at 1968 University Avenue, is listed in the EDR Historical Cleaners database as an occupant of the subject property from 1987 to 2000. Based on the redevelopment of the property and previous environmental investigations conducted at the subject property (discussed in Section 5.2.6), this listing is not expected to represent a recognized environmental condition.
- Crescent Cleaners, at 1930 University Avenue, is listed on the EDR Historical Cleaners database as an occupant of this site from 1969 to 1987. This site is listed in the RCRA-SQG, FINDS, and ECHO databases. The RCRA listing this former tenant generated hazardous waste. The FINDS listing is a 'pointer' indicator referring to the RCRA listing, and the ECHO listing provides enforcement & compliance information. Based on the redevelopment of the property and previous environmental investigations conducted at the subject property (discussed in Section 5.2.6) these listings are not expected to represent a recognized environmental condition.
- University Circle Redevelopment, at 1973 University, is listed in the San Mateo County BI database. This listing indicates this facility was formerly regulated by SMCHSD as a UST facility, and is listed as inactive. Based on the redevelopment of the property and previous environmental investigations conducted at the subject property (discussed in Section 5.2.6), this listing is not expected to represent a recognized environmental condition.
- University Circle, at 1941 University, is listed in the San Mateo County BI database. This listing indicates this facility was formerly regulated by SMCHSD as a UST facility, and is listed as inactive. Based on the redevelopment of the property and previous environmental investigations conducted at the subject property (discussed in Section 5.2.6), this listing is not expected to represent a recognized environmental condition.
- China Joy at 1972 University Avenue, is listed in the San Mateo County BI database as a storm water annual fee site. There are no listings pertaining to any spills or releases of hazardous substances associated with this occupant of the subject property. Based on the regulatory oversight, this listing is not expected to represent a recognized environmental condition.

4.2.3 Adjacent Property Listings

The adjacent properties to the north, east and west were identified on the LUST, SMCBI, SWEEPS UST, CA FID UST, EDR Historical Auto Stations, HIST UST, Historic Cortese, CERS, CERS Hazardous Waste, HAZNET, RCRA-SQG and EDR Historical Cleaners databases in the regulatory database report, as discussed below:

- Four Seasons Hotel is listed at 2050 University, adjacent to the northeast of the subject property. This property is listed on the San Mateo County BI database as a waste oil/solvent storage/recycling facility and hazardous materials storage facility. The CERS databases indicated that this site is a registered hazardous waste generator and chemical storage site. The HAZNET listings pertain to the removal and offsite disposal of various hazardous substances under manifest. Based on the lack of listing in other databases indicating violations and/or a release, it

is Partner's opinion that this listing does not represent a recognized environmental condition to the subject property.

- ARCO #749 / Nasser Din Roohi is listed at 1988/1998 University. These listings appear to refer to the former gasoline station adjacent to the northeast of the subject property. This property is listed in the SWEEPS UST, LUST, San Mateo County BI, Historic Cortese, Historic UST, SWEEPS UST, and CA FID UST databases. The SWEEPS UST, Historic UST, and CA FID UST listings refer to former USTs at this location. The San Mateo County BI listing indicates this facility was formerly regulated by SMCHSD as a UST facility, and is listed as inactive. The LUST and Historic Cortese listings refer to an unauthorized release associated with this facility. According to the database report and the RWQCB Geotracker database, a release of gasoline was reported in April 1988, which affected groundwater. The case was closed by the SMCHSD Local Oversight Program (LOP) in September 2000. Based on the regulatory oversight, case closed status, redevelopment of the site, previous environmental investigations conducted at the subject property (discussed in Section 5.2.6), and the down-gradient location, it is Partner's' opinion that these listings do not represent a recognized environmental condition to the subject property.
- Unocal / Union Oil Service Station is listed at 1901 University Avenue, adjacent to the south of the subject property. This property is listed on the Historic Cortese, LUST, SWEEPS UST, Historic UST, and San Mateo County BI databases. The SWEEPS UST and Historic UST listings refer to former USTs at this location. The San Mateo County BI listing indicates this facility was formerly regulated by SMCHSD as a UST facility, and is listed as inactive. The LUST and Historic Cortese listings refer to an unauthorized release associated with this facility. According to the database report and the RWQCB Geotracker database, a release of gasoline was reported in February 1990, which affected groundwater. The case was closed by the SMCHSD LOP in August 1993. Based on the regulatory oversight, case closed status, redevelopment of the site, and previous environmental investigations conducted at the subject property (discussed in Section 5.2.6), it is Partner's' opinion that these listings do not represent a recognized environmental condition to the subject property.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

4.2.4 Sites of Concern Listings

No sites of concern are identified in the regulatory database report.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

4.2.5 Orphan Listings

No orphan listings of concern are identified in the regulatory database report.

A copy of the regulatory database report is included in Appendix C of this report.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from Columbia REIT – University Circle, LP c/o Columbia Property Trust (User of this report).

User Responsibilities

Item	Provided By User	Not Provided By User	Discussed Below	Does Not Apply
Environmental Pre-Survey Questionnaire			**X**	
Title Records, Environmental Liens, and AULs			**X**	
Specialized Knowledge			**X**	
Actual Knowledge			**X**	
Valuation Reduction for Environmental Issues			**X**	
Identification of Key Site Manager	**Section 5.1.3**			
Reason for Performing Phase I ESA	**Section 1.1**			
Prior Environmental Reports			**X**	
Other				**X**

5.1 Interviews

5.1.1 Interview with Owner

The owner of the subject property since 2005, identified as Columbia REIT – University Circle LP, was not available to be interviewed at the time of the assessment.

5.1.2 Interview with Report User

Please refer to Section 5.2 below for information requested from the Report User.

5.1.3 Interview with Key Site Manager

Ms. Michelle Goudeaux, key site manager and Property Manager, indicated that she had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

According to Ms. Goudeaux, there have not been significant changes to the subject property since Partner's 2017 assessment except for renovations to the central courtyard, fountains, and seating areas. Ms. Goudeaux was unaware of any prior hazardous substance spill/release incidents, water intrusion issues or mold at the subject property. Ms. Goudeaux stated that she has been the Property Manager for four years.

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

5.1.5 Interview with Others

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and AULs

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment.

5.2.2 Specialized Knowledge

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

5.2.3 Actual Knowledge of the User

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

5.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 Previous Reports and Other Provided Documentation

The following information was provided to Partner for review during the course of this assessment:

Phase I Environmental Site Assessment, Partner Engineering and Science, Inc. (March 23, 2017)

Partner prepared this report on behalf of Allianz Real Estate of America LLC. The assessment was performed in accordance with ASTM Standard E1527-13. The assessment consisted of a site reconnaissance, interviews with knowledgeable personnel, review of historical information, and a review of federal, state and local regulatory databases. Pertinent information contained in this report is summarized below:

- At the time of the 2017 assessment, the subject property was developed with the existing improvements.
- Partner reviewed a prior Phase I ESA of the subject property that was prepared by LandAmerica Assessment Corporation (LAC) on August 9, 2005. At the time of the 2005 assessment, the subject property was developed with the existing improvements, and occupied by various commercial office tenants. According to the LandAmerica report, the subject property was formerly developed with a downtown commercial district, with various former tenants of concern including a dry cleaner, gas stations, auto repair facilities, print shops, photographers, paint stores, and a research facility. No current USTs were identified on the subject property. Several former USTs were identified on the subject property, which had been removed during site redevelopment. Three ASTs associated with the diesel-powered generators were identified on the subject property. Oil and hazardous substances were identified at the subject property in the form of diesel fuel and cleaning and maintenance products.

  LAC reviewed prior Phase I and Phase II ESA reports of the subject property that were prepared by Erler & Kalinowski in 1999. Pertinent information in the prior assessments is discussed below:

  - According to the EKI report, the historical uses of the subject property are typical of a downtown commercial district with the exception of the presence of former research laboratories. Based on the results of the Phase I, primary areas of potential environmental concern include three former dry cleaners, four former gas stations, auto repair facilities, print shops, photographers, paint stores, and one former research facility. Extensive soil and groundwater investigations had been performed at the subject property, which indicated that concentrations of chemicals of concern in soil and groundwater are low, and that impacts are of limited extent. In addition, the subgrade

parking garage was excavated to a depth of 15 feet bgs, and analytical results of soil and groundwater associated with former dry cleaners were non detect in downgradient wells, suggesting that any residual source soil was likely limited in extent.

- Four gas stations had been located at the subject property. *Based on review of city directories and Sanborn maps, two gas stations were located adjacent to the south and a third across University Avenue to the northeast. None located onsite.* A significant number of soil samples were collected from depths ranging from 0.5 to 25 feet bgs. Analytical results of soil samples generally did not indicate the presence of petroleum hydrocarbons and gasoline constituents. The highest remaining concentrations were found at the former gasoline station at 1901 University Avenue; toluene, ethylbenzene, xylenes, and total petroleum hydrocarbons as gasoline (TPHg) were reported in a sample collected from 24 feet bgs at maximum concentrations of 0.14 milligrams per kilogram (mg/kg); 0.043 mg/kg; 0.009 mg/kg; and 2.0 mg/kg, respectively.
- Based on the excavation of soil to depths of at least 15 feet bgs to accommodate the parking garage, along with natural attenuation, EKI recommended no further investigation of the subject property.
- LAC identified no RECs and recommended no further investigation.

During the 2017 assessment, Partner did not identify and RECs, but did identify the following HREC:

- Prior to redevelopment with the existing improvements, the subject property and adjacent properties were developed with several residential and commercial structures. Former tenants of concern on the subject property and the adjacent properties include two dry cleaners, gas stations, auto repair facilities, print shops, photographers, paint stores, and one former research facility. Extensive soil and groundwater investigations had been performed at the subject property, which indicated that concentrations of chemicals of concern in soil and groundwater were low, and that impacts were of limited extent. In addition, the subgrade parking garage was excavated to a depth of at least 15 feet bgs, and analytical results of soil and groundwater associated with former dry cleaners were non-detect in downgradient wells, suggesting that any residual source soil is likely limited in extent.

  Two Leaking Underground Storage Tank (LUST) cases are associated with former gasoline stations adjacent to the south (1901 University Avenue) and the northeast (1998 University Avenue) of the subject property. A significant number of soil samples were collected from depths ranging from 0.5 to 25 feet below ground surface (bgs) at these locations. Analytical results of soil samples generally did not indicate the presence of petroleum hydrocarbons and gasoline constituents. The highest remaining concentrations were found at the former gasoline station at 1901 University Avenue; toluene, ethylbenzene, xylenes, and total petroleum hydrocarbons as gasoline (TPHg) were reported in a sample collected from 24 feet bgs at maximum concentrations of 0.14 milligrams per kilogram (mg/kg); 0.043 mg/kg; 0.009 mg/kg; and 2.0 mg/kg, respectively. The former commercial use of the subject property and adjacent properties by environmentally-sensitive tenants, and the associated closure of the LUST cases, is considered a historical

recognized environmental condition. Based on the extensive environmental investigations conducted, case closure, and extensive soil excavation conducted to accommodate the subgrade parking garage, no further investigation of the subject property appears warranted at this time.

Copies of pertinent pages reviewed are included in Appendix B of this report.

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	Christopher Olsen
Site Assessment Conducted On:	February 20, 2020

The table below provides the subject property personnel interviewed during the field reconnaissance:

Site Visit Personnel for 1900, 1950 & 2000 East University Avenue (Subject Property)			
Name	**Title/Role**	**Contact Number**	**Site Walk* Yes/No**
Michelle Goudeaux	Property Manager	(510) 677-9228	Yes
Mr. Mathew Abeyta	Engineer	(510) 677-9228	Yes

* Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property

No potential environmental concerns were identified during the onsite reconnaissance.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Non-regulated solid waste, general refuse generated from typical office/commercial operations is disposed of in commercial closed-top dumpsters located in enclosures on the southeast, northeast, and southwest portions of the subject property. An independent solid waste disposal contractor, Recology, removes solid waste from the subject property on a regular contracted basis. According to property personnel, only non-regulated trash generated on-site is collected in the respective solid waste dumpsters.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges on the subject property are directed into the municipal sanitary sewer system operated by the City of East Palo Alto. According to the City of East Palo Alto, the existing buildings were connected to the municipal sanitary sewer system upon completion in 2003. No wastewater treatment facilities or septic systems are located on the subject property.

6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily by sheet flow action across the paved surfaces towards storm water drains located throughout the subject property and in the public right of way. Site storm water from roofs, landscaped areas, and paved areas is directed to on-site concrete swales, which drain to the public right of way, and to on-site storm water drains. The subject property is connected to a municipal owned and maintained sewer system.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Fish and Wildlife Service. A comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments,

wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas provided by Pacific Gas & Electric Company (PG&E). The mechanical system is comprised of rooftop-mounted boxcar units. Hot water is provided by central natural gas boiler units.

6.1.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of the sanitary sewer system. No industrial process is currently performed at the subject property.

6.1.7 Septic Systems

No septic systems were observed or reported on the subject property.

6.1.8 Additional Site Observations

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

Partner identified hazardous substances used, stored, and/or generated on the subject property as noted in the following table:

Hazardous Substances and/or Petroleum Products Noted Onsite				
Substance	**Container Size**	**Location**	**Nature of Use**	**Disposal Method**
Diesel fuel	1x 600-gallons; 2x 300-gallons	Emergency Generators	Emergency	Used until exhausted
Diesel fuel	2x 100-gallons	Fire Pump Room	Emergency	Used until exhausted
Lead-acid Batteries	Various	Fire Pump Room	Emergency	N/A
Maintenance Supplies	Various	Various	Maintenance	Used until exhausted
Water treatment chemicals	5-gallon containers	Roof	Water treatment for HVAC system	N/A
Propane	Retail-sized cylinders	Equipment enclosure	Fuel for outdoor heaters	N/A

The materials were found to be properly labeled and stored at the time of the assessment with no signs of leaks, stains, or spills. Secondary containment is provided. Based on the nature of use, overall small quantities observed, presence of secondary containment, and lack of violations on-file with the local fire department, these materials are not expected to represent a recognized environmental condition.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of current or former USTs was observed during the site reconnaissance.

Three belly-mounted diesel fuel ASTs associated with the emergency generators and two approximately 100-gallon fire pump ASTs are located on the subject property. According to Mr. Abeyta, the subject property representative, the ASTs were installed in 2003. The ASTs are equipped with integrated secondary containment. No staining or spills were observed in the vicinity of the ASTs. No staining, leaks or spills were noted in the vicinity of the ASTs, and no releases have been reported to the regulatory agencies. Based on the presence of secondary containment and lack of staining or other evidence of a release, the presence of the ASTs is not expected to represent a recognized environmental condition.

6.2.3 Evidence of Releases

No spills, stains or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – "*Non-PCB;*" 2) 50 ppm-500 ppm – "*PCB-Contaminated;*" and, 3) Greater than 500 ppm – "*PCB-Containing.*" The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after July 2, 1979.

The on-site reconnaissance addressed indoor and outdoor transformers that may contain PCBs. Three pad-mounted transformers were observed on the western and southeastern portions of the subject property. The transformers are not labeled indicating PCB content. No staining or leakage was observed in the vicinity of the transformers. PG&E maintains ownership and operational responsibility for the transformers. Based on the good condition of the equipment (and the presumed post-1978 installation), the transformers are not expected to represent a significant environmental concern.

No other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

Each subject property building contains three (3) overhead traction elevator units. No environmental concerns were identified in connection with this equipment.

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building that have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property buildings were constructed between 2000 and 2003. As such, it is unlikely asbestos-containing materials are present in the subject property building. Furthermore, at the time of Partner's site reconnaissance, no damaged or friable materials were noted.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of lead.

It is unlikely that LBP is present in buildings constructed after 1977. Therefore, due to the age of the subject property buildings, it is unlikely that LBP is present.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

EPA Radon Zones		
EPA Zones	**Average Predicted Radon Levels**	**Potential**
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification, radon is not considered to be a significant environmental concern.

6.3.4 Lead in Drinking Water

According to available information, a public water system operated by American Water Enterprises serves the subject property vicinity. According to American Water Enterprises website, shallow groundwater directly beneath the subject property is not utilized for domestic purposes. American Water Enterprises obtains water from the San Francisco Public Utilities Commission (CPUC), who obtains water from the Hetch Hetchy Watershed in the Sierra Nevada Mountains. According to the 2018 Annual Water Quality Report, water supplied to the subject property is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property buildings for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment.

6.4 Adjacent Property Reconnaissance

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises. No items of environmental concern were identified on the adjacent properties during the site assessment, including hazardous substances, petroleum products, ASTs, USTs, evidence of releases, PCBs, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or any other potential environmental hazards.

7.0 FINDINGS AND CONCLUSIONS

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Partner did not identify any recognized environmental conditions during the course of this assessment.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify any controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Prior to redevelopment with the existing improvements, the subject property and adjacent properties were developed with several residential and commercial structures. Former tenants of concern on the subject property and the adjacent properties include two dry cleaners, gas stations, auto repair facilities, print shops, photographers, paint stores, and one former research facility. Extensive soil and groundwater investigations had been performed at the subject property, which indicated that concentrations of chemicals of concern in soil and groundwater were low, and that impacts were of limited extent. In addition, the subgrade parking garage was excavated to a depth of at least 15 feet below ground surface (bgs), and analytical results of soil and groundwater associated with former dry cleaners were non-detect in downgradient wells, suggesting that any residual source soil is likely limited in extent.

  Two Leaking Underground Storage Tank (LUST) cases are associated with former gasoline stations adjacent to the south (1901 University Avenue) and the northeast (1998 University Avenue) of the subject property. A significant number of soil samples were collected from depths ranging from 0.5 to 25 feet bgs at these locations. Analytical results of soil samples generally did not indicate the presence of petroleum hydrocarbons and gasoline constituents. The highest remaining concentrations were found at the former gasoline station at 1901 University Avenue; toluene, ethylbenzene, xylenes, and total petroleum hydrocarbons as gasoline (TPHg) were reported in a sample collected from 24 feet bgs at maximum concentrations of 0.14 milligrams per kilogram

(mg/kg); 0.043 mg/kg; 0.009 mg/kg; and 2.0 mg/kg, respectively. The former commercial use of the subject property and adjacent properties by environmentally-sensitive tenants, and the associated closure of the LUST cases, is considered a historical recognized environmental condition. Based on the extensive environmental investigations conducted, regulatory case closure, and extensive soil excavation conducted to accommodate the subgrade parking garage, no further investigation of the subject property appears warranted at this time.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Partner did not identify any environmental issues during the course of this assessment.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 1900, 1950 & 2000 East University Avenue in East Palo Alto, San Mateo County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of recognized environmental conditions or environmental issues in connection with the subject property. Historical recognized environmental conditions were identified as described above. Based on the conclusions of this assessment, Partner recommends no further investigation of the subject property at this time.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 1900, 1950 & 2000 East University Avenue in East Palo Alto, San Mateo County, California in conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

DRAFT

Christopher Olsen
Environmental Professional

Reviewed By:

DRAFT

Lauren Gannon
Senior Author

DRAFT

Michael T. Chang
Principal

9.0 REFERENCES

Reference Documents

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13.

Environmental Data Resources (EDR), Aerial Photographs (1939-2012)

EDR, Radius Report, February 2020

EDR, Sanborn Fire Insurance Maps (1947-1978)

EDR, Topographic Maps (1897-2012)

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via internet, February 2020

Partner Engineering and Science, Inc., Phase I Environmental Site Assessment, University Circle, 1900, 1950 and 2000 East University Avenue, East Palo Alto, California, March 23, 2017

United States Department of Agriculture, Natural Resources Conservation Service, accessed via internet, February 2020

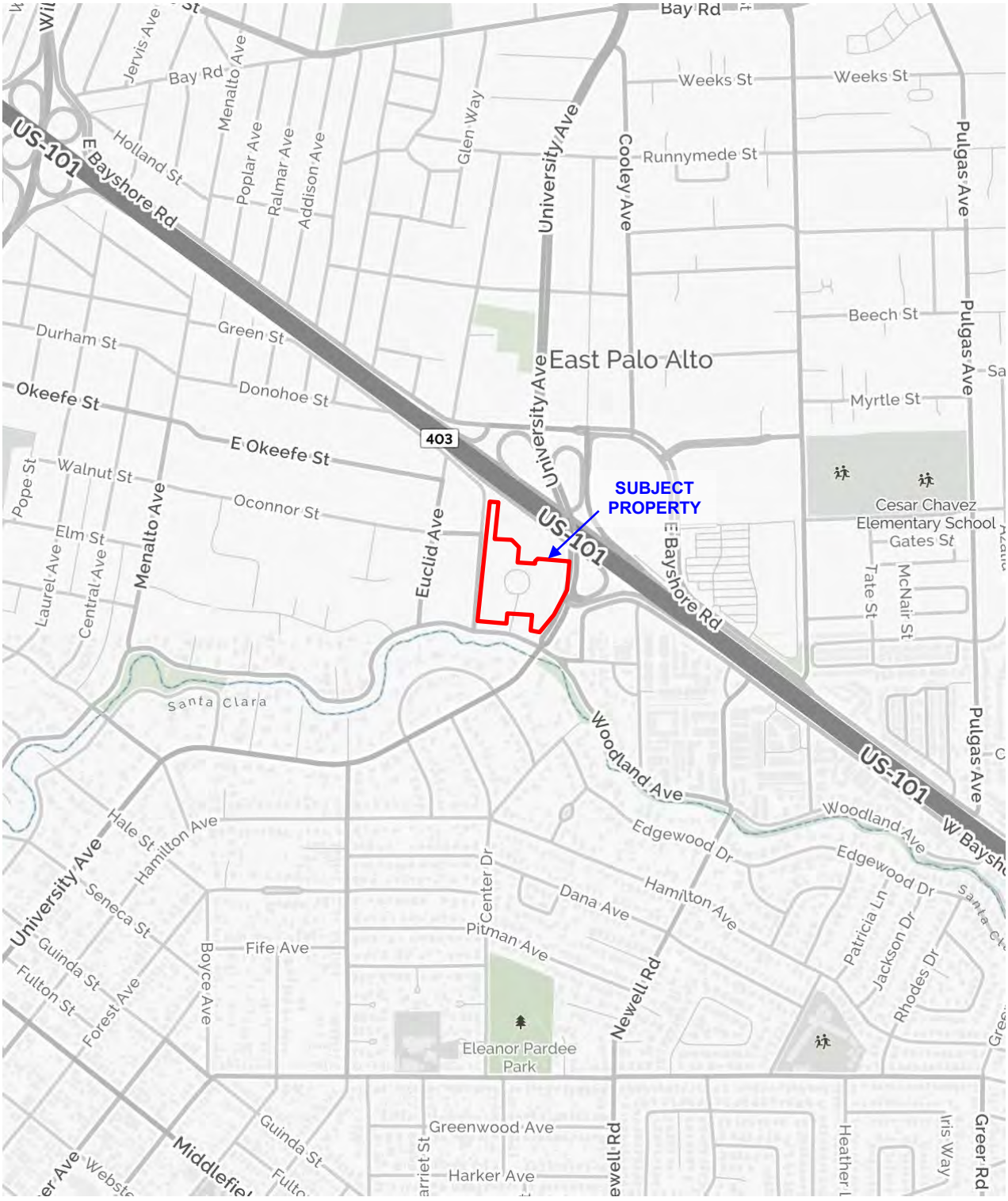
United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, accessed via the internet, February 2020

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, February 2020

United States Geological Survey, accessed via the Internet, February 2020

United States Geological Survey Topographic Map 2012, 7.5 minute series, accessed via internet, February 2020

FIGURES



SITE LOCATION MAP

University Circle **1900, 1950 & 2000 East University Avenue** **East Palo Alto, California 94303**	**PARTNER**
Partner Job No.: 20-275203.1 **Date: February 2020**	**FIGURE 1**

A Residences (1901-1991, 2001 & 2033 Manhattan Avenue
B Coin-operated Laundromat (1997 Manhattan Avenue)
C Four Seasons Hotel (2050 East University Avenue)
D Residences (79-95 Crescent Drive & 1875 University Avenue)
E Apartments (1609 Woodland Avenue & 1943 Capitol Avenue)

G Emergency Generator
T Pad-Mounted Transformers

SITE PLAN

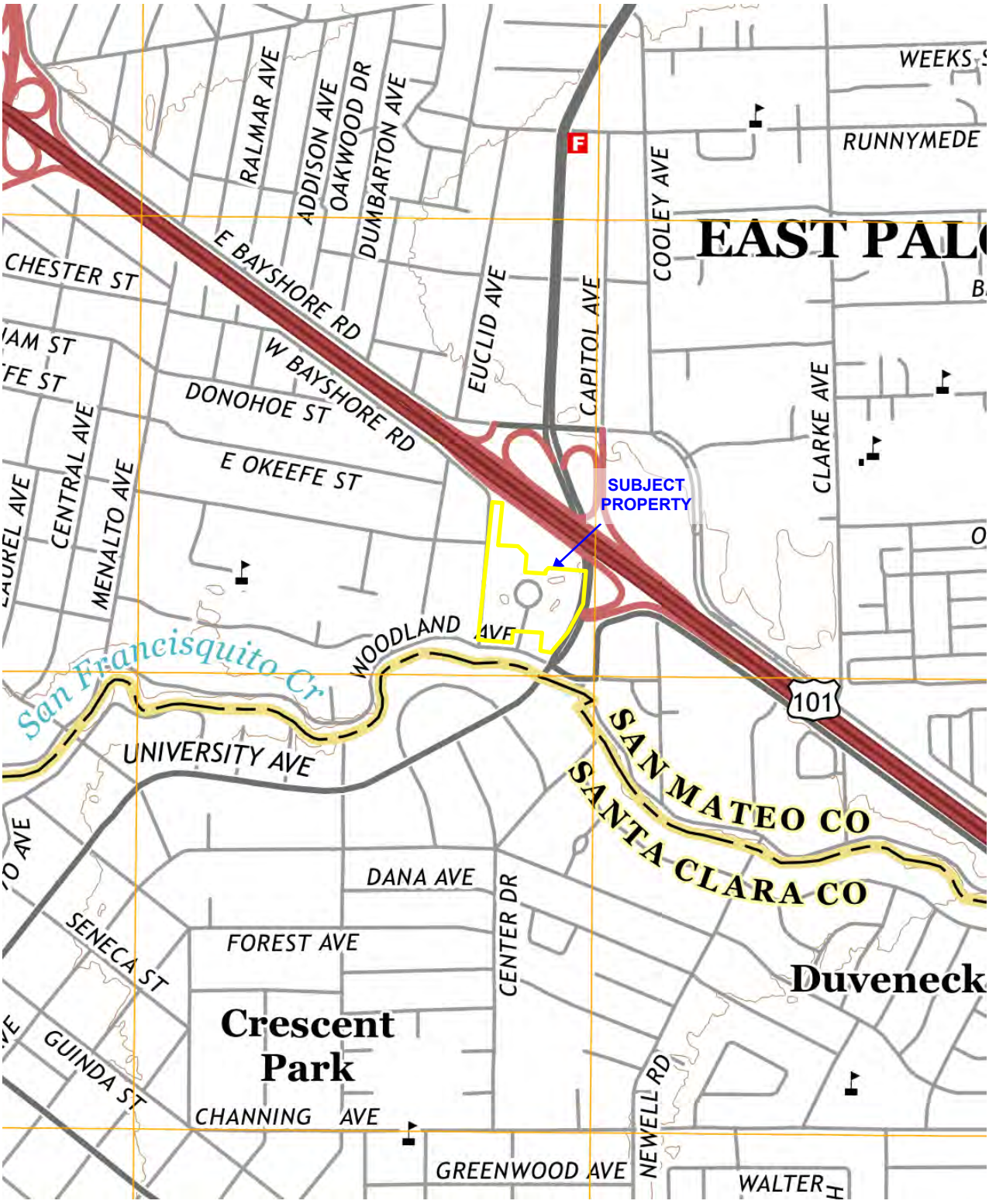
University Circle
1900, 1950 & 2000 East University Avenue
East Palo Alto, California 94303

PARTNER

Partner Job No.: 20-275203.1

Date: February 2020

FIGURE 2



Source: USGS *Palo Alto, California* Quadrangle Name, 2015, Scale 1:24,000

TOPOGRAPHIC MAP

University Circle
1900, 1950 & 2000 East University Avenue
East Palo Alto, California 94303

PARTNER

Partner Job No.: 20-275203.1

Date: February 2020

FIGURE 3

APPENDIX A: SITE PHOTOGRAPHS

1. Eastern side of the 1900 University building

2. Eastern and northeastern sides of the 1900 University building

3. Southern and western sides of the 1900 University building

4. Northern and western sides of the 1900 University building

5. Eastern side of the 1950 University building

6. Eastern and northern sides of the 1950 University building

7. Western side of the 1950 University building

8. Southeastern side of the 2000 University building

9. Western side of the 2000 University building

10. Northern and western sides of the 2000 University building

11. Asphalt-paved parking/drive area on the subject property

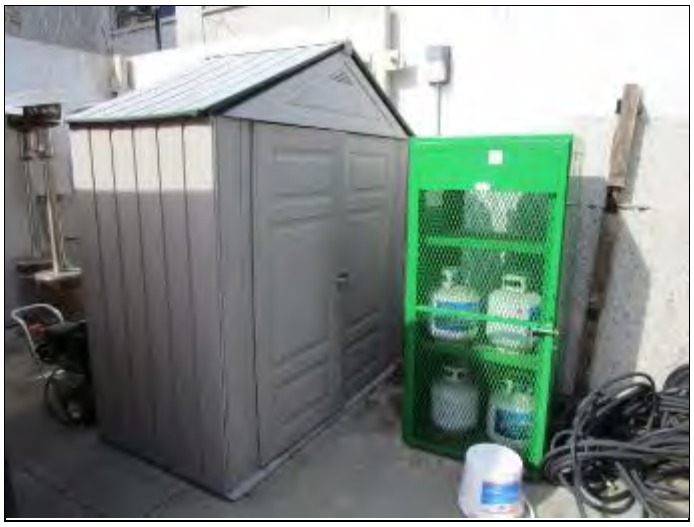
12. Pad-mounted transformer along the southeastern side of the subject property

13. Dumpster enclosure south of the 1950 building

14. Dumpsters in the enclosure

15. Diesel-powered emergency generator in the enclosure south of the 1950 building

16. Pad-mounted transformer in the enclosure south of the 1950 building



17. Propane cylinders and storage shed in the enclosure south of the 1950 building

18. Underground parking garage entrance

19. Underground parking garage exit

20. Asphalt-paved parking/drive area on the subject property

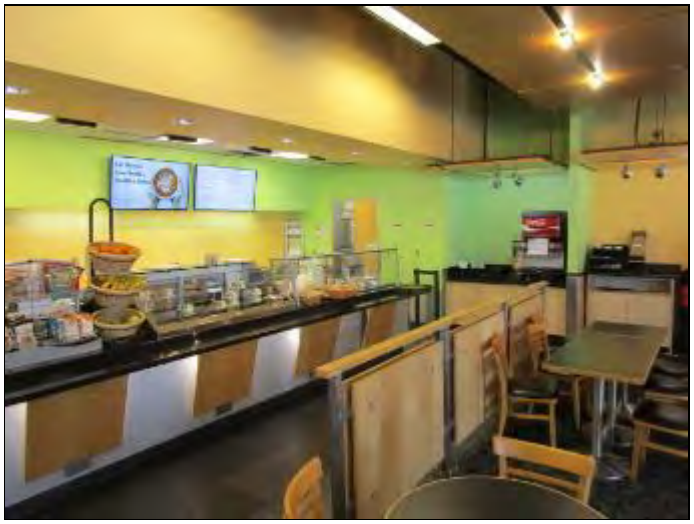
21. Diesel-powered emergency generator in the enclosure west of the 1900 building

22. Central courtyard with seating areas and outdoor kitchen

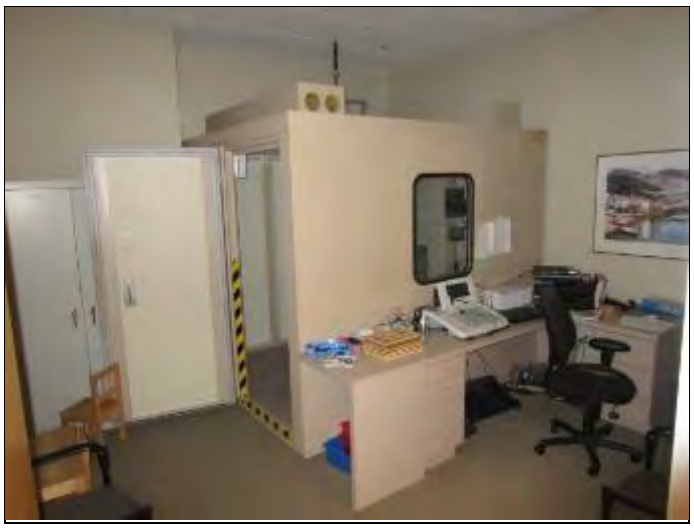
23. Fountains in the central courtyard

24. Lobby in the 1900 building

25. Management office in the 1900 building

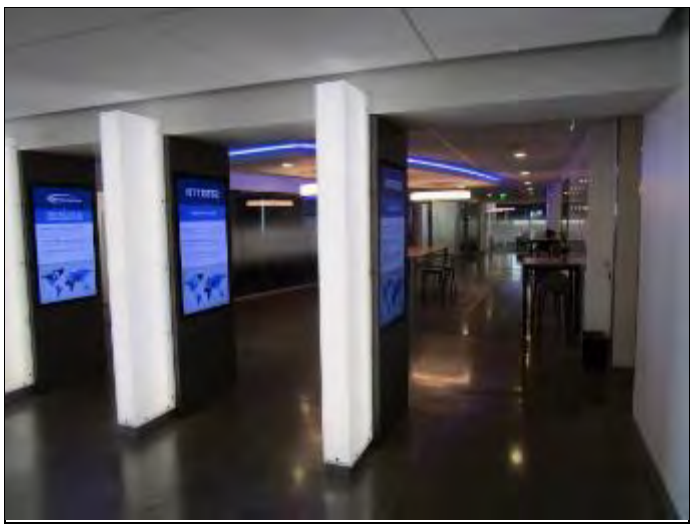


26. Interior of San Francisco Soup Company (1950)

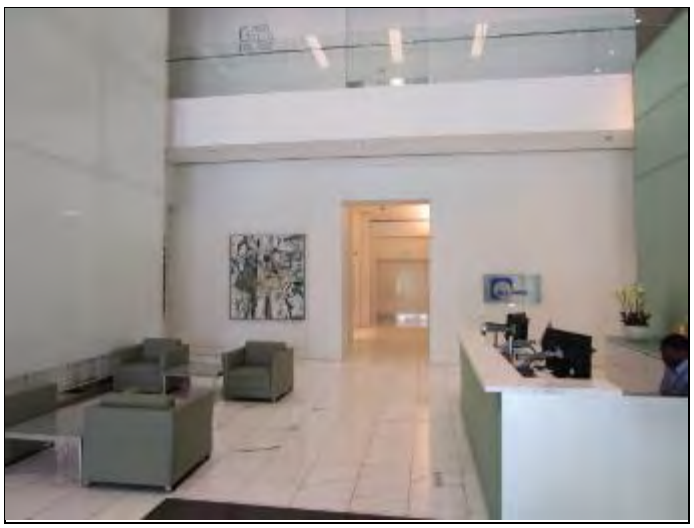


27. Hearing testing room in CFI Medical Group (1950)

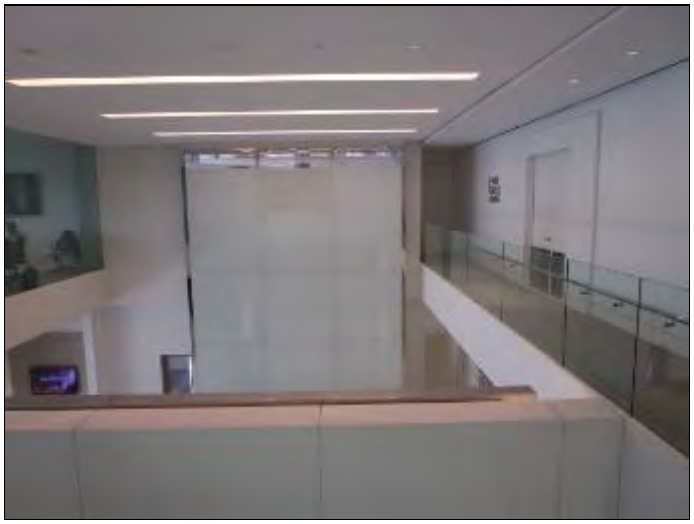
28. Vacant 5th floor (1950 building)



29. Office (1950, 6th floor)



30. Lobby in the 2000 building



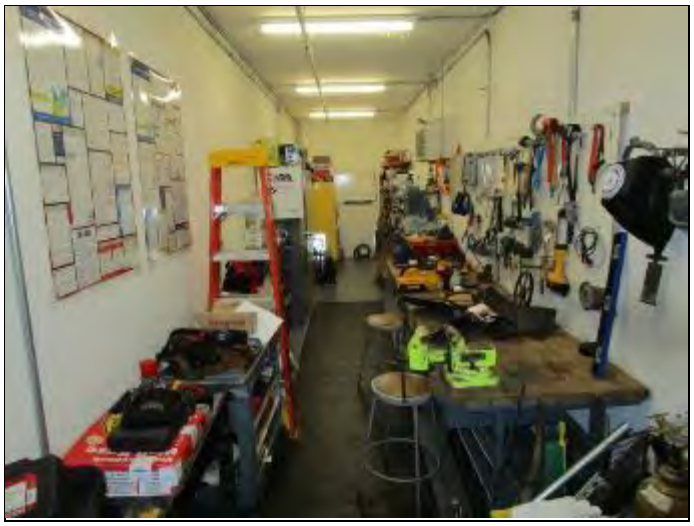
31. Office in the 2000 building

32. Water treatment chemicals on the 1950 building roof

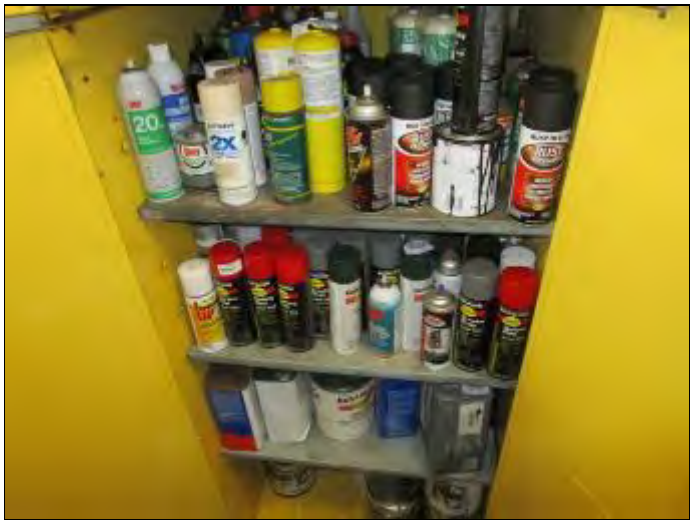
33. Typical overhead traction elevator unit

34. Typical boilers

35. Basement level parking garage



36. Maintenance shop



37. Flammable liquids storage cabinet in the maintenance shop

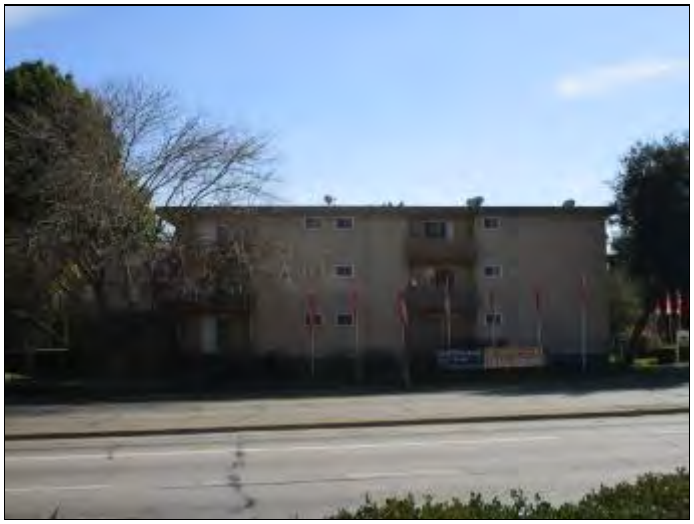
38. Fire pump equipment

39. Diesel fuel ASTs in the fire pump equipment room

40. Fountain pump equipment

41. Parking garage adjacent to the north and east

42. Four Seasons Hotel adjacent to the north



43. Apartment building adjacent to the east across East University Avenue

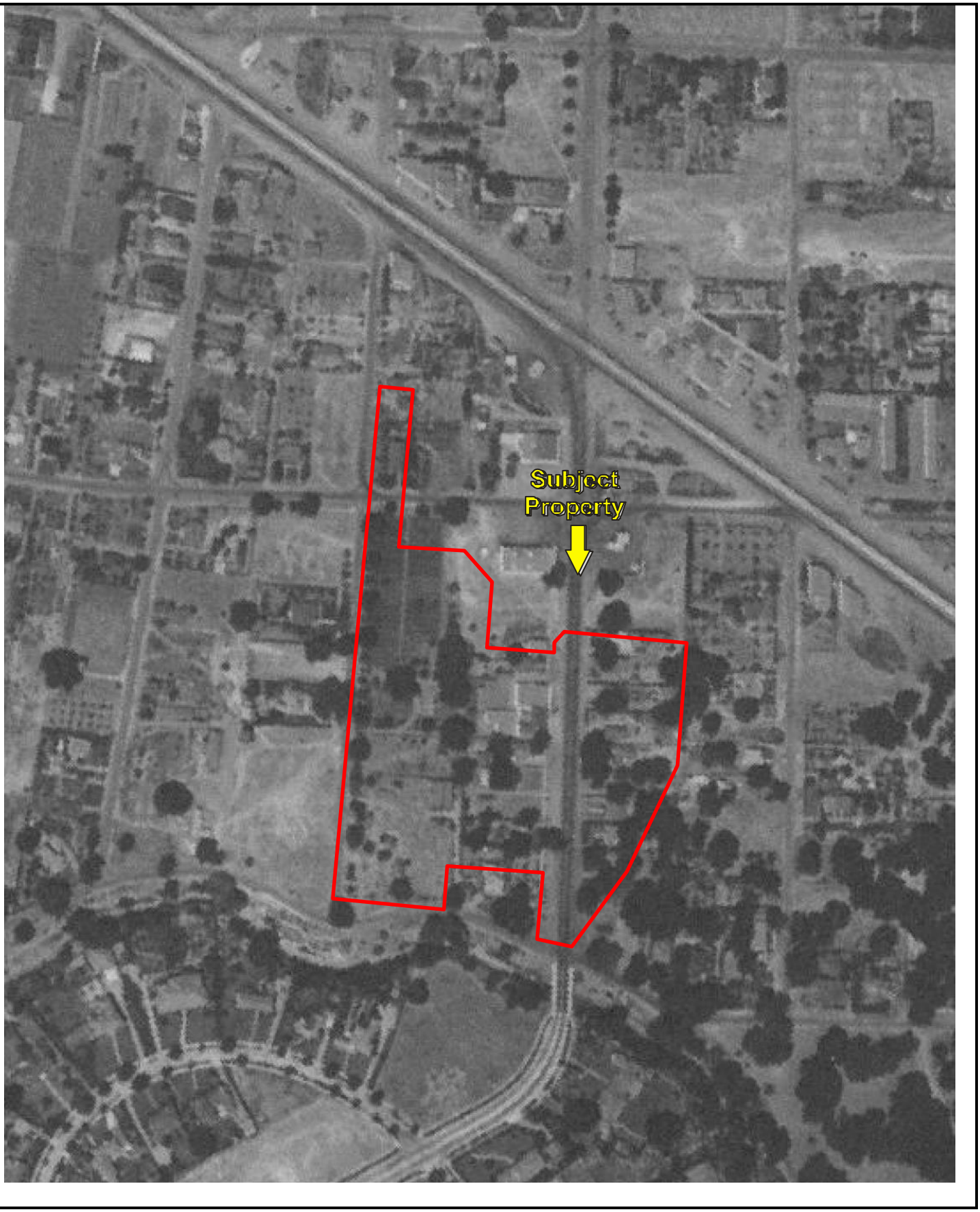
44. Wooded area with residential development farther south of Woodland Avenue

45. Apartment buildings adjacent to the west

46. Apartment buildings adjacent to the west

APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

PARTNER



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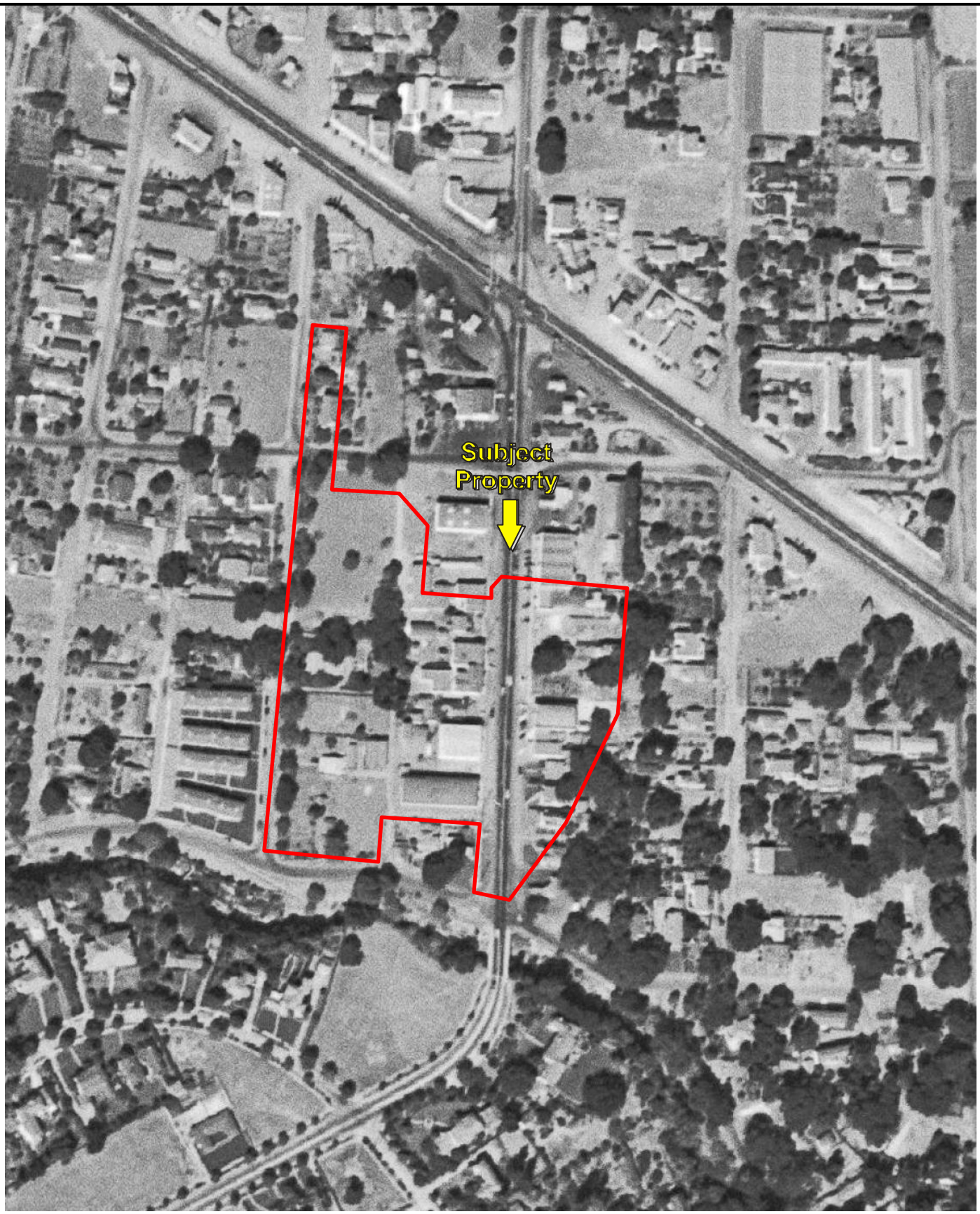

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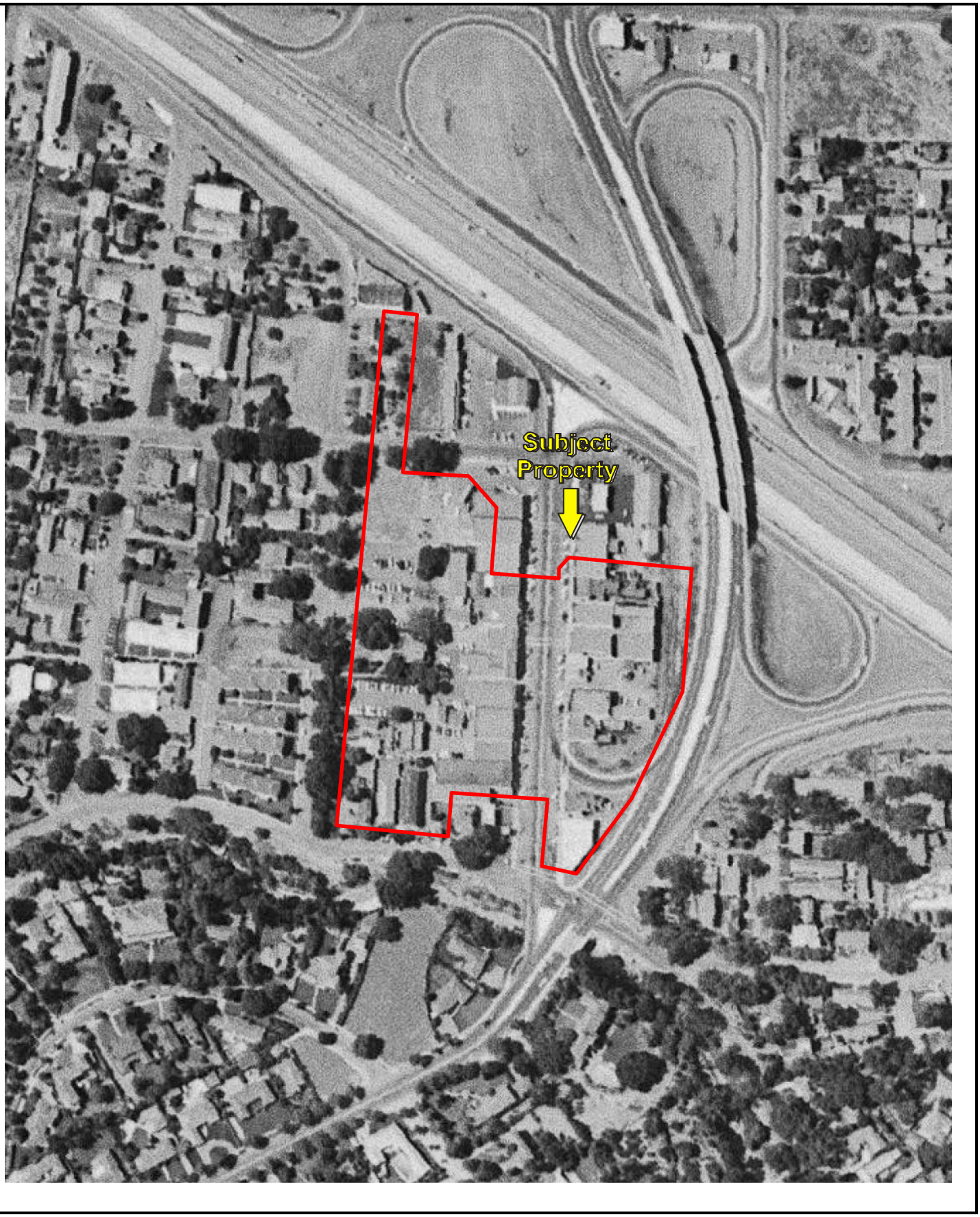

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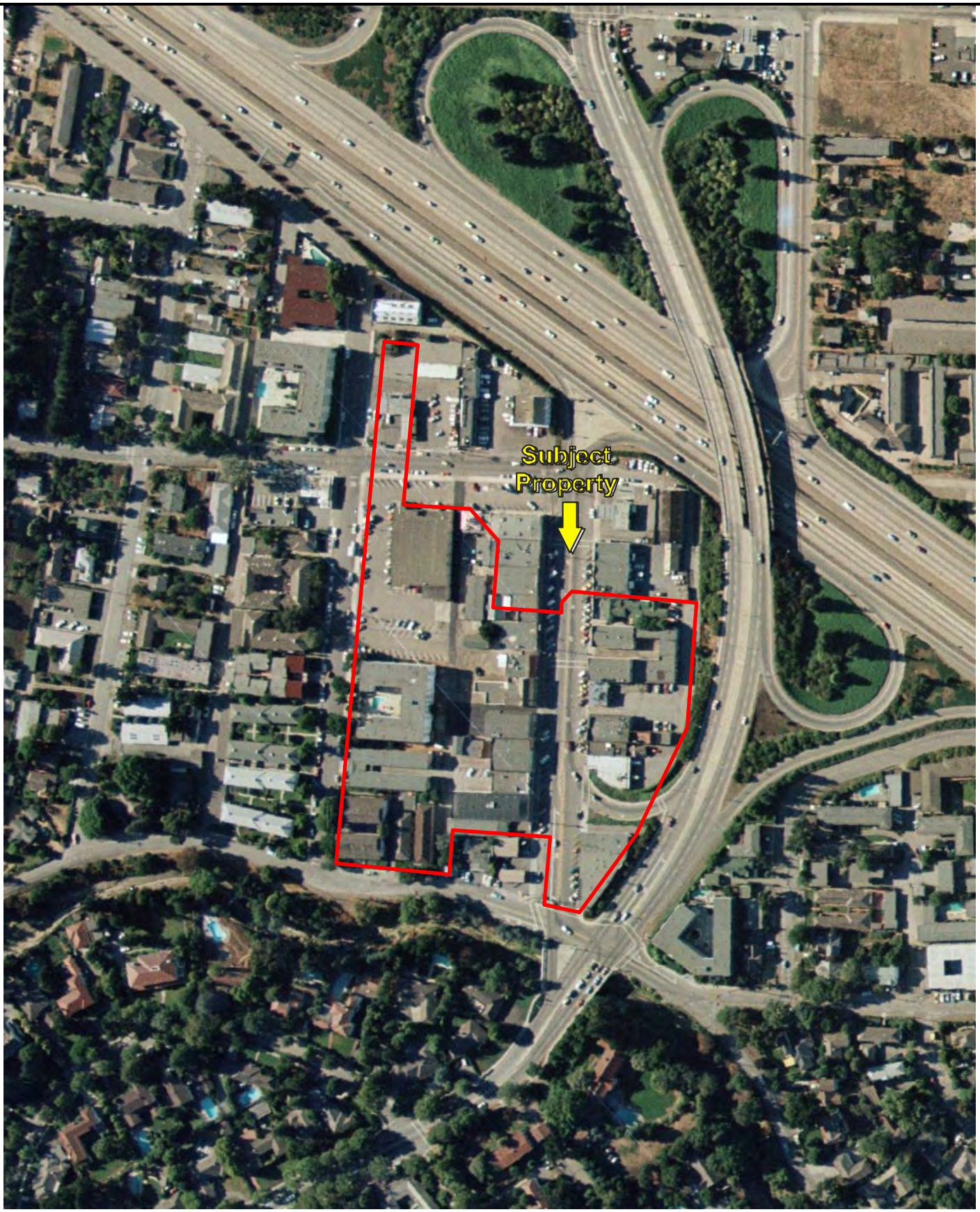
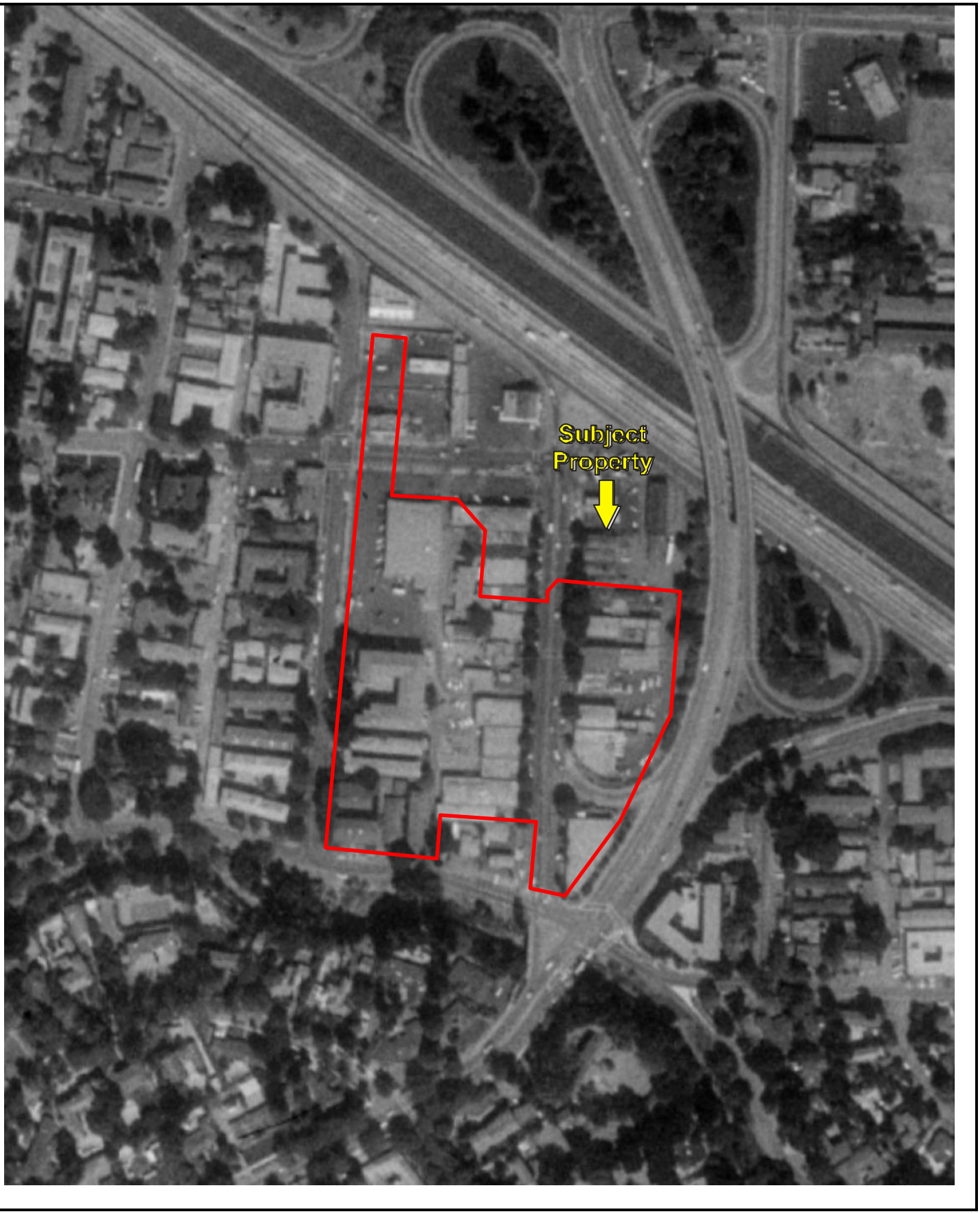
Date of Photograph: 1963

Date of Photograph: 1968



Date of Photograph: 1974

Date of Photograph: 1982



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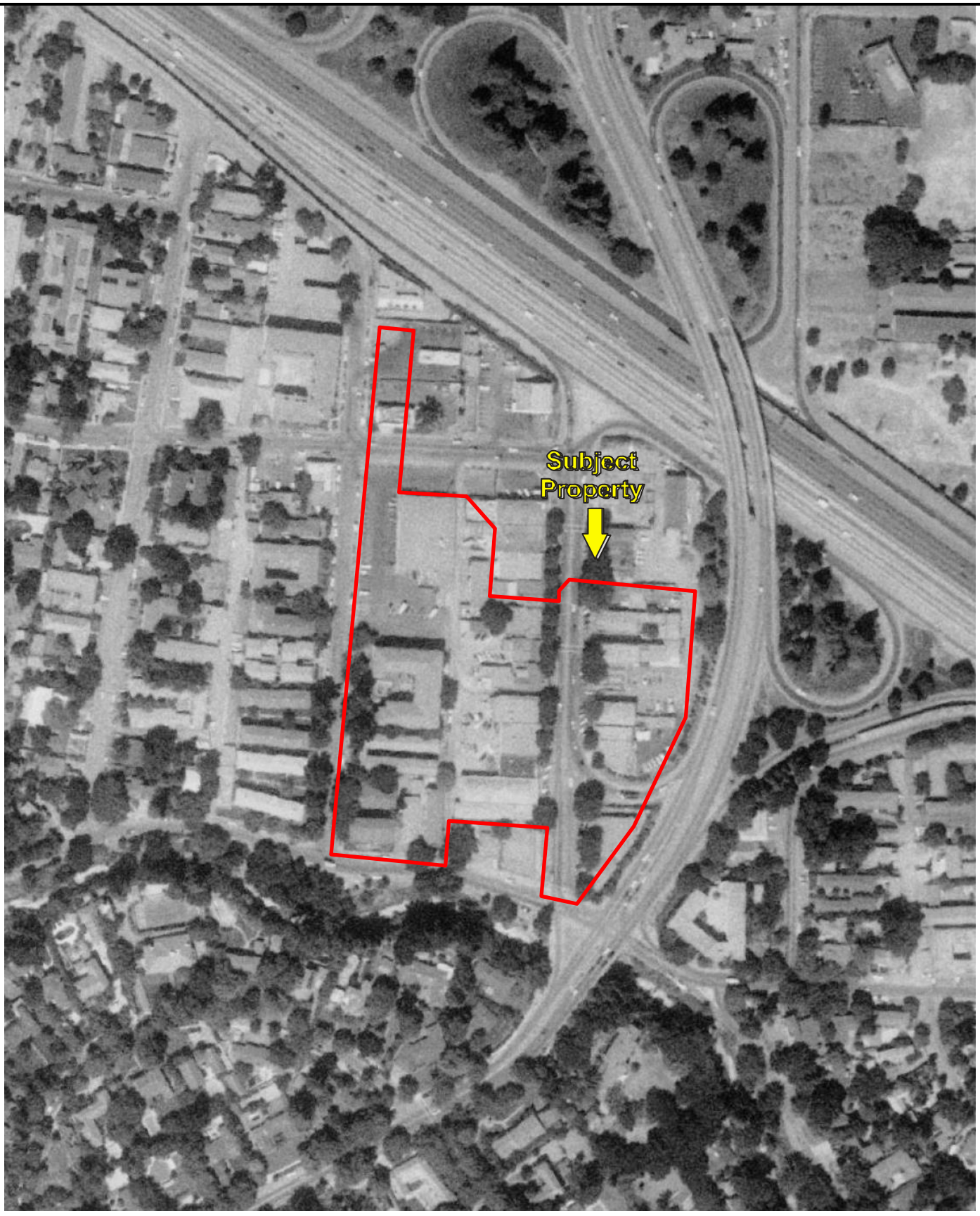

Date of Photograph: 1998

Date of Photograph: 2005

Date of Photograph: 2009

Date of Photograph: 2010

Date of Photograph: 2012

Date of Photograph: 2017

University Circle

1900, 1950 & 2000 East University Avenue

Palo Alto, CA 94303

Inquiry Number: 5973678.5

February 18, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

02/18/20

Site Name:

University Circle
1900, 1950 & 2000 East Univer
Palo Alto, CA 94303
EDR Inquiry # 5973678.5

Client Name:

Partner Engineering and Science, Inc.
2154 Torrance Blvd, Suite 200
Torrance, CA 90501-0000
Contact: Vanessa Pina

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Partner Engineering and Science, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

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Certified Sanborn Results:

Certification # 5358-4633-B5B6

PO # 20-275203.1

Project 20-275203.1

Maps Provided:

1947
1948
1949
1954
1956
1968
1969
1978

Sanborn® Library search results

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Sanborn Sheet Key

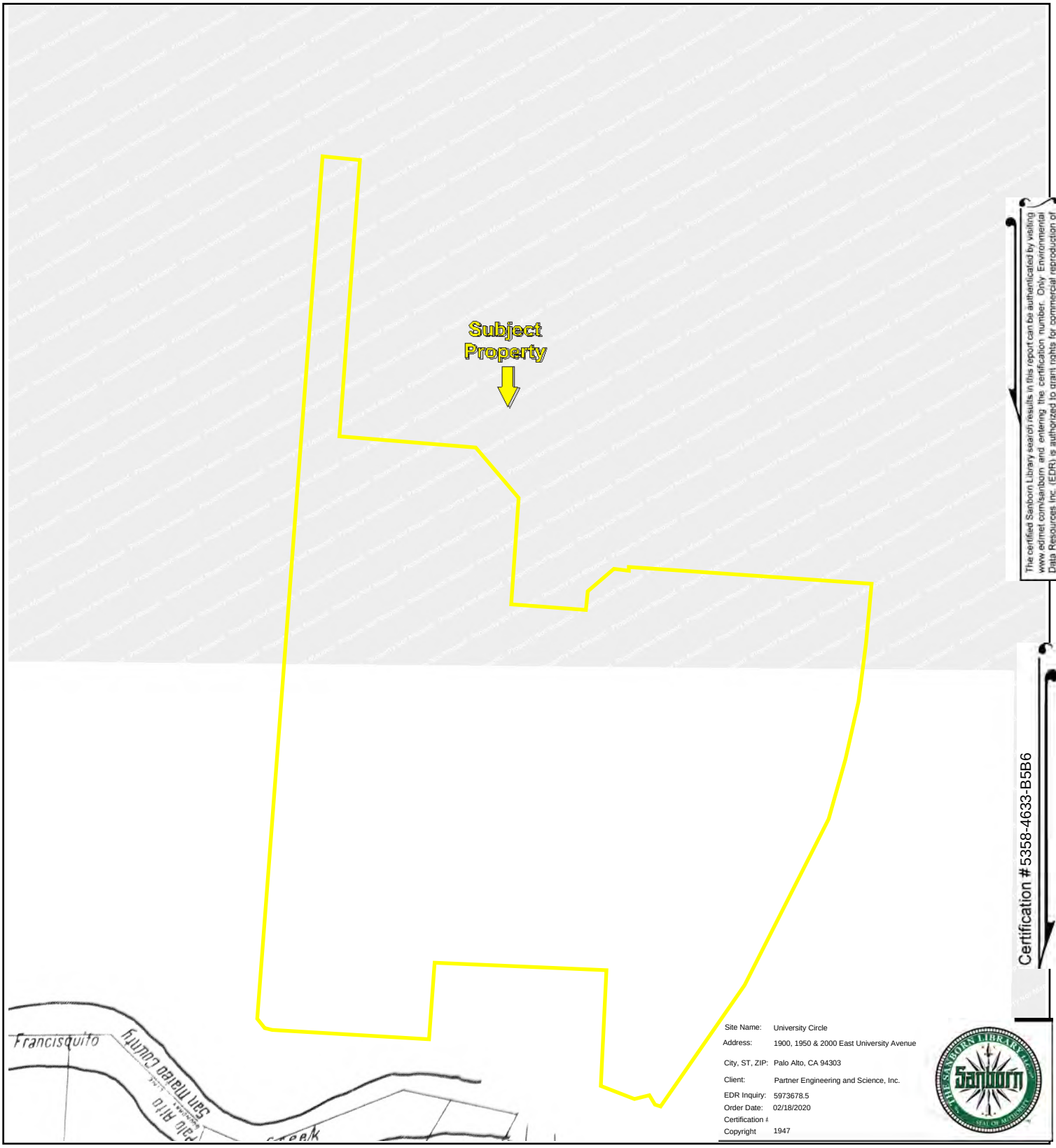
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1954 Source Sheets

Volume 1, Sheet 21
1954

1968 Source Sheets

Volume 1, Sheet 21
1968



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Client:	Partner Engineering and Science, Inc.
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Order Date:	02/18/2020
Certification #	
Copyright	1947

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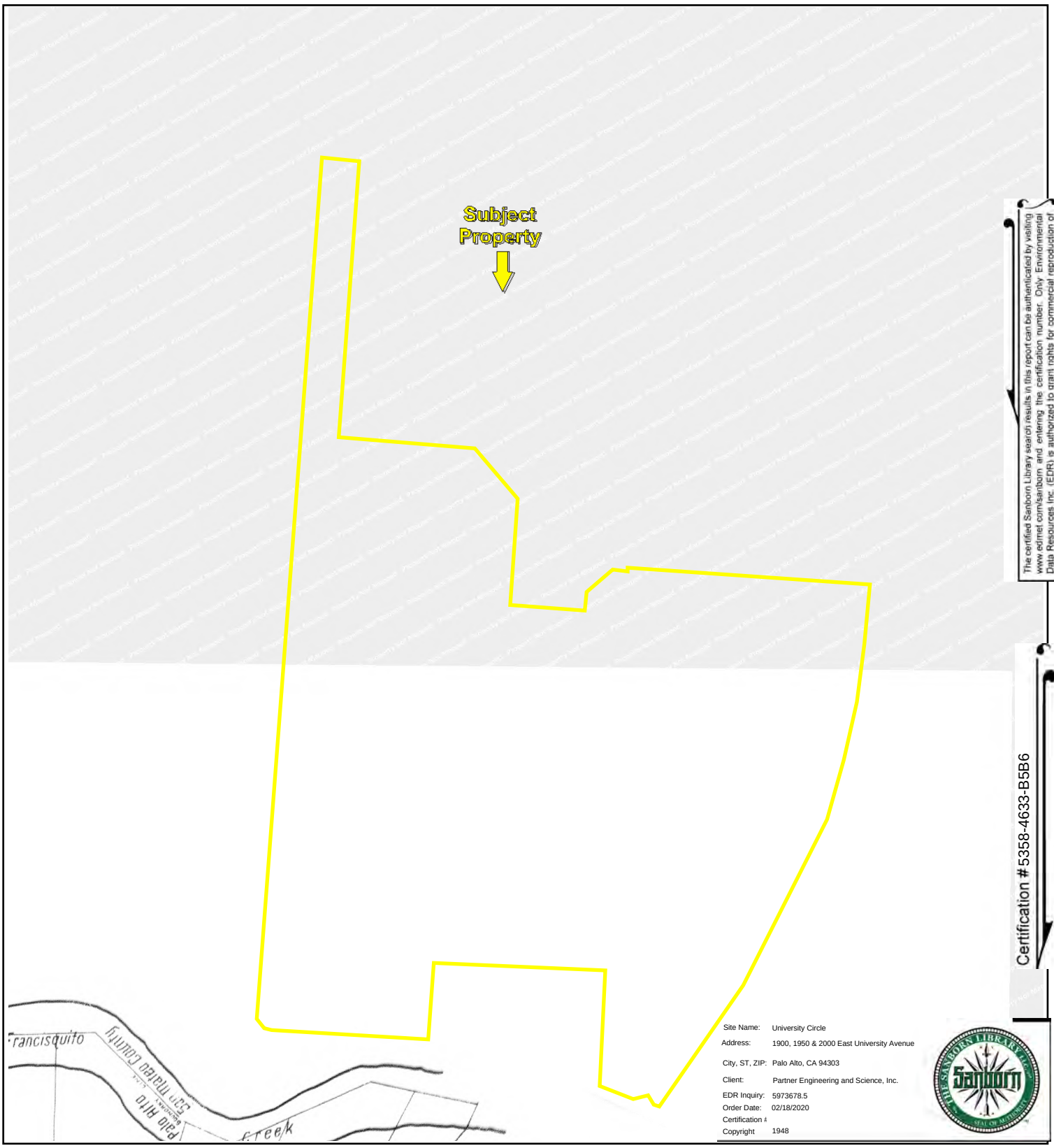
Key: Subject Property



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Certification #
Copyright 1948

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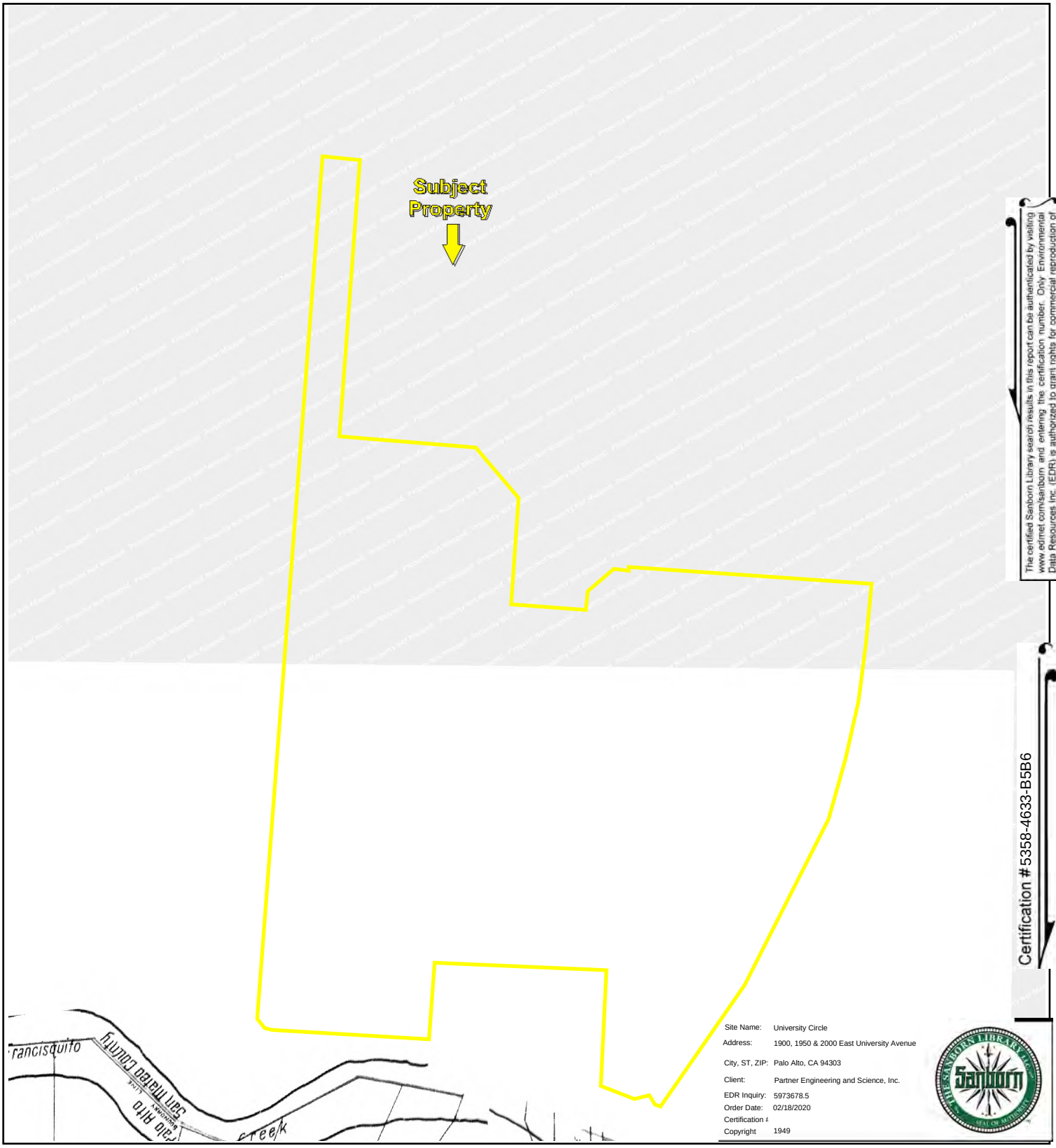
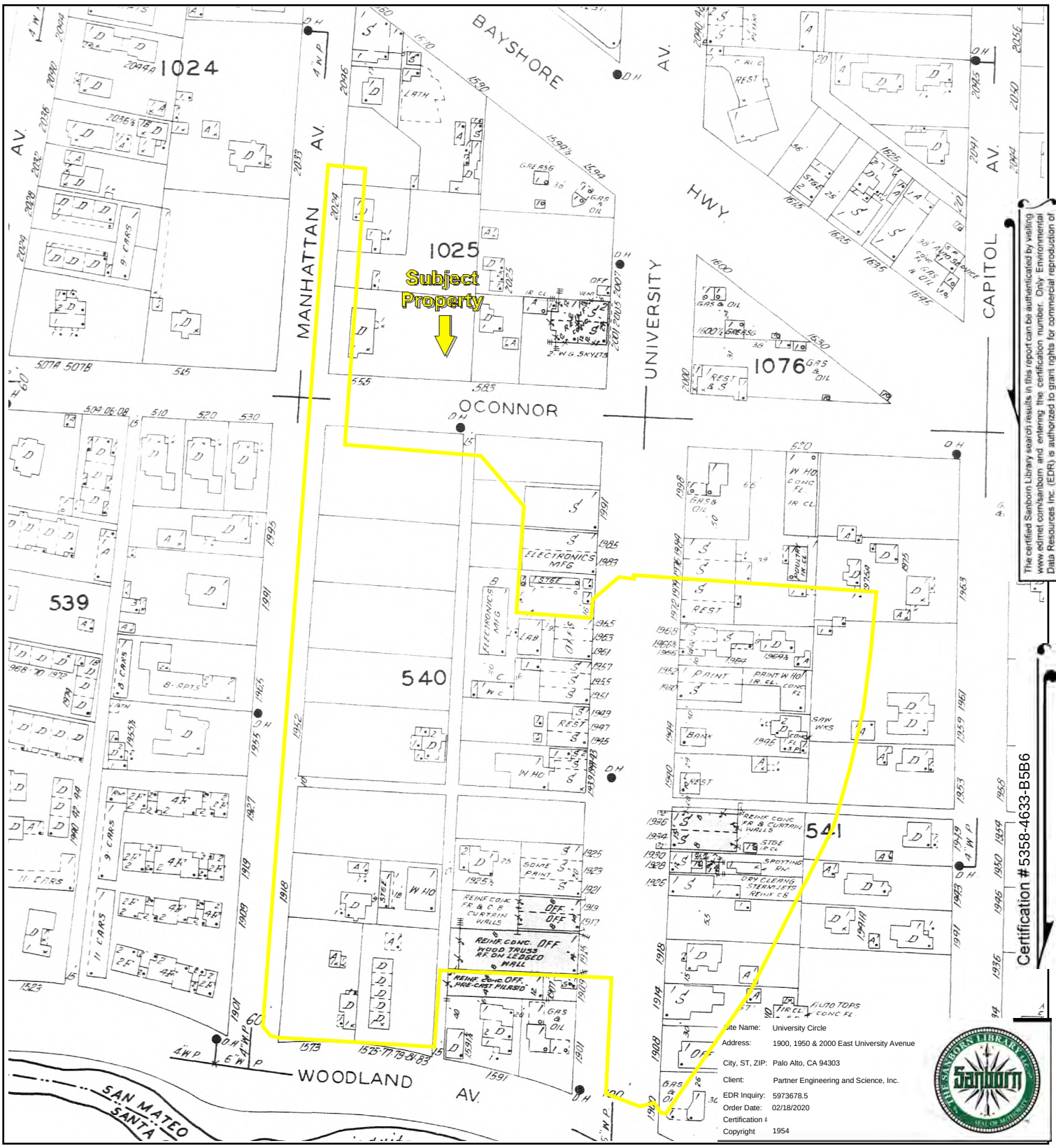
APPENDIX B: Certified Sanborn Maps
Project No. 20-275203.1





Volume 1, Sheet 21

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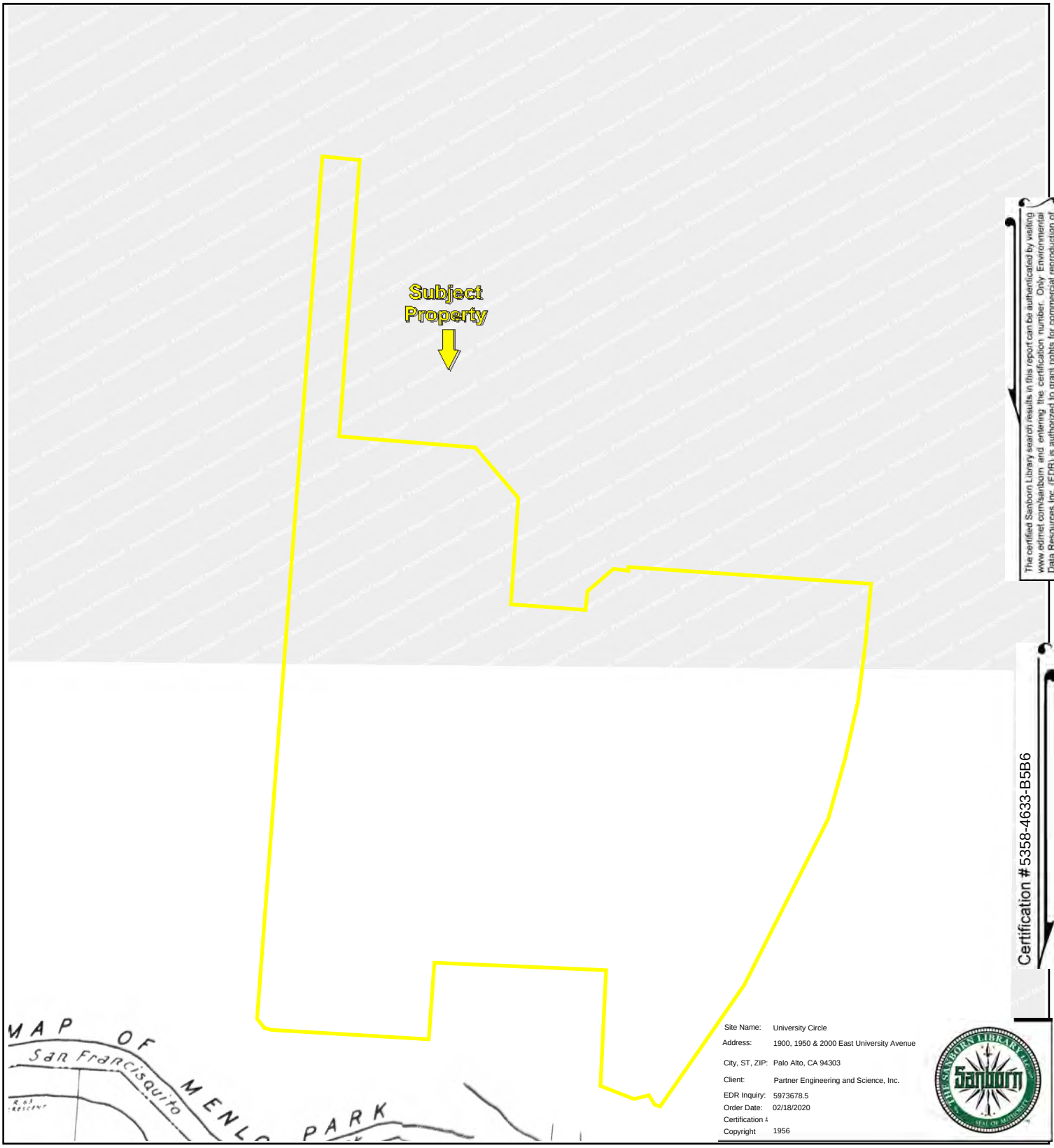

Certification # 5358-4633-B5B6

Site Name: University Circle
Address: 1900, 1950 & 2000 East University Avenue
City, ST, ZIP: Palo Alto, CA 94303
Client: Partner Engineering and Science, Inc.
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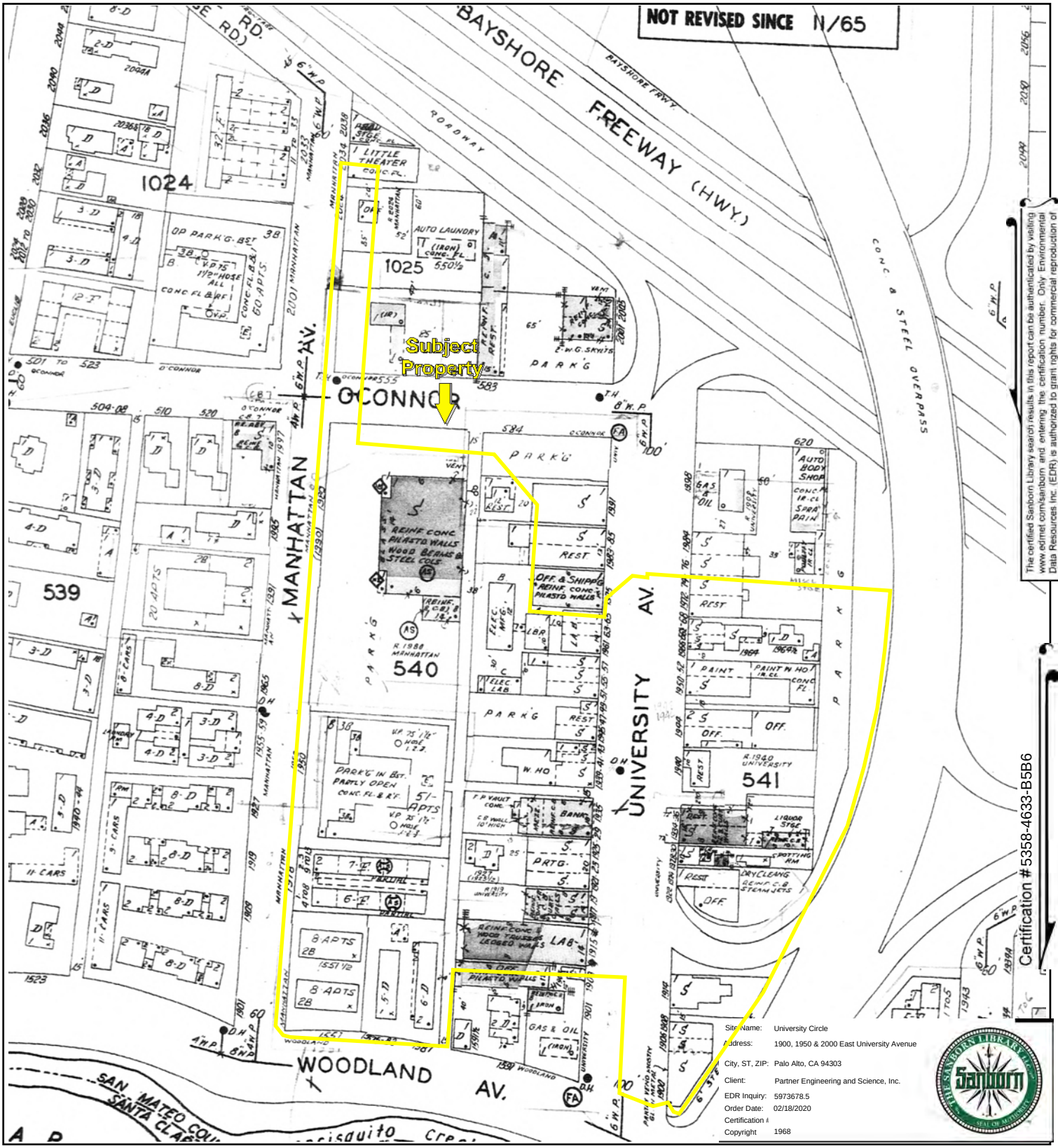

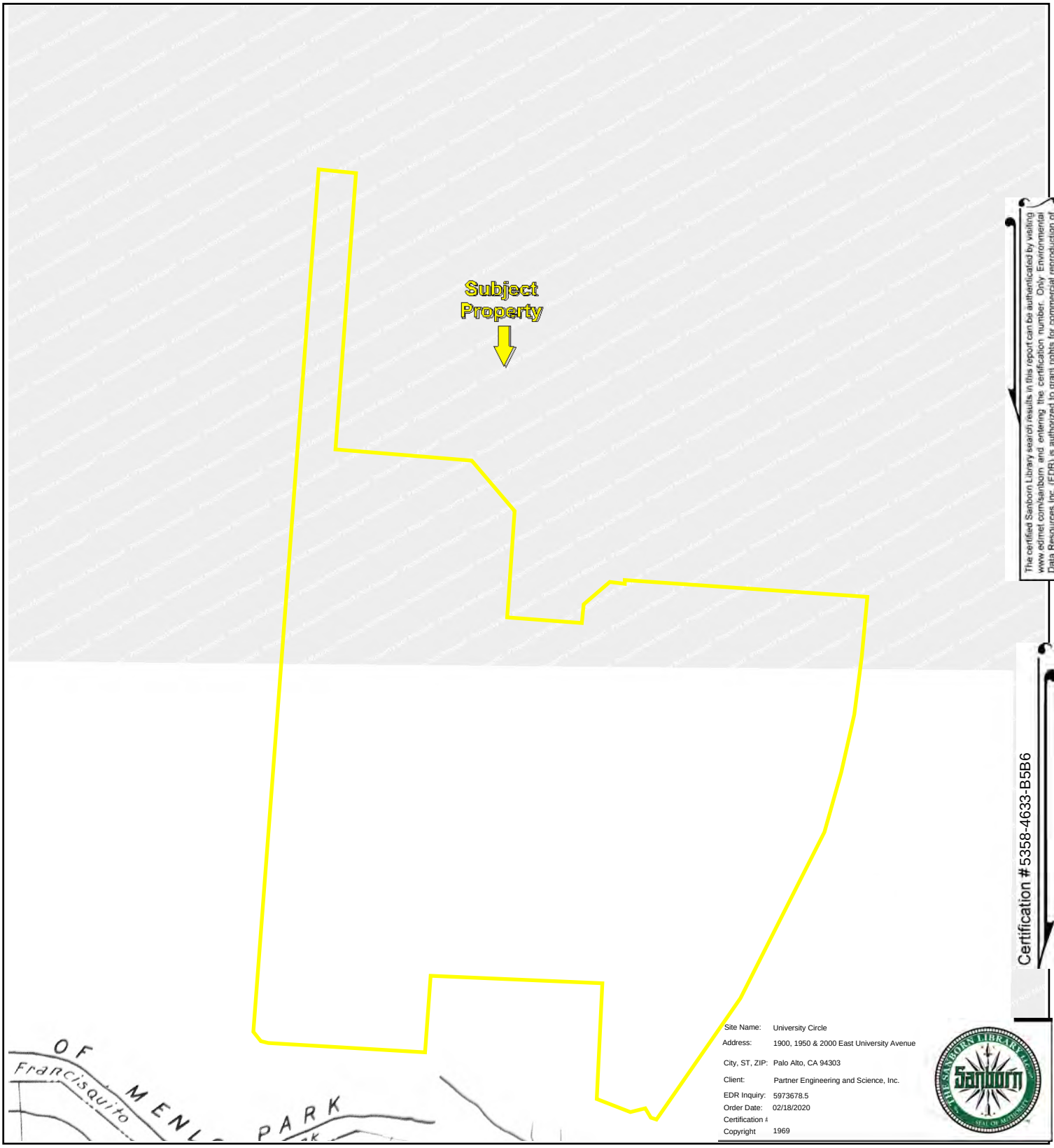

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Certification #
Copyright 1969

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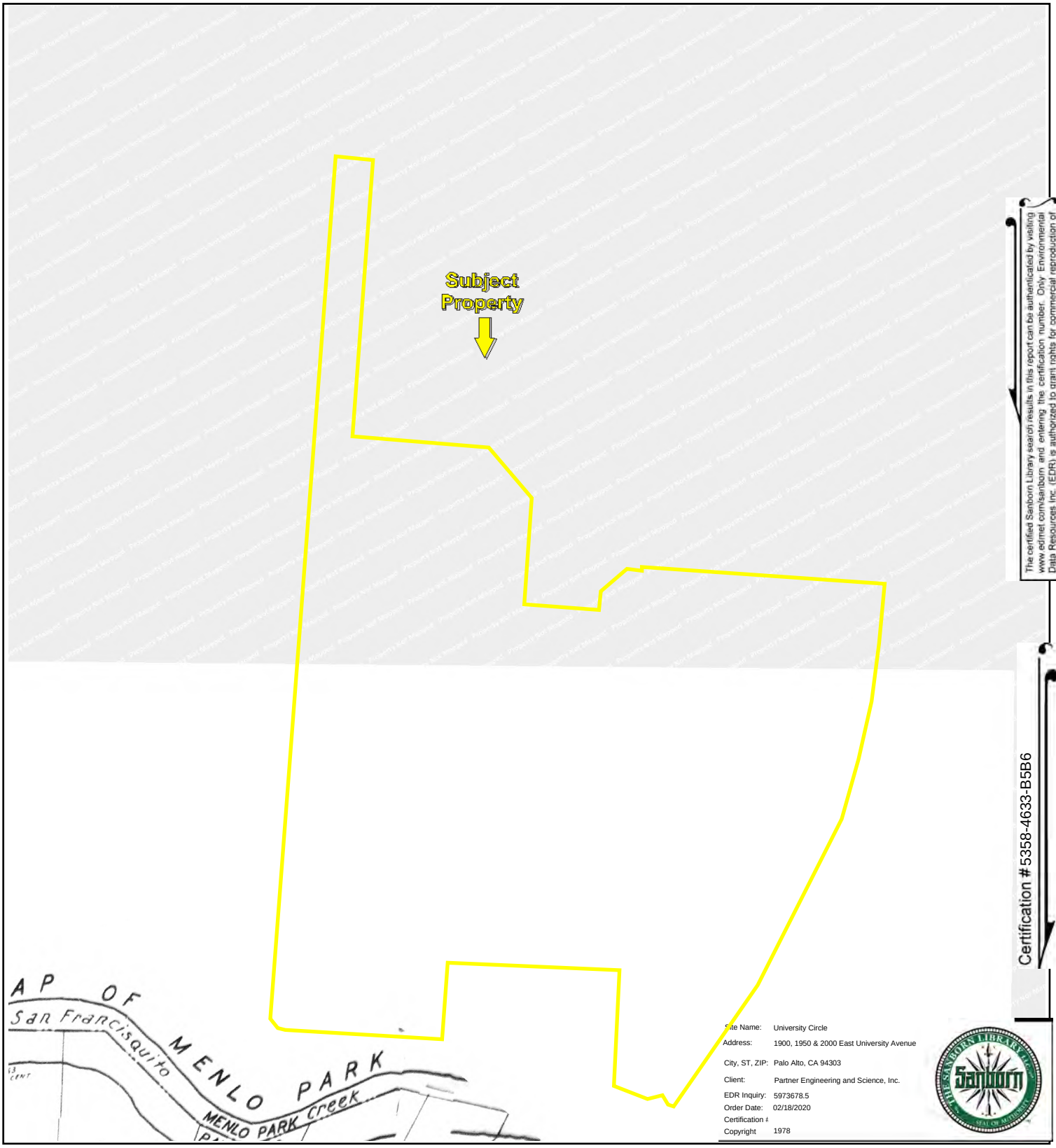

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Key: Subject Property

University Circle
1900, 1950, 2000 East University Ave
Palo Alto, CA 94303

Inquiry Number: 4869851.5
March 08, 2017

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☑	☐	Cole Information Services
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1977	☑	☐	Haines Criss-Cross Directory
1970	☑	☐	Haines Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

1900, 1950, 2000 East University Ave
Palo Alto, CA 94303

Year	*CD Image*	*Source*

UNIVERSITY AVE

2013	pg A2	Cole Information Services
2008	pg A6	Cole Information Services
2003	pg A10	Cole Information Services
1999	pg A13	Cole Information Services
1995	pg A19	Cole Information Services
1992	pg A23	Cole Information Services
1985	pg A26	Haines Criss-Cross Directory
1985	pg A27	Haines Criss-Cross Directory
1985	pg A28	Haines Criss-Cross Directory
1980	pg A29	Haines Criss-Cross Directory
1980	pg A30	Haines Criss-Cross Directory
1977	pg A31	Haines Criss-Cross Directory
1977	pg A32	Haines Criss-Cross Directory
1977	pg A33	Haines Criss-Cross Directory
1970	pg A34	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2013

1710	FORREST PENDLETON
1730	CORY BUNDY
1737	NGOC MO
1741	FLORA DONG
1750	JOHN KELLY
1755	WAN LU
1771	FABIEN LUBIAS
1845	HARLAN PINTO
1870	YORGEN EDHOLM
1875	JUNAID SYED
1900	BINGHAM MCCUTCHEN LLP
	BINGHAM OSBORN & SCARBOROUGH LLC
	BOZICEVIC FIELD & FRANCIS LLP
	BUI LYNNA
	CALIFORNIA EAR INSTITUTE INC
	CALIFORNIA SINUS INSTITUTE
	CALIFORNIA SLEEP INSTITUTE
	GREENBERG TRAURIG LLP
	JONES LANG LASALLE
	KASEY LI
	LANDSMITH
	LET THEM HEAR FOUNDATION
	LI KASEY DDS MD
	LYNNA BU
	ROPES & GRAY LLP
	UNIVERSITY CIRCLE
1928	B SALON
1950	ARBOR ADVISORS
	DAY CASEBEER
	HOWREY LLP
	JUST LUNCH
	MOELIS COMPANY HOLDINGS
	NAI BT COMMERICAL
	NELSON ROBERTS INVESTMENT ADVISORS L
	OPPENHEIMER
	PIPER JAFFRAY
	SAN FRANCISCO SOUP COMPANY
	SQUARE 1 BANK
	TD AMERITRADE
	THOMAS WEISEL PARTNERS
1957	OLANA KHAN
2000	ARTIMAN MANAGEMENT
	ARTIMAN VENTURES
	BANK LEUMI USA
	BLURR PILGER MAYER
	DENNIS SULLIVAN
	DLA PIPER
	PACIFIC ADVISORY GROUP
	STANDARD & POORS CVC
2050	FOUR SEASONS HOTEL SILICON VALLEY AT

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2013 (Cont'd)

2101	CHEVRON
2111	BUSINESS CENTERQUICK TAX SERVICE
	DREW CENTER PHARMACY
	EAST PALO ALTO TODAY
	GET AT ME
	NONI FROM TAHITI
	ROSEMARYS TAX SERVICE
2117	COMMUNITY LEGAL SERVICES OF EAST PAL
2124	EUGENE JACKSON
2126	UNIVERSITY GUEST HOME OF WILLIAM F &
	WILLIAM PEOPLES
2142	EZ HOMES REAL ESTATE INC
2148	ITECH CENTERS
	KINGS WAY CAPITAL PARTNERS LLC
2150	BIG ANTS CHICKEN & FISH
2154	OMARS FIJI MARKET
2156	SIRYS BEAUTY SALON
2160	AUTOZONE
2166	RODMAN AMORELLI
2172	GERALD WILKERSON
2178	UBALDO CORIA
2200	LOW FEE CHECK CASHING
2201	COMMUNITY CHURCH OF EAST PALO ALTO
2212	MARIA ARREOLA
2220	IZZYS BROOKLYN BAGELS
	THREE BROTHERS TACOS
2240	METRO PCS AUTHORIZED DEALER OF PALOA
2242	CENTURY 21 ALPHA PACIFIC
2243	TIBURCIO VARGAS
2247	EVE FISHMAN
2248	JA LAWRENCE
2252	ALICIA MARTINEZ
2263	DWAYNE DEROUEN
	RENEE RUDNICK
	SHALISHA MILLER
	STARLING TALASINGA
	VA TUPOU
	YOLANDA LOCKHART
2264	AGRIPINA VARGAS
2268	VICENTE GUZMAN
2272	MARIA SANDOVAL
2274	FREMONT CITY CAB
	LAJJA MANI
2276	ALICIA DELRIO
2277	CITY OF EAST PALO ALTO
2279	EMETERIO CANLAS
2283	ELIAS GODOY
2284	JOSE MENDOZA
2300	ANDRES OSEGUERA
2320	OCCUPANT UNKNOWN

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2013 (Cont'd)

2330	ALI BARI
	ALTON PHILLIPS
	AZUCENA ARZATE
	GREGORY MA
	HAO LI
	IRENE AGUILA
	JOOHOON LEE
	JOSEPH EDVALSON
	JUAN MACIEL
	KYLE CHEN
	LACEY SHOFF
	LISA MEDOFF
	LUISA LEMUS
	MINH NGUYEN
	OMARS FIJI MARKET
	RAMIRO ZAMORA
	RODERICK COOPER
	ROY GYLES
	SAIZAR ENARD
	SANDRA RODRIGUEZ
	SHAHRIAR DAVANI
	SHARITA BOLDS
	SUELYNN CLARK
	SUNIL DAVE
	XIE LIN
2332	OCCUPANT UNKNOWN
2338	BLANCA PALOMINOS
2343	LETICIA CABALLERO
2346	ALEJANDRO GARCIA
2354	REFUGIO MENDOZA
2358	KAREN JOHNSON
	PAULA LOYA
2360	JERAMIE FRANCIS
2361	2ND EDEN HOUSING NUGENT
	AHMAD HASAN
	ALBERTO SALGADO
	DAVE TUPOU
	EDUARDO CONTRERAS
	ELVIN POSADA
	FRANCISCO VALENCIA
	GUSMARO LOMBERA
	HECTOR BAZAN
	INGRID GONZALEZ
	JESUS BUSTOS
	JOSE AGUILAR
	JUDITH MAGANA
	MONICA MARTINEZ
	ROBERTO CUEVAS
	ROSA ACOSTA
	URIEL QUIROZ

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2013 (Cont'd)

2364	DINAH REEL
	SHIRLEY WILLIAMS
2365	OCCUPANT UNKNOWN
2368	TAKIVAHA TUPOU
2369	EPA CAN DO
2371	EPA WIRELESS
2372	EUGENIA MORENO
2373	LAS ADELITAS RESTAURANT
2377	EL BOHEMIO BILLIARDS
2380	SANTOS CHAN
2387	LA ESTRELLITA MARKET & DELI
2395	TAQUERIA EL JAROCHO
2398	CARNICERIA RODRIGUEZ
2401	MCDONALDS
	MR DRAIN PLUMBING OF EAST PALO ALTO
2415	CITY OF EAST PALO ALTO
	EAST PALO ALTO COMMUNITY SERVICES
	EAST PALO ALTO WATER DISTRICT
	SAN MATEO COUNTY OFFICES
	WILLIAM MARSHALL

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2008

1710	FORREST PENDLETON
1730	MARC PORAT
1737	GERARDO PARDO
1741	OCCUPANT UNKNOWN
1750	JENNIFER KELLY
	RED THISTLE MUSIC
1755	TONYA NGUYEN
1845	HARLAN A PINTO
	HARLAN PINTO
1870	KATHERINE GLASSEY
1875	OCCUPANT UNKNOWN
1900	BASCOM CHINA VENTURES LLC
	BINGHAM MCCUTCHEN LLP
	CANTRELL HARRIS & ASSOCIATES INC
	DDS MD FACF KASEY K LI
	DEAR STEVEN MD
	DEVCON CONSTRUCTION INC
	GREATER BAY BANCORP
	GREENBERG TRAURIG LLP
	JBR MD INC
	KASEY K LI MD
	LET THEM HEAR FOUNDATION
	LYNNA B K BUI DDS MPH
	LYNNA BUI
	MICRO BUSINESS INITIATIVE
	MURRAY MICHAEL MD
	PAGE MILL PARTNERS LLC
	R JAMES KOCH MD
	ROBERT ELAM
	UNIVERSITY CIRCLE
	VAUGHAN WINSTON MD
	WENDELL H & C
1935	SIGRID RUPP
1950	ANDERSON EDWARD T MD
	BENEDICK BRUCE A MD
	CARDIOVASCULAR MEDICINE & CARDIAC
	DEWEY BALLANTINE LLP
	HOWREY LLP
	PATRAWALA ROB A MD
	SAINT CLAIRE DONALD JR MD
	SAN FRANCISCO SOUP CO
	THOMAS WEISEL PARTNERS
1957	ZAIN KHAN
2000	BANK LEUMI USA
	DLA PIPER US LLP
	HOGE FENTON JONES & APPEL INC
	MCGRAW HILL CO
	NELSON ROBERTS INVESTMENT ADVISORS L
2050	EAST PALO ALTO HOTEL DEVEL
	FOUR SEASONS HOTEL

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2008 (Cont'd)

2100	RAVENSWOOD COMMUNITY STORE
2101	CHEVRON STATION INC
2111	BUSINESS CENTER QUICK TAX SERVICE
	CURVES INTERNATIONAL INC
	DREW CENTER PHARMACY
	DREW HEALTH FOUNDATION
	ITECH CENTERS
2112	PRICE BEAUTY SALON
2117	COMMUNITY LEGAL SERVICES IN EAST PAL
	OCCUPANT UNKNOWN
2124	GLADIATOR CLOTHING INC
	JESS MITCHELL
	NORMANS TOWING
2126	RON TAROMINA
	UNIVERSITY GUEST HOME
2142	E Z HOMES REAL ESTATE INC
	EZ HOMES INC
	JAIME E HARRIS
2146	SHRI MATI
2148	RANCHO GRANDE SUPERMARKET
	VALENCIA MARKET
2156	SIRYS BEAUTY SALON
2164	JOSE CRUZ
2166	RODMAN AMORELLI
2172	GERALD WILKERSON
2178	UBALDO CORIA
2201	COMMUNITY CHURCH OF EAST PALO ALTO
2212	PAULINA MENDOZA
2220	THREE BROTHERS TACOS
2242	CENTURY 21 ALPHA PACIFIC
2243	TIBURCIO VARGAS
2247	EVE FISHMAN
2248	JOSEPH LAWRENCE
2252	OCCUPANT UNKNOWN
2253	OCCUPANT UNKNOWN
2263	CAROLINA RAMIREZ
	J SPENCER
	RENEE RUDNICK
	SARA ALVARENGA
2264	AGRIPINA VARGAS
2268	VICENTE GUZMAN
2272	JOSE SANDOVAL
2274	LAJJA MANI
2276	OLGA VAZQUEZ
2279	EMETERIO CANLAS
2280	RAMON MAGANA
2281	ELISEO PERALTA
2284	PABLO MENDOZA
2300	ANNIE WATKINS
2320	OCCUPANT UNKNOWN

UNIVERSITY AVE 2008 (Cont'd)

2330	ALTON PHILLIPS
	CHAO YE
	GEORGE SETIABUDI
	GREGORY MA
	GURDEEP SINGH
	H SHRIER
	HEDWIG DEOCAMPO
	HUNG NGUYEN
	IRENE AGUILA
	JAMES HUIE
	JOSHUA SHIMCHICK
	JUNG LEE
	LIEZL CHIN
	LISA MEDOFF
	LUISA LEMUS
	MARIA AGUAYO
	MEREDITH WARE
	MINH NGUYEN
	NAN NGUYEN
	PARVIN BARI
	RAMIRO ZAMORA
	RAVI KRISHNA
	RODERICK COOPER
	ROY GYLES
	SAIZAR ENARD
	SHAHRIAR DAVANI
	SHARITA BOLDS
	STELLA MIRETSKY
	SUNIL DAVE
2331	R CASTRO
2332	OCCUPANT UNKNOWN
2337	ADALICE MARTINEZ
2338	MARCIA DRANE
2343	ADRIANA CHAVEZ
	ISAIAS SALAS
	JORGE GONZALEZ
	JOSE LARIOS
	JOSE MENERA
	SANTOS ESCOBAR
2346	JOSE SIERRA
2354	EVA BRACHO
	JUAN MENDOZA
	MARCOS SOTO
2358	KAREN JOHNSON
2360	JERAMIE FRANCIS
2361	AHMAD HASAN
	ALBERTO SALGADO
	BETTYE ALEXANDER
	BRISEIDA DIAZ
	CLARENCE STEVENS

UNIVERSITY AVE 2008 (Cont'd)

2361	CLARIBEL POSADA
	DENISE DARENSBOURG
	ERNESTO MONTES
	HECTOR RAZON
	HORALIA HERNANDEZ
	J RIVAS
	JESUS BUSTOS
	JOANA TANU
	JUDITH MAGANA
	LETICIA GARCIA
	LIDIA RAMAIREZ
	LIDIA RAMIREZ
	MARIA BAZAN
	ROBERTO CUEVAS
	ROSA ACOSTA
	TEVITA TUPOU
	VIRGINIA RODRIGUEZ
2364	BRENDA CONSTON
2365	OCCUPANT UNKNOWN
2368	TAKIVAHA TUPOU
2369	EPA CAN DO
2372	OCCUPANT UNKNOWN
2373	LAS ADELITAS RESTAURANT & MEAT MARKE
2376	MARIA RAMIREZ
	TURNER GROUP INSURANCE AGENCY
2377	EL BOHEMIO BILLIARDS
2379	MAGIC TOUCH MASSAGE
	MARIBELS BEAUTY SALON
2387	LA ESTRELLITA MARKET & DELI
2401	MCDONALDS INDUSTRIAL PARKWAY
2415	AMERICAN WATER SERVICES INC
	COUNTY OF SAN MATEO
	EAST PALO ALTO CITY OF
	JORRIS WIGGERS MD

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2003

1710	FORREST PENDLETON
1730	CALVIN HARLEY
1737	GERARDO PARDOCASTELLOTE
1741	NILESH SHAH
1750	JOHN KELLY
	RED THISTLE MUSIC
1755	FLOYD GARDNER
	GARDNER RESEARCH CO
1771	FABIEN LUBAIS
1845	HARLAN PINTO
1870	STEVEN HIBMA
1875	J QUATKEMEYER
1900	BINGHAM MCCUTCHEN LLP
	DEVCON CONSTRUCTION
	KALIN ALAN B MCTCHN DOYLE BROW
	MCCUTCHEN DOYLE BROWN & ENRSN
	MRL EDWRD S MCTCHN DOYLE BROWN
	REINFORCING POST INS
	UNIVERSITY CIRCLE
1930	CORNWAY TAX SERVICE
1935	MICRO BUSINESS INITIATIVE
1950	GEORGE BORBIN
	HARMON LIMITED
2000	BROBECK PHLEGER & HARRISON
2050	CLARK PACIFIC CORP
2100	GREG JAMES
	RAVENSWOOD PAGING & CELLULAR
2101	OCCUPANT UNKNOWN
	UNIVERSITY CHEVRON
2110	BETTYS BOUQUET
	OCCUPANT UNKNOWN
	UNIVERSITY PALMS
2111	B & S TOWING
	CARE COLLECTIONS
	DREW CTR PHARMACY
2112	PRICE BEAUTY SALON
2115	IN PLUGGED
	PACIFIC ISLANDER OUTREACH
	PLUGGED IN LRNNG THRGH TCHNLGY
2118	FAMILY HOUSE FAST FOOD
	OCCUPANT UNKNOWN
2124	EUGENE JACKSON
	NORMANS TOWING
	RODERICK M JESS
	STORY TELLERS INTRNTNL ENTRT
2126	UNIVERSITY GUEST HOME
	WILLIAM PEOPLES
2142	EZ HOMES REAL ESTATE INC
	JAGDISH SHARMA
2146	SHRI MATI

UNIVERSITY AVE 2003 (Cont'd)

2148 JOSE LOPEZ
JOSE LOPEZ
2150 OCCUPANT UNKNOWN
2156 OCCUPANT UNKNOWN
SIRYS BEAUTY SALON
2158 ELVIAS BOUTIQUE
OCCUPANT UNKNOWN
2160 OCCUPANT UNKNOWN
TADLOCK AUTO SUPPLY
2166 RODMAN AMORELLI
2172 GERALD WILKERSON
2178 CORIA UBALDO
2200 CITY OF EAST PALO ALTO PBLC WO
OCCUPANT UNKNOWN
2201 A SPECIAL PLACE
CMNTY CHRCH OF EAST PALO ALTO
2212 DINO PLANCARTE
2240 DRS
OCCUPANT UNKNOWN
2242 JAMES RUSSAW
RUSSAW RECYCLING
2247 OCCUPANT UNKNOWN
2248 JOSEPH LAWRENCE
2252 JOSE PEREDA
2253 OCCUPANT UNKNOWN
2263 SUKH SINGH
TSHAKA WASHINGTON
2264 AGRIPINA VARGAS
2268 VICENTE GUZMAN
2272 JOSE SANDOVAL
2274 LAJJA MANI
2277 AMERICAN WATER SERVICES
BIG BROTHERS BIG SSTR OF S F
OCCUPANT UNKNOWN
2279 ROSARIO CANLAS
2280 RAMON MAGANA
2281 ELISEO PERALTA
2283 ISAAC CORTES
2284 VICTOR SANDOVAL
2300 ANNIE WATKINS
2320 OCCUPANT UNKNOWN
2331 JONATHAN PITKIN
2337 ALFREDO FERNANDEZ
2338 MARIA MANDUJANO
2343 CELIA URENA
ISAIAS SALAS
TIBURCIO VARGAS
2346 OCCUPANT UNKNOWN
2354 MARCOS SOTO
2358 AURORA WENCES

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 2003 (Cont'd)

2364	BRENDA CONSTON
2365	ARNOLDO RIVERA
2368	MAFI OFAMOONI
2369	PALO EAST
2371	HI & BYE MINI MART
	NAVOR LOZANO
2372	TRINITY TAYLOR
2373	LAS ADELITAS RESTAURANT
	PENAS RESTAURANT & MEAT MARKET
2376	MARIA RAMIREZ
2377	EL BOHEMIO BILLARD
	OCCUPANT UNKNOWN
2379	MAGIC TOUCH MASSAGE
	TRUJILLOS BEAUTY SALON
2380	OCCUPANT UNKNOWN
2381	OCCUPANT UNKNOWN
2387	LA ESTRELLITA MARKET
	OCCUPANT UNKNOWN
2395	LATTE DAH CAFE INC
2401	TRIPPLETT MANAGEMENT CORP
2415	EAST PALO ALTO LIBRARY
	EAST PALO ALTO MURAL ART PRJCT
	LIBRARIES BRANCH LIBRARIES

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1999

1710	FORREST PENDLETON
1730	MARC PORAT
	OCCUPANT UNKNOWN
1737	MICHAEL HAAS
	OCCUPANT UNKNOWN
1741	SANJIV KAKKAR
1750	JENNIFER KELLY
1755	LILY HUANG
1801	OCCUPANT UNKNOWN
1845	HARLAN PINTO
1870	OCCUPANT UNKNOWN
1875	JUNAID SYED
1900	BERRONES LIQUOR
	KASEY LI
	LYNNA BUI
	MATTHEW MINGRONE
1909	UNIVERSITY GIFT & SMOKE SHOP
1910	COLLEGE TRACK PROGRAM
	ELLIS REALTY
	SIGNS DISPLAYS
1915	GOTTLIEB MARK PHOTOGRAPHY
	MATTHIAS WILLIAM PHOTOGRAPHY
	STUDIO RESOURCES
	WKM PHOTOGRAPHY
1917	JS FISH & SEAFOOD
1922	CONTOUR HAIR CARE CENTER
	PIZZA Y TAQUERIA LOS TEMOS
1923	PLUGGED IN LEARNING THROUGH TECHNOLOGY
1925	TO PICK UP OR SEND MONEY TRANSFERS
1926	ALPHA FININCIAL SERVICES
	CENTURY 21 ALPHA PACIFIC REALTY
	KENNETH HARRIS
1928	B & S BEAUTY SUPPLY
	OCCUPANT UNKNOWN
1930	CORNWAY TAX SERVICE
	JANELLES BEAUTY SALON & BOUTIQUE
	OCCUPANT UNKNOWN
1934	ECUMENICAL HUNGER PROGRAM
1935	ENTERPRISE FOUNDATION THE
	SIGRID RUPP
	SILICON VALLEY SMALL BUSINESS DEVELOPMENT CENTER
	SLR ARCHITECTS
	START UP
1939	VIDEO EMPORIUM
1940	EDWARD E CAMPBELL & ASSOCIATES REALTY
	GOLDIES OAKWOOD BAR B QUE
	MANLEYS DONUT SHOP
	MIRAMAR MORTGAGE
1941	AN EYE FOR BEAUTY
	EYE FOR BEAUTY

UNIVERSITY AVE 1999 (Cont'd)

1943 TACO CORITA
1944 AMERICAN PACIFIC ENTERPRISES
PACIFIC ISLANDER OUTREACH
1945 HOLLYWOOD NAILS
1946 FREE AT LAST COMMUNITY RECOVERY & REHABILITATION SERVICES
1947 ROSITA BAKERY RESTAURANT
1948 WORRELL ENTERPRISES
1950 HOUSE OF WIGS
1951 WHISKEY GULCH SALON
1952 CAROLYNS FOR HAIR
HAIR BY CAPUCINE GUKE
JOHNS EXOTIC LINGERIE & PERFUMES
NINAS NAILS
1955 EAST PALO ALTO HISTORICAL & AGRICULTURAL SOCIETY
1957 OCCUPANT UNKNOWN
OLANA KHAN
WEST SOUNDS
1960 GARDEN THE
1963 UNIVERSITY NAIL SALON
1968 COST LESS CLEANERS
1969 FAMILY HOUSE BARBEQUE SAUCE INCORPORATED
1972 DURAN BOUTIQUE
1973 PERFECT PEACE CHURCH OF GOD IN CHRIST
1974 EL BULEBAR
1975 COMMUNITY TRUE VALUE HARDWARE
1985 VILLANEUVA MEAT MARKET
1991 OCCUPANT UNKNOWN
UNIVERSITY LIQUORS
2100 OCCUPANT UNKNOWN
RAVENSWOOD STORE
2110 BETTYS BOUQUET
2111 CANCER-AMERICAN CANCER SOCIETY SOUTH SAN MATEO CNTY
DREW CENTER PHARMACY
DREW CENTER PHARMACY PUBLIC FAX
DREW HEALTH FOUNDATION DAY & NIGHT CALL
EAST PALO ALTO UNIT
OCCUPANT UNKNOWN
WMN INFANTS & CHLD PROGRAM AT DREW HEALTH FOUNDATION
WOMEN INFANTS & CHILDREN PROGRAM AT DREW HEALTH FOUNDATION
2112 OCCUPANT UNKNOWN
PRICE BEAUTY SALON
2117 OCCUPANT UNKNOWN
2118 LAS CARRETAS RESTAURANT
2124 JESS MITCHELL
NORMANS TOWING
2126 UNIVERSITY GUEST HOME OF WILLIAM F & JUANITA PEOPLES
WILLIAM PEOPLES
2142 ALL AMERICAN FINANCE E Z HOMES
E Z HOMES REAL ESTATE INCORPORATED
EZ HOMES REAL ESTATE INCORPORATED

UNIVERSITY AVE 1999 (Cont'd)

2142 NATIONAL MARKETING ALLIANCE
OCCUPANT UNKNOWN
2143 OCCUPANT UNKNOWN
2146 SHRI MATI
2148 LOPEZ JOSE
2150 MARIAS TAQUERIA
2156 SIRYS BEAUTY SALON
2158 ELVIAS BOUTIQUE
2160 KELLYS AUTOMOTIVE REPAIR
2164 JOSE CRUZ
2166 RODMAN AMORELLI
2172 GERALD WILKERSON
2176 OCCUPANT UNKNOWN
2178 NORMA MARROQUIN
UBALDO CORIA
2194 S & V PALO ALTO SHELL
2200 EAST PALO ALTO CITY OF ADMINISTRATION & ALL OTHER
EAST PALO ALTO CITY OF COMMUNITY SERVICES DEPARTMENT
EAST PALO ALTO CITY OF POLICE DEPARTMENT
2201 A SPECIAL PLACE
COMMUNITY CHURCH OF EAST PALO ALTO
2212 LUIS PEREZ
2220 EAST PALO ALTO YMCA
KEISHAS HAIR DESIGN
OCCUPANT UNKNOWN
POWELL AUTO SALES
UNIVERSITY REALTY
2240 DOCTORS THE
2243 TIBURCIO VARGAS
2247 CAROLYNS FOR HAIR
EVE FISHMAN
2248 SHIRLEY LAWRENCE
2252 OCCUPANT UNKNOWN
2253 OCCUPANT UNKNOWN
2263 CAROL HARRISON
J SPENCER
RENEE RUDNICK
SALVADOR SOLARSANO
SARA ALVARENGA
VA TUPOU
2264 AGRIPINA VARGAS
2268 VICENTE GUZMAN
2272 JOSE SANDOVAL
2274 LAJJA MANI
2276 OCCUPANT UNKNOWN
OLGA VAZQUEZ
2277 BAYSHORE COMMUNITY RESOURCE CENTER
2279 EMETERIO CANLAS
2280 RAMON MAGANA
2281 OCCUPANT UNKNOWN

UNIVERSITY AVE 1999 (Cont'd)

2283	ISAAC CORTES
	MARIA FERNANDEZ
2284	PABLO MENDOZA
2300	ANNIE WATKINS
2320	MARIA MARTINEZ
	OCCUPANT UNKNOWN
2330	ALI BARI
	ALTON PHILLIPS
	GREGORY MA
	H SHRIER
	HEDWIG DEOCAMPO
	HUNG NGUYEN
	IRENE AGUILA
	JAMES HUIE
	JOSEFINA VALDEZ
	JOSHUA LOUD
	JOSHUA SHIMCHICK
	JUNG LEE
	KIM WHITE
	LISA MEDOFF
	LUISA LEMUS
	MARIA AGUAYO
	MEREDITH WARE
	MINH NGUYEN
	NAN NGUYEN
	RAMIRO ZAMORA
	RAVI KRISHNA
	RODERICK COOPER
	ROY GYLES
	SAIZAR ENARD
	SHAHRIAR DAVANI
	STELLA MIRETSKY
	SUELYNN CLARK
	SUNIL DAVE
2331	OCCUPANT UNKNOWN
	OCEANVIEW CONSTRUCTION GROUP INCORPORATED
	R CASTRO
2332	OCCUPANT UNKNOWN
2337	OCCUPANT UNKNOWN
2338	OCCUPANT UNKNOWN
2341	OCCUPANT UNKNOWN
2343	CATHERINE PEREZ
	GLORIA GARCIA
	ISAIAS SALAS
	JOSE LARIOS
	SANTOS ESCOBAR
2345	OCCUPANT UNKNOWN
2346	ALEJANDRO GARCIA
2354	EVA BRACHO
	OCCUPANT UNKNOWN

UNIVERSITY AVE 1999 (Cont'd)

2358 KAREN JOHNSON
TERESA LOYA
2360 JERAMIE FRANCIS
2361 AHMAD HASAN
ALBERTO MARENTES
ALBERTO SALGADO
BARRY GIRARD
CLARIBEL POSADA
ERNESTO MONTES
GALVAN SANDOVAL
HECTOR BAZAN
HECTOR RAZON
HORALIA HERNANDEZ
JESUS BUSTOS
JOANA TANU
JOSE ENRIQUEZ
JUDITH MAGANA
LETICIA GARCIA
MIGUEL AGUILAR
PABLO INFANTE
ROBERTO CUEVAS
ROSA ACOSTA
TEVITA TUPOU
V NGAPA
VERONA STEVENS
YOLANDA RAMIREZ
2362 OCCUPANT UNKNOWN
2364 BRENDA CONSTON
DINAH REEL
2365 OCCUPANT UNKNOWN
2368 SIUA ELONE
2369 CONGRESS OF COMMUNITY ORGANIZATIONS
EPA CAN DO
2371 HI & BYE MINI MART
2372 EUGENIA MORENO
OCCUPANT UNKNOWN
2373 LAS ADELITAS RESTAURANT & MEAT MARKET
PENAS RESTAURANT & MEAT MARKET
2377 EL BOHEMIO BILLARD
2379 TRUJILLOS BEAUTY SALON
2381 NEUTRAL ZONE AFTERCARE PROGRAM
2387 LAESTRELLITA MARKET & DELI
2401 MCDONALDS OF EAST PALO ALTO
2415 AL DIVISION PROBATION DEPARTMENT
AL DIVISION PUBLIC WORKS DEPARTMENT
DAVID FORKS
EAST PALO ALTO CITY OF COMMUNITY DEVELOPMENT DEPARTMENT
EAST PALO ALTO CITY OF COMMUNITY SERVICES DEPARTMENT
EAST PALO ALTO CITY OF EAST PALO ALTO REDEVELOPME
EAST PALO ALTO CITY OF LIBRARY

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1999 (Cont'd)

2415 EAST PALO ALTO CITY OF POLICE DEPARTMENT
EAST PALO ALTO COMMUNITY SERVICES WATOTO PROJECT
EAST PALO ALTO POLICE DEPARTMENT
EAST PALO ALTO WATER DISTRICT OFFICE
FAMILY PLAN CLINIC SAN MATEO CNTY DEPARTMENT OF HEALTH SERVI
HEALTH SERVICES DEPARTMENT OF
HUMAN SERVICES AGENCY
INFORMATION FOR ALL COUNTY OFFICES
LIBRARIES
MCDONALD PARK WATER DISTRICT
PALOMAR PARK WATER DISTRICT
PALOMAR WATER DISTRICT
PROJECT READ
SAM MCDONALD PARK WATER DISTRICT
SAN MATEO COUNTY OFFICES HEALTH SERVICES DEPARTMENT OF
SAN MATEO COUNTY OFFICES HUMAN SERVICES AGENCY
SAN MATEO COUNTY OFFICES LIBRARIES
SAN MATEO COUNTY OFFICES PROBATION DEPARTMENT
SAN MATEO COUNTY OFFICES PUBLIC WORKS DEPARTMENT
WATOTO

Target Street	Cross Street	Source
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UNIVERSITY AVE 1995

1710	PENDLETON, FORREST
1730	HARLEY, CALVIN
1737	FUELTS, ANDREA
	HAAS, MICHAEL
	PARDOCASTELLOT, GERARDO
1741	HEARD, JASON
1750	KELLY, JOHN
1755	GARDNER, FLOYD
1771	GOLDBAND, STEVE
1800	HOLDEN, RICHARD
1801	PODESTA, RENA V
1845	PINTO, HARLAN A
1870	OCCUPANT UNKNOWNN
1875	QUATKEMEYER, J H
1900	BERRONES LIQUOR
1909	WERE ON A ROLL CATERING
1915	MARK GOTTLIEB PHOTOGRAPHY
	ROBERT MILLER PHOTOGRAPHY
	STUDIO RESOURCES
	WILLIAM MATTHIAS PHOTOGRAPHY
1917	DANS FISH & SEAFOOD MARKET
1919	FINLEY REALTORS
1921	G & B BEAUTY SUPPLY
	HAIR BY FRITZI
1922	A S PIZZA
	CONTOUR HAIR CARE CTR
1923	DIXON ENTERPRISES
1925	FAST CASH
	WESTERN UNION
1926	ALPHA PACIFIC REALTY
1930	CORNWAY TAX SVC
	ROSES AFRICAN CLOTHES
1934	ECUMENICAL HUNGER PROGRAM
1935	DAVID B WALTER
	SLR ARCHITECTS
1939	VIDEO EMPORIUM
1940	EDWARD E CAMPBELL & ASSOC
	GOLDIES OAKWOOD B B Q
	MANLEYS DONUT SHOP
	MIRAMAR MORTGAGE
1941	AN EYE FOR BEAUTY
1943	TACO CORITA
1944	BAYSHORE EMPLOYMENT SVC INC
	CENTRO BILINGUE
1945	MARIAS TAX SVC
1946	BAAN BAY AREA ATRISTS
1948	WORRELL ENTERPRISES
1950	HOUSE OF WIGS
1951	WHISKEY GULCH SALON
1952	J A JEWELRY

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1995 (Cont'd)

1952 NINA NAILS
1957 WEST SOUNDS
1960 GARDEN
1962 OCCUPANT UNKNOWNN
1963 UNIVERSITY NAIL SALON
1967 JAZZY DS
1968 COST LESS CLEANERS
1969 AABI COMMUNICATION CO
FAMILY HOUSE BBQ SAUCE INC
1972 CHINA JOY
1973 OPEN DOOR CHURCH OF GOD
1974 EL BULEBAR
1975 COMMUNITY TRUE VALUE HARDWARE
1983 COLLINS CLUB
1984 FREDY JACKS FISH & CHIPS
1991 UNIVERSITY LIQUORS
2100 RAVENSWOOD STORE
2101 UNIVERSITY CHEVRON
2108 BETTYS BOUQUET
2111 AMERICAN CANCER SOCIETY
DREW CENTER PHARMACY
DREW HEALTH FOUNDATION
2112 PRICE BEAUTY SALON
2118 LAS CARRETAS RESTAURANT
2124 NORMAN, INA M
NORMANS TOWING
2126 PEOPLES, WILLIAM F
UNIVERSITY GUEST HOME
2142 CROCKETT REALTY INC
FAITH MISSIONARY BAPTIST CHR
OCCUPANT UNKNOWNN
2150 MARIAS TAQUERIA
2156 DISCOTECA GUANAJUATO
2158 OCCUPANT UNKNOWNN
SHEAR & LIGHT IMAGES
2160 OCCUPANT UNKNOWNN
TADLOCKS AUTO SUPPLY
2164 OCCUPANT UNKNOWNN
2166 AMORELLI, CAROL A
2172 WILKERSON, GERALD B
2178 OCCUPANT UNKNOWNN
2194 EAST PALO ALTO SHELL
2200 EAST PALO ALTO COMMUNITY DEV
EAST PALO ALTO COMMUNITY PRGRM
EAST PALO ALTO PUBLIC WORKS
2201 A SPECIAL PLACE
COMMUNITY CHURCH
2212 CRUZ, HECTOR M
2220 CARRENO, DEBORAH
IMPACT HOME LOANS

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1995 (Cont'd)

2240	OCCUPANT UNKNOWNN
2242	OCCUPANT UNKNOWNN
2247	OCCUPANT UNKNOWNN
2248	OCCUPANT UNKNOWNN
2252	OCCUPANT UNKNOWNN
2253	OCCUPANT UNKNOWNN
2263	CLARK, R JR
	RUDNICK, RENEE
	WARREN, LUCILLE
2264	MAGANA, AGRIPIN
2268	OCCUPANT UNKNOWNN
2272	DELRIO, BERTHA
2276	OCCUPANT UNKNOWNN
2277	EAST PALO ALTO RESOURCE CTR
2279	OCCUPANT UNKNOWNN
2280	MAGANA, RAMON B
2281	OCCUPANT UNKNOWNN
2283	OCCUPANT UNKNOWNN
2284	CASTREJON, RAMON
	OROZCO, ARAIZA F
	RAMOS, MATIAS C
2300	WATKINS, ANNIE
2320	OCCUPANT UNKNOWNN
2331	JUDICE, F B
2332	OCCUPANT UNKNOWNN
2337	LATU, MELE T
2338	OCCUPANT UNKNOWNN
2343	NAVA, BARTOLO O
	ROBLES, ERNESTO
2346	DACANAY, CANDIDO S
2354	OCCUPANT UNKNOWNN
2358	TUCKER, B
2361	ALEXANDER, BETTYE L
	CORDELL, GARY L
2362	OCCUPANT UNKNOWNN
2364	OCCUPANT UNKNOWNN
2365	MARTINEZCABRER, ESTHER
2368	ELONE, FINAU
2369	INDEPENDENT APOSTOLIC COMM CTR
	TIA MORTGAGE INVESTORS
2371	HI & BYE MINI MART
2372	FLOWERS, PEARLIN
2373	CARNITAS URUAPAN
2375	AVINA, RAQUEL
	EMMANUEL FURNITURE
2376	VISZMEG, GEORGE
2377	EAST SIDE SOCIAL CLUB
2379	TRUJILLOS BEAUTY SALON
2380	OCCUPANT UNKNOWNN
2381	JORGES PLACE SOCIAL CLUB INC

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1995 (Cont'd)

2381 MR G
2401 MC DONALDS
2415 COMMUNITY COUNSELING CTR
EAST PALO ALTO LIBRARY
EAST PALO ALTO MUN BLDG
EAST PALO ALTO REDEVELOPMENT
EAST PALO ALTO WATERWORKS
FAMILY PLANNING CLINIC
PROJECT READ
SAN MATEO COUNTY HUMAN SVC
SAN MATEO COUNTY PROBATION
SAN MATEO COUNTY SHERIFF
SAN MATEO COUNTY VICTIM CTR

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1992

1710	PENDLETON, FORREST
1737	DAI, CYNTHIA M
	HAAS, MICHAEL
1750	KELLY, JOHN
1755	GARDNER, FLOYD
1771	GOLDBAND, STEVE
1800	ORTIZ, KATHRYN
1845	PINTO, HARLAN A
1900	BERRONES LIQUOR
1901	SMOG CHECK STATIONS
1909	SHAFRAN, STEVEN
	WERE ON A ROLL
1910	LETTERLAND
1915	GOTTLIEB MARK PHOTO
	STUDIO RESOURCES
	TIOSEJO A PHOTO
1919	FINLEY REALTORS
1921	G&B BEAUTY SUPPLY
	HAIR BY FRITZI
1922	CONTOUR HAIR CAR CT
	DOMINOS PIZZA
1923	COZY HOME REALTY
1925	WESTRN UNION PCK UP
1926	CENTURY 21 ALPHA
1928	GATES LTHR CLOTHING
1934	EHP
1935	S L R ARCHITECTS
1939	VIDEO EMPORIUM
1940	CAMPBELL, EDWARD E SR
	EDWARD E CAMPBELL
	GOLDIES OAKWD BAR B
	MANLEYS DONUT SHOP
	MIRAMAR MORTGAGE
1941	AN EYE FOR BEAUTY
	EYE FOR BEAUTY
1943	DIMPLES&CO
1944	BAYSHORE EMPLYMT SV
	JAZZ BLUES SOCL CLB
	JORDAN F E ASSOCTS
1947	WALLYS COFFEE SHOP
1948	WORRELL ENTERPRISES
1950	HOUSE OF WIGS
1951	WHISKEY GULCH SALON
1952	J A JEWELRY
	NINA NAILS
1957	WEST SOUNDS
1960	GARDEN THE
1962	TADLOCK, CARSON
1963	UNIV NAIL SALON
1966	MIRROR MIRROR BTY

UNIVERSITY AVE 1992 (Cont'd)

1967 HAIR FASHION
JAZZY DS
1968 COST LESS CLEANERS
1969 A A B I COMMNCTN CO
FAMILY HS BBQ SAUCE
1972 CHINA JOY
1973 OPEN DOOR CH OF GOD
1974 EL BULEBAR
1975 COMNTY TRUE HARDWR
1983 COLLINS CLUB
1984 FREDY JACKS FISH
1991 UNIV LIQUORS
2100 RAVENSWOOD STORE
2101 UNIV CHEVRON
2108 BETTYS BOUQUET
2111 AMER CANCER SOCIETY
DREW CENTER PHAR
2112 PRICE BEAUTY SALON
2118 LAS CARRETAS RSTRNT
2124 NORMAN, INA M
NORMANS TOWING
ROBERSON, TOMMY
2126 PEOPLES, WILLIAM F
UNIV GUEST HOME
2142 CROCKETT REALTY INC
FAITH MSNRY BAPT CH
2150 MARIAS TAQUERIA
2156 DISCOTECA GUANAJTO
2158 SHEAR&LIGHT IMAGES
2160 TADLOCKS AUTO SPLY
2194 EAST PA SHELL
2200 E PALO ALTO CTY WKS
EAST PA CMNTY MEDTN
2201 A SPECIAL PLACE
COMNTY CH EAST PALO
2212 CRUZ, HECTOR M
2240 DOCTORS THE
2247 FISHMAN, C D
2253 HOLLIER, SADIE
2263 RUDNICK, RENEE
2274 DIWAKAR, IARVIND
MANI, HIRA
2277 EAST PA RESOURCE CT
2281 PERALTA, ELISEO
2331 GILBERT, RUSSELL A
2354 RANGEL, ELIAS L
2358 MOTHERS FR EQL EDUC
ST MARKS MSSNRY CH
2369 E P A C T EDCTN FND
INDEP APSTLC CMNCTN

Target Street	Cross Street	Source
✓	-	Cole Information Services

UNIVERSITY AVE 1992 (Cont'd)

2371	HI&BYE MINI MART
2372	FLOWERS, P
2373	CARNITAS URUAPAN
2375	EMMANUEL FURNITURE
2377	EAST SIDE SOCL CLB
2379	TRUJILLOS BTY SALON
2381	JORGES PLCE SCL CLB
2401	MCDONALDS PALO ALTO
2415	E PALO ALTO CTY AG
	EAST PA CMNTY SERV
	FAMILY PLANNING
	PALOMAR PK WATER
	PROJECT READ
	SAM MCDONALD PK WTR
	SAN MTO CO LIBRARY
	WATOTO

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

UNIVERSITY AVE 1985

1710	CULVER LUCILLE ANN	321-0111	
1741	WRIGHT DOUGLAS L	329-0819	
1750	HODGSON DAVID A	853-0278	4
1755	GARDNER FLOYD	328-8855	
1771	MUNCH C A MD	329-1569	9
	TAYLOR W F	329-1569	9
1800	BRADLEY GEO	325-2775	2
	FALKE CHRISTINE	325-2775	2
	REFLECTANCE	321-1072	2
1870	WELLS RAY E	321-4370	2
1901	UNIV UNION SERV	322-1659	3
1930	CRESCENT CLEANERS	323-7281	
1934	BACHELOR QRTRS CLB	325-7575	
1944	ELLIS REALTORS	322-1060	4
1950	C D S	322-7602	4
1972	GOLDEN ROSE THE	325-3110	1
1983	COLLINS CLUB CAFE	326-1888	
2375	STEPHENIES FISH MKT	322-8650	4

Target Street	Cross Street	Source
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UNIVERSITY AVE 1985

1900	BERRONES LIQUOR	325-5760	
1909	CHETS SMOKE SHOP	322-7062	4
1910	LETTERLAND OF PA	321-8820	3
1915	ARBOGAST PHOTOGRPHY	323-1336	
1917	UNIV MEAT MARKET	325-9355	1
1919	CENTURY 21 FINLEY	323-0094	3
	FINLEY ELSIE M&SON	323-3166	9
1921	TREASURE CTR RESALE	322-5807	3
1922	TRAIN THE	853-9571	4
1925	HAIR POWER	853-0164	3
1935	WELLS FRGO UNIV AV	855-7568	7
1937	JAFFE RICK	326-2561	0
	WILLIAMS BOB	326-2561	0
1939	ST VINCENT DE PAUL	325-1643	1
1940	CAMPBELL REALTOR	324-4771	1
	CONTOUR HAIR CARE	324-4247	4
C	GOLDIES OAKWD BAR B	321-1019	4
1941	AN EYE FOR BEAUTY	853-9904	3

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

UNIVERSITY AVE 1985

UNIVERSITY AV		94303 CONT	
	EYE FOR BEAUTY	853-9904	3
1943	OLD FASHION GOODIES	326-5077	4
1944	BAYSHORE EMPLYMT SV	323-7704	0
	DUPLESSIS REALTY	322-9456	4
	GLOVER DEBRA	324-0666	2
	PHOTODYNAMICS	329-0334	3
1945	EVA BAKERY	322-1655	4
1946	HAMSHER MILLARD DC	327-1003	6
	NATURAL HEALTH CTR	327-1003	6
1947	WALLYS COFFEE SHOP	325-9654	3
1948	ALPHA PACIFIC RLTY	328-6100	4
	WORRELL ENTERPRISES	323-9944	2
1950	HOUSE OF WIGS	326-7614	
1951	WHISKEY GULCH SLOON	853-9747	3
1952	MO YOKE	326-9620	0
1955	UNIVRSTY AVE LNDRMT	325-7125	2
1957	WEST SOUNDS	321-5730	
1960	GARDEN THE	853-8921	3
1962	PALMER EVA	321-3880	0
1963	COMNTY HOME LOAN	324-8350	1
1964	FIERRO RUDOLPNO	323-3782	4
1966½	MIRROR MIRROR BTY	321-5125	3
1967	MICHAELS	325-6007	8
	MICHAELS HAIR	325-6007	
	STEADMAN MICHAEL	325-6007	8
1968	MOON LEE CLEANERS	323-3777	1
1969	KINWORTHY REAL EST	326-6682	8
1973	OPEN DOOR CH OF GOD	325-5581	4
1974	TOMMYS BAR	322-0575	7
1975	COMNTY HARDWARE	322-6840	
1976	QUILTELLA VIDEO	323-6316	4
1984	FREDY JACKS FISH	322-9550	8
1985	HUBBARD PAINT STORE	323-9081	2
1988	UNIVRSTY ARCO	327-6060	2
1991	UNIV LIQUORS	323-7672	4
2001	VANSICKLE CRAIG	323-7116	3
2100	RAVENSWD REXLL PHAR	323-5148	
2101	KIMBROUGH E CHEVRON	326-3194	6
2108	TASTY PIZZA&PASTRY	853-9099	4
2111	BOOTHBAY CORP	322-7736	4
	DREW CENTER PHARMCY	321-1449	2
	DREW HEALTH FOUNDTN	328-5060	4
2112	PRICE BEAUTY SALON	853-8876	3
2114	DENNYS TAVERN	853-9914	3
2118	DAY&NITE BBQ	324-0281	1
2126	UNIV GUEST HOME	322-1340	1
2127	XXXX	00	
2142	CROCKETT REALTY INC	325-7809	
2148	XXXX	00	
2150	MARIAS TAQUERIA	322-2087	9
2156	DREW HEALTH FOUNDTN	321-9609	0
	PHOENIX CENTER THE	321-9609	9
2158	XXXX	00	
2160	REYNOLDS ROBT REV	325-7543	4
2172	KARIM HAMMAD	323-2830	4
2178	WHITE ISIAH	321-0563	8
2194	UNIV AV SLF SV SHLL	328-4141	3

Target Street	Cross Street	Source
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UNIVERSITY AVE 1980

1600	FENNEY MERLIN L	323-3339	
1625	MCDONALD BERT SR	326-5344	
1650	MARINKOVICH J T	321-9945	9
1661	GULLIXSON CONRAD F	326-3059	5
1690	CASAS C JR	329-1265	5
1710	CULVER LUCILLE ANN	321-0111	4
1730	SWANSON W H	322-3010	
1737	PALECEK PETER	326-5910	7
1741	WRIGHT DOUGLAS L	329-0819	3
1755	GARDNER FLOYD	328-8855	5
1771	MUNCH C A	329-1569	9
	TAYLOR W F	329-1569	9
1845	GILBERT HARRY E	323-7037	
1870	TRETTON M	325-9460	9

Target Street	Cross Street	Source
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UNIVERSITY AVE 1980

1900★	BERRONES LIQUOR	325-5760	1
1901★	KUBALLS AL UN STN	322-1659	
1909★	CONTOUR NAURAL HAIR	493-4443	9
1910★	STYLESETTER	323-2828	2
1915★	ARBOGAST PHOTOGRPHY	323-1336	4
★	SLOAN PHOTOGRAPHY	323-5255	9
1917★	COUNTRY TIME MEATS	325-9355	9
1919★	FINLEY ELSIE M&SON	323-0094	8
	FINLEY ELSIE M	323-3166	9
1921★	PLANT GALLERY THE	322-9219	8
1922★	TRAIN THE	327-9417	8
1923★	ANDES MEXCN RESTRNT	326-4305	9
1924★	C&G CARPETS	328-3338	7
1925★	HAIR POWER	328-9959	6
1930★	CRESCENT CLEANERS	323-7281	
1934★	BACHELOR QRTRS CLUB	325-7575	2
1935★	WELLS FARGO PA UNIV	855-7568	7
1940★	JERRYS BURGERS	322-0117	1
1941★	DODYS COIFFURES	322-3321	
1944★	MADDOX ENTERPRISES	322-8655	9
★	U P PRESS	328-3944	6
1946★	BAIROGH RHABERT DC	327-1003	8
★	BIROGH ROBERT H DC	327-1003	6
★	HAMSHER MILLARD DC	327-1003	6
★	NATURAL LF CHRPRCTC	327-1003	6
1947★	JIMS RESTAURANT	325-9654	9
1948★	SK PEST CONTROL	327-1797	9
1950★	HOUSE OF WIGS	326-7614	5
1951★	WHISKEY GULCH SLN	328-9111	7
1955★	UNIVERSITY LNDRMT	325-7125	
1957★	WEST SOUNDS	321-5730	5
1960★	GARDEN THE	328-9895	3
1961	KENNISON JOHN	323-2542	9
1962	ROBINSON LARRY	326-8667	9
1963★	COMMUNITY HOME LOAN	324-8350	9
★	COMMUNTY STRT WRK C	327-2228	9
A★	COMMUNTY STRT WORK	326-8485	9
1966★	SAYLER REAL ESTATE	321-8541	6
1967★	MICHAELS	325-6007	8
★	MICHAELS HAIR ARTST	325-6007	9
★	STEADMAN MICHAEL	325-6007	8
1968★	COST LESS CLEANERS	322-8815	6
★	RUG DOCTOR PALO ALT	322-8815	8
1969★	KINWORTHY REAL EST	326-6682	8
★	PALO ALT WNDW GUARD	321-1673	8
1972★	PAGODA THE	325-3110	4
1974★	TOMMYS BAR	322-0575	7
1975★	COMNTY HARDWARE	322-6840	2
1976★	NICKS PIZZA	322-8104	9
1983★	COLLINS CLUB CAFE	326-1888	
1984★	FREDY JACKS FISH	322-9550	8
1985★	HUBBARD PAINT STORE	323-9081	9
1988★	UNIVERSITY ARCO	327-6060	7
1991★	ERNIES LIQUORS	323-7672	
2001	MARTIN DARRELL D	322-2051	7
2100★	RAVENSWD RXLL PHARM	323-5148	
2101★	KIMBROUGH E CHEVRON	326-3194	6
2110★	LONGS RENTALS&SALES	325-8823	5
2111★	DREW MDCL DNTL CTR	328-5060	5
2112★	PRICE BEAUTY SALON	328-9731	3
2114★	DENNYS TAVERN	328-9493	9
2115	SMITH SANDRA	961-8935	9
2118★	DAY AND NITE BBQ	324-0281	9
2126★	UNIVERSITY GUEST HM	322-1340	
2127	XXXX	00	
2142★	CROCKETT REALTY INC	325-7809	5
2148★	EAST PA MUNI WATOTO	364-5600	8
2150★	MARIAS TAQUERIA	322-2087	9
2154★	DAVIS MAURICE MD	322-9285	9
2156★	PHOENIX HOUSE THE	321-9609	9
2158	XXXX	00	
2160	XXXX	00	
2172	HICKS ROLAND	322-8922	2
2178	WHITE ISIAH	321-0563	8
2194★	UNIV SHELL	328-9130	9
★	GUERAMI MANI SHELL	322-0343	9

Target Street	Cross Street	Source
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UNIVERSITY AVE 1977

1600	FENNEY MERLIN L	323-3339	
1625	MCDONALD BERT SR	326-5344	
1650	MARINKOVICH V A MD	321-9945	4
1661	GULLIXSON CONRAD F	326-3059	5
1690	CASAS C JR	329-1265	5
1710	CULVER ARTHUR M	321-0111	4
1730	SWANSON W H	322-3010	
1737	SAULN ALLAN F	327-4196	5
1741	WRIGHT DOUGLAS L	329-0819	3
	WRIGHT DOUGLAS L JR	321-5201	6
1750	STRUBBE JOHN A	321-4185	
1755	GARDNER FLOYD	328-8855	5
1771	GOLDSTEIN PAUL	328-0545	6
1801	PODESTA ANDREW F	326-9187	
1845	GILBERT HARRY E	323-7037	
1875	GRAVES CHESTER E	325-0130	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

UNIVERSITY AVE 1977

1900*BERRONES LIQUOR 325-5760 1
1901*KUBALLS AL UN STN 322-1659
1909*CONTOUR HAIR STYLNG322-9552 4

Target Street	Cross Street	Source
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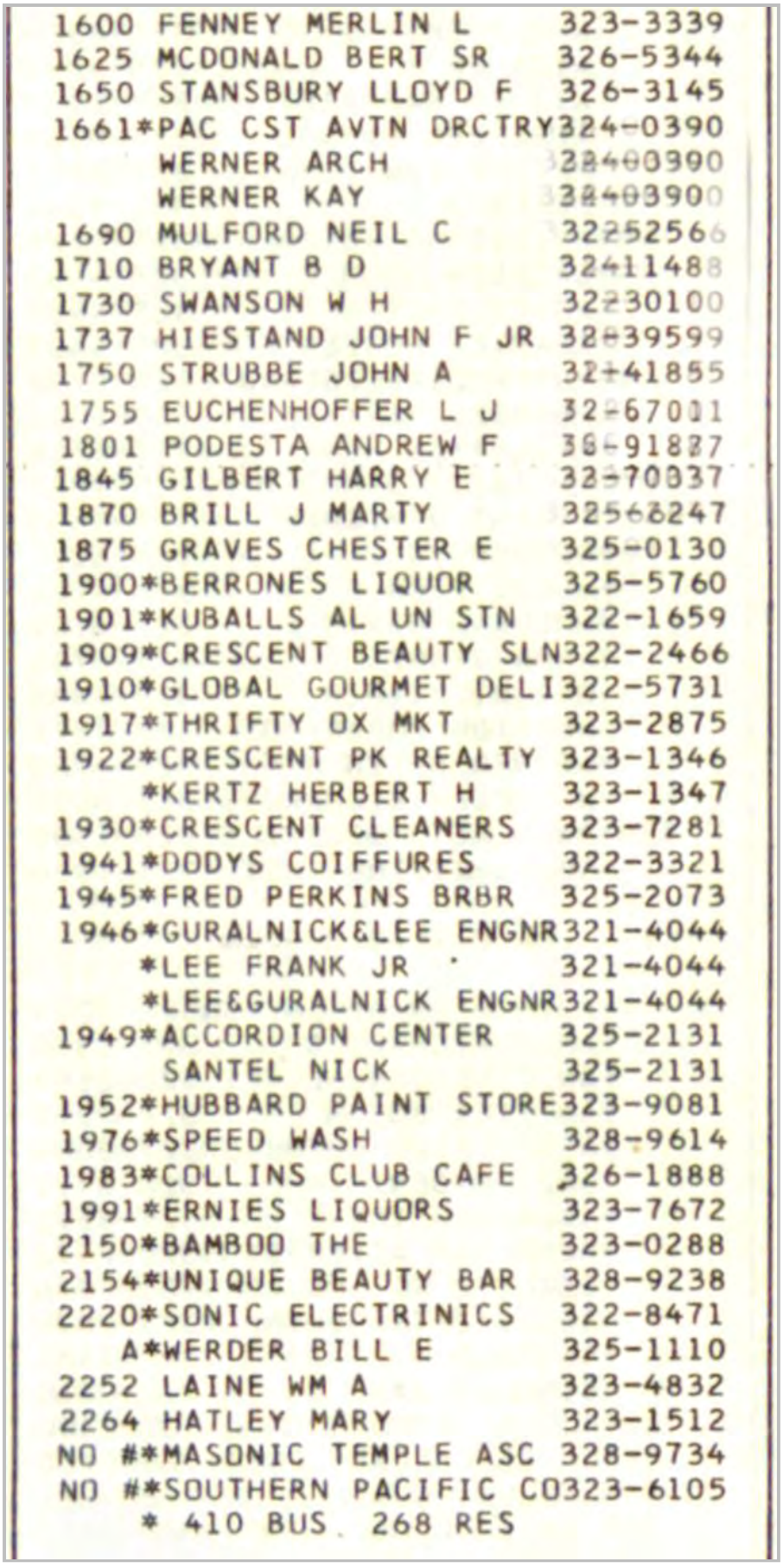
UNIVERSITY AVE 1977

..UNIVERSITY AV 94303 CONT..

1910*STYLESETTER 323-2828 2
1915*ARBOGAST PHOTOGRPHY323-1336 4
1917*THRIFTY OX MKT 323-2875
1919*FINLEY ELSIE M&SON 323-0094 5
1921*ANGELAS RESALE ANTQ321-9087 6
1923*GOJU KAI KARATE DO 327-9920 5
1924*WIGS UNLIMITED 322-1843 6
1925*HAIR POWER 328-9959 6
1927 FRANKIEL H H 327-9247 6
1930*CRESCENT CLEANERS 323-7281
1934*BACHELOR QRTRS CLUB325-7575 2
1935*WELLS FRGO BK PA 329-6740 4
1939*STVINCENT DE PL SHP325-1643
1940*JERRYS BURGERS 322-0117 1
1941*DODYS COIFFURES 322-3321
1943*CAMPBELL REALTY 324-4771 5
1944*UP PRESS 328-3944 6
1945*FRED PERKINS BRBR 325-2073
1946 BIROGH ROBERT H DC 327-1003 6
HAMSHER MILLARD DC 327-1003 6
*NATURAL LF CHRPRCTC327-1003 6
1947*JIMS COFFEE SHOP 328-9609 5
1948 XXXX OO
1950*HOUSE OF WIGS 326-7614 5
1951*LOCKER ROOM THE 322-8005
1952*HUBBARD PAINT STORE323-9081
1955*UNIV AVE LAUNDROMAT325-7125
1957*WEST SOUNDS 321-5730 5
1960*GARDEN THE 328-9895 3
1961 FEAR LORNA 321-2123 6
1962 COYLE ERROL 323-5354 2
1963*PAC STUDIES CENTER 322-4664
A*SLUIS&GROOT AM INC 325-4588
A*SLUIS&GROOT AMERICA322-3124 2
1964 XXXX OO
1966*SAYLER REAL ESTATE 321-8541 6
1968*COST LESS CLEANERS 322-8815 6
1969 XXXX OO
1972*PAGODA THE 325-3110 4
1974*SIDS UNIVERSITY CLB322-0575
1975*COMNTY HARDWARE 322-6840 2
1976*SARAHS FAMILY KTCHN321-4360 6
1983*COLLINS CLUB CAFE 326-1888
1984*UNIV POULTRY&FISH 323-4737
1985*CRESCENT PHARMACY 323-4186 1
1991*ERNIES LIQUORS 323-7672
1998*UNIV RICHFIELD SERV327-9804 4
2001*KNAPP SHOE COUNSELR322-2051 5
2100*RAVENSWD RXLL PHARM323-5148
2101*KIMBROUGH E CHEVRON326-3194 6
2108*NINAS CANDY SHOP 322-2542 5
2110*LONGS RENTALS&SALES325-8823 5
2111*DREW MDCL DNTL CTR 328-5060 5
2112*PRICE BEAUTY SALON 328-9731 3
2114*DANNYS 328-9906 6
2115 XXXX OO
2118*DAY&NITE BBQ 324-0281 2
2126*UNIV GUEST HOME 322-1340
2127 XXXX OO
2142*CROCKETT REALTY INC325-7809 5
2148*WATKINS R CONSTR CO323-3305 6
2150*BAMBOO GARDEN 323-0288 2
2156*BELIZIAN MEAT&PRDCE328-9527 6
2158 XXXX OO
2160 XXXX OO
2172 HICKS ROLAND 322-8922 2
2178 WHITE ISIAH 325-7772 4
2194*VETERANS WRKSP SHLL323-0761 4
2200*O I C W SERVICE STA323-3422 3

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

UNIVERSITY AVE 1970



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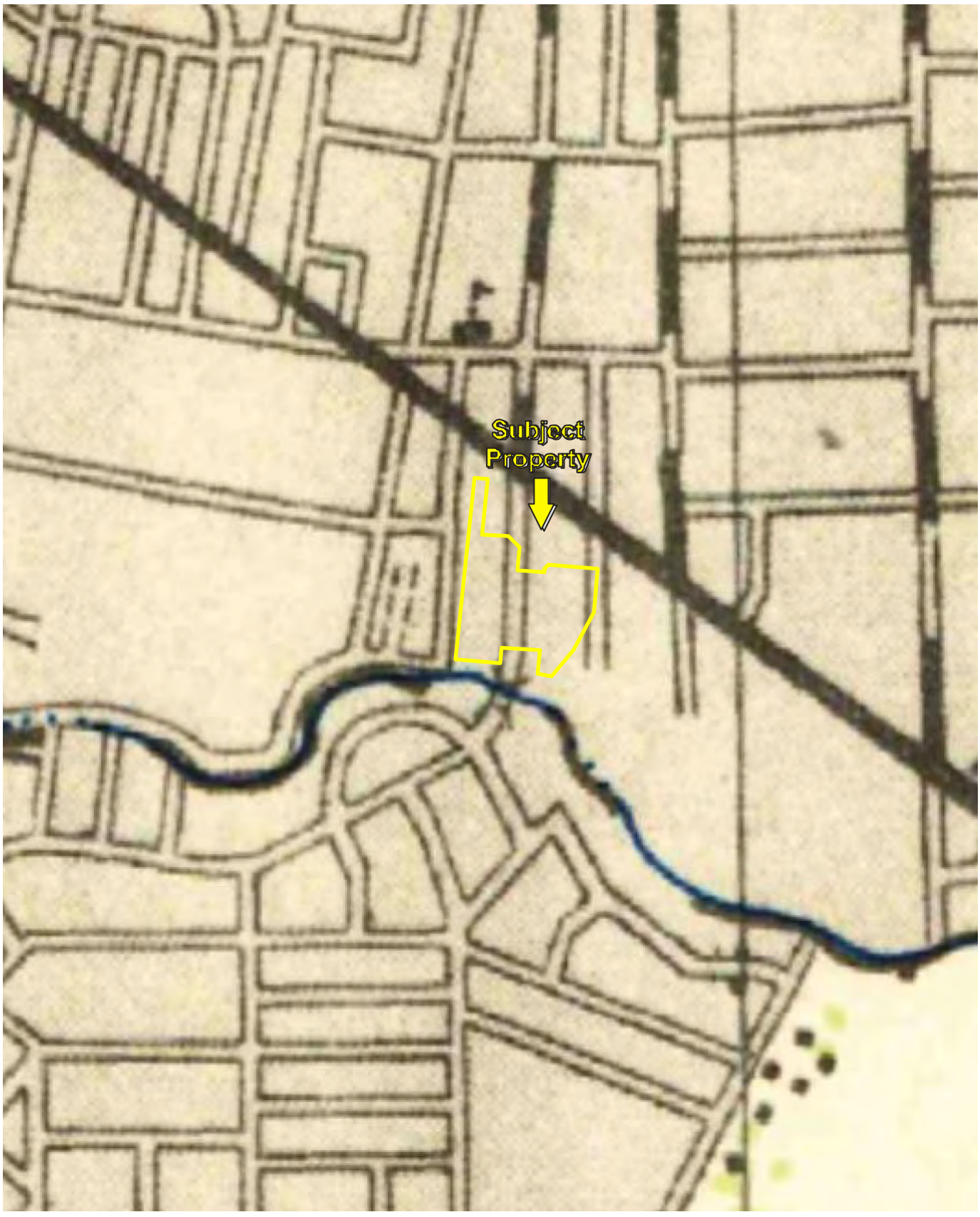
1600 FENNEY MERLIN L          323-3339
1625 MCDONALD BERT SR         326-5344
1650 STANSBURY LLOYD F        326-3145
1661*PAC CST AVTN DRCTRY      324-0390
     WERNER ARCH              324-0390
     WERNER KAY               324-0390
1690 MULFORD NEIL C           322-5256
1710 BRYANT B D               324-1488
1730 SWANSON W H              322-3010
1737 HIESTAND JOHN F JR       324-3959
1750 STRUBBE JOHN A           322-4185
1755 EUCHENHOFFER L J         322-6701
1801 PODESTA ANDREW F         324-9187
1845 GILBERT HARRY E          322-7037
1870 BRILL J MARTY            325-6247
1875 GRAVES CHESTER E         325-0130
1900*BERRONES LIQUOR           325-5760
1901*KUBALLS AL UN STN         322-1659
1909*CRESCENT BEAUTY SLN       322-2466
1910*GLOBAL GOURMET DELI       322-5731
1917*THRIFTY OX MKT            323-2875
1922*CRESCENT PK REALTY        323-1346
    *KERTZ HERBERT H          323-1347
1930*CRESCENT CLEANERS         323-7281
1941*DODYS COIFFURES           322-3321
1945*FRED PERKINS BRBR        325-2073
1946*GURALNICK&LEE ENGNR      321-4044
    *LEE FRANK JR             321-4044
    *LEE&GURALNICK ENGNR      321-4044
1949*ACCORDION CENTER         325-2131
     SANTEL NICK              325-2131
1952*HUBBARD PAINT STORE      323-9081
1976*SPEED WASH               328-9614
1983*COLLINS CLUB CAFE        326-1888
1991*ERNIES LIQUORS           323-7672
2150*BAMBOO THE               323-0288
2154*UNIQUE BEAUTY BAR        328-9238
2220*SONIC ELECTRINICS        322-8471
   A*WERDER BILL E            325-1110
2252 LAINE WM A               323-4832
2264 HATLEY MARY              323-1512
NO #*MASONIC TEMPLE ASC       328-9734
NO #*SOUTHERN PACIFIC CO      323-6105
    * 410 BUS  268 RES
```

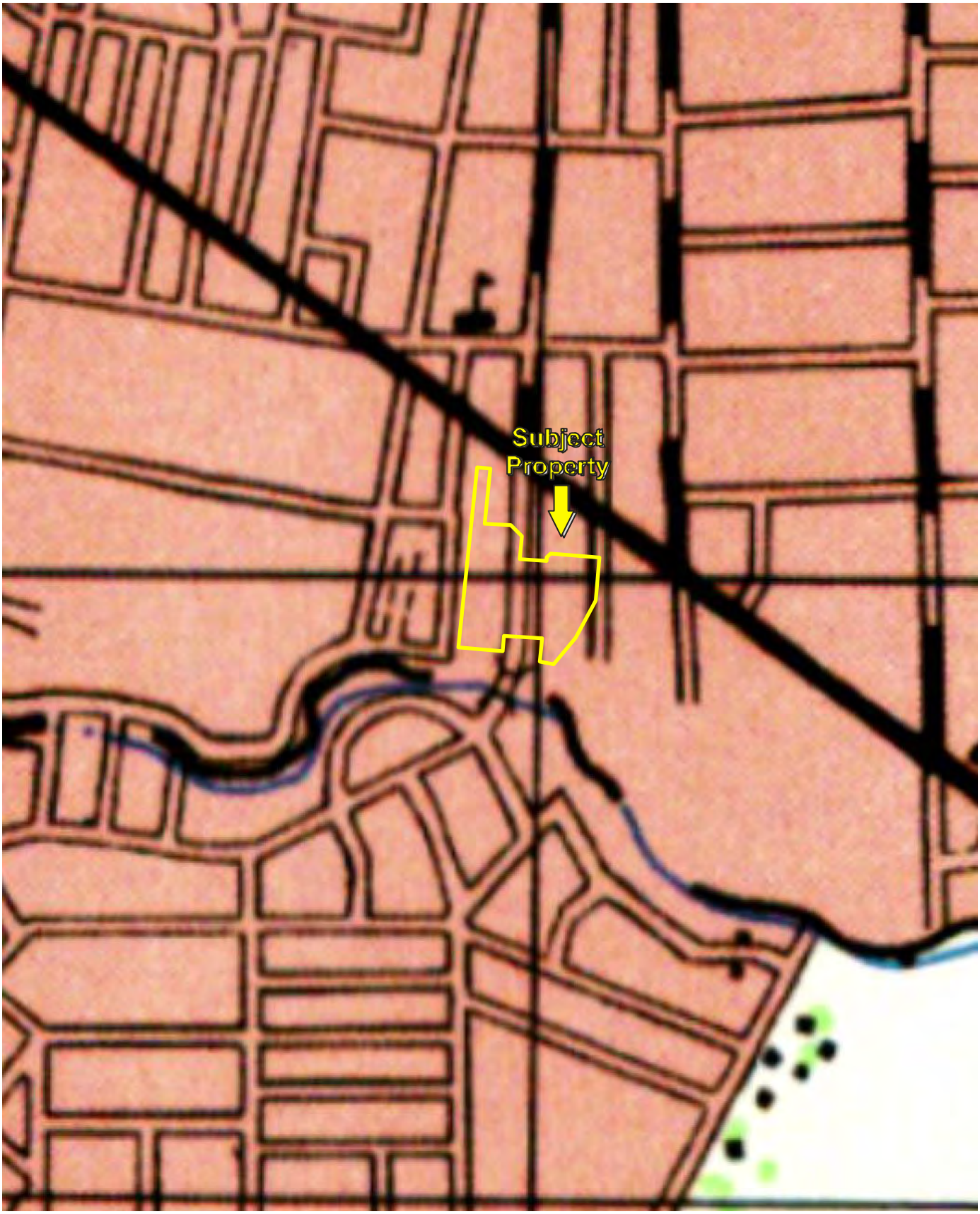
Date of Map: 1897

Date of Map: 1899

Date of Map: 1902



Date of Map: 1943



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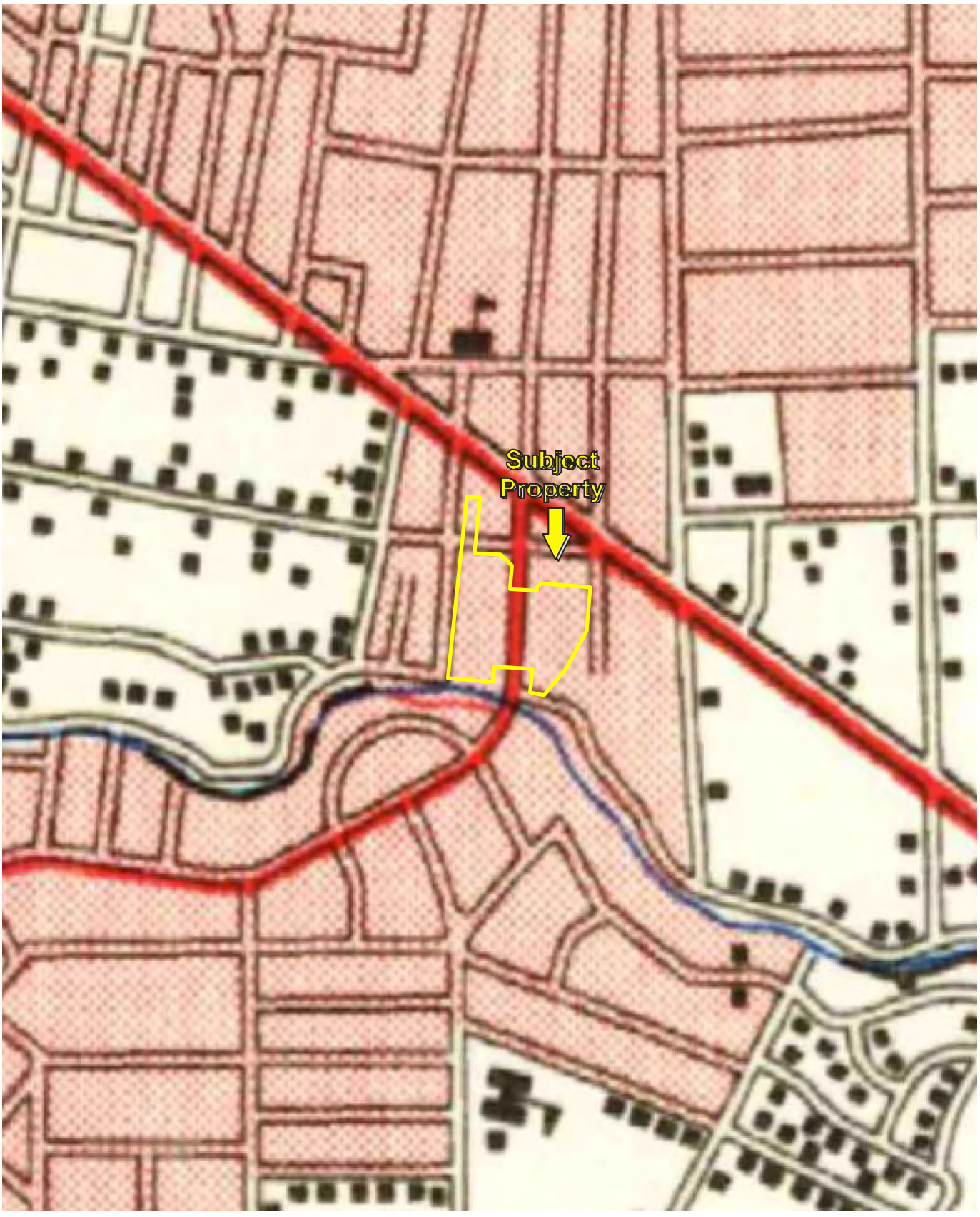

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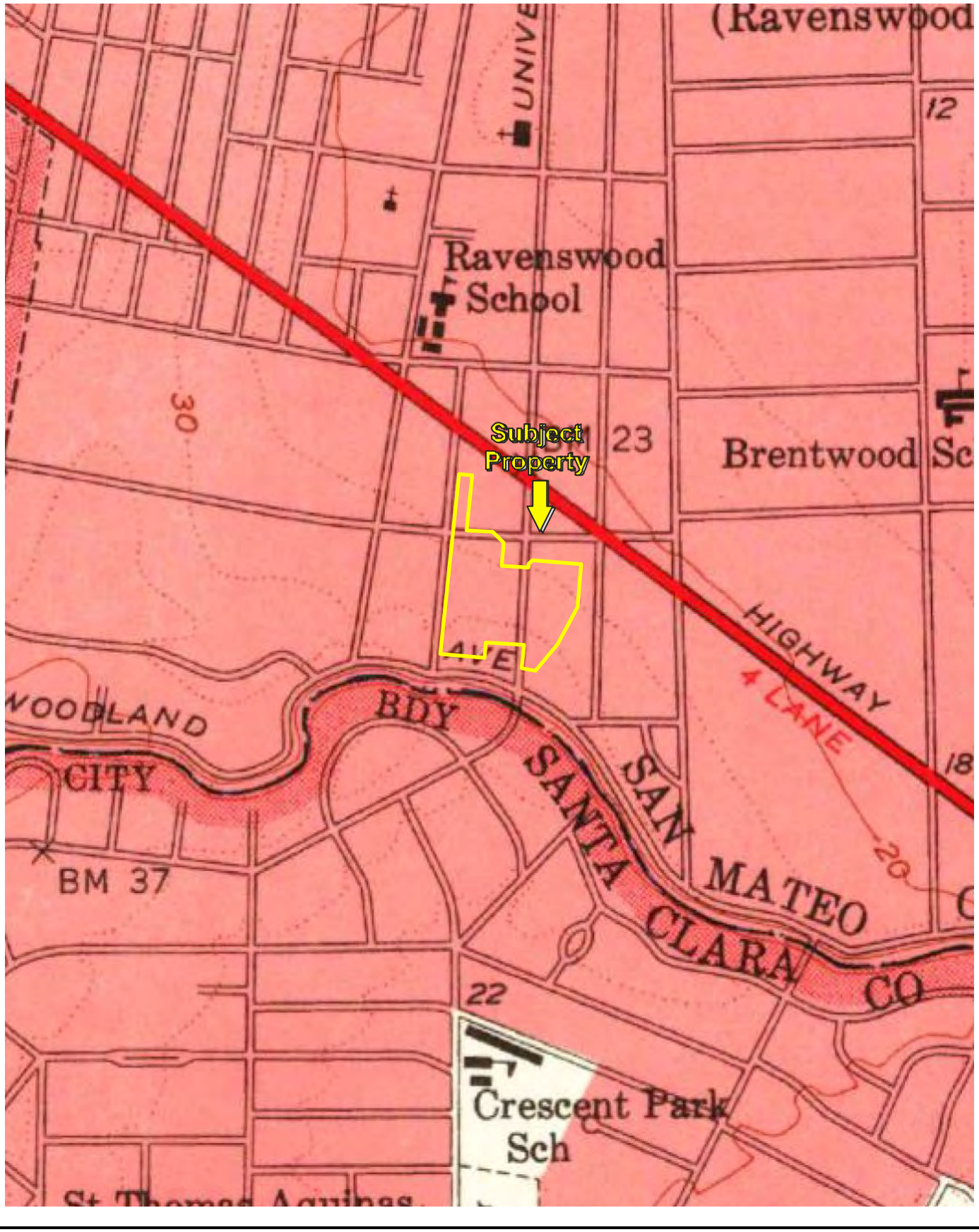

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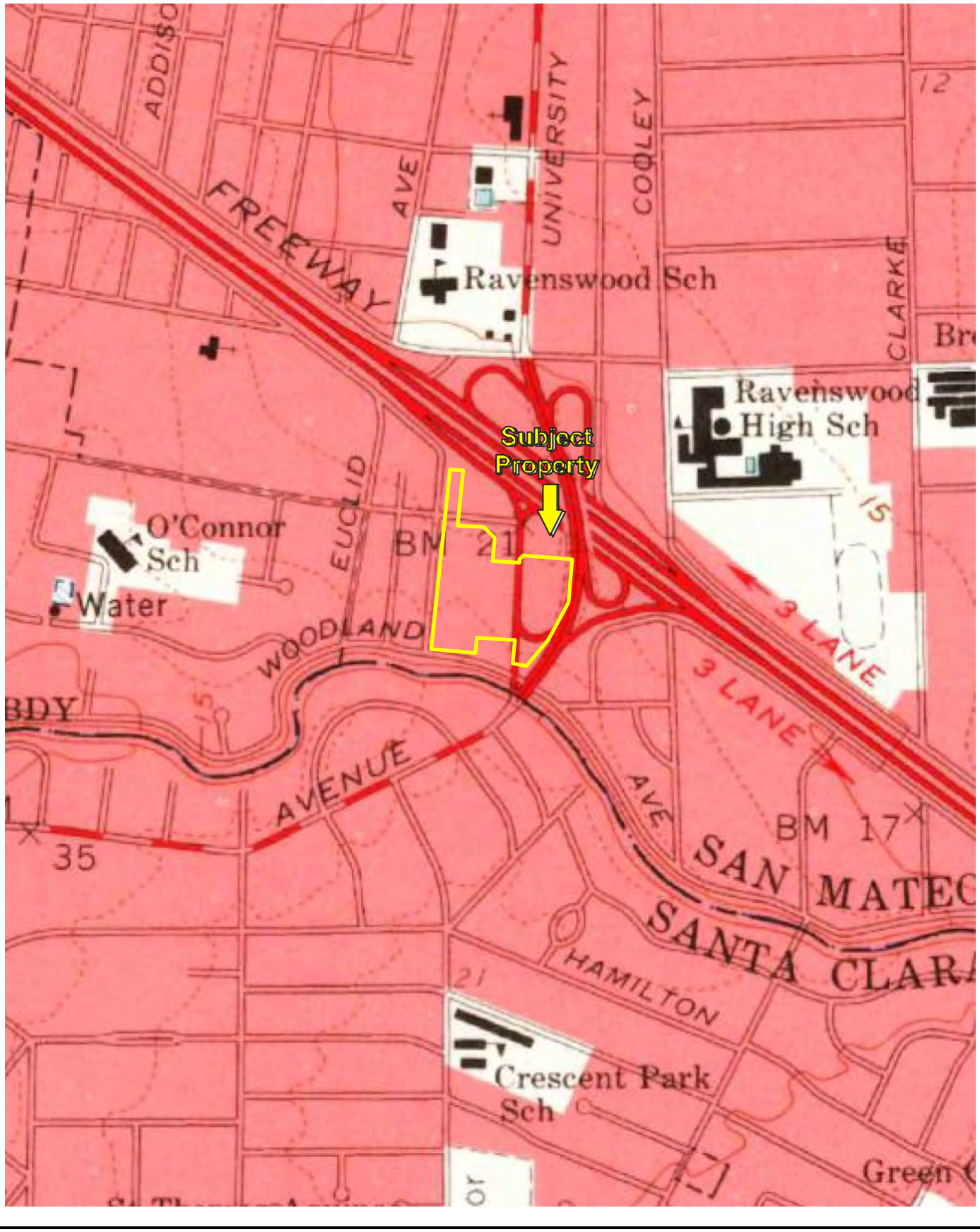

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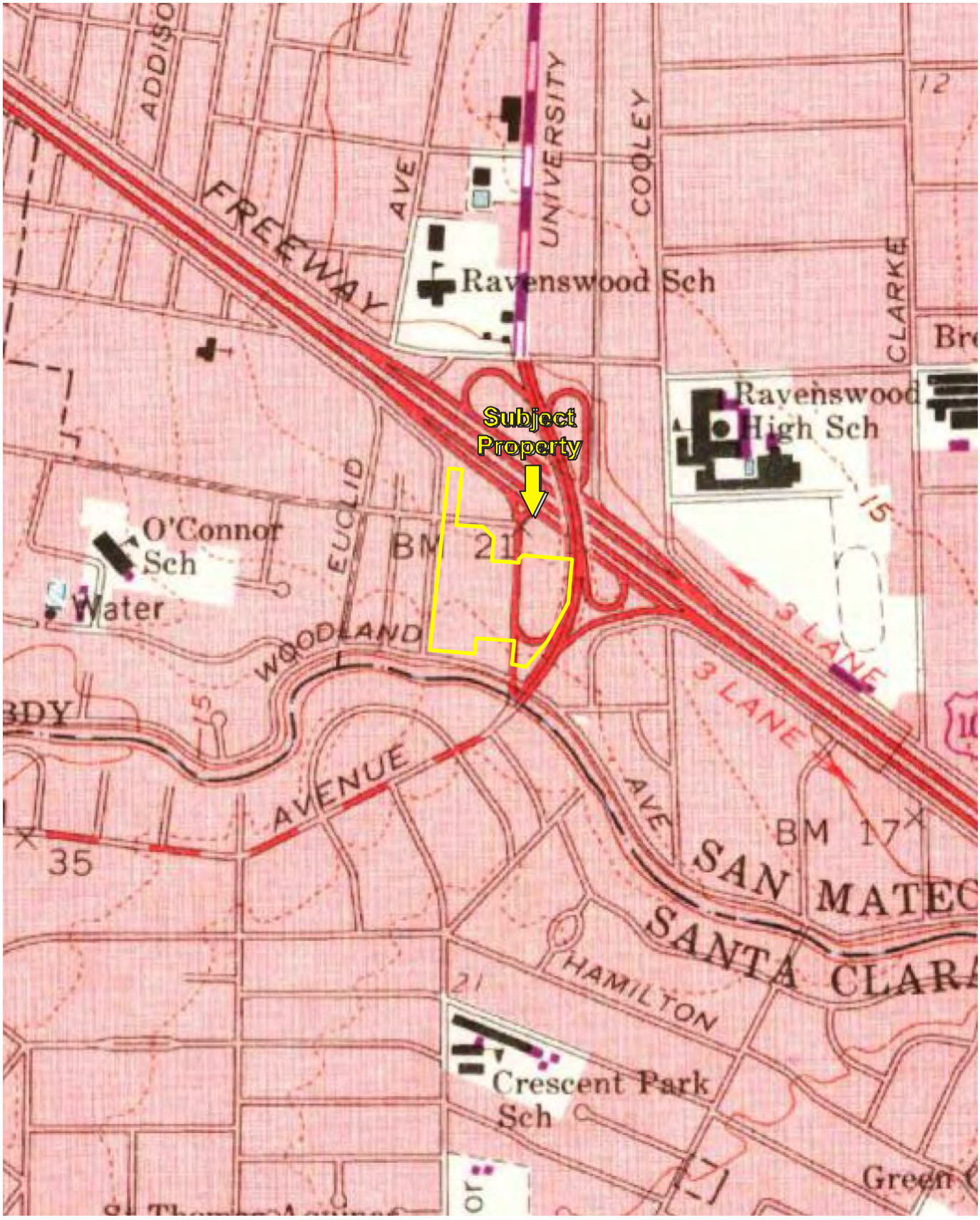
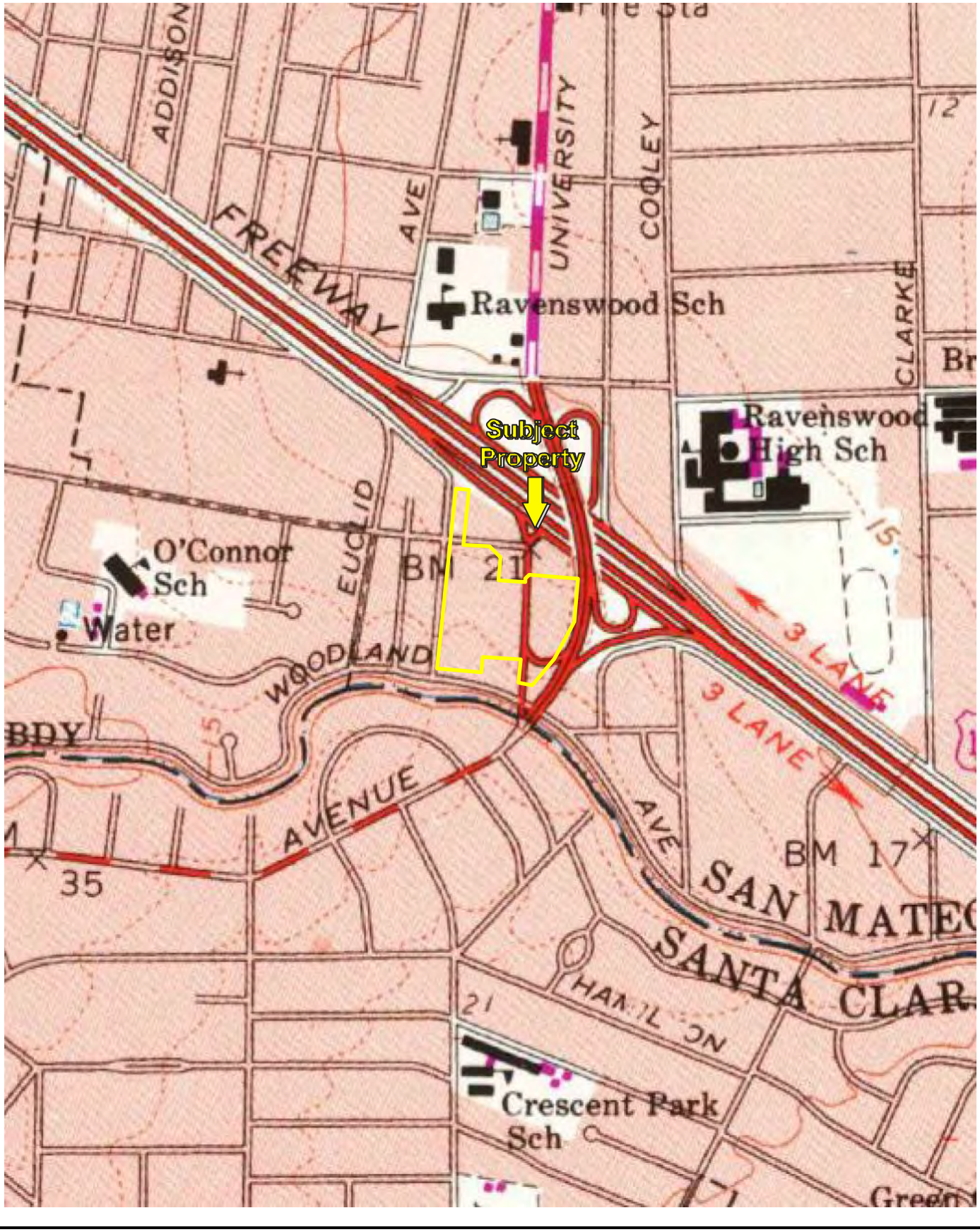


Date of Map: 1968



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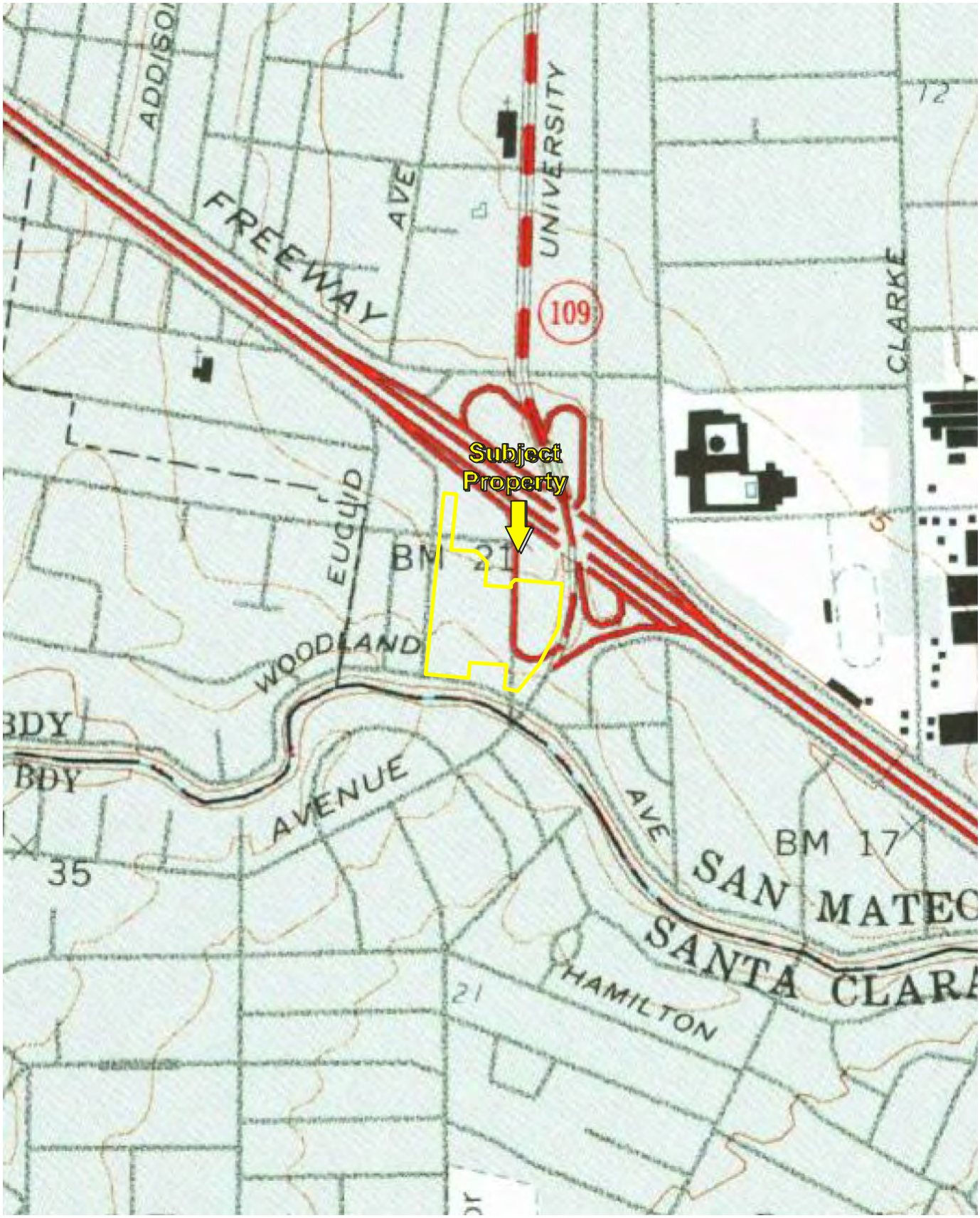

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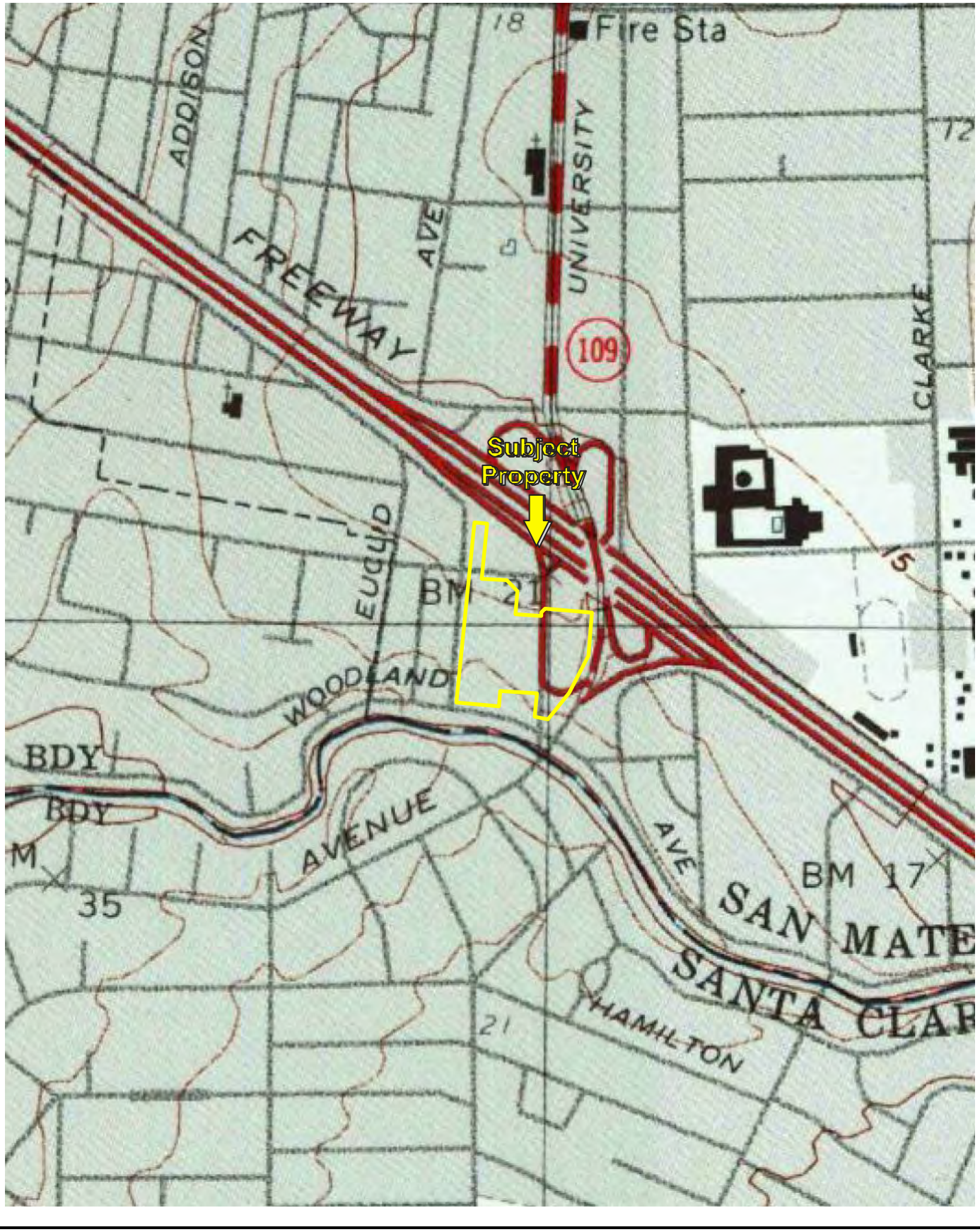

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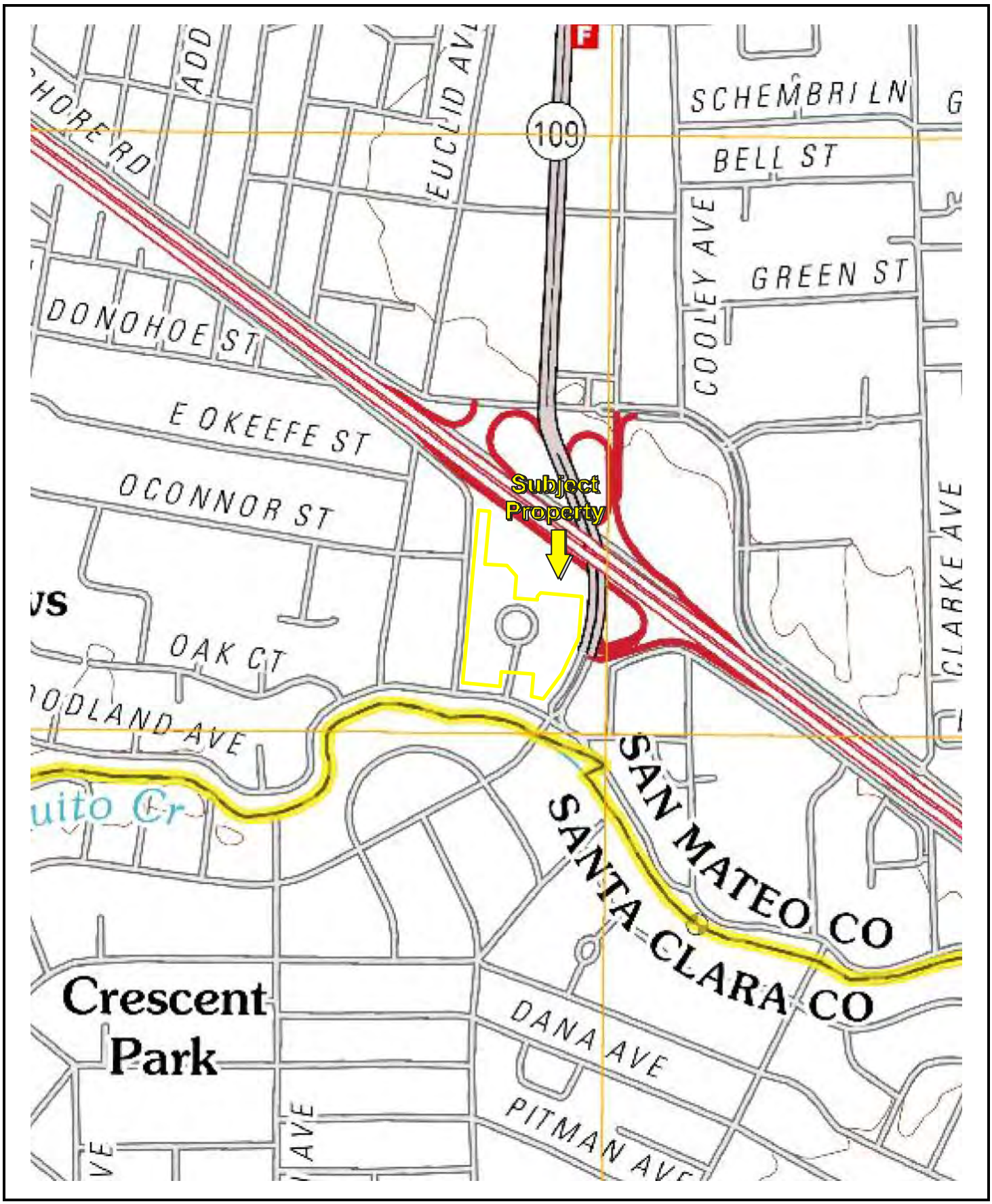


Date of Map: 2012

TAX CODE AREA

63-68

WOODLAND PLACE SUB 1 RSM 7/24

PARCEL MAP VOL 72/70-75

ASSESSOR'S MAP COUNTY OF SAN MATEO, CALIF.

02-01

National Flood Hazard Layer FIRMette

FEMA

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/25/2020 at 10:01:23 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

Please complete to the best of your knowledge. For those questions that are not applicable, please respond with an "N/A". For those questions that are unknown, please respond with "unknown".

1. PROPERTY INFORMATION:

Property Name: UNIVERSITY CIRCLE		
Property Address: 1900, 1950 & 2000 UNIVERSITY AVE		
City: E. PALO ALTO	State: CA	Zip: 94303
Assessor's Parcel Number: (1900-063-680-100 / 063-680-020) (1950-063-680-110 / 063-680-190) (2000-063-680-130)		
Property Owner & Contact Information: COLUMBIA REIT-UNIVERSITY CIRCLE, LP		
Date Property Owner Purchased: 2005		
Key Site Manager & Contact Information: MICHELLE L. GOUDEAUX (510) 677-9228 (650) 324-3805		

2. COMPLETED BY

Signature:	Date: 2/19/2020
Printed Name: Michelle L. GOUDEAUX	Relation to Subject Property: SR. MANAGER

3. PREVIOUS INVESTIGATIONS

Have any previous environmental investigations been performed at the property, including Phase I ESAs, Phase II Subsurface Investigations, Remediation, Asbestos or Lead-Based Paint surveys? _____

_____ (If yes, please provide copies)

4. PROPERTY DESCRIPTION

Property Size: 9.264 ACRES Number of Building(s): 3

Size of Building(s): 1900 - 142,620 SF 1950 - 166,797 SF 2000 - 142,872 SF

Date of Construction: 2001 - 2003

Property Type: (please circle)

Multi-Family Hotel Mobile Home Park (Retail/Commercial) Industrial Office

Other: _____

Please provide Rent Roll if Applicable.

Historical Use of Property: OFFICE

PARTNER

5. Surrounding Property Uses

Direction	Use
North	FREEWAY
South	RESIDENTIAL
East	RESIDENTIAL / RETAIL
West	RESIDENTIAL

Are you aware of any potential environmental concerns associated with surrounding properties?

_____ YES _____/_____ NO

If yes, please describe: _____

6. Utilities & Services

Please provide the name of the utility or contractor providing the following:

Electric	PG&E	Bio-hazardous Waste	N/A
Gas	PG&E	Elevator Maintenance	THYSSENKRUP
Potable Water	AMERICAN WATER	Used Grease	N/A
Sanitary Sewer	AMERICAN WATER	Hazardous Waste	N/A

7. On Site Operations

Are you aware of any of the following conditions, either past or present, on the property?		
Condition	**Response**	**If yes, please describe**
1. Stored Chemicals	☐ Yes ☐ No	
2. Underground Storage Tanks	☐ Yes ☑ No	
3. Aboveground Storage Tanks	☐ Yes ☑ No	
4. Spills or Releases	☐ Yes ☑ No	
5. Dump Areas/Landfills	☐ Yes ☑ No	
6. Waste Treatment Systems	☐ Yes ☑ No	
7. Clarifiers/Separators	☐ Yes ☑ No	
8. Vents/Odors	☐ Yes ☑ No	
9. Floor Drains/Sumps	☑ Yes ☐ No	
10. Stained Soil	☐ Yes ☑ No	
11. Electrical Transformers	☑ Yes ☐ No	
12. Hydraulic Lifts/Elevators	☑ Yes ☐ No	HOTEL GARAGE
13. Dry Cleaning Operations	☐ Yes ☑ No	
14. Oil/Gas/Water/Monitoring Wells	☐ Yes ☑ No	
15. Environmental Permits	☐ Yes ☑ No	

Rent Roll
UNIVERSITY CIRCLE - 1900
2/29/2020

Bldg Id	Suit Id	Occupant Name	Rent Start	Expiration	GLA Sqft	Monthly Base Rent	Annual Rate PSF	Monthly Cost Recovery	Expense Stop	Monthly Other Income	-- Future Rent Increases -- Cat	Date	Monthly Amount	PSF
Vacant Suites														
05529	0108	Vacant			1,059									
Occupied Suites														
05529	500-B	GREENBERG TRAURIG LLP	1/1/2012	8/31/2022	24,532	150,720.57	73.73	62,532.14			RENTC	1/1/2021	155,242.19	75.94
											RENTC	1/1/2022	159,899.46	78.22
05529	101-B	CALIFORNIA EAR INSTITUTE INC.	11/1/2013	12/31/2020	12,840	78,957.90	73.79	32,729.20			RENTC	11/1/2020	81,326.64	76.01
05529	105-B	KASEY K. LI DDS MD INC.	12/1/2013	1/31/2021	2,158	13,270.34	73.79	5,489.55			RENTC	12/1/2020	13,668.45	76.01
05529	0300	AMAZON WEB SERVICES INC.	2/3/2014	6/30/2021	24,532	137,930.66	67.47	27,275.17			RENTC	3/1/2020	142,068.58	69.49
											RENTC	3/1/2021	146,330.64	71.58
05529	COMM2	COMCAST COMM MGMT	7/8/2014	7/7/2024	0									
05529	200-B	AMAZON WEB SERVICES INC	11/17/2014	6/30/2021	12,750	71,686.61	67.47	29,009.29			RENTC	3/1/2020	73,837.21	69.49
											RENTC	3/1/2021	76,052.33	71.58
05529	600-B	ROPES & GRAY LLP	2/1/2017	1/31/2025	24,050	185,325.29	92.47	61,211.78			RENTC	2/1/2021	191,818.79	95.71
											RENTC	2/1/2022	198,532.75	99.06
											RENTC	2/1/2023	205,487.21	102.53
											RENTC	2/1/2024	212,682.17	106.12
05529	COMM1	T MOBILE	8/1/2016	7/31/2021	0						ANTEN	8/1/2020	2,526.95	0.00
05529	0201B	AMAZON WEB SERVICES, INC.	4/3/2017	6/30/2021	11,369	85,248.55	89.98	27,275.17			RENTC	4/1/2020	88,232.91	93.13
											RENTC	4/1/2021	91,321.49	96.39
05529	COMM3	LEVEL 3 COMMUNICATIONS	5/1/2017	4/30/2022	0						ANTEN	5/1/2020	449.95	0.00
											ANTEN	5/1/2021	467.94	0.00
05529	106-B	COLUMBIA PROPERTY TRUST SER	10/1/2017	12/31/2020	2,570	19,275.00	90.00	6,362.06						
05529	0400	AMAZON WEB SERVICES INC.	2/3/2014	6/30/2021	24,532	137,930.66	67.47	55,823.36			RENTC	3/1/2020	142,068.58	69.49
											RENTC	3/1/2021	146,330.64	71.58
05529	0100	INTUIT INC.	11/20/2018	12/31/2023	2,228	17,525.08	94.39	5,528.34			RENTC	12/1/2020	18,137.78	97.69
											RENTC	12/1/2021	18,772.76	101.11
											RENTC	12/1/2022	19,430.02	104.65
											RENTC	12/1/2023	20,109.56	108.31
05529	COMM4	WILINE NETWORKS, INC.	3/11/2019	2/29/2024	0						ANTEN	3/11/2020	260.00	0.00
											ANTEN	3/11/2021	270.40	0.00
											ANTEN	3/11/2022	281.22	0.00
											ANTEN	3/11/2023	292.47	0.00

Bldg Id	Suit Id	Occupant Name	Rent Start	Expiration	GLA Sqft	Monthly Base Rent	Annual Rate PSF	Monthly Cost Recovery	Expense Stop	Monthly Other Income	-- Future Rent Increases -- Cat	Date	Monthly Amount	PSF
05529	ROOF	NEW CINGULAR WIRELESS PCS	5/11/2019	2/21/2022	0						ANTEN	2/22/2021	5,079.39	0.00
Totals:		Occupied Sqft:	99.26%	10 Units	141,561	897,870.66		313,236.06		0.00				
		Leased/Unoccupied Sqft:		0 Units	0									
		Vacant Sqft:	0.74%	1 Units	1,059									
		Total Sqft:		11 Units	142,620	897,870.66								
Total UNIVERSITY CIRCLE - 1900:														
		Occupied Sqft:	99.26%	10 Units	141,561	897,870.66		313,236.06		0.00				
		Leased/Unoccupied Sqft:		0 Units	0									
		Vacant Sqft:	0.74%	1 Units	1,059									
		Total Sqft:		11 Units	142,620	897,870.66								

Bldg Id	Suit Id	Occupant Name	Rent Start	Expiration	GLA Sqft	Monthly Base Rent	Annual Rate PSF	Monthly Cost Recovery	Expense Stop	Monthly Other Income	-- Future Rent Increases -- Cat	Date	Monthly Amount	PSF
New Leases														
05530	0202	VINER FINANCE INC	5/1/2020	4/30/2022	1,922									
Vacant Suites														
05530	0100A	Vacant			1,051									
05530	0220	Vacant			9,782									
05530	0500A	Vacant			28,846									
Occupied Suites														
05530	0400A	DUFF PHELPS	2/1/2013	2/28/2023	20,772	134,121.43	77.48	55,094.46			RENTC	1/1/2021	138,145.08	79.81
											RENTC	1/1/2022	142,289.43	82.20
05530	0600	NTT INNOVATION INSTITUTE, INC	2/1/2014	7/31/2020	28,207	171,771.23	73.08	74,659.55						
05530	0101A	MTM SAN FRANCISCO SOUP COMF	6/1/2014	12/31/2020	2,032									
05530	0202	VINER FINANCE INC	5/1/2016	4/30/2020	1,922	14,810.61	92.47	5,029.82						
05530	0180	TD AMERITRADE INC.	11/1/2016	10/31/2021	3,123	22,852.67	87.81	8,133.00			RENTC	11/1/2020	23,652.51	90.88
05530	0160	PALO ALTO MEDICAL FOUNDATION	12/1/2016	11/30/2021	6,237	47,713.05	91.80	16,544.08			RENTC	12/1/2020	49,381.45	95.01
05530	0200	AMAZON WEB SERVICES, INC	4/4/2017	6/30/2021	16,729	125,439.62	89.98	40,320.61			RENTC	5/1/2020	129,830.98	93.13
											RENTC	5/1/2021	134,375.69	96.39
05530	0360	COLUMBIA PROPERTY TRUST SER	1/1/2017	12/31/2049	0									
05530	0170	PALO ALTO MEDICAL FOUNDATION	11/1/2017	10/31/2025	5,508	41,007.06	89.34	14,352.10			RENTC	11/1/2020	42,443.73	92.47
											RENTC	11/1/2021	43,930.89	95.71
											RENTC	11/1/2022	45,468.54	99.06
											RENTC	11/1/2023	47,061.27	102.53
											RENTC	11/1/2024	48,709.08	106.12
05530	0450	FAEGRE DRINKER BIDDLE & REATI	7/1/2018	8/31/2023	7,776	59,175.36	91.32	20,262.53			RENTC	7/1/2020	61,197.12	94.44
											RENTC	7/1/2021	63,374.40	97.80
											RENTC	7/1/2022	65,551.68	101.16
											RENTC	7/1/2023	67,845.99	104.70
05530	0360A	HGGC, LLC.	9/1/2019	8/31/2024	400	3,100.00	93.00	1,049.18			RENTC	9/1/2020	3,208.50	96.26
											RENTC	9/1/2021	3,320.80	99.62
											RENTC	9/1/2022	3,437.03	103.11

Bldg Id	Suit Id	Occupant Name	Rent Start	Expiration	GLA Sqft	Monthly Base Rent	Annual Rate PSF	Monthly Cost Recovery	Expense Stop	Monthly Other Income	-- Future Rent Increases -- Cat	Date	Monthly Amount	PSF
											RENTC	9/1/2023	3,557.32	106.72
05530	0370	HGGC, LLC.	9/1/2019	8/31/2024	2,332	18,073.00	93.00	6,116.70			RENTC	9/1/2020	18,705.55	96.25
											RENTC	9/1/2021	19,360.25	99.62
											RENTC	9/1/2022	20,037.86	103.11
											RENTC	9/1/2023	20,739.18	106.72
05530	0350	HGGC, LLC.	9/1/2019	8/31/2024	11,521	89,287.75	93.00	29,791.39			RENTC	9/1/2020	92,412.82	96.25
											RENTC	9/1/2021	95,647.27	99.62
											RENTC	9/1/2022	98,994.92	103.11
											RENTC	9/1/2023	102,459.75	106.72
05530	0150A	HGGC, LLC.	5/3/2019	8/31/2024	6,485	50,258.75	93.00	17,009.79			RENTC	9/1/2020	52,017.81	96.26
											RENTC	9/1/2021	53,838.43	99.62
											RENTC	9/1/2022	55,722.77	103.11
											RENTC	9/1/2023	57,673.07	106.72
05530	ROOF2	SPRINT SPECTRUM L.P.	1/1/2019	12/31/2023	0						ANTEN	1/1/2021	4,861.97	0.00
											ANTEN	1/1/2022	5,056.45	0.00
											ANTEN	1/1/2023	5,258.71	0.00
05530	0300A	WELLS FARGO CLEARING SERVICI	2/1/2020	2/28/2025	14,074			36,116.43			RENTC	2/1/2021	112,345.71	95.79
											RENTC	2/1/2022	115,716.08	98.66
											RENTC	2/1/2023	119,187.56	101.62
											RENTC	2/1/2024	122,763.19	104.67
											RENTC	2/1/2025	126,446.08	107.81

Totals:					
Occupied Sqft:	76.21%	14 Units	127,118	777,610.53	324,479.64	0.00
Leased/Unoccupied Sqft:		0 Units	0			
Vacant Sqft:	23.79%	3 Units	39,679			
Total Sqft:		17 Units	166,797	777,610.53		

Total UNIVERSITY CIRCLE - 1950:

Occupied Sqft:	76.21%	14 Units	127,118	777,610.53	324,479.64	0.00
Leased/Unoccupied Sqft:		0 Units	0			
Vacant Sqft:	23.79%	3 Units	39,679			
Total Sqft:		17 Units	166,797	777,610.53		

Bldg Id	Suit Id	Occupant Name	Rent Start	Expiration	GLA Sqft	Monthly Base Rent	Annual Rate PSF	Monthly Cost Recovery	Expense Stop	Monthly Other Income	-- Future Rent Increases -- Cat	Date	Monthly Amount	PSF
Vacant Suites														
05531	602-C	Vacant			8,504									
Occupied Suites														
05531	STRG1	DTRS PALO ALTO	3/1/2016	12/31/2020	0									
05531	605-C	BANK LEUMI USA	3/1/2017	5/31/2022	2,822	21,009.79	89.34	7,353.12			RENTC	3/1/2020	21,745.86	92.47
											RENTC	3/1/2021	22,507.80	95.71
											RENTC	3/1/2022	23,295.61	99.06
05531	100-C	DLA PIPER LLP (US)	7/1/2018	6/30/2023	23,765	173,793.45	87.76	58,506.46			RENTC	7/1/2020	179,007.23	90.39
											RENTC	7/1/2021	184,377.45	93.10
											RENTC	7/1/2022	189,908.78	95.89
05531	200-C	DLA PIPER LLP (US)	7/1/2018	6/30/2023	23,764	173,786.13	87.76	58,506.46			RENTC	7/1/2020	178,999.72	90.39
											RENTC	7/1/2021	184,369.71	93.10
											RENTC	7/1/2022	189,900.80	95.89
05531	300-C	DLA PIPER LLP (US)	7/1/2018	6/30/2023	23,764	173,786.13	87.76	58,506.46			RENTC	7/1/2020	178,999.72	90.39
											RENTC	7/1/2021	184,369.71	93.10
											RENTC	7/1/2022	189,900.80	95.89
05531	400-C	DLA PIPER LLP (US)	7/1/2018	6/30/2023	23,764	173,786.13	87.76	58,506.46			RENTC	7/1/2020	178,999.72	90.39
											RENTC	7/1/2021	184,369.71	93.10
											RENTC	7/1/2022	189,900.80	95.89
05531	500-C	DLA PIPER LLP (US)	7/1/2018	6/30/2023	23,764	173,786.13	87.76	58,506.46			RENTC	7/1/2020	178,999.72	90.39
											RENTC	7/1/2021	184,369.71	93.10
											RENTC	7/1/2022	189,900.80	95.89
05531	600-C	FINJAN HOLDINGS, INC.	10/1/2018	6/30/2023	8,234	63,895.84	93.12	21,110.02			RENTC	10/1/2020	66,119.02	96.36
											RENTC	10/1/2021	68,506.88	99.84
											RENTC	10/1/2022	70,894.74	103.32
05531	ROOF1	SPRINT SPECTRUM LP	1/1/2019	12/31/2023	0						ANTEN	1/1/2021	2,430.98	0.00
											ANTEN	1/1/2022	2,528.22	0.00
											ANTEN	1/1/2023	2,629.35	0.00
05531	610-C	ELASTICFLASH, INC.	4/12/2019	4/30/2021	1,442	10,959.20	91.20	3,699.89			RENTC	4/1/2020	11,290.86	93.96
05531	601-C	FRANKLIN JOHNSON DBA ASSET M	8/2/2019	6/30/2023	3,049	23,629.75	93.00	7,820.10			RENTC	8/1/2020	24,458.06	96.26
											RENTC	8/1/2021	25,314.32	99.63
											RENTC	8/1/2022	26,201.07	103.12

Bldg Id	Suit Id	Occupant Name	Rent Start	Expiration	GLA Sqft	Monthly Base Rent	Annual Rate PSF	Monthly Cost Recovery	Expense Stop	Monthly Other Income	-- Future Rent Increases -- Cat	Date	Monthly Amount	PSF
Totals:		Occupied Sqft:	94.05%	9 Units	134,368	988,432.55		332,515.43		0.00				
		Leased/Unoccupied Sqft:		0 Units	0									
		Vacant Sqft:	5.95%	1 Units	8,504									
		Total Sqft:		10 Units	142,872	988,432.55								
Total UNIVERSITY CIRCLE - 2000:														
		Occupied Sqft:	94.05%	9 Units	134,368	988,432.55		332,515.43		0.00				
		Leased/Unoccupied Sqft:		0 Units	0									
		Vacant Sqft:	5.95%	1 Units	8,504									
		Total Sqft:		10 Units	142,872	988,432.55								
Grand Total:														
		Occupied Sqft:	89.11%	33 Units	403,047	2,663,913.74		970,231.13		0.00				
		Leased/Unoccupied Sqft:		0 Units	0									
		Vacant Sqft:	10.89%	5 Units	49,242									
		Total Sqft:		38 Units	452,289	2,663,913.74								

APPENDIX C: REGULATORY DATABASE REPORT

PARTNER

University Circle
1900, 1950 & 2000 East University Avenue
Palo Alto, CA 94303

Inquiry Number: 5973678.2s
February 18, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1900, 1950 & 2000 EAST UNIVERSITY AVENUE
PALO ALTO, CA 94303

COORDINATES

Latitude (North):	37.4589330 - 37° 27' 32.15''
Longitude (West):	122.1428960 - 122° 8' 34.42''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	575803.6
UTM Y (Meters):	4145925.8
Elevation:	32 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640620 PALO ALTO, CA
Version Date:	2012
East Map:	5641106 MOUNTAIN VIEW, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1900, 1950 & 2000 EAST UNIVERSITY AVENUE
PALO ALTO, CA 94303

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	UNIVERSITY CIRCLE	1900 UNIVERSITY	San Mateo Co. BI		TP
A2	UNIVERSITY CIRCLE IN	1950 UNIVERSITY	San Mateo Co. BI		TP
A3	CALIFORNIA EAR INSTI	1900 UNIVERSITY AVE	HAZNET		TP
A4	UNIVERSITY CIRCLE	1900 UNIVERSITY AVEN	FINDS		TP
A5	UNIVERSITY CIRCLE IN	1900 UNIVERSITY AVE	HAZNET		TP
A6	AT&T CORP. - P11VV	2000 UNIVERSITY AVE	CERS		TP
A7	SUTTER BAY MEDICAL F	1950 UNIVERSITY AVE	FINDS, ECHO		TP
A8	UNIVERSITY CIRCLE IN	2000 UNIVERSITY	San Mateo Co. BI		TP
A9	SUTTER BAY MEDICAL F	1950 UNIVERSITY	San Mateo Co. BI		TP
A10	SF SOUP CO	1950 UNIVERSITY	San Mateo Co. BI		TP
A11	SUTTER BAY MEDICAL F	1950 UNIVERSITY AVE	RCRA NonGen / NLR		TP
A12	SUTTER BAY MEDICAL F	1950 UNIVERSITY	San Mateo Co. BI		TP
A13	NTT ADVANCED TECHNOL	1950 UNIVERSITY AVE	FINDS		TP
A14	WELLS REIT II-UNIVER	1900 UNIVERSITY AVE	FINDS		TP
A15	AT&T MOBILITY - FORE	1900 UNIVERSITY AVE	CERS		TP
A16	CEI MEDICAL GROUP	1900 UNIVERSITY	San Mateo Co. BI		TP
A17	AT&T CALIFORNIA - P1	1950 UNIVERSITY AVE	CERS		TP
A18	WELLS REIT II-UNIVER	1900 UNIVERSITY	San Mateo Co. BI		TP
A19	AT&T MOBILITY - FORE	1900 UNIVERSITY AVE	FINDS		TP
A20	UNIVERSITY CIRCLE	1900 UNIVERSITY AVEN	EMI, CERS		TP
A21	UNIVERSITY CIRCLE IN	UNIVERSITY, WOODLAND	HAZNET		TP
A22	WOODLAND PARK	1950 EUCLID AVENUE #	HAZNET		TP
A23	FUEL	1950 UNIVERSITY	San Mateo Co. BI		TP
A24	PALO ALTO MEDICAL FO	1950 UNIVERSITY AVE	FINDS		TP
A25	COST LESS CLEANERS	1968 UNIVERSITY AVE	EDR Hist Cleaner	Higher	1 ft.
A26	CRESCENT CLEANERS	1930 UNIVERSITY AVE	EDR Hist Cleaner	Higher	1 ft.
A27	UNIVERSITY CIRCLE RE	1973 UNIVERSITY	San Mateo Co. BI	Higher	1 ft.
B28	FOUR SEASONS HOTEL	2050 UNIVERSITY	San Mateo Co. BI	Lower	1 ft.
A29	ARCO #749	1998 UNIVERSITY	LUST, San Mateo Co. BI	Lower	1 ft.
A30	UNIVERSITY CIRCLE	1941 UNIVERSITY	San Mateo Co. BI	Higher	1 ft.
A31	UNIVERSITY ARCO #749	1998 UNIVERSITY AVE	SWEEPS UST	Lower	1 ft.
A32	UNIVERSITY ARCO SERV	1998 UNIVERSITY	EDR Hist Auto	Lower	1 ft.
A33	CHINA JOY	1972 UNIVERSITY	San Mateo Co. BI	Higher	1 ft.
A34	NASSER DIN ROOHI	1998 UNIVERSITY AVE	SWEEPS UST, CA FID UST	Lower	1 ft.
A35	UNIVERSITY ARCO SERV	1988 UNIVERSITY AVE	EDR Hist Auto	Higher	1 ft.
A36	CRESENT CLEANERS	1930 UNIVERSITY AVE	RCRA-SQG, FINDS, ECHO	Higher	1 ft.
A37	UNIVERSITY ARCO SERV	1988 UNIVERSITY	EDR Hist Auto	Higher	1 ft.
A38	NASSER DIN ROOHI	1998 UNIVERSITY AVE	HIST UST	Lower	1 ft.
A39	ARCO	1998 UNIVERSITY	LUST, HIST CORTESE, CERS	Lower	1 ft.

MAPPED SITES SUMMARY

Target Property Address:
1900, 1950 & 2000 EAST UNIVERSITY AVENUE
PALO ALTO, CA 94303

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
C40	875 O'CONNER STREET	875 O'CONNER STREET	US BROWNFIELDS, FINDS	Lower	44, 0.008, NNW
A41	UNOCAL	1901 UNIVERSITY	HIST CORTESE	Lower	70, 0.013, SSE
A42	UNOCAL #2862	1901 UNIVERSITY	LUST, SWEEPS UST, HIST UST, San Mateo Co. BI, HIST...	Lower	70, 0.013, SSE
A43	KUBALL ALBERT JR	1901 UNIVERSITY AVE	EDR Hist Auto	Lower	70, 0.013, SSE
B44	FOUR SEASONS HOTEL	2050 UNIVERSITY AVE	CERS HAZ WASTE, HAZNET, CERS	Lower	90, 0.017, NNE
B45	FOUR SEASONS HOTEL S	2050 UNIVERSITY AVE	RCRA-SQG	Lower	90, 0.017, NNE
C46	PENBAY CORPORATION	1997 MANHATTAN	EDR Hist Cleaner	Lower	92, 0.017, NNW
C47	THE FRIENDLY PLACE R	583 OCONNOR	San Mateo Co. BI	Lower	183, 0.035, NNW
C48	DOBKO CHEVRON SERVIC	555 OCONNOR	EDR Hist Auto	Lower	196, 0.037, NNW
D49	LA TIENDITA MARKET	510 OCONNOR	San Mateo Co. BI	Lower	330, 0.062, NW
D50	LA TIENDITA MARKET	510 OCONNOR	San Mateo Co. BI	Lower	330, 0.062, NW
D51	RAVENSWOOD SCHOOL	2021 EUCLID AVENUE	RCRA NonGen / NLR	Lower	471, 0.089, NW
D52	RESIDENCE	495 OCONNOR	San Mateo Co. BI	Lower	477, 0.090, NW
E53	THE SOBRATO ORGANIZA	2100 UNIVERSITY	San Mateo Co. BI	Lower	706, 0.134, NNE
E54	RAVENSWOOD COMMUNITY	2100 UNIVERSITY	San Mateo Co. BI	Lower	706, 0.134, NNE
E55	CHEVRON 91081	2101 UNIVERSITY AVE	RCRA NonGen / NLR	Lower	710, 0.134, North
E56	CHEVRON 9-1081	2101 UNIVERSITY	LUST, San Mateo Co. BI	Lower	710, 0.134, North
E57	CHEVRON SERVICE STAT	2101 UNIVERSITY AVE	LUST, SWEEPS UST, HIST CORTESE, CERS	Lower	710, 0.134, North
E58	CHEVRON SERVICE STAT	2101 UNIVERSITY AVE	UST	Lower	710, 0.134, North
E59	91061	2101 UNIVERSITY AV	HIST UST	Lower	710, 0.134, North
E60	CHEVRON SERVICE STAT	2101 UNIVERSITY AVE	CERS HAZ WASTE, CERS TANKS, CERS	Lower	710, 0.134, North
F61	A1 AUTOMOTIVE REPAIR	648 DONOHOE	San Mateo Co. BI	Lower	790, 0.150, NNE
62	DREW HEALTH FOUNDATI	2111 UNIVERSITY	San Mateo Co. BI	Lower	804, 0.152, North
G63	RAVENSWOOD CITY SCHO	2110 EUCLID	San Mateo Co. BI	Lower	809, 0.153, North
H64	IKEA EAST PALO ALTO	1700 BAYSHORE	CHMIRS, San Mateo Co. BI	Lower	838, 0.159, ENE
H65	IKEA US WEST INC	1700 E BAYSHORE RD	RCRA NonGen / NLR	Lower	838, 0.159, ENE
H66	IKEA EAST PALO ALTO	1700 E BAYSHORE RD	CERS HAZ WASTE, CERS	Lower	838, 0.159, ENE
G67	RAVENSWOOD CITY SCHO	2120 EUCLID AVE	CERS HAZ WASTE, CERS TANKS, EMI, HAZNET, CERS	Lower	840, 0.159, North
G68	RAVENSWOOD CITY SCHO	2120 EUCLID AVE	RCRA NonGen / NLR	Lower	840, 0.159, North
E69	COUNTRY TIME MARKET	635 DONOHOE	San Mateo Co. BI	Lower	855, 0.162, NNE
70		5 NEWELL COURT	RCRA NonGen / NLR	Lower	880, 0.167, ESE
E71	B & M	2118 UNIVERSITY	San Mateo Co. BI	Lower	909, 0.172, NNE
G72	GOODWILL PROPERTY	1475 E BAYSHORE RD	LUST	Lower	909, 0.172, NNW
G73	GOODWILL PROPERTY	1475 EAST BAYSHORE R	LUST, CERS	Lower	909, 0.172, NNW
F74	EL GALOPE TAQUERIA	641 DONOHOE	San Mateo Co. BI	Lower	917, 0.174, NNE
F75	JONES MORTUARY	660 DONOHOE	LUST, CERS	Lower	923, 0.175, NE
F76	JONES MORTUARY INC	660 DONOHOE	San Mateo Co. BI	Lower	923, 0.175, NE
I77	GIRAND RESIDENCE	590 CRESCENT	LUST, HIST LUST, HIST CORTESE	Lower	950, 0.180, South
I78	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Lower	954, 0.181, South

MAPPED SITES SUMMARY

Target Property Address:
1900, 1950 & 2000 EAST UNIVERSITY AVENUE
PALO ALTO, CA 94303

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G79	RAVENSWOOD CITY SCHO	2160 EUCLID AVE	SWEEPS UST	Lower	965, 0.183, North
G80	RAVENSWOOD CITY SCHO	2160 EUCLID AVE	UST	Lower	965, 0.183, North
G81	RAVENSWOOD CITY SCHO	2160 EUCLID	San Mateo Co. BI	Lower	965, 0.183, North
82		542 CENTER DRIVE	RCRA NonGen / NLR	Lower	1051, 0.199, SSW
J83	MARIAS TAQUERIA	2150 UNIVERSITY	San Mateo Co. BI	Lower	1123, 0.213, NNE
J84	MI PUEBLITO	2150 UNIVERSITY	San Mateo Co. BI	Lower	1123, 0.213, NNE
J85	EPA FISH CHICKEN	2150 UNIVERSITY	San Mateo Co. BI	Lower	1123, 0.213, NNE
K86	CARDENAS MARKETS #21	1731 E BAYSHORE RD	CERS HAZ WASTE, CERS	Lower	1147, 0.217, East
K87	CARDENAS MARKET #215	1731 E BAYSHORE RD	RCRA NonGen / NLR	Lower	1147, 0.217, East
J88	RANCHO GRANDE SUPERM	2148 UNIVERSITY	San Mateo Co. BI	Lower	1199, 0.227, NNE
J89	TADLOCKS AUTO SUPPLY	2160 UNIVERSITY	San Mateo Co. BI	Lower	1285, 0.243, NNE
J90	AUTOZONE #3302	2160 UNIVERSITY AVE	RCRA NonGen / NLR	Lower	1285, 0.243, NNE
J91	AUTOZONE #3302	2160 UNIVERSITY AVE	CERS HAZ WASTE, CERS	Lower	1285, 0.243, NNE
L92	OWENS DEVELOPMENT	13464 MIDDLEFORK	LUST, CPS-SLIC, HIST LUST, HIST CORTESE	Lower	1468, 0.278, SSE
L93	WOOD RESIDENCE	111 ISLAND	LUST, HIST CORTESE	Lower	1468, 0.278, SSE
L94	WOOD RESIDENCE	111 ISLAND DR	LUST	Lower	1468, 0.278, SSE
95	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Lower	1555, 0.295, SSE
96	SHELL STATION	2194 UNIVERSITY	LUST, CERS	Lower	1598, 0.303, NNE
97	LAUREL SCHOOL UPPER	275 ELLIOTT DR	ENVIROSTOR, SCH, HAZNET, NPDES, CIWQS	Higher	1683, 0.319, West
98	EAST PALO ALTO - GRE	794 GREEN ST.	US BROWNFIELDS, FINDS	Lower	1815, 0.344, NE
M99	WILLRICH RESIDENCE	1452 HAMILTON AVE	LUST, HIST LUST, HIST CORTESE	Lower	1866, 0.353, SSE
M100	RESIDENCE	1452 HAMILTON	LUST, SWEEPS UST, CA FID UST	Lower	1866, 0.353, SSE
M101	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Lower	1868, 0.354, SSE
102	ELLENBERGER PROPERTY	1240 DANA ST	LUST, HIST LUST, HIST CORTESE, CERS	Lower	1997, 0.378, SSW
103	SIRI BROS PARTNERSHI	2012 CLARK	CPS-SLIC, HIST CORTESE, CERS	Lower	2031, 0.385, ENE
N104	EPA III	1800 W BAYSHORE RD	LUST, HAZNET	Lower	2278, 0.431, ESE
N105	J & J RENTALS AND SA	1800 WEST BAYSHORE R	LUST, CERS	Lower	2278, 0.431, ESE
106	SIRI BROS NURSERY IN	940 O'CONNOR	LUST	Lower	2305, 0.437, East
107	SIRI BROS PARTNERSHI	951 OCONNOR ST	LUST	Lower	2318, 0.439, ENE
108	SOLTAU PROPERTY	1111 HAMILTON AVE	LUST, HIST LUST, CERS	Higher	2477, 0.469, SW
109	755 SCHEMBRI LANE	755 SCHEMBRI LANE	ENVIROSTOR, VCP	Lower	2564, 0.486, NNE
O110	MYRTLE STREET HIGH S	980 AND 992 MYRTLE S	ENVIROSTOR, VCP, DEED	Lower	2703, 0.512, ENE
O111	MYRTLE STREET HIGH S	1010, 1020, 1040, 10	ENVIROSTOR, SCH	Lower	2868, 0.543, ENE
112	1010 RUNNYMEDE	1010 RUNNYMEDE	ENVIROSTOR, CPS-SLIC, CERS	Lower	4076, 0.772, NE
113	KNOWN	600 WILLOW ROAD	Notify 65	Higher	4563, 0.864, WNW
114	ELECTRITE PLATING CO	1805 BAY ROAD	ENVIROSTOR, LUST, FINDS, ECHO, HIST CORTESE, CERS	Lower	4695, 0.889, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
UNIVERSITY CIRCLE 1900 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0063050	N/A
UNIVERSITY CIRCLE IN 1950 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0026992	N/A
CALIFORNIA EAR INSTI 1900 UNIVERSITY AVE EAST PALO ALTO, CA 94303	HAZNET GEPAID: CAL000305945	N/A
UNIVERSITY CIRCLE 1900 UNIVERSITY AVEN EAST PALO ALTO, CA 94303	FINDS Registry ID:: 110054203857	N/A
UNIVERSITY CIRCLE IN 1900 UNIVERSITY AVE EAST PALO ALTO, CA 94303	HAZNET GEPAID: CAL000235806	N/A
AT&T CORP. - P11VV 2000 UNIVERSITY AVE EAST PALO ALTO, CA 94303	CERS	N/A
SUTTER BAY MEDICAL F 1950 UNIVERSITY AVE EAST PALO ALTO, CA 94303	FINDS Registry ID:: 110070425464 ECHO Registry ID: 110070425464	N/A
UNIVERSITY CIRCLE IN 2000 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0026993	N/A
SUTTER BAY MEDICAL F 1950 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0063512	N/A
SF SOUP CO 1950 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI	N/A

EXECUTIVE SUMMARY

Facility Id: FA0028239

SUTTER BAY MEDICAL F 1950 UNIVERSITY AVE EAST PALO ALTO, CA 94303	RCRA NonGen / NLR EPA ID:: CAL000430917	CAL000430917
SUTTER BAY MEDICAL F 1950 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0064649	N/A
NTT ADVANCED TECHNOL 1950 UNIVERSITY AVE PALO ALTO, CA 94303	FINDS Registry ID:: 110070126791	N/A
WELLS REIT II-UNIVER 1900 UNIVERSITY AVE EAST PALO ALTO, CA 94303	FINDS Registry ID:: 110066801278	N/A
AT&T MOBILITY - FORE 1900 UNIVERSITY AVE EAST PALO ALTO, CA 94303	CERS	N/A
CEI MEDICAL GROUP 1900 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0045769	N/A
AT&T CALIFORNIA - P1 1950 UNIVERSITY AVE EAST PALO ALTO, CA 94303	CERS	N/A
WELLS REIT II-UNIVER 1900 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0026991 Facility Id: FA0046944	N/A
AT&T MOBILITY - FORE 1900 UNIVERSITY AVE EAST PALO ALTO, CA 94303	FINDS Registry ID:: 110064895537	N/A
UNIVERSITY CIRCLE 1900 UNIVERSITY AVEN EAST PALO ALTO, CA 94303	EMI	N/A

EXECUTIVE SUMMARY

	Facility Id: 15835 CERS	
UNIVERSITY CIRCLE IN UNIVERSITY, WOODLAND EAST PALO ALTO, CA 94303	HAZNET GEPAID: CAC002225849	N/A
WOODLAND PARK 1950 EUCLID AVENUE # E PALO ALTO, CA 95134	HAZNET GEPAID: CAC002894296	N/A
FUEL 1950 UNIVERSITY EAST PALO ALTO, CA 94303	San Mateo Co. BI Facility Id: FA0028213	N/A
PALO ALTO MEDICAL FO 1950 UNIVERSITY AVE EAST PALO ALTO, CA 94303	FINDS Registry ID:: 110065245238	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database

SWRCY Recycler Database
HAULERS Registered Waste Tire Haulers Listing
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
ODI Open Dump Inventory
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register
HIST Cal-Sites Historical Calsites Database
SCH School Property Evaluation Program
CDL Clandestine Drug Labs
Toxic Pits Toxic Pits Cleanup Act Sites
US CDL National Clandestine Laboratory Register
PFAS PFAS Contamination Site Location Listing

Local Land Records

LIENS Environmental Liens Listing
LIENS 2 CERCLA Lien Information
DEED Deed Restriction Listing

Records of Emergency Release Reports

HMIRS Hazardous Materials Information Reporting System
CHMIRS California Hazardous Material Incident Report System
LDS Land Disposal Sites Listing
MCS Military Cleanup Sites Listing
SPILLS 90 SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS Formerly Used Defense Sites
DOD Department of Defense Sites
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR Financial Assurance Information
EPA WATCH LIST EPA WATCH LIST
2020 COR ACTION 2020 Corrective Action Program List
TSCA Toxic Substances Control Act
TRIS Toxic Chemical Release Inventory System
SSTS Section 7 Tracking Systems
ROD Records Of Decision
RMP Risk Management Plans
RAATS RCRA Administrative Action Tracking System
PRP Potentially Responsible Parties
PADS PCB Activity Database System
ICIS Integrated Compliance Information System
FTTS FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS Material Licensing Tracking System
COAL ASH DOE Steam-Electric Plant Operation Data
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER PCB Transformer Registration Database
RADINFO Radiation Information Database

HIST FTTS FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS Incident and Accident Data
CONSENT Superfund (CERCLA) Consent Decrees
INDIAN RESERV Indian Reservations
FUSRAP Formerly Utilized Sites Remedial Action Program
UMTRA Uranium Mill Tailings Sites
LEAD SMELTERS Lead Smelter Sites
US AIRS Aerometric Information Retrieval System Facility Subsystem
US MINES Mines Master Index File
ABANDONED MINES Abandoned Mines
DOCKET HWC Hazardous Waste Compliance Docket Listing
UXO Unexploded Ordnance Sites
FUELS PROGRAM EPA Fuels Program Registered Listing
CA BOND EXP. PLAN Bond Expenditure Plan
Cortese "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings CUPA Resources List
DRYCLEANERS Cleaner Facilities
ENF Enforcement Action Listing
Financial Assurance Financial Assurance Information Listing
ICE ICE
HWP EnviroStor Permitted Facilities Listing
HWT Registered Hazardous Waste Transporter Database
MINES Mines Site Location Listing
MWMP Medical Waste Management Program Listing
NPDES NPDES Permits Listing
PEST LIC Pesticide Regulation Licenses Listing
PROC Certified Processors Database
UIC UIC Listing
UIC GEO UIC GEO (GEOTRACKER)
WASTEWATER PITS Oil Wastewater Pits Listing
WDS Waste Discharge System
WIP Well Investigation Program Case List
MILITARY PRIV SITES MILITARY PRIV SITES (GEOTRACKER)
PROJECT PROJECT (GEOTRACKER)
WDR Waste Discharge Requirements Listing
CIWQS California Integrated Water Quality System
NON-CASE INFO NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ Well Stimulation Project (GEOTRACKER)
MINES MRDS Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/16/2019 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CRESENT CLEANERS	***1930 UNIVERSITY AVE***	***0 - 1/8 (0.000 mi.)***	***A36***	***159***
EPA ID:: CAD981622814				

Lower Elevation	Address	Direction / Distance	Map ID	Page
FOUR SEASONS HOTEL S	2050 UNIVERSITY AVE	NNE 0 - 1/8 (0.017 mi.)	B45	212
EPA ID:: CAR000280834				

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/28/2019 has revealed that there are

6 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LAUREL SCHOOL UPPER	***275 ELLIOTT DR***	***W 1/4 - 1/2 (0.319 mi.)***	***97***	***319***
Facility Id: 60001979 Status: Active				

Lower Elevation	Address	Direction / Distance	Map ID	Page
755 SCHEMBRI LANE	***755 SCHEMBRI LANE***	***NNE 1/4 - 1/2 (0.486 mi.)***	***109***	***368***
Facility Id: 60002708 Status: No Further Action				
MYRTLE STREET HIGH S	***980 AND 992 MYRTLE S***	***ENE 1/2 - 1 (0.512 mi.)***	***O110***	***372***
Facility Id: 60001925 Status: Certified O&M - Land Use Restrictions Only				
MYRTLE STREET HIGH S	***1010, 1020, 1040, 10***	***ENE 1/2 - 1 (0.543 mi.)***	***O111***	***379***
Facility Id: 60001223 Status: Certified				
1010 RUNNYMEDE	***1010 RUNNYMEDE***	***NE 1/2 - 1 (0.772 mi.)***	***112***	***385***
Facility Id: 60001548 Status: Inactive - Needs Evaluation				
ELECTRITE PLATING CO	***1805 BAY ROAD***	***NNE 1/2 - 1 (0.889 mi.)***	***114***	***388***
Facility Id: 41340028 Status: Refer: RWQCB				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 24 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOLTAU PROPERTY	***1111 HAMILTON AVE***	***SW 1/4 - 1/2 (0.469 mi.)***	***108***	***365***
Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014 Database: LUST, Date of Government Version: 12/09/2019 Facility Status: Case Closed Date Closed: 11/28/2001 Global Id: T0608516870 SCVWD ID: 05S3W36E02F date9: 11/28/2001 Status: Completed - Case Closed				

Lower Elevation	Address	Direction / Distance	Map ID	Page
ARCO #749	***1998 UNIVERSITY***	***0 - 1/8 (0.000 mi.)***	***A29***	***151***
Database: LUST REG 2, Date of Government Version: 09/30/2004				

Facility Status: Case Closed
date9: 9/25/2000

ARCO ***1998 UNIVERSITY*** ***0 - 1/8 (0.000 mi.)*** ***A39*** ***163***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST, Date of Government Version: 12/09/2019
Facility Id: 890003
Facility Status: 9- Case Closed
Global Id: T0608100031
Global ID: T0608100031
Status: Completed - Case Closed

UNOCAL #2862 ***1901 UNIVERSITY*** ***SSE 0 - 1/8 (0.013 mi.)*** ***A42*** ***171***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/09/2019
Facility Status: Case Closed
Facility Id: 890005
Facility Status: 9- Case Closed
Global Id: T0608100576
Global ID: T0608100576
date9: 8/31/1993
Status: Completed - Case Closed

CHEVRON 9-1081 ***2101 UNIVERSITY*** ***N 1/8 - 1/4 (0.134 mi.)*** ***E56*** ***219***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Pollution Characterization

CHEVRON SERVICE STAT ***2101 UNIVERSITY AVE*** ***N 1/8 - 1/4 (0.134 mi.)*** ***E57*** ***221***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST, Date of Government Version: 12/09/2019
Facility Id: 890013
Facility Status: 9- Case Closed
Global Id: T0608100926
Global ID: T0608100926
Status: Completed - Case Closed

GOODWILL PROPERTY 1475 E BAYSHORE RD NNW 1/8 - 1/4 (0.172 mi.) G72 286
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Facility Id: 890023
Facility Status: 9- Case Closed
Global ID: T0608156921

GOODWILL PROPERTY ***1475 EAST BAYSHORE R*** ***NNW 1/8 - 1/4 (0.172 mi.)*** ***G73*** ***286***
Database: LUST, Date of Government Version: 12/09/2019
Global Id: T0608156921
Status: Completed - Case Closed

JONES MORTUARY ***660 DONOHOE*** ***NE 1/8 - 1/4 (0.175 mi.)*** ***F75*** ***289***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/09/2019
Facility Status: Case Closed
Facility Id: 890020
Facility Status: 9- Case Closed
Global Id: T0608152821
Global ID: T0608152821
date9: 9/13/2003
Status: Completed - Case Closed

GIRAND RESIDENCE ***590 CRESCENT*** ***S 1/8 - 1/4 (0.180 mi.)*** ***I77*** ***292***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014

Facility Status: Case Closed
Date Closed: 01/21/2000
SCVWD ID: 05S3W36F02F
date9: 1/21/2000

PRIVATE RESIDENCE | PRIVATE RESIDENCE | S 1/8 - 1/4 (0.181 mi.) | I78 | 293
Database: LUST, Date of Government Version: 12/09/2019
Global Id: T0608545440
Status: Completed - Case Closed

OWENS DEVELOPMENT | 13464 MIDDLEFORK | SSE 1/4 - 1/2 (0.278 mi.) | L92 | 311
Database: LUST REG 3, Date of Government Version: 05/19/2003
Status: Preliminary site assessment workplan submitted
Status: Pollution Characterization
Global ID: T0605300363
Global ID: T0605300321

WOOD RESIDENCE | 111 ISLAND | SSE 1/4 - 1/2 (0.278 mi.) | L93 | 314
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 01/06/1997
SCVWD ID: 05S3W36F01F

WOOD RESIDENCE | 111 ISLAND DR | SSE 1/4 - 1/2 (0.278 mi.) | L94 | 315
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 1/6/1997

PRIVATE RESIDENCE | PRIVATE RESIDENCE | SSE 1/4 - 1/2 (0.295 mi.) | 95 | 315
Database: LUST, Date of Government Version: 12/09/2019
Global Id: T0608501819
Status: Completed - Case Closed

SHELL STATION | 2194 UNIVERSITY | NNE 1/4 - 1/2 (0.303 mi.) | 96 | 316
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST, Date of Government Version: 12/09/2019
Facility Id: 890022
Facility Status: 9- Case Closed
Global Id: T0608182543
Global ID: T0608182543
Status: Completed - Case Closed

WILLRICH RESIDENCE | 1452 HAMILTON AVE | SSE 1/4 - 1/2 (0.353 mi.) | M99 | 342
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 12/22/1992

RESIDENCE | 1452 HAMILTON | SSE 1/4 - 1/2 (0.353 mi.) | M100 | 342
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 12/22/1992
SCVWD ID: 05S3W36G01F

PRIVATE RESIDENCE | PRIVATE RESIDENCE | SSE 1/4 - 1/2 (0.354 mi.) | M101 | 343
Database: LUST, Date of Government Version: 12/09/2019
Global Id: T0608500428
Status: Completed - Case Closed

ELLENBERGER PROPERTY | 1240 DANA ST | SSW 1/4 - 1/2 (0.378 mi.) | 102 | 345
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST, Date of Government Version: 12/09/2019
Facility Status: Case Closed

Date Closed: 06/26/1996
Global Id: T0608531648
SCVWD ID: 05S3W36E01F
date9: 6/26/1996
Status: Completed - Case Closed

EPA III ***1800 W BAYSHORE RD*** ***ESE 1/4 - 1/2 (0.431 mi.)*** ***N104*** ***349***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Facility Id: 890027
Facility Status: 9- Case Closed
Global ID: T0608111865

J & J RENTALS AND SA ***1800 WEST BAYSHORE R*** ***ESE 1/4 - 1/2 (0.431 mi.)*** ***N105*** ***357***
Database: LUST, Date of Government Version: 12/09/2019
Global Id: T0608111865
Status: Completed - Case Closed

SIRI BROS NURSERY IN 940 O'CONNOR E 1/4 - 1/2 (0.437 mi.) 106 363
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/09/2019
Facility Status: Case Closed
Facility Id: 890004
Facility Status: 9- Case Closed
Global Id: T0608100499
Global ID: T0608100499
date9: 3/1/1991
Status: Completed - Case Closed

SIRI BROS PARTNERSHI 951 OCONNOR ST ENE 1/4 - 1/2 (0.439 mi.) 107 365
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Facility Id: 899014
Facility Status: 9- Case Closed
Global ID: T0608101657

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page

OWENS DEVELOPMENT ***13464 MIDDLEFORK*** ***SSE 1/4 - 1/2 (0.278 mi.)*** ***L92*** ***311***
Database: SLIC REG 2, Date of Government Version: 09/30/2004
Facility Id: 43S0878

SIRI BROS PARTNERSHI ***2012 CLARK*** ***ENE 1/4 - 1/2 (0.385 mi.)*** ***103*** ***348***
Database: CPS-SLIC, Date of Government Version: 09/09/2019
Facility Status: Completed - Case Closed
Global Id: T0608101657

HIST LUST: A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there are 5 HIST LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOLTAU PROPERTY SCVWD ID: 05S3W36E02	***1111 HAMILTON AVE***	***SW 1/4 - 1/2 (0.469 mi.)***	***108***	***365***

Lower Elevation	Address	Direction / Distance	Map ID	Page
GIRAND RESIDENCE SCVWD ID: 05S3W36F02	***590 CRESCENT***	***S 1/8 - 1/4 (0.180 mi.)***	***I77***	***292***
OWENS DEVELOPMENT SCVWD ID: 05S3W36F01	***13464 MIDDLEFORK***	***SSE 1/4 - 1/2 (0.278 mi.)***	***L92***	***311***
WILLRICH RESIDENCE SCVWD ID: 05S3W36G01	***1452 HAMILTON AVE***	***SSE 1/4 - 1/2 (0.353 mi.)***	***M99***	***342***
ELLENBERGER PROPERTY SCVWD ID: 05S3W36E01	***1240 DANA ST***	***SSW 1/4 - 1/2 (0.378 mi.)***	***102***	***345***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT Database: UST, Date of Government Version: 09/09/2019 Facility Id: 41-000-018329	2101 UNIVERSITY AVE	N 1/8 - 1/4 (0.134 mi.)	E58	230
RAVENSWOOD CITY SCHO Database: UST, Date of Government Version: 09/09/2019 Facility Id: 190626_009839	2160 EUCLID AVE	N 1/8 - 1/4 (0.183 mi.)	G80	295

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 10/28/2019 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
755 SCHEMBRI LANE	***755 SCHEMBRI LANE***	***NNE 1/4 - 1/2 (0.486 mi.)***	***109***	***368***
Status: No Further Action				
Facility Id: 60002708				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 06/03/2019 has revealed that there are 2 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
875 O'CONNER STREET	***875 O'CONNER STREET***	***NNW 0 - 1/8 (0.008 mi.)***	***C40***	***166***
ACRES property ID: 15635				
EAST PALO ALTO - GRE	***794 GREEN ST.***	***NE 1/4 - 1/2 (0.344 mi.)***	***98***	***336***
ACRES property ID: 225141				

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 10/21/2019 has revealed that there are 6 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FOUR SEASONS HOTEL	***2050 UNIVERSITY AVE***	***NNE 0 - 1/8 (0.017 mi.)***	***B44***	***178***
CHEVRON SERVICE STAT	***2101 UNIVERSITY AVE***	***N 1/8 - 1/4 (0.134 mi.)***	***E60***	***232***
IKEA EAST PALO ALTO	***1700 E BAYSHORE RD***	***ENE 1/8 - 1/4 (0.159 mi.)***	***H66***	***247***
RAVENSWOOD CITY SCHO	***2120 EUCLID AVE***	***N 1/8 - 1/4 (0.159 mi.)***	***G67***	***253***
CARDENAS MARKETS #21	***1731 E BAYSHORE RD***	***E 1/8 - 1/4 (0.217 mi.)***	***K86***	***298***
AUTOZONE #3302	***2160 UNIVERSITY AVE***	***NNE 1/8 - 1/4 (0.243 mi.)***	***J91***	***304***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are

5 SWEEPS UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY ARCO #749 Status: A Tank Status: A Comp Number: 890009	1998 UNIVERSITY AVE	0 - 1/8 (0.000 mi.)	A31	152
NASSER DIN ROOHI Status: A Tank Status: A Comp Number: 26961	***1998 UNIVERSITY AVE***	***0 - 1/8 (0.000 mi.)***	***A34***	***157***
UNOCAL #2862 Status: A Tank Status: A Comp Number: 890010	***1901 UNIVERSITY***	***SSE 0 - 1/8 (0.013 mi.)***	***A42***	***171***
CHEVRON SERVICE STAT Status: A Tank Status: A Comp Number: 890013	***2101 UNIVERSITY AVE***	***N 1/8 - 1/4 (0.134 mi.)***	***E57***	***221***
RAVENSWOOD CITY SCHO Comp Number: 890021	2160 EUCLID AVE	N 1/8 - 1/4 (0.183 mi.)	G79	294

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 HIST UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NASSER DIN ROOHI Facility Id: 00000026961	1998 UNIVERSITY AVE	0 - 1/8 (0.000 mi.)	A38	161
UNOCAL #2862 Facility Id: 00000031714	***1901 UNIVERSITY***	***SSE 0 - 1/8 (0.013 mi.)***	***A42***	***171***
91061 Facility Id: 00000061983	2101 UNIVERSITY AV	N 1/8 - 1/4 (0.134 mi.)	E59	231

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NASSER DIN ROOHI Facility Id: 43008436 Status: A	***1998 UNIVERSITY AVE***	***0 - 1/8 (0.000 mi.)***	***A34***	***157***

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 10/21/2019 has revealed that there are 2 CERS TANKS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT	***2101 UNIVERSITY AVE***	***N 1/8 - 1/4 (0.134 mi.)***	***E60***	***232***
RAVENSWOOD CITY SCHO	***2120 EUCLID AVE***	***N 1/8 - 1/4 (0.159 mi.)***	***G67***	***253***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 8 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RAVENSWOOD SCHOOL EPA ID:: CAC002964777	2021 EUCLID AVENUE	NW 0 - 1/8 (0.089 mi.)	D51	215
CHEVRON 91081 EPA ID:: CAR000148007	2101 UNIVERSITY AVE	N 1/8 - 1/4 (0.134 mi.)	E55	217
IKEA US WEST INC EPA ID:: CAL000399126	1700 E BAYSHORE RD	ENE 1/8 - 1/4 (0.159 mi.)	H65	246
RAVENSWOOD CITY SCHO EPA ID:: CAL912605650	2120 EUCLID AVE	N 1/8 - 1/4 (0.159 mi.)	G68	283
Not reported EPA ID:: CAC003009618	5 NEWELL COURT	ESE 1/8 - 1/4 (0.167 mi.)	70	284
Not reported EPA ID:: CAC003017528	542 CENTER DRIVE	SSW 1/8 - 1/4 (0.199 mi.)	82	296
CARDENAS MARKET #215 EPA ID:: CAL000435693	1731 E BAYSHORE RD	E 1/8 - 1/4 (0.217 mi.)	K87	300
AUTOZONE #3302 EPA ID:: CAL000291406	2160 UNIVERSITY AVE	NNE 1/8 - 1/4 (0.243 mi.)	J90	303

Hazardous Materials Business Plan, Hazardous Waste Generator, Underground Storage tanks

A review of the San Mateo Co. BI list, as provided by EDR, and dated 09/03/2019 has revealed that there are 27 San Mateo Co. BI sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY CIRCLE RE Facility Id: FA0026132	1973 UNIVERSITY	0 - 1/8 (0.000 mi.)	A27	150
UNIVERSITY CIRCLE	1941 UNIVERSITY	0 - 1/8 (0.000 mi.)	A30	152

Lower Elevation	Address	Direction / Distance	Map ID	Page
Facility Id: FA0026323				
CHINA JOY Facility Id: FA0002609	1972 UNIVERSITY	0 - 1/8 (0.000 mi.)	A33	156
FOUR SEASONS HOTEL Facility Id: FA0027499 Facility Id: FA0035723	2050 UNIVERSITY	0 - 1/8 (0.000 mi.)	B28	150
ARCO #749 Facility Id: FA0018342 Facility Id: FA0026843	***1998 UNIVERSITY***	***0 - 1/8 (0.000 mi.)***	***A29***	***151***
UNOCAL #2862 Facility Id: FA0018326	***1901 UNIVERSITY***	***SSE 0 - 1/8 (0.013 mi.)***	***A42***	***171***
THE FRIENDLY PLACE R Facility Id: FA0022540	583 OCONNOR	NNW 0 - 1/8 (0.035 mi.)	C47	214
LA TIENDITA MARKET Facility Id: FA0049775	510 OCONNOR	NW 0 - 1/8 (0.062 mi.)	D49	215
LA TIENDITA MARKET Facility Id: FA0028724	510 OCONNOR	NW 0 - 1/8 (0.062 mi.)	D50	215
RESIDENCE Facility Id: FA0023894	495 OCONNOR	NW 0 - 1/8 (0.090 mi.)	D52	216
THE SOBRATO ORGANIZA Facility Id: FA0066310	2100 UNIVERSITY	NNE 1/8 - 1/4 (0.134 mi.)	E53	217
RAVENSWOOD COMMUNITY Facility Id: FA0014587	2100 UNIVERSITY	NNE 1/8 - 1/4 (0.134 mi.)	E54	217
CHEVRON 9-1081 Facility Id: FA0018329	***2101 UNIVERSITY***	***N 1/8 - 1/4 (0.134 mi.)***	***E56***	***219***
A1 AUTOMOTIVE REPAIR Facility Id: FA0014217	648 DONOHOE	NNE 1/8 - 1/4 (0.150 mi.)	F61	242
DREW HEALTH FOUNDATI Facility Id: FA0022306	2111 UNIVERSITY	N 1/8 - 1/4 (0.152 mi.)	62	243
RAVENSWOOD CITY SCHO Facility Id: FA0065902	2110 EUCLID	N 1/8 - 1/4 (0.153 mi.)	G63	243
IKEA EAST PALO ALTO Facility Id: FA0027603 Facility Id: FA0065367	***1700 BAYSHORE***	***ENE 1/8 - 1/4 (0.159 mi.)***	***H64***	***244***
COUNTRY TIME MARKET Facility Id: FA0004195	635 DONOHOE	NNE 1/8 - 1/4 (0.162 mi.)	E69	284
B & M Facility Id: FA0027404	2118 UNIVERSITY	NNE 1/8 - 1/4 (0.172 mi.)	E71	285
EL GALOPE TAQUERIA Facility Id: FA0004459	641 DONOHOE	NNE 1/8 - 1/4 (0.174 mi.)	F74	288
JONES MORTUARY INC Facility Id: FA0044936	660 DONOHOE	NE 1/8 - 1/4 (0.175 mi.)	F76	291
RAVENSWOOD CITY SCHO Facility Id: FA0009839	2160 EUCLID	N 1/8 - 1/4 (0.183 mi.)	G81	295
MARIAS TAQUERIA	2150 UNIVERSITY	NNE 1/8 - 1/4 (0.213 mi.)	J83	297

Facility Id: FA0000736				
MI PUEBLITO Facility Id: FA0054822	2150 UNIVERSITY	NNE 1/8 - 1/4 (0.213 mi.)	J84	298
EPA FISH CHICKEN Facility Id: FA0046997	2150 UNIVERSITY	NNE 1/8 - 1/4 (0.213 mi.)	J85	298
RANCHO GRANDE SUPERM Facility Id: FA0022335	2148 UNIVERSITY	NNE 1/8 - 1/4 (0.227 mi.)	J88	301
TADLOCKS AUTO SUPPLY Facility Id: FA0003207 Facility Id: FA0022459 Facility Id: FA0036049	2160 UNIVERSITY	NNE 1/8 - 1/4 (0.243 mi.)	J89	302

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 10 HIST CORTESE sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ARCO Reg Id: 41-0032	***1998 UNIVERSITY***	***0 - 1/8 (0.000 mi.)***	***A39***	***163***
UNOCAL Reg Id: 43-1578	1901 UNIVERSITY	SSE 0 - 1/8 (0.013 mi.)	A41	171
UNOCAL #2862 Reg Id: 41-0604	***1901 UNIVERSITY***	***SSE 0 - 1/8 (0.013 mi.)***	***A42***	***171***
CHEVRON SERVICE STAT Reg Id: 41-1012	***2101 UNIVERSITY AVE***	***N 1/8 - 1/4 (0.134 mi.)***	***E57***	***221***
GIRAND RESIDENCE Reg Id: 43-2349	***590 CRESCENT***	***S 1/8 - 1/4 (0.180 mi.)***	***I77***	***292***
OWENS DEVELOPMENT Reg Id: 01-1555	***13464 MIDDLEFORK***	***SSE 1/4 - 1/2 (0.278 mi.)***	***L92***	***311***
WOOD RESIDENCE Reg Id: 43-1901	***111 ISLAND***	***SSE 1/4 - 1/2 (0.278 mi.)***	***L93***	***314***
WILLRICH RESIDENCE Reg Id: 43-0376	***1452 HAMILTON AVE***	***SSE 1/4 - 1/2 (0.353 mi.)***	***M99***	***342***
ELLENBERGER PROPERTY Reg Id: 43-1724	***1240 DANA ST***	***SSW 1/4 - 1/2 (0.378 mi.)***	***102***	***345***
SIRI BROS PARTNERSHI Reg Id: 41-1047	***2012 CLARK***	***ENE 1/4 - 1/2 (0.385 mi.)***	***103***	***348***

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 09/16/2019 has revealed that there is 1

Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KNOWN	600 WILLOW ROAD	WNW 1/2 - 1 (0.864 mi.)	113	388

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 5 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY ARCO SERV	1988 UNIVERSITY AVE	0 - 1/8 (0.000 mi.)	A35	159
UNIVERSITY ARCO SERV	1988 UNIVERSITY	0 - 1/8 (0.000 mi.)	A37	161
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
UNIVERSITY ARCO SERV	1998 UNIVERSITY	0 - 1/8 (0.000 mi.)	A32	156
KUBALL ALBERT JR	1901 UNIVERSITY AVE	SSE 0 - 1/8 (0.013 mi.)	A43	178
DOBKO CHEVRON SERVIC	555 OCONNOR	NNW 0 - 1/8 (0.037 mi.)	C48	214

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 3 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

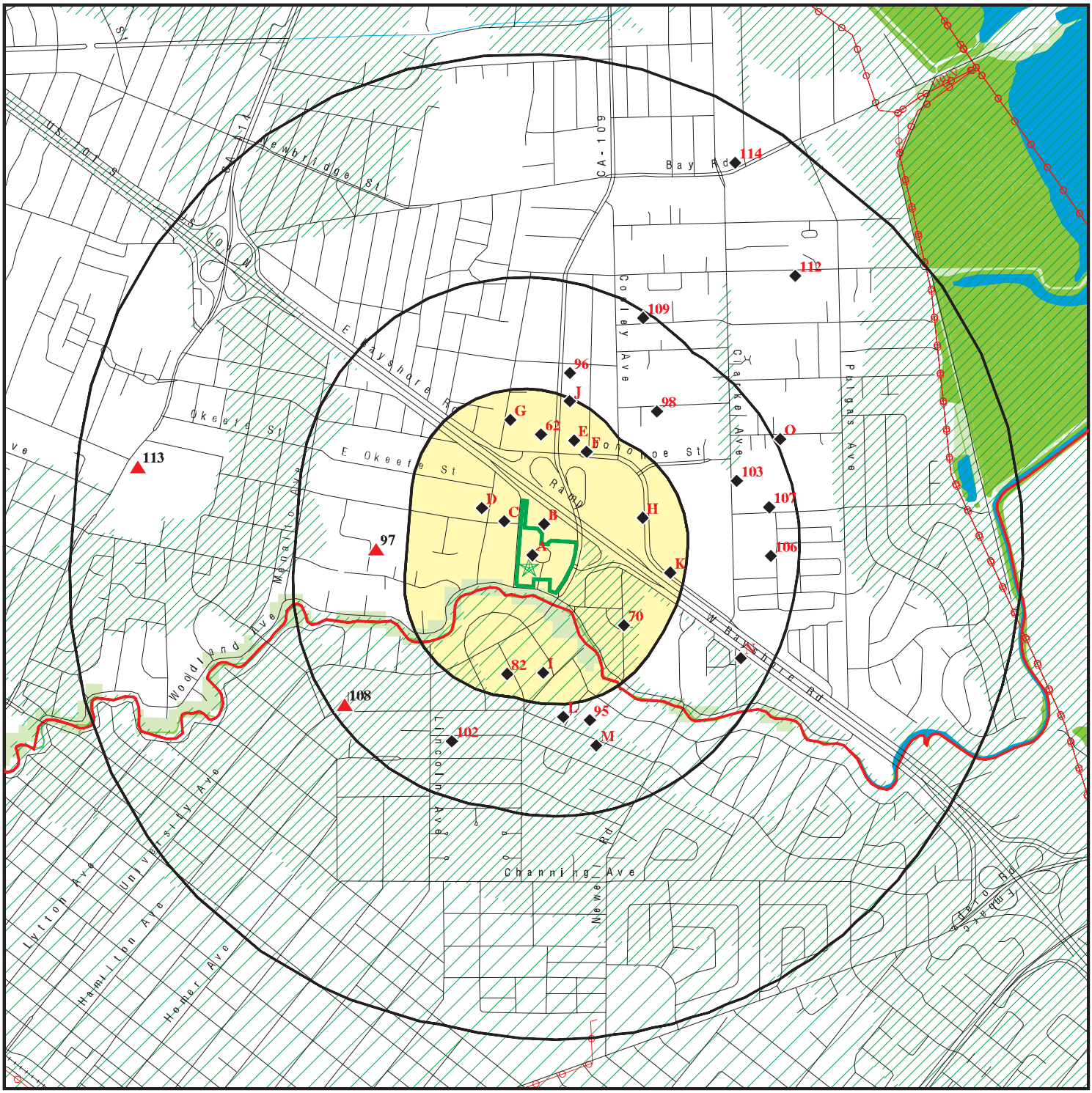
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
COST LESS CLEANERS	1968 UNIVERSITY AVE	0 - 1/8 (0.000 mi.)	A25	149
CRESCENT CLEANERS	1930 UNIVERSITY AVE	0 - 1/8 (0.000 mi.)	A26	150
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
PENBAY CORPORATION	1997 MANHATTAN	NNW 0 - 1/8 (0.017 mi.)	C46	214

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
UNIVERSITY PLAZA	CIWQS CDL
PENINSULA SPORTSMENS CLUB	CPS-SLIC

OVERVIEW MAP - 5973678.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	University Circle	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1900, 1950 & 2000 East University Avenue Palo Alto CA 94303	CONTACT:	Vanessa Pina
		INQUIRY #:	5973678.2s
LAT/LONG:	37.458933 / 122.142896	DATE:	February 18, 2020 7:57 am

DETAIL MAP - 5973678.2S

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

County Boundary

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	University Circle	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1900, 1950 & 2000 East University Avenue Palo Alto CA 94303	CONTACT:	Vanessa Pina
		INQUIRY #:	5973678.2s
LAT/LONG:	37.458933 / 122.142896	DATE:	February 18, 2020 7:58 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		2	0	NR	NR	NR	2
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	2	4	NR	6
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		3	7	14	NR	NR	24

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	2	NR	NR	2
HIST LUST	0.500		0	1	4	NR	NR	5
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	2	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	1	NR	NR	1
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		1	0	1	NR	NR	2
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		1	5	NR	NR	NR	6
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		3	2	NR	NR	NR	5
HIST UST	0.250		2	1	NR	NR	NR	3
CA FID UST	0.250		1	0	NR	NR	NR	1
CERS TANKS	0.250		0	2	NR	NR	NR	2
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	1	1	7	NR	NR	NR	9
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	6	NR	NR	NR	NR	NR	6
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP	1	NR	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
San Mateo Co. BI	0.250	9	10	17	NR	NR	NR	36
Cortese	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP	1	NR	NR	NR	NR	NR	1
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	4	NR	NR	NR	NR	NR	4
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		3	2	5	NR	NR	10
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP	4	NR	NR	NR	NR	NR	4
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		5	NR	NR	NR	NR	5
EDR Hist Cleaner	0.125		3	NR	NR	NR	NR	3
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		26	35	46	29	5	0	141

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **UNIVERSITY CIRCLE** **San Mateo Co. BI** **S121700842**
Target **1900 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 1 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0063050
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0085972
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM

A2 **UNIVERSITY CIRCLE INVESTORS** **San Mateo Co. BI** **S113757609**
Target **1950 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 2 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:

Name:	UNIVERSITY CIRCLE INVESTORS
Address:	1950 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026992
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0041184
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	UNIVERSITY CIRCLE INVESTORS
Address:	1950 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026992
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041186
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

A3 **CALIFORNIA EAR INSTITUTE** **HAZNET** **S123624866**
Target **1900 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 3 of 41 in cluster A

Actual: **32 ft.**

HAZNET:

Name:	CALIFORNIA EAR INSTITUTE
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Year:	1997
Gepaid:	CAL000305945
Contact:	MONICA HELLNER
Telephone:	6504623101
Mailing Name:	Not reported
Mailing Address:	1900 UNIVERSITY AVE
Gen County:	41
Waste Category:	Photochemicals/photoprocessing waste
TSD EPA ID:	UTD069803658
TSD County:	99
Disposal Method:	Recycler
Tons:	0.9223

Additional Info:

Year:	1997
Shipment Date:	19970401
Creation Date:	6/26/1997 0:00:00
Receipt Date:	19970407
Manifest ID:	96745857
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.3461
Waste Quantity:	83
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1997
Shipment Date:	19970401
Creation Date:	6/26/1997 0:00:00
Receipt Date:	19970407
Manifest ID:	96745857
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.3377

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Waste Quantity:	81
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1997
Shipment Date:	19970529
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970609
Manifest ID:	96745866
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0455
Waste Quantity:	91
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1997
Shipment Date:	19970529
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970609
Manifest ID:	96745866
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.017
Waste Quantity:	34
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1997
Shipment Date:	19970501
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970512
Manifest ID:	96745867
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0525
Waste Quantity:	105
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1997
Shipment Date:	19970501
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970512
Manifest ID:	96745867
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.043
Waste Quantity:	86
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1997
Shipment Date:	19970227

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Creation Date:	6/26/1997 0:00:00
Receipt Date:	19970310
Manifest ID:	96745868
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.037
Waste Quantity:	74
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1997
Shipment Date:	19970227
Creation Date:	6/26/1997 0:00:00
Receipt Date:	19970310
Manifest ID:	96745868
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0435
Waste Quantity:	87
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	CALIFORNIA EAR INSTITUTE
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	1995
Gepaid:	CAL000305945

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Contact:	MONICA HELLNER
Telephone:	6504623101
Mailing Name:	Not reported
Mailing Address:	1900 UNIVERSITY AVE
Gen County:	41
Waste Category:	Metal sludge (Alkaline solution (pH >= 12.5) with metals)
TSD EPA ID:	CAL000121946
TSD County:	21
Disposal Method:	Recycler
Tons:	0.2845

Additional Info:

Year:	1995
Shipment Date:	19950828
Creation Date:	4/1/1996 0:00:00
Receipt Date:	19950829
Manifest ID:	95585029
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0485
Waste Quantity:	97
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950828
Creation Date:	4/1/1996 0:00:00
Receipt Date:	19950829
Manifest ID:	95585029
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0455
Waste Quantity:	91
Quantity Unit:	P

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950731
Creation Date:	4/3/1996 0:00:00
Receipt Date:	19950802
Manifest ID:	95585036
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0415
Waste Quantity:	83
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950731
Creation Date:	4/3/1996 0:00:00
Receipt Date:	19950802
Manifest ID:	95585036
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.043
Waste Quantity:	86
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Year:	1995
Shipment Date:	19950606
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950607
Manifest ID:	95612254
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.057
Waste Quantity:	114
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950501
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950502
Manifest ID:	95612326
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.063
Waste Quantity:	126
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950501
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950502
Manifest ID:	95612326

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.015
Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950306
Creation Date:	3/29/1996 0:00:00
Receipt Date:	19950307
Manifest ID:	95214940
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.2225
Waste Quantity:	445
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950703
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950703
Manifest ID:	95450686
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.051
Waste Quantity:	102
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950703
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950703
Manifest ID:	95450686
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.034
Waste Quantity:	68
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19951228
Creation Date:	9/18/1996 0:00:00
Receipt Date:	19951229
Manifest ID:	95835795
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1125
Waste Quantity:	225
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951228
Creation Date:	9/18/1996 0:00:00
Receipt Date:	19951229
Manifest ID:	95835795
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.035
Waste Quantity:	70
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951027
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951028
Manifest ID:	95836008
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0695
Waste Quantity:	139
Quantity Unit:	P

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951027
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951028
Manifest ID:	95836008
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0395
Waste Quantity:	79
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951004
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951005
Manifest ID:	95836021
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.074
Waste Quantity:	148
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Year:	1995
Shipment Date:	19951004
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951005
Manifest ID:	95836021
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19951127
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951129
Manifest ID:	95836139
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0265
Waste Quantity:	53
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19951127
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951129
Manifest ID:	95836139

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1251
Waste Quantity:	30
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	CALIFORNIA EAR INSTITUTE
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	1995
Gepaid:	CAL000305945
Contact:	MONICA HELLNER
Telephone:	6504623101
Mailing Name:	Not reported
Mailing Address:	1900 UNIVERSITY AVE
Gen County:	41
Waste Category:	Photochemicals/photoprocessing waste
TSD EPA ID:	CAL000121946
TSD County:	21
Disposal Method:	Recycler
Tons:	0.8686

Additional Info:

Year:	1995
Shipment Date:	19950828
Creation Date:	4/1/1996 0:00:00
Receipt Date:	19950829
Manifest ID:	95585029
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0485

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Waste Quantity:	97
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950828
Creation Date:	4/1/1996 0:00:00
Receipt Date:	19950829
Manifest ID:	95585029
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0455
Waste Quantity:	91
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950731
Creation Date:	4/3/1996 0:00:00
Receipt Date:	19950802
Manifest ID:	95585036
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0415
Waste Quantity:	83
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950731
Creation Date:	4/3/1996 0:00:00
Receipt Date:	19950802
Manifest ID:	95585036
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.043
Waste Quantity:	86
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950606
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950607
Manifest ID:	95612254
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.057
Waste Quantity:	114
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19950501

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950502
Manifest ID:	95612326
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.063
Waste Quantity:	126
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950501
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950502
Manifest ID:	95612326
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.015
Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950306
Creation Date:	3/29/1996 0:00:00
Receipt Date:	19950307
Manifest ID:	95214940
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.2225
Waste Quantity:	445
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950703
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950703
Manifest ID:	95450686
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.051
Waste Quantity:	102
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19950703
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950703
Manifest ID:	95450686
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.034
Waste Quantity:	68
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19951228
Creation Date:	9/18/1996 0:00:00
Receipt Date:	19951229
Manifest ID:	95835795
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1125
Waste Quantity:	225
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19951228
Creation Date:	9/18/1996 0:00:00
Receipt Date:	19951229
Manifest ID:	95835795
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000121946
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Quantity Tons:	0.035
Waste Quantity:	70
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951027
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951028
Manifest ID:	95836008
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0695
Waste Quantity:	139
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951027
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951028
Manifest ID:	95836008
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0395
Waste Quantity:	79
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951004
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951005
Manifest ID:	95836021
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	171
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.074
Waste Quantity:	148
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995
Shipment Date:	19951004
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951005
Manifest ID:	95836021
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1995

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Shipment Date:	19951127
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951129
Manifest ID:	95836139
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0265
Waste Quantity:	53
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1995
Shipment Date:	19951127
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19951129
Manifest ID:	95836139
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000121946
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1251
Waste Quantity:	30
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	CALIFORNIA EAR INSTITUTE
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	1996

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Gepaid:	CAL000305945
Contact:	MONICA HELLNER
Telephone:	6504623101
Mailing Name:	Not reported
Mailing Address:	1900 UNIVERSITY AVE
Gen County:	41
Waste Category:	Photochemicals/photoprocessing waste
TSD EPA ID:	UTD069803658
TSD County:	99
Disposal Method:	Not reported
Tons:	0.6906

Additional Info:

Year:	1996
Shipment Date:	19960226
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960311
Manifest ID:	96030400
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.023
Waste Quantity:	46
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960327
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960408
Manifest ID:	96030522
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.036
Waste Quantity:	72

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960327
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960408
Manifest ID:	96030522
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.0625
Waste Quantity:	15
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960201
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960213
Manifest ID:	95804314
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0275
Waste Quantity:	55
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960201
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960213
Manifest ID:	95804314
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1215
Waste Quantity:	243
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960530
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960607
Manifest ID:	96030771
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.041
Waste Quantity:	82
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960530
Creation Date:	5/30/1997 0:00:00

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Receipt Date:	19960607
Manifest ID:	96030771
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1251
Waste Quantity:	30
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960426
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960506
Manifest ID:	95841094
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.3586
Waste Quantity:	86
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960426
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960506
Manifest ID:	95841094
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.2335
Waste Quantity:	56
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	CALIFORNIA EAR INSTITUTE
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	1996
Gepaid:	CAL000305945
Contact:	MONICA HELLNER
Telephone:	6504623101
Mailing Name:	Not reported
Mailing Address:	1900 UNIVERSITY AVE
Gen County:	41
Waste Category:	Photochemicals/photoprocessing waste
TSD EPA ID:	UTD069803658
TSD County:	99
Disposal Method:	Recycler
Tons:	0.3381

Additional Info:

Year:	1996
Shipment Date:	19960226
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960311
Manifest ID:	96030400
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.023
Waste Quantity:	46
Quantity Unit:	P
Additional Code 1:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960327
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960408
Manifest ID:	96030522
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.036
Waste Quantity:	72
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1996
Shipment Date:	19960327
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960408
Manifest ID:	96030522
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.0625
Waste Quantity:	15
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Year:	1996
Shipment Date:	19960201
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960213
Manifest ID:	95804314
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.0275
Waste Quantity:	55
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960201
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960213
Manifest ID:	95804314
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1215
Waste Quantity:	243
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960530
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960607
Manifest ID:	96030771

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.041
Waste Quantity:	82
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960530
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960607
Manifest ID:	96030771
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	R01
Quantity Tons:	0.1251
Waste Quantity:	30
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960426
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960506
Manifest ID:	95841094
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.3586
Waste Quantity:	86
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1996
Shipment Date:	19960426
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960506
Manifest ID:	95841094
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAL000121946
Trans Name:	Not reported
Trans 2 EPA ID:	UTD988072401
Trans 2 Name:	Not reported
TSDF EPA ID:	UTD069803658
Trans Name:	Not reported
TSDF Alt EPA ID:	UTD069803658
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	Not reported
Quantity Tons:	0.2335
Waste Quantity:	56
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	CALIFORNIA EAR INSTITUTE
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	1994
Gepaid:	CAL000305945
Contact:	MONICA HELLNER
Telephone:	6504623101
Mailing Name:	Not reported
Mailing Address:	1900 UNIVERSITY AVE
Gen County:	41
Waste Category:	Photochemicals/photoprocessing waste
TSD EPA ID:	CAD070148432
TSD County:	01

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Disposal Method:	Treatment, Incineration
Tons:	0.8849
Additional Info:	
Year:	1994
Shipment Date:	19941201
Creation Date:	3/28/1996 0:00:00
Receipt Date:	19941202
Manifest ID:	93637709
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAD070148432
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD070148432
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD070148432
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	T03
Quantity Tons:	0.031
Waste Quantity:	62
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1994
Shipment Date:	19940916
Creation Date:	3/26/1996 0:00:00
Receipt Date:	19940919
Manifest ID:	93637970
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAD070148432
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD070148432
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD070148432
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	T03
Quantity Tons:	0.6672
Waste Quantity:	160
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	1994
Shipment Date:	19940901

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Creation Date:	3/26/1996 0:00:00
Receipt Date:	19940902
Manifest ID:	93637996
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAD070148432
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD070148432
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD070148432
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	T03
Quantity Tons:	0.0595
Waste Quantity:	119
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1994
Shipment Date:	19941003
Creation Date:	3/26/1996 0:00:00
Receipt Date:	19941004
Manifest ID:	93639693
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAD070148432
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD070148432
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	T03
Quantity Tons:	0.041
Waste Quantity:	82
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1994
Shipment Date:	19940801
Creation Date:	3/26/1996 0:00:00
Receipt Date:	19940802
Manifest ID:	93103309
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAD070148432

CALIFORNIA EAR INSTITUTE (Continued) **S123624866**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD070148432
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD070148432
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	T03
Quantity Tons:	0.0502
Waste Quantity:	100.4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1994
Shipment Date:	19941101
Creation Date:	3/28/1996 0:00:00
Receipt Date:	19941101
Manifest ID:	93639972
Gen EPA ID:	CAL000305945
Trans EPA ID:	CAD070148432
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD070148432
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD070148432
TSDF Alt Name:	Not reported
Waste Code:	541
RCRA Code:	D011
Meth Code:	T03
Quantity Tons:	0.036
Waste Quantity:	72
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

A4 **UNIVERSITY CIRCLE** **FINDS** **1015901495**
Target **1900 UNIVERSITY AVENUE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 4 of 41 in cluster A

Actual:
32 ft.

FINDS:

Registry ID: 110054203857

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

UNIVERSITY CIRCLE (Continued) **1015901495**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A5 **UNIVERSITY CIRCLE INVESTORS** **HAZNET** **S113116173**
Target **1900 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 5 of 41 in cluster A

Actual:
32 ft.

HAZNET:

Name:	UNIVERSITY CIRCLE INVESTORS
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2001
Gepaid:	CAL000235806
Contact:	JAMES CANTRELL
Telephone:	4159566000
Mailing Name:	Not reported
Mailing Address:	2001 UNION ST
Gen County:	41
Waste Category:	Liquids with pH <= 2
TSD EPA ID:	CAD008364432
TSD County:	19
Disposal Method:	Transfer Station
Tons:	0.0834

Additional Info:

Year:	2001
Shipment Date:	20011023
Creation Date:	12/17/2001 0:00:00
Receipt Date:	20011026
Manifest ID:	21330312
Gen EPA ID:	CAL000235806
Trans EPA ID:	CAD982444481
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008364432
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	331
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2001
Shipment Date:	20011023
Creation Date:	12/17/2001 0:00:00

UNIVERSITY CIRCLE INVESTORS (Continued) **S113116173**

Receipt Date:	20011026
Manifest ID:	21330312
Gen EPA ID:	CAL000235806
Trans EPA ID:	CAD982444481
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008364432
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	791
RCRA Code:	D002
Meth Code:	H01
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	UNIVERSITY CIRCLE INVESTORS
Address:	1900 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2001
Gepaid:	CAL000235806
Contact:	JAMES CANTRELL
Telephone:	4159566000
Mailing Name:	Not reported
Mailing Address:	2001 UNION ST
Gen County:	41
Waste Category:	Off-specification, aged or surplus organics
TSD EPA ID:	CAD008364432
TSD County:	19
Disposal Method:	Transfer Station
Tons:	0.5

Additional Info:

Year:	2001
Shipment Date:	20011023
Creation Date:	12/17/2001 0:00:00
Receipt Date:	20011026
Manifest ID:	21330312
Gen EPA ID:	CAL000235806
Trans EPA ID:	CAD982444481
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008364432
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	331
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS (Continued) **S113116173**

Meth Code:	H01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2001
Shipment Date:	20011023
Creation Date:	12/17/2001 0:00:00
Receipt Date:	20011026
Manifest ID:	21330312
Gen EPA ID:	CAL000235806
Trans EPA ID:	CAD982444481
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008364432
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	791
RCRA Code:	D002
Meth Code:	H01
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

A6 **AT&T CORP. - P11VV** **CERS** **S124445578**
Target **2000 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 6 of 41 in cluster A

Actual:
32 ft.

CERS:

Name:	AT&T CORP. - P11VV
Address:	2000 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	553936
CERS ID:	10818481
CERS Description:	Chemical Storage Facilities

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA

AT&T CORP. - P11VV (Continued) **S124445578**

Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Environmental Contact
Entity Name: AT&T EH&S Hotline - Option #1
Entity Title: Not reported
Affiliation Address: 308 S. Akard St., 17th Floor
Affiliation City: Dallas
Affiliation State: TX
Affiliation Country: Not reported
Affiliation Zip: 75202
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 308 S. Akard St., 17th Floor
Affiliation City: Dallas
Affiliation State: TX
Affiliation Country: Not reported
Affiliation Zip: 75202
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Jeremy McGrue
Entity Title: National EPCRA Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: Peter Burnell, Sigma Consultants, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: AT&T Corp.
Entity Title: Not reported
Affiliation Address: 308 S. Akard St., 17th Floor
Affiliation City: Dallas
Affiliation State: TX
Affiliation Country: United States
Affiliation Zip: 75202
Affiliation Phone: (214) 464-1712

Affiliation Type Desc: Operator
Entity Name: AT&T Corp.
Entity Title: Not reported

AT&T CORP. - P11VV (Continued) **S124445578**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(800) 566-9347
Affiliation Type Desc:	Parent Corporation
Entity Name:	AT&T Corp.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

A7 **SUTTER BAY MEDICAL FOUNDATION/P.A.M.F.** **FINDS** **1024637077**
Target **1950 UNIVERSITY AVE** **ECHO** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 7 of 41 in cluster A

Actual: 32 ft.

FINDS:

Registry ID: 110070425464

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1024637077
Registry ID:	110070425464
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110070425464

A8 **UNIVERSITY CIRCLE INVESTORS** **San Mateo Co. BI** **S113757610**
Target **2000 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 8 of 41 in cluster A

Actual: 32 ft.

San Mateo Co. BI:

Name:	UNIVERSITY CIRCLE INVESTORS
Address:	2000 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026993

UNIVERSITY CIRCLE INVESTORS (Continued) **S113757610**

Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0041187
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable
Program Category: BUSINESS PLAN PROGRAM

Name: UNIVERSITY CIRCLE INVESTORS
Address: 2000 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026993
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041189
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

A9 **SUTTER BAY MEDICAL FOUNDATION** **San Mateo Co. BI** **S123184350**
Target **1950 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 9 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:
Name: SUTTER BAY MEDICAL FOUNDATION
Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0063512
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0086357
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

A10 **SF SOUP CO** **San Mateo Co. BI** **S123181776**
Target **1950 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 10 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:
Name: SF SOUP CO
Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0028239
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0047617
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

A11 **SUTTER BAY MEDICAL FOUNDATION/P.A.M.F.** **RCRA NonGen / NLR** **1024862401**
Target **1950 UNIVERSITY AVE** **CAL000430917**
Property **EAST PALO ALTO, CA 94303**

Site 11 of 41 in cluster A

Actual:
32 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-09-20 00:00:00.0
Facility name:	SUTTER BAY MEDICAL FOUNDATION/P.A.M.F.
Facility address:	1950 UNIVERSITY AVE EAST PALO ALTO, CA 94303
EPA ID:	CAL000430917
Mailing address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Contact:	DIANA ECHOLS
Contact address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Contact country:	Not reported
Contact telephone:	650-934-3577
Contact email:	FACILITIES2@PAMF.ORG
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	DIANA ECHOLS
Owner/operator address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Owner/operator country:	Not reported
Owner/operator telephone:	650-934-3577
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PALO ALTO MEDICAL FOUNDATION
Owner/operator address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Owner/operator country:	Not reported
Owner/operator telephone:	650-934-3577
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No

SUTTER BAY MEDICAL FOUNDATION/P.A.M.F. (Continued) **1024862401**

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

A12 **SUTTER BAY MEDICAL FOUNDATION** **San Mateo Co. BI** **S123184413**
Target **1950 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 12 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:

Name:	SUTTER BAY MEDICAL FOUNDATION
Address:	1950 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0064649
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0087697
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Active, billable
Program Category:	HAZARDOUS WASTE PROGRAM

Name:	SUTTER BAY MEDICAL FOUNDATION
Address:	1950 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0064649
Prog Element Code:	SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id:	PR0087512
Description:	SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status:	Active, billable
Program Category:	MEDICAL WASTE

A13 **NTT ADVANCED TECHNOLOGY** **FINDS** **1024043694**
Target **1950 UNIVERSITY AVE** **N/A**
Property **PALO ALTO, CA 94303**

Site 13 of 41 in cluster A

Actual: **32 ft.**

FINDS:

Registry ID: 110070126791

Environmental Interest/Information System
TSCA SUBMITTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A14 **WELLS REIT II-UNIVERSITY CIRCLE** **FINDS** **1023381448**
Target **1900 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 14 of 41 in cluster A

Actual: **32 ft.**

FINDS:

Registry ID: 110066801278

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A15 **AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675)** **CERS** **S121759090**
Target **1900 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 15 of 41 in cluster A

Actual: **32 ft.**

CERS:

Name:	AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675)
Address:	1900 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	275842
CERS ID:	10080091
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	03-31-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-27-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	01-29-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-01-2016

AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675) (Continued) **S121759090**

Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-30-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	275842
Facility Name:	AT&T Mobility - FOREST AVE & CENTER DR (USID47675)
Env Int Type Code:	HMBP
Program ID:	10080091
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	37.458935
Longitude:	-122.142899

Affiliation:

Affiliation Type Desc:	Parent Corporation
Entity Name:	AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Peter Burnell, Sigma Consultants, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(415) 597-6013

AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675) (Continued) **S121759090**

Affiliation Type Desc:	Property Owner
Entity Name:	New Cingular Wireless PCS, LLC dba AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., Room 1708
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	United States
Affiliation Zip:	75202
Affiliation Phone:	(214) 464-2626

Affiliation Type Desc:	Environmental Contact
Entity Name:	John Bratkowsky
Entity Title:	Not reported
Affiliation Address:	1480 Burlingame Ave., Flr 4
Affiliation City:	Burlingame
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94010
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., 17th Floor
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	Not reported
Affiliation Zip:	75202
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Jeremy McGrue
Entity Title:	National EPCRA Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200

Affiliation Type Desc:	Legal Owner
Entity Name:	New Cingular Wireless PCS, LLC dba AT&T Mobility
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St. 17th Floor
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	United States

AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675) (Continued) **S121759090**

Affiliation Zip: 75202
Affiliation Phone: (214) 464-1712

A16 **CEI MEDICAL GROUP** **San Mateo Co. BI** **S123182585**
Target **1900 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 16 of 41 in cluster A

Actual:
32 ft.

San Mateo Co. BI:
Name: CEI MEDICAL GROUP
Address: 1900 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0045769
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0060951
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

A17 **AT&T CALIFORNIA - P126C** **CERS** **S124444150**
Target **1950 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 17 of 41 in cluster A

Actual:
32 ft.

CERS:
Name: AT&T CALIFORNIA - P126C
Address: 1950 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 552496
CERS ID: 10812937
CERS Description: Chemical Storage Facilities

Coordinates:
Site ID: 552496
Facility Name: AT&T California - P126C
Env Int Type Code: HMBP
Program ID: 10812937
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.459120
Longitude: -122.141860

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 308 S. Akard St., 17th Floor
Affiliation City: Dallas
Affiliation State: TX
Affiliation Country: Not reported
Affiliation Zip: 75202
Affiliation Phone: Not reported

AT&T CALIFORNIA - P126C (Continued) **S124444150**

Affiliation Type Desc:	Operator
Entity Name:	AT&T California
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(800) 566-9347

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200

Affiliation Type Desc:	Environmental Contact
Entity Name:	AT&T EH&S Hotline - Option #1
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., 17th Floor
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	Not reported
Affiliation Zip:	75202
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Peter Burnell, Sigma Consultants, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Jeremy McGrue
Entity Title:	National EPCRA Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Pacific Bell Telephone Company dba AT&T California
Entity Title:	Not reported
Affiliation Address:	308 S. Akard St., 17th Floor
Affiliation City:	Dallas
Affiliation State:	TX
Affiliation Country:	United States

AT&T CALIFORNIA - P126C (Continued) **S124444150**

Affiliation Zip:	75202
Affiliation Phone:	(214) 464-1712
Affiliation Type Desc:	Parent Corporation
Entity Name:	Pacific Bell Telephone Company dba AT&T California
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

A18 **WELLS REIT II-UNIVERSITY CIRCLE** **San Mateo Co. BI** **S113757608**
Target **1900 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 18 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:

Name:	WELLS REIT II-UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026991
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0041181
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	WELLS REIT II-UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026991
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041183
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

Name:	AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675)
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0046944
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0081586
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

Name:	AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675)
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO

WELLS REIT II-UNIVERSITY CIRCLE (Continued) **S113757608**

Facility ID: FA0046944
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0063949
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Active, billable
Program Category: BUSINESS PLAN PROGRAM

A19 **AT&T MOBILITY - FOREST AVE-CENTER DR (47675)** **FINDS** **1023204526**
Target **1900 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 19 of 41 in cluster A

Actual: **32 ft.**

FINDS:

Registry ID: 110064895537

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A20 **UNIVERSITY CIRCLE** **EMI** **S109604309**
Target **1900 UNIVERSITY AVENUE** **CERS** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 20 of 41 in cluster A

Actual: **32 ft.**

EMI:

Name: UNIVERSITY CIRCLE
Address: 1900 UNIVERSITY AVENUE
City,State,Zip: EAST PALO ALTO, CA 91762
Year: 2007
County Code: 41
Air Basin: SF
Facility ID: 15835
Air District Name: BA
SIC Code: 4931
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .003
Reactive Organic Gases Tons/Yr: .0025101
Carbon Monoxide Emissions Tons/Yr: .026
NOX - Oxides of Nitrogen Tons/Yr: .021
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smllr Tons/Yr: .000976

Name: UNIVERSITY CIRCLE
Address: 1900 UNIVERSITY AVENUE
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2008
County Code: 41
Air Basin: SF

UNIVERSITY CIRCLE (Continued) **S109604309**

Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.003
Reactive Organic Gases Tons/Yr:	.0025101
Carbon Monoxide Emissions Tons/Yr:	.026
NOX - Oxides of Nitrogen Tons/Yr:	.021
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	.001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000976

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2009
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.0000000000000001E-3
Reactive Organic Gases Tons/Yr:	0.0033468
Carbon Monoxide Emissions Tons/Yr:	3.4000000000000002E-2
NOX - Oxides of Nitrogen Tons/Yr:	2.8000000000000001E-2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	9.7599999999999998E-4

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2010
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.0000000000000001E-3
Reactive Organic Gases Tons/Yr:	0.0033468
Carbon Monoxide Emissions Tons/Yr:	3.4000000000000002E-2
NOX - Oxides of Nitrogen Tons/Yr:	2.8000000000000001E-2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.00102459016393442
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303

UNIVERSITY CIRCLE (Continued) **S109604309**

Year:	2011
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.003
Reactive Organic Gases Tons/Yr:	0.0025101
Carbon Monoxide Emissions Tons/Yr:	0.032
NOX - Oxides of Nitrogen Tons/Yr:	0.025
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2012
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.003
Reactive Organic Gases Tons/Yr:	0.0025101
Carbon Monoxide Emissions Tons/Yr:	0.032
NOX - Oxides of Nitrogen Tons/Yr:	0.025
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.0010245901639
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2013
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.004
Reactive Organic Gases Tons/Yr:	0.0033468
Carbon Monoxide Emissions Tons/Yr:	0.039
NOX - Oxides of Nitrogen Tons/Yr:	0.032
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001

UNIVERSITY CIRCLE (Continued) **S109604309**

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2014
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.004759607
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0.039300302
NOX - Oxides of Nitrogen Tons/Yr:	0.031929806
SOX - Oxides of Sulphur Tons/Yr:	3.3168e-005
Particulate Matter Tons/Yr:	0.001931646
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001854381

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2015
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.004775212
Reactive Organic Gases Tons/Yr:	0.004638726
Carbon Monoxide Emissions Tons/Yr:	0.03942916
NOX - Oxides of Nitrogen Tons/Yr:	0.032034493
SOX - Oxides of Sulphur Tons/Yr:	3.3277e-005
Particulate Matter Tons/Yr:	0.000729979
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.00070078

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2016
County Code:	41
Air Basin:	SF
Facility ID:	15835
Air District Name:	BA
SIC Code:	4931
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.004775212
Reactive Organic Gases Tons/Yr:	0.004195023742
Carbon Monoxide Emissions Tons/Yr:	0.039429161
NOX - Oxides of Nitrogen Tons/Yr:	0.032034493
SOX - Oxides of Sulphur Tons/Yr:	3.3277e-005

UNIVERSITY CIRCLE (Continued) **S109604309**

Particulate Matter Tons/Yr: 0.000729979
Part. Matter 10 Micrometers and Smllr Tons/Yr:0.00070078

CERS:
Name: UNIVERSITY CIRCLE
Address: 1900 UNIVERSITY AVENUE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 501357
CERS ID: 110054203857
CERS Description: US EPA Air Emission Inventory System (EIS)

A21 **UNIVERSITY CIRCLE INVESTORS_(US 101)** **HAZNET** **S112905545**
Target **UNIVERSITY, WOODLAND & MANHATTAN** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 21 of 41 in cluster A

Actual:
32 ft.

HAZNET:
Name: UNIVERSITY CIRCLE INVESTORS_(US 101)
Address: UNIVERSITY, WOODLAND & MANHATTAN
Address 2: Not reported
City,State,Zip: EAST PALO ALTO, CA 943030000
Year: 2000
Gepaid: CAC002225849
Contact: MELISSA BARTOLO/PROJ MGR
Telephone: 5108641022
Mailing Name: Not reported
Mailing Address: 1125 ATLANTIC AVE STE 102
Gen County: 41
Waste Category: Other inorganic solid waste
TSD EPA ID: CAD028409019
TSD County: 19
Disposal Method: Transfer Station
Tons: 0.05

Additional Info:
Year: 2000
Shipment Date: 20000717
Creation Date: 9/25/2000 0:00:00
Receipt Date: 20000718
Manifest ID: 96836829
Gen EPA ID: CAC002225849
Trans EPA ID: CAD028277036
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT080013352
Trans Name: Not reported
TSDF Alt EPA ID: CAT080013352
TSDF Alt Name: Not reported
Waste Code: 222
RCRA Code: Not reported
Meth Code: R01
Quantity Tons: 2.502
Waste Quantity: 600
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454181
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000426
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000426
Manifest ID:	99454182
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454183
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454184
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	61.5244
Waste Quantity:	73
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454185
Gen EPA ID:	CAC002225849

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454186
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	4.214
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454188
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454197
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000517
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454214
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000512
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000515
Manifest ID:	99454215
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000508
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000508
Manifest ID:	99454216
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000505
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000505
Manifest ID:	99454217
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000525
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454221
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.575
Waste Quantity:	3150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000516
Manifest ID:	99454236
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000518
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454237
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000519
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454238

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000523
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000523
Manifest ID:	99454239
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000530
Manifest ID:	99454240
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454241
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454243
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	8.428
Waste Quantity:	10
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000526
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454273
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982524480
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000801
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000804
Manifest ID:	99454278
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	Not reported
TSDF EPA ID:	CAI000827758
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454282
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	62.3672
Waste Quantity:	74
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000602
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454284
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454285
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	10.1136
Waste Quantity:	12
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454286
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000531
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454287

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99454290
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000621
Creation Date:	8/2/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99630894
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD982030173
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD009466392
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000717
Creation Date:	8/28/2000 0:00:00
Receipt Date:	20000720
Manifest ID:	99631266
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	UNIVERSITY CIRCLE INVESTORS_(US 101)
Address:	UNIVERSITY, WOODLAND & MANHATTAN
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2000
Gepaid:	CAC002225849
Contact:	MELISSA BARTOLO/PROJ MGR
Telephone:	5108641022
Mailing Name:	Not reported
Mailing Address:	1125 ATLANTIC AVE STE 102
Gen County:	41
Waste Category:	Other organic solids
TSD EPA ID:	CAD028409019
TSD County:	19

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Disposal Method:	Transfer Station
Tons:	1.875
Additional Info:	
Year:	2000
Shipment Date:	20000717
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000718
Manifest ID:	96836829
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080013352
TSDF Alt Name:	Not reported
Waste Code:	222
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.502
Waste Quantity:	600
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454181
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000426

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000426
Manifest ID:	99454182
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454183
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454184
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	61.5244
Waste Quantity:	73
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454185
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454186
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	4.214
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454188
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454197
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000517
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454214
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000512
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000515
Manifest ID:	99454215
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000508
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000508
Manifest ID:	99454216
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000505
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000505
Manifest ID:	99454217
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Shipment Date:	20000525
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454221
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.575
Waste Quantity:	3150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000516
Manifest ID:	99454236
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000518
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454237
Gen EPA ID:	CAC002225849

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000519
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454238
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000523
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000523
Manifest ID:	99454239
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000530
Manifest ID:	99454240
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454241
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454243
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	8.428
Waste Quantity:	10
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000526
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454273
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982524480
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000801
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000804
Manifest ID:	99454278
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	Not reported
TSDF EPA ID:	CAI000827758
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454282
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	62.3672
Waste Quantity:	74
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000602
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454284
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454285
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	10.1136
Waste Quantity:	12
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454286

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000531
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454287
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99454290
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000621
Creation Date:	8/2/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99630894
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982030173
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD009466392
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000717
Creation Date:	8/28/2000 0:00:00
Receipt Date:	20000720
Manifest ID:	99631266
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	UNIVERSITY CIRCLE INVESTORS_(US 101)
Address:	UNIVERSITY, WOODLAND & MANHATTAN
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2000
Gepaid:	CAC002225849
Contact:	MELISSA BARTOLO/PROJ MGR
Telephone:	5108641022
Mailing Name:	Not reported
Mailing Address:	1125 ATLANTIC AVE STE 102
Gen County:	41
Waste Category:	Oil/water separation sludge
TSD EPA ID:	CAT080013352
TSD County:	19
Disposal Method:	Recycler
Tons:	2.502

Additional Info:

Year:	2000
Shipment Date:	20000717
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000718
Manifest ID:	96836829
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080013352
TSDF Alt Name:	Not reported
Waste Code:	222
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.502
Waste Quantity:	600
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000502

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454181
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000426
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000426
Manifest ID:	99454182
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454183
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454184
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	61.5244
Waste Quantity:	73
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454185
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454186
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	4.214
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454188
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454197
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000517
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454214
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000512
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000515
Manifest ID:	99454215
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000508
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000508
Manifest ID:	99454216
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Shipment Date:	20000505
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000505
Manifest ID:	99454217
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454221
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.575
Waste Quantity:	3150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000516
Manifest ID:	99454236
Gen EPA ID:	CAC002225849

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000518
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454237
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000519
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454238
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000523
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000523
Manifest ID:	99454239
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000530
Manifest ID:	99454240
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454241
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454243
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	8.428
Waste Quantity:	10
Quantity Unit:	Y
Additional Code 1:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000526
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454273
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982524480
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000801
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000804
Manifest ID:	99454278
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	Not reported
TSDF EPA ID:	CAI000827758
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454282
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	62.3672
Waste Quantity:	74
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000602
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454284
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454285

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	10.1136
Waste Quantity:	12
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454286
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000531
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454287
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99454290
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000621
Creation Date:	8/2/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99630894
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982030173
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD009466392
TSDF Alt Name:	Not reported
Waste Code:	512

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000717
Creation Date:	8/28/2000 0:00:00
Receipt Date:	20000720
Manifest ID:	99631266
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Name:	UNIVERSITY CIRCLE INVESTORS_(US 101)
Address:	UNIVERSITY, WOODLAND & MANHATTAN
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2000
Gepaid:	CAC002225849
Contact:	MELISSA BARTOLO/PROJ MGR
Telephone:	5108641022
Mailing Name:	Not reported
Mailing Address:	1125 ATLANTIC AVE STE 102
Gen County:	41
Waste Category:	Asbestos containing waste
TSD EPA ID:	CAD981382732
TSD County:	01
Disposal Method:	Disposal, Land Fill
Tons:	1274.3136

Additional Info:

Year:	2000
Shipment Date:	20000717

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000718
Manifest ID:	96836829
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080013352
TSDF Alt Name:	Not reported
Waste Code:	222
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.502
Waste Quantity:	600
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454181
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000426
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000426
Manifest ID:	99454182
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454183
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454184
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	61.5244
Waste Quantity:	73
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000525
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454185
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454186
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Quantity Tons:	4.214
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454188
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454197
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000517
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454214
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000512
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000515
Manifest ID:	99454215
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Shipment Date:	20000508
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000508
Manifest ID:	99454216
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000505
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000505
Manifest ID:	99454217
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454221
Gen EPA ID:	CAC002225849

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.575
Waste Quantity:	3150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000516
Manifest ID:	99454236
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000518
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454237
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000519
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454238
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000523
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000523
Manifest ID:	99454239
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000530
Manifest ID:	99454240
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454241
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454243
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	8.428
Waste Quantity:	10
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000526
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454273
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982524480
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000801
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000804
Manifest ID:	99454278
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	Not reported
TSDF EPA ID:	CAI000827758
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454282
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	62.3672
Waste Quantity:	74
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000602
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454284

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454285
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	10.1136
Waste Quantity:	12
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454286
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000531
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454287
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99454290
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000621
Creation Date:	8/2/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99630894
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982030173
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD009466392
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000717
Creation Date:	8/28/2000 0:00:00
Receipt Date:	20000720
Manifest ID:	99631266
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	UNIVERSITY CIRCLE INVESTORS_(US 101)
Address:	UNIVERSITY, WOODLAND & MANHATTAN
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2000
Gepaid:	CAC002225849
Contact:	MELISSA BARTOLO/PROJ MGR
Telephone:	5108641022
Mailing Name:	Not reported
Mailing Address:	1125 ATLANTIC AVE STE 102
Gen County:	41
Waste Category:	Polychlorinated biphenyls and material containing PCBs
TSD EPA ID:	CAI000827758
TSD County:	Not reported
Disposal Method:	Disposal, Land Fill
Tons:	0.55

Additional Info:

Year:	2000
Shipment Date:	20000717
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000718
Manifest ID:	96836829
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080013352
TSDF Alt Name:	Not reported
Waste Code:	222
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.502
Waste Quantity:	600
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454181
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000426
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000426
Manifest ID:	99454182
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454183
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454184
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	61.5244
Waste Quantity:	73
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000525
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454185
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454186
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	4.214
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454188
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454197
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000517
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454214
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Shipment Date:	20000512
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000515
Manifest ID:	99454215
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000508
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000508
Manifest ID:	99454216
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000505
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000505
Manifest ID:	99454217
Gen EPA ID:	CAC002225849

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454221
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.575
Waste Quantity:	3150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000516
Manifest ID:	99454236
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000518
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454237
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000519
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454238
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000523
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000523
Manifest ID:	99454239
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000530
Manifest ID:	99454240
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454241
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454243
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	8.428
Waste Quantity:	10
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000526
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454273
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982524480
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000801
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000804
Manifest ID:	99454278
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	Not reported
TSDF EPA ID:	CAI000827758
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454282

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	62.3672
Waste Quantity:	74
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000602
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454284
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454285
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	10.1136
Waste Quantity:	12
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454286
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000531
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454287
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99454290
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000621
Creation Date:	8/2/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99630894
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982030173
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD009466392
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000717
Creation Date:	8/28/2000 0:00:00
Receipt Date:	20000720
Manifest ID:	99631266
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Name:	UNIVERSITY CIRCLE INVESTORS_(US 101)
Address:	UNIVERSITY, WOODLAND & MANHATTAN
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943030000
Year:	2000
Gepaid:	CAC002225849
Contact:	MELISSA BARTOLO/PROJ MGR
Telephone:	5108641022
Mailing Name:	Not reported
Mailing Address:	1125 ATLANTIC AVE STE 102
Gen County:	41
Waste Category:	Other empty containers 30 gallons or more
TSD EPA ID:	CAD009466392
TSD County:	07
Disposal Method:	Recycler
Tons:	0.75

Additional Info:

Year:	2000
Shipment Date:	20000717
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000718
Manifest ID:	96836829
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD028277036

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080013352
TSDF Alt Name:	Not reported
Waste Code:	222
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.502
Waste Quantity:	600
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454181
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000426
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000426
Manifest ID:	99454182
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454183
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454184
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Quantity Tons:	61.5244
Waste Quantity:	73
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000525
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454185
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000510
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000510
Manifest ID:	99454186
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	4.214
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454188
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000502
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000504
Manifest ID:	99454197
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Shipment Date:	20000517
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454214
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000512
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000515
Manifest ID:	99454215
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000508
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000508
Manifest ID:	99454216
Gen EPA ID:	CAC002225849

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000505
Creation Date:	6/21/2000 0:00:00
Receipt Date:	20000505
Manifest ID:	99454217
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000525
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454221
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.575
Waste Quantity:	3150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000516
Manifest ID:	99454236
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000518
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454237
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000519
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000519
Manifest ID:	99454238
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	65.7384
Waste Quantity:	78
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000523
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000523
Manifest ID:	99454239
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000530
Manifest ID:	99454240
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000530
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000601
Manifest ID:	99454241
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Year:	2000
Shipment Date:	20000516
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000517
Manifest ID:	99454243
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	8.428
Waste Quantity:	10
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000526
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454273
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982524480
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000801
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000804
Manifest ID:	99454278

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	Not reported
TSDF EPA ID:	CAI000827758
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454282
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	62.3672
Waste Quantity:	74
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000602
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454284
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	64.0528
Waste Quantity:	76
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454285
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	10.1136
Waste Quantity:	12
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000606
Manifest ID:	99454286
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981382732
TSDF Alt Name:	Not reported
Waste Code:	151

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	58.996
Waste Quantity:	70
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000531
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000602
Manifest ID:	99454287
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAR000017657
Trans Name:	Not reported
Trans 2 EPA ID:	CAD980585780
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	30.3408
Waste Quantity:	36
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000606
Creation Date:	9/25/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99454290
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAL000100467
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982524480
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P

UNIVERSITY CIRCLE INVESTORS_(US 101) (Continued) **S112905545**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000621
Creation Date:	8/2/2000 0:00:00
Receipt Date:	20000621
Manifest ID:	99630894
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982030173
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD009466392
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000717
Creation Date:	8/28/2000 0:00:00
Receipt Date:	20000720
Manifest ID:	99631266
Gen EPA ID:	CAC002225849
Trans EPA ID:	CAD982030173
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

A22 **WOODLAND PARK** **HAZNET** **S123047285**
Target **1950 EUCLID AVENUE #4** **N/A**
Property **E PALO ALTO, CA 95134**

Site 22 of 41 in cluster A

Actual:
32 ft.

HAZNET:

Name:	WOODLAND PARK
Address:	1950 EUCLID AVENUE #4
Address 2:	Not reported
City,State,Zip:	E PALO ALTO, CA 95134
Year:	2017
Gepaid:	CAC002894296
Contact:	WOODLAND PARK
Telephone:	6505443972
Mailing Name:	Not reported
Mailing Address:	1950 EUCLID AVENUE #4
Gen County:	41
Waste Category:	Asbestos containing waste
TSD EPA ID:	CAD981382732
TSD County:	01
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.23

Additional Info:

Year:	2017
Shipment Date:	20170125
Creation Date:	3/27/2017 18:30:29
Receipt Date:	20170202
Manifest ID:	000167236DAT
Gen EPA ID:	CAC002894296
Trans EPA ID:	CAL000371038
Trans Name:	ENVIRONMENTAL REMEDIES INC
Trans 2 EPA ID:	CAL000317320
Trans 2 Name:	UNI WASTE
TSDF EPA ID:	CAD981382732
Trans Name:	ALTAMONT LANDFILL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	0.23
Waste Quantity:	1
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

A23 **FUEL** **San Mateo Co. BI** **S123181762**
Target **1950 UNIVERSITY** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 23 of 41 in cluster A

Actual: **32 ft.**

San Mateo Co. BI:

Name:	FUEL
Address:	1950 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0028213
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0047250
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

A24 **PALO ALTO MEDICAL FOUNDATION** **FINDS** **1023236995**
Target **1950 UNIVERSITY AVE** **N/A**
Property **EAST PALO ALTO, CA 94303**

Site 24 of 41 in cluster A

Actual: **32 ft.**

FINDS:

Registry ID: 110065245238

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A25 **COST LESS CLEANERS** **EDR Hist Cleaner** **1018844483**
1968 UNIVERSITY AVE **N/A**
< 1/8 **PALO ALTO, CA 94303**
1 ft.

Site 25 of 41 in cluster A

Relative: **Higher**

EDR Hist Cleaner

Actual: **32 ft.**

Year:	Name:	Type:
1987	COST LESS CLEANERS	Power Laundries, Family And Commercial
1988	COST LESS CLEANERS	Power Laundries, Family And Commercial
1989	COST LESS CLEANERS	Laundry And Drycleaner Agents
1989	YOO DAL OH & KYUNG IN	Drycleaning Plants, Except Rugs
1990	COST LESS CLEANERS	Laundry And Drycleaner Agents
1991	YOO DALE O	Drycleaning Plants, Except Rugs
1992	YOO DALE O	Drycleaning Plants, Except Rugs
1993	YOO DALE O	Drycleaning Plants, Except Rugs
1994	YOO DALE O	Drycleaning Plants, Except Rugs
1995	YOO DALE O	Drycleaning Plants, Except Rugs
1996	COST-LESS CLEANERS	Drycleaning Plants, Except Rugs
1997	COST-LESS CLEANERS	Drycleaning Plants, Except Rugs
1998	COST-LESS CLEANERS	Drycleaning Plants, Except Rugs
1999	COST-LESS CLEANERS	Drycleaning Plants, Except Rugs
2000	COST-LESS CLEANERS	Laundry And Drycleaner Agents

A26 **CRESCENT CLEANERS** **EDR Hist Cleaner** **1018609123**
1930 UNIVERSITY AVE **N/A**
< 1/8 **PALO ALTO, CA 94301**
1 ft.

Site 26 of 41 in cluster A

Relative: EDR Hist Cleaner
Higher

Actual:
33 ft.

Year:	Name:	Type:
1969	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1970	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1971	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1972	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1973	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1974	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1975	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1975	ROSENTHAL DAVID INC	Drycleaning Plants, Except Rugs
1976	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1977	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1978	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1979	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1980	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1982	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1983	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1985	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1986	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents
1987	CRESCENT CLEANERS	Garment Pressing And Cleaners' Agents

A27 **UNIVERSITY CIRCLE REDEVELOPMENT** **San Mateo Co. BI** **S113757451**
1973 UNIVERSITY **N/A**
< 1/8 **EAST PALO ALTO, CA 94305**
1 ft.

Site 27 of 41 in cluster A

Relative: San Mateo Co. BI:
Higher

Actual:
33 ft.

Name:	UNIVERSITY CIRCLE REDEVELOPMENT
Address:	1973 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94305
Region:	SAN MATEO
Facility ID:	FA0026132
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0037694
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable
Program Category:	UNDERGROUND TANK PROGRAM

B28 **FOUR SEASONS HOTEL** **San Mateo Co. BI** **S113758339**
2050 UNIVERSITY **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
1 ft.

Site 1 of 3 in cluster B

Relative: San Mateo Co. BI:
Lower

Actual:
29 ft.

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0027499

FOUR SEASONS HOTEL (Continued) **S113758339**

Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0050181
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0035723
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0053260
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Active, billable
Program Category: HAZARDOUS WASTE PROGRAM

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0035723
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0053261
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0035723
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0053259
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Active, billable
Program Category: BUSINESS PLAN PROGRAM

A29 **ARCO #749** **LUST** **S104493667**
1998 UNIVERSITY **San Mateo Co. BI** **N/A**
< 1/8 **E PALO ALTO, CA 94303**
1 ft.

Site 28 of 41 in cluster A

Relative: **Lower**
Actual: **31 ft.**

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 890003
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported

ARCO #749 (Continued) **S104493667**

Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

San Mateo Co. BI:
Name: UNIVERSITY ARCO
Address: 1998 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018342
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0025693
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

Name: UNIVERSITY CIRCLE INVESTORS
Address: 1998 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026843
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0039813
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

A30 **UNIVERSITY CIRCLE** **San Mateo Co. BI** **S113757480**
1941 UNIVERSITY **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
1 ft.

Site 29 of 41 in cluster A

Relative: Higher
Actual: 32 ft.

San Mateo Co. BI:
Name: UNIVERSITY CIRCLE
Address: 1941 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026323
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0038006
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

A31 **UNIVERSITY ARCO #749** **SWEEPS UST** **S106826161**
1998 UNIVERSITY AVE **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
1 ft.

Site 30 of 41 in cluster A

Relative: Lower
Actual: 31 ft.

SWEEPS UST:
Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Not reported

UNIVERSITY ARCO #749 (Continued) **S106826161**

Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000006
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REGULAR UNLE
Number Of Tanks:	5

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000007
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REGULAR UNLE
Number Of Tanks:	Not reported

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000008
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REGULAR UNLE
Number Of Tanks:	Not reported

Name:	UNIVERSITY ARCO #749

UNIVERSITY ARCO #749 (Continued) **S106826161**

Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000009
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REGULAR UNLE
Number Of Tanks:	Not reported

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000010
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Active
Comp Number:	890009
Number:	2
Board Of Equalization:	Not reported
Referral Date:	11-08-93
Action Date:	11-08-93
Created Date:	10-13-88
Owner Tank Id:	1
SWRCB Tank Id:	41-000-890009-000001
Tank Status:	A
Capacity:	6000
Active Date:	05-21-91
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED

UNIVERSITY ARCO #749 (Continued) **S106826161**

Number Of Tanks: 5

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 2
SWRCB Tank Id: 41-000-890009-000002
Tank Status: A
Capacity: 6000
Active Date: 05-21-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 3
SWRCB Tank Id: 41-000-890009-000003
Tank Status: A
Capacity: 6000
Active Date: 05-21-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 4
SWRCB Tank Id: 41-000-890009-000004
Tank Status: A
Capacity: 6000
Active Date: 05-21-91

UNIVERSITY ARCO #749 (Continued) **S106826161**

Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 5
SWRCB Tank Id: 41-000-890009-000005
Tank Status: A
Capacity: 500
Active Date: 05-21-91
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

A32 **UNIVERSITY ARCO SERVICE** **EDR Hist Auto** **1020824494**
1998 UNIVERSITY **N/A**
< 1/8 **PALO ALTO, CA 94303**
1 ft.

Site 31 of 41 in cluster A

Relative: EDR Hist Auto
Lower

Actual: **31 ft.**

Year:	Name:	Type:
1973	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1974	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1975	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1976	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1977	UNIVERSITY ARCO SERVICE	Gasoline Service Stations

A33 **CHINA JOY** **San Mateo Co. BI** **S123179779**
1972 UNIVERSITY **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
1 ft.

Site 32 of 41 in cluster A

Relative: San Mateo Co. BI:
Higher

Actual: **33 ft.**

Name: CHINA JOY
Address: 1972 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0002609
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049955
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

CHINA JOY (Continued) **S123179779**

Program Category: STORMWATER

A34 **NASSER DIN ROOHI** **SWEEPS UST** **S101623402**
1998 UNIVERSITY AVE **CA FID UST** **N/A**
< 1/8 **PALO ALTO, CA 94303**
1 ft.

Site 33 of 41 in cluster A

Relative: **Lower**
Actual: **31 ft.**

SWEEPS UST:

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City:	PALO ALTO
Status:	Active
Comp Number:	26961
Number:	9
Board Of Equalization:	44-000506
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	43-006-026961-000001
Tank Status:	A
Capacity:	6000
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City:	PALO ALTO
Status:	Active
Comp Number:	26961
Number:	9
Board Of Equalization:	44-000506
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	2
SWRCB Tank Id:	43-006-026961-000002
Tank Status:	A
Capacity:	6000
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City:	PALO ALTO
Status:	Active
Comp Number:	26961
Number:	9
Board Of Equalization:	44-000506
Referral Date:	07-01-85
Action Date:	Not reported

NASSER DIN ROOHI (Continued) **S101623402**

Created Date: 02-29-88
Owner Tank Id: 3
SWRCB Tank Id: 43-006-026961-000003
Tank Status: A
Capacity: 6000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: NASSER DIN ROOHI
Address: 1998 UNIVERSITY AVE
City: PALO ALTO
Status: Active
Comp Number: 26961
Number: 9
Board Of Equalization: 44-000506
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 4
SWRCB Tank Id: 43-006-026961-000004
Tank Status: A
Capacity: 6000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: NASSER DIN ROOHI
Address: 1998 UNIVERSITY AVE
City: PALO ALTO
Status: Active
Comp Number: 26961
Number: 9
Board Of Equalization: 44-000506
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 5
SWRCB Tank Id: 43-006-026961-000005
Tank Status: A
Capacity: 500
Active Date: 07-01-85
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 43008436
Regulated By: UTNKA
Regulated ID: 00026961
Cortese Code: Not reported
SIC Code: Not reported

NASSER DIN ROOHI (Continued) **S101623402**

Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 1998 UNIVERSITY AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: PALO ALTO 94303
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

A35 **UNIVERSITY ARCO SERVICE** **EDR Hist Auto** **1020785760**
1988 UNIVERSITY AVE **N/A**
< 1/8 **PALO ALTO, CA 94303**
1 ft.

Site 34 of 41 in cluster A

Relative: EDR Hist Auto
Higher

Actual: **32 ft.**

Year:	Name:	Type:
1991	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1992	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1993	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1994	UNIVERSITY ARCO SERVICE	Gasoline Service Stations

A36 **CRESENT CLEANERS** **RCRA-SQG** **1000379931**
1930 UNIVERSITY AVE **FINDS** **CAD981622814**
< 1/8 **PALO ALTO, CA 94303** **ECHO**
1 ft.

Site 35 of 41 in cluster A

Relative: RCRA-SQG:
Higher
Date form received by agency: 1996-09-01 00:00:00.0
Actual: **33 ft.**
Facility name: CRESENT CLEANERS
Facility address: 1930 UNIVERSITY AVE
PALO ALTO, CA 94303
EPA ID: CAD981622814
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ENRIGHT GERALOINE
Owner/operator address: NOT REQUIRED

CRESENT CLEANERS (Continued) **1000379931**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 1986-12-29 00:00:00.0
Site name: CRESENT CLEANERS
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110006472138

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

CRESENT CLEANERS (Continued) **1000379931**

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000379931
Registry ID: 110006472138
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110006472138

A37 **UNIVERSITY ARCO SERVICE** **EDR Hist Auto** **1020736871**
1988 UNIVERSITY **N/A**
< 1/8 **PALO ALTO, CA 94303**
1 ft.

Site 36 of 41 in cluster A

Relative: Higher
Actual: 32 ft.

EDR Hist Auto

Year:	Name:	Type:
1978	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1979	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1980	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1982	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1983	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1985	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1986	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1987	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1988	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1989	UNIVERSITY ARCO SERVICE	Gasoline Service Stations
1990	UNIVERSITY ARCO SERVICE	Gasoline Service Stations

A38 **NASSER DIN ROOHI** **HIST UST** **U001595883**
1998 UNIVERSITY AVE **N/A**
< 1/8 **PALO ALTO, CA 94303**
1 ft.

Site 37 of 41 in cluster A

Relative: Lower
Actual: 31 ft.

HIST UST:
Name: NASSER DIN ROOHI
Address: 1998 UNIVERSITY AVE
City,State,Zip: PALO ALTO, CA 94303
File Number: 0002CDF8
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002CDF8.pdf
Region: STATE
Facility ID: 00000026961
Facility Type: Gas Station
Other Type: Not reported
Contact Name: Not reported
Telephone: 0000000000
Owner Name: ARCO PETROLEUM PRODUCTS CO.
Owner Address: 515 SOUTH FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90071
Total Tanks: 0005

Tank Num: 001

NASSER DIN ROOHI (Continued) **U001595883**

Container Num:	0000000001
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	001
Container Num:	0000000001
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	002
Container Num:	0000000002
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	002
Container Num:	0000000002
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	003
Container Num:	0000000003
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	003
Container Num:	0000000003
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	004
Container Num:	0000000004
Year Installed:	1969
Tank Capacity:	00006000

NASSER DIN ROOHI (Continued) **U001595883**

Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10
Tank Num:	004
Container Num:	0000000004
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10
Tank Num:	005
Container Num:	0000000005
Year Installed:	1969
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	WASTE OIL
Container Construction Thickness:	0000093
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	0000000005
Year Installed:	1969
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	WASTE OIL
Container Construction Thickness:	0000093
Leak Detection:	Stock Inventor

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A39 **ARCO** **LUST** **S101303086**
1998 UNIVERSITY **HIST CORTESE** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303** **CERS**
1 ft.

Site 38 of 41 in cluster A

Relative: LUST:
Lower

Name:	ARCO #0749
Address:	1998 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100031
Global Id:	T0608100031
Latitude:	37.459975
Longitude:	-122.1407063
Status:	Completed - Case Closed
Status Date:	09/25/2000
Case Worker:	DGM
RB Case Number:	41-0032
Local Agency:	SAN MATEO COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	890003
Potential Media Affect:	Other Groundwater (uses other than drinking water)

Actual:
31 ft.

ARCO (Continued) **S101303086**

Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608100031
Contact Type: Local Agency Caseworker
Contact Name: DENO MILANO
Organization Name: SAN MATEO COUNTY LOP
Address: 2000 ALAMEDA DE LAS PULGAS SUITE 100
City: SAN MATEO
Email: dmilano@smcgov.org
Phone Number: 6503726292

Global Id: T0608100031
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100031
Action Type: Other
Date: 02/16/1989
Action: Leak Reported

Global Id: T0608100031
Action Type: Other
Date: 04/01/1988
Action: Leak Discovery

Global Id: T0608100031
Action Type: ENFORCEMENT
Date: 02/16/1989
Action: Notice of Responsibility - #1

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Excavation

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Excavation

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Other (Use Description Field)

ARCO (Continued) **S101303086**

LUST:
Global Id: T0608100031
Status: Open - Case Begin Date
Status Date: 04/01/1988

Global Id: T0608100031
Status: Completed - Case Closed
Status Date: 09/25/2000

SAN MATEO CO. LUST:
Name: ARCO #749
Address: 1998 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890003
Facility Status: 9- Case Closed
Global ID: T0608100031
APN Number: Not reported
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

HIST CORTESE:
edr_fname: ARCO
edr_fadd1: 1998 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 41-0032

CERS:
Name: ARCO #0749
Address: 1998 UNIVERSITY AVENUE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 231379
CERS ID: T0608100031
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: DENO MILANO - SAN MATEO COUNTY LOP
Entity Title: Not reported
Affiliation Address: 2000 ALAMEDA DE LAS PULGAS SUITE 100
Affiliation City: SAN MATEO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 6503726292

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA

ARCO (Continued) **S101303086**

Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

C40 **875 O'CONNER STREET** **US BROWNFIELDS** **1016345736**
NNW **875 O'CONNER STREET** **FINDS** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.008 mi.
44 ft. **Site 1 of 4 in cluster C**

Relative: **Lower**
Actual: **28 ft.**

US BROWNFIELDS:

Name:	875 O'CONNER STREET
Address:	875 O'CONNER STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Recipient Name:	East Palo Alto, City of
Grant Type:	Showcase Community
Property Number:	063-511-480
Parcel size:	.91
Latitude:	37.460712
Longitude:	-122.134383
HCM Label:	Interpolation-Map
Map Scale:	1:24000
Point of Reference:	Entrance Point of a Facility or Station
Highlights:	Not reported
Datum:	World Geodetic System of 1984
Acres Property ID:	15635
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	6262
Assessment Funding Source:	US EPA - Brownfields Assessment Cooperative Agreement
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	12/31/2003 00:00:00
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase II Environmental Assessment
Accomplishment Count:	1
Cooperative Agreement Number:	97931801
Start Date:	11/17/2003 00:00:00
Ownership Entity:	Not reported
Completion Date:	11/17/2003 00:00:00
Current Owner:	John Hunter
Did Owner Change:	Y
Cleanup Required:	N
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Mostly vacant with single family home, nursery
Below Poverty Number:	1420
Below Poverty Percent:	16.1%
Meidan Income:	11862
Meidan Income Number:	4224
Meidan Income Percent:	47.8%
Vacant Housing Number:	313
Vacant Housing Percent:	10.5%
Unemployed Number:	495
Unemployed Percent:	5.6%

Name:	875 O'CONNER STREET
Address:	875 O'CONNER STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Recipient Name:	East Palo Alto, City of
Grant Type:	Showcase Community
Property Number:	063-511-480
Parcel size:	.91
Latitude:	37.460712
Longitude:	-122.134383
HCM Label:	Interpolation-Map
Map Scale:	1:24000
Point of Reference:	Entrance Point of a Facility or Station
Highlights:	Not reported
Datum:	World Geodetic System of 1984
Acres Property ID:	15635
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

Cleanup Funding Source:	Not reported
Assessment Funding:	1
Assessment Funding Source:	Other Federal Funding
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	12/31/2003 00:00:00
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase I Environmental Assessment
Accomplishment Count:	0
Cooperative Agreement Number:	97931801
Start Date:	05/20/2003 00:00:00
Ownership Entity:	Not reported
Completion Date:	05/20/2003 00:00:00
Current Owner:	John Hunter
Did Owner Change:	Y
Cleanup Required:	N
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Mostly vacant with single family home, nursery
Below Poverty Number:	1420
Below Poverty Percent:	16.1%
Meidan Income:	11862
Meidan Income Number:	4224
Meidan Income Percent:	47.8%
Vacant Housing Number:	313

875 O'CONNER STREET (Continued) **1016345736**

Vacant Housing Percent: 10.5%
Unemployed Number: 495
Unemployed Percent: 5.6%

FINDS:

Registry ID: 110038698745

Environmental Interest/Information System
US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A41 **UNOCAL** **HIST CORTESE** **S104660370**
SSE **1901 UNIVERSITY** **N/A**
< 1/8 **PALO ALTO, CA**
0.013 mi.
70 ft. **Site 39 of 41 in cluster A**

Relative: **Lower**
Actual: **26 ft.**

HIST CORTESE:
edr_fname: UNOCAL
edr_fadd1: 1901 UNIVERSITY
City,State,Zip: PALO ALTO, CA
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1578

A42 **UNOCAL #2862** **LUST** **1000167099**
SSE **1901 UNIVERSITY** **SWEEPS UST** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303** **HIST UST**
0.013 mi. **San Mateo Co. BI**
70 ft. **Site 40 of 41 in cluster A** **HIST CORTESE**
CERS

Relative: **Lower**
Actual: **26 ft.**

LUST:
Name: UNOCAL #2862
Address: 1901 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100576
Global Id: T0608100576
Latitude: 37.4580296
Longitude: -122.1418089
Status: Completed - Case Closed
Status Date: 08/31/1993
Case Worker: DGM
RB Case Number: 41-0604
Local Agency: SAN MATEO COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 890005
Potential Media Affect: Other Groundwater (uses other than drinking water)

UNOCAL #2862 (Continued) **1000167099**

Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608100576
Contact Type: Local Agency Caseworker
Contact Name: DENO MILANO
Organization Name: SAN MATEO COUNTY LOP
Address: 2000 ALAMEDA DE LAS PULGAS SUITE 100
City: SAN MATEO
Email: dmilano@smcgov.org
Phone Number: 6503726292

Global Id: T0608100576
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100576
Action Type: Other
Date: 02/02/1990
Action: Leak Reported

Global Id: T0608100576
Action Type: ENFORCEMENT
Date: 02/05/1990
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608100576
Status: Open - Case Begin Date
Status Date: 02/02/1990

Global Id: T0608100576
Status: Completed - Case Closed
Status Date: 08/31/1993

SAN MATEO CO. LUST:
Name: UNOCAL #2862
Address: 1901 MANHATTAN AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890005
Facility Status: 9- Case Closed
Global ID: T0608100576
APN Number: 063473200
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

UNOCAL #2862 (Continued) **1000167099**

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	890005
How Discovered:	OM
Leak Cause:	Unknown
Leak Source:	Unknown
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

SWEEPS UST:

Name:	UNION OIL SERVICE STATION 2862
Address:	1901 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890010
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890010-000004
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	3

Name:	UNION OIL SERVICE STATION 2862
Address:	1901 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890010
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890010-000005
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED

UNOCAL #2862 (Continued) **1000167099**

Number Of Tanks: Not reported

Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Not reported
Comp Number: 890010
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890010-000006
Tank Status: Not reported
Capacity: 280
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890010
Number: 9
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 2862-RU-1
SWRCB Tank Id: 41-000-890010-000001
Tank Status: A
Capacity: 10000
Active Date: 07-06-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890010
Number: 9
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 2862-RU-1
SWRCB Tank Id: 41-000-890010-000002
Tank Status: A
Capacity: 10000
Active Date: 07-06-92

UNOCAL #2862 (Continued) **1000167099**

Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890010
Number: 9
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 2862-WO-1
SWRCB Tank Id: 41-000-890010-000003
Tank Status: A
Capacity: 280
Active Date: 07-06-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:
Name: UNION OIL SS 2862
Address: 1901 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
File Number: 0002C3F4
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002C3F4.pdf
Region: STATE
Facility ID: 00000031714
Facility Type: Gas Station
Other Type: Not reported
Contact Name: A.O.T. INC.
Telephone: 4153221659
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST. SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0003

Tank Num: 001
Container Num: 2862-1-1
Year Installed: 1965
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 001
Container Num: 2862-1-1
Year Installed: 1965
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED

UNOCAL #2862 (Continued) **1000167099**

Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	2862-2-1
Year Installed:	1965
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	2862-2-1
Year Installed:	1965
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, 10
Tank Num:	003
Container Num:	2862-4-1
Year Installed:	Not reported
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	2862-4-1
Year Installed:	Not reported
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	1
Year Installed:	1965
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	6
Leak Detection:	Visual
Tank Num:	004
Container Num:	1
Year Installed:	1965
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	6
Leak Detection:	Visual

UNOCAL #2862 (Continued) **1000167099**

Click here for Geo Tracker PDF:

San Mateo Co. BI:

Name:	UNOCAL SERVICE STATION 2862
Address:	1901 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0018326
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0025694
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable
Program Category:	UNDERGROUND TANK PROGRAM

HIST CORTESE:

edr_fname:	UNOCAL
edr_fadd1:	1901 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA
Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-0604

CERS:

Name:	UNOCAL #2862
Address:	1901 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	205219
CERS ID:	T0608100576
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	DENO MILANO - SAN MATEO COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	2000 ALAMEDA DE LAS PULGAS SUITE 100
Affiliation City:	SAN MATEO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	6503726292

A43 **KUBALL ALBERT JR** **EDR Hist Auto** **1021846962**
SSE **1901 UNIVERSITY AVE** **N/A**
< 1/8 **PALO ALTO, CA 94303**
0.013 mi.
70 ft. **Site 41 of 41 in cluster A**

Relative: EDR Hist Auto
Lower

Actual: **26 ft.**

Year:	Name:	Type:
1969	KUBALL ALBERT JR	Gasoline Service Stations
1970	KUBALL ALBERT JR	Gasoline Service Stations
1971	KUBALL ALBERT JR	Gasoline Service Stations
1972	KUBALL ALBERT JR	Gasoline Service Stations
1973	KUBALL ALBERT JR	Gasoline Service Stations
1974	KUBALL ALBERT JR	Gasoline Service Stations
1975	KUBALL ALBERT JR	Gasoline Service Stations
1976	KUBALL ALBERT JR	Gasoline Service Stations
1977	KUBALL ALBERT JR	Gasoline Service Stations
1989	UNIVERSITY UNION SERVICE	Gasoline Service Stations
1990	UNIVERSITY UNION SERVICE	Gasoline Service Stations
1991	UNIVERSITY UNION SERVICE	Gasoline Service Stations
1992	UNIVERSITY UNION SERVICE	Gasoline Service Stations
1993	UNIVERSITY UNION SERVICE	Gasoline Service Stations

B44 **FOUR SEASONS HOTEL** **CERS HAZ WASTE** **S113140090**
NNE **2050 UNIVERSITY AVE** **HAZNET** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303** **CERS**
0.017 mi.
90 ft. **Site 2 of 3 in cluster B**

Relative: CERS HAZ WASTE:
Lower
Name: FOUR SEASONS HOTEL
Actual: Address: 2050 UNIVERSITY AVE
29 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 31369
CERS ID: 10070101
CERS Description: Hazardous Waste Generator

HAZNET:
Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
Address 2: Not reported
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2011
Gepaid: CAL000300997
Contact: DANIEL RUGG DIR OF ENGINEERING
Telephone: 6504702831
Mailing Name: Not reported
Mailing Address: 2050 UNIVERSITY AVE
Gen County: 41
Waste Category: Unspecified aqueous solution
TSD EPA ID: CAD982444481
TSD County: 36
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.903

Additional Info:
Year: 2011
Shipment Date: 20110610

FOUR SEASONS HOTEL (Continued) **S113140090**

Creation Date:	7/27/2011 18:30:24
Receipt Date:	20110617
Manifest ID:	003161491FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.21
Waste Quantity:	50
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110610
Creation Date:	7/27/2011 18:30:24
Receipt Date:	20110617
Manifest ID:	003161491FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	331
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.66
Waste Quantity:	200
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110610
Creation Date:	7/27/2011 18:30:24
Receipt Date:	20110617
Manifest ID:	003161491FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399

FOUR SEASONS HOTEL (Continued) **S113140090**

Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.231
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110610
Creation Date:	6/24/2012 20:30:07
Receipt Date:	20110617
Manifest ID:	004546732FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.275
Waste Quantity:	550
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110928
Creation Date:	12/27/2011 18:30:48
Receipt Date:	20111011
Manifest ID:	004551027FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC

FOUR SEASONS HOTEL (Continued) **S113140090**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.462
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110928
Creation Date:	7/19/2012 22:00:18
Receipt Date:	20111004
Manifest ID:	004551028FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.125
Waste Quantity:	250
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2011
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Off-specification, aged or surplus organics
TSD EPA ID:	CAD982444481
TSD County:	36
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

FOUR SEASONS HOTEL (Continued) **S113140090**

Tons: 0.66

Additional Info:

Year: 2011
Shipment Date: 20110610
Creation Date: 7/27/2011 18:30:24
Receipt Date: 20110617
Manifest ID: 003161491FLE
Gen EPA ID: CAL000300997
Trans EPA ID: CAD982492399
Trans Name: ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID: CAR000217513
Trans 2 Name: ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 135
RCRA Code: Not reported
Meth Code: H141
Quantity Tons: 0.21
Waste Quantity: 50
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Year: 2011
Shipment Date: 20110610
Creation Date: 7/27/2011 18:30:24
Receipt Date: 20110617
Manifest ID: 003161491FLE
Gen EPA ID: CAL000300997
Trans EPA ID: CAD982492399
Trans Name: ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID: CAR000217513
Trans 2 Name: ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 331
RCRA Code: Not reported
Meth Code: H141
Quantity Tons: 0.66
Waste Quantity: 200
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Year: 2011
Shipment Date: 20110610
Creation Date: 7/27/2011 18:30:24

FOUR SEASONS HOTEL (Continued) **S113140090**

Receipt Date:	20110617
Manifest ID:	003161491FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.231
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110610
Creation Date:	6/24/2012 20:30:07
Receipt Date:	20110617
Manifest ID:	004546732FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.275
Waste Quantity:	550
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110928
Creation Date:	12/27/2011 18:30:48
Receipt Date:	20111011
Manifest ID:	004551027FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC

FOUR SEASONS HOTEL (Continued) **S113140090**

Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.462
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110928
Creation Date:	7/19/2012 22:00:18
Receipt Date:	20111004
Manifest ID:	004551028FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.125
Waste Quantity:	250
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2011
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Other organic solids

FOUR SEASONS HOTEL (Continued) **S113140090**

TSD EPA ID: CAD059494310
TSD County: 43
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.4

Additional Info:
Year: 2011
Shipment Date: 20110610
Creation Date: 7/27/2011 18:30:24
Receipt Date: 20110617
Manifest ID: 003161491FLE
Gen EPA ID: CAL000300997
Trans EPA ID: CAD982492399
Trans Name: ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID: CAR000217513
Trans 2 Name: ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 135
RCRA Code: Not reported
Meth Code: H141
Quantity Tons: 0.21
Waste Quantity: 50
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Year: 2011
Shipment Date: 20110610
Creation Date: 7/27/2011 18:30:24
Receipt Date: 20110617
Manifest ID: 003161491FLE
Gen EPA ID: CAL000300997
Trans EPA ID: CAD982492399
Trans Name: ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID: CAR000217513
Trans 2 Name: ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 331
RCRA Code: Not reported
Meth Code: H141
Quantity Tons: 0.66
Waste Quantity: 200
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

FOUR SEASONS HOTEL (Continued) **S113140090**

Year:	2011
Shipment Date:	20110610
Creation Date:	7/27/2011 18:30:24
Receipt Date:	20110617
Manifest ID:	003161491FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.231
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110610
Creation Date:	6/24/2012 20:30:07
Receipt Date:	20110617
Manifest ID:	004546732FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.275
Waste Quantity:	550
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110928
Creation Date:	12/27/2011 18:30:48
Receipt Date:	20111011
Manifest ID:	004551027FLE

FOUR SEASONS HOTEL (Continued) **S113140090**

Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000217513
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.462
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2011
Shipment Date:	20110928
Creation Date:	7/19/2012 22:00:18
Receipt Date:	20111004
Manifest ID:	004551028FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.125
Waste Quantity:	250
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2009
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported

FOUR SEASONS HOTEL (Continued) **S113140090**

Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Other organic solids
TSD EPA ID:	CAD059494310
TSD County:	43
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.08

Additional Info:

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	741
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	751
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007

FOUR SEASONS HOTEL (Continued) **S113140090**

Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2009
Shipment Date:	20091221
Creation Date:	3/11/2010 18:30:08
Receipt Date:	20100104
Manifest ID:	002497201FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000172478
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.42
Waste Quantity:	100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2009
Shipment Date:	20091221
Creation Date:	3/5/2010 18:31:07
Receipt Date:	20091230
Manifest ID:	002497331FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.08
Waste Quantity:	160
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

FOUR SEASONS HOTEL (Continued) **S113140090**

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2009
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Unspecified aqueous solution
TSD EPA ID:	CAD982444481
TSD County:	36
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.42

Additional Info:

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	741
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported

FOUR SEASONS HOTEL (Continued) **S113140090**

TSDF Alt Name:	Not reported
Waste Code:	751
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2009
Shipment Date:	20091221
Creation Date:	3/11/2010 18:30:08
Receipt Date:	20100104
Manifest ID:	002497201FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000172478
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.42
Waste Quantity:	100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2009
Shipment Date:	20091221
Creation Date:	3/5/2010 18:31:07
Receipt Date:	20091230
Manifest ID:	002497331FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.08

FOUR SEASONS HOTEL (Continued) **S113140090**

Waste Quantity:	160
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2009
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Solids or sludges with halogenated organic compounds >= 1,000 Mg./L
TSD EPA ID:	TXD077603371
TSD County:	99
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3

Additional Info:

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	741
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825

FOUR SEASONS HOTEL (Continued) **S113140090**

Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	751
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2009
Shipment Date:	20091221
Creation Date:	3/11/2010 18:30:08
Receipt Date:	20100104
Manifest ID:	002497201FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000172478
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.42
Waste Quantity:	100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2009
Shipment Date:	20091221
Creation Date:	3/5/2010 18:31:07
Receipt Date:	20091230
Manifest ID:	002497331FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250

FOUR SEASONS HOTEL (Continued) **S113140090**

Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.08
Waste Quantity:	160
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2009
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
TSD EPA ID:	TXD077603371
TSD County:	99
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.4

Additional Info:

Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	741
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	D039

FOUR SEASONS HOTEL (Continued) **S113140090**

Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2009
Shipment Date:	20090807
Creation Date:	1/8/2010 18:30:56
Receipt Date:	20090825
Manifest ID:	002017089SKS
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	751
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D007
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2009
Shipment Date:	20091221
Creation Date:	3/11/2010 18:30:08
Receipt Date:	20100104
Manifest ID:	002497201FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000172478
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.42
Waste Quantity:	100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

FOUR SEASONS HOTEL (Continued) **S113140090**

Year:	2009
Shipment Date:	20091221
Creation Date:	3/5/2010 18:31:07
Receipt Date:	20091230
Manifest ID:	002497331FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.08
Waste Quantity:	160
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2010
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Other organic solids
TSD EPA ID:	CAD059494310
TSD County:	43
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.2

Additional Info:

Year:	2010
Shipment Date:	20100916
Creation Date:	12/16/2010 18:30:19
Receipt Date:	20100924
Manifest ID:	003545636FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	CAR000172478
Trans 2 Name:	ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING SERVICES INC

FOUR SEASONS HOTEL (Continued) **S113140090**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	135
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.63
Waste Quantity:	150
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2010
Shipment Date:	20100916
Creation Date:	12/16/2010 18:30:33
Receipt Date:	20100924
Manifest ID:	003545704FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	CAD982492399
Trans Name:	ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENV SERVICES
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2010
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Unspecified aqueous solution
TSD EPA ID:	CAD982444481
TSD County:	36
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

FOUR SEASONS HOTEL (Continued) **S113140090**

Tons: 0.63

Additional Info:

Year: 2010
Shipment Date: 20100916
Creation Date: 12/16/2010 18:30:19
Receipt Date: 20100924
Manifest ID: 003545636FLE
Gen EPA ID: CAL000300997
Trans EPA ID: CAD982492399
Trans Name: ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID: CAR000172478
Trans 2 Name: ENVIRONMENTAL LOGISTICS INC
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING SERVICES INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 135
RCRA Code: Not reported
Meth Code: H141
Quantity Tons: 0.63
Waste Quantity: 150
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Year: 2010
Shipment Date: 20100916
Creation Date: 12/16/2010 18:30:33
Receipt Date: 20100924
Manifest ID: 003545704FLE
Gen EPA ID: CAL000300997
Trans EPA ID: CAD982492399
Trans Name: ALL CHEMICAL DISPOSAL INC
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS ENV SERVICES
TSDF EPA ID: CAD059494310
Trans Name: CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 352
RCRA Code: Not reported
Meth Code: H141
Quantity Tons: 0.2
Waste Quantity: 400
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE

FOUR SEASONS HOTEL (Continued) **S113140090**

Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2012
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41
Waste Category:	Other organic solids
TSD EPA ID:	CAD059494310
TSD County:	43
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.21

Additional Info:

Year:	2012
Shipment Date:	20120207
Creation Date:	7/19/2012 22:00:24
Receipt Date:	20120210
Manifest ID:	005091236FLE
Gen EPA ID:	CAL000300997
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	352
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.21
Waste Quantity:	420
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Click this hyperlink while viewing on your computer to access
5 additional CA HAZNET: record(s) in the EDR Site Report.

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2006
Gepaid:	CAL000300997
Contact:	DANIEL RUGG DIR OF ENGINEERING
Telephone:	6504702831
Mailing Name:	Not reported
Mailing Address:	2050 UNIVERSITY AVE
Gen County:	41

FOUR SEASONS HOTEL (Continued) **S113140090**

Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
TSD EPA ID:	TXD077603371
TSD County:	99
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.55

Additional Info:

Year:	2006
Shipment Date:	20060929
Creation Date:	7/13/2007 18:30:12
Receipt Date:	20061016
Manifest ID:	001821953JJK
Gen EPA ID:	CAL000300997
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD
TSDF EPA ID:	TXD077603371
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	741
RCRA Code:	D040
Meth Code:	H141
Quantity Tons:	0.55
Waste Quantity:	1100
Quantity Unit:	P
Additional Code 1:	D039
Additional Code 2:	D001
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Click this hyperlink while viewing on your computer to access
5 additional CA HAZNET: record(s) in the EDR Site Report.

CERS:

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	31369
CERS ID:	10070101
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	01-31-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Training records not available during the inspection. Within 30 days, please provide verification of the training of all staff in emergency

FOUR SEASONS HOTEL (Continued) **S113140090**

response and spill cleanup within the last 12 months.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5
Violation Description: Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.
Violation Notes: Returned to compliance on 01/08/2014.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Release/Leaks/Spills - General
Violation Notes: Returned to compliance on 03/02/2016. Your facility has spills that I observed that have not been cleaned up. You must clean up all spills immediately upon discovery. Two areas where spills were observed: 1. Elevator mechanical room; spilled oil 2. Laundry chemical room; spills all over floor, walls and drums Additionally your dock storage closet for the pool chemicals contains chemicals incompatibly stored. This type of storage could lead to a leak or release. Clean up closet immediately Clean up these areas immediately and provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 23 66273.36 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.36
Violation Description: Failure of the universal waste handler to initially train and provide annually, thereafter, all personnel who manage or who supervise those who manage universal wastes and to maintain a written record by date indicating the names of personnel who received the information. The universal waste handler shall maintain these records for at least three years from the date the person last managed any universal waste at the facility. This training shall include: 1) The types and hazards associated with the universal waste that personnel may manage at the facility; 2) The proper disposition of universal wastes managed at the facility; 3) The proper procedures for responding to releases of universal wastes including the position titles and the means of contacting those personnel at the facility who are designated to respond to reports of releases and/or to respond to questions received

FOUR SEASONS HOTEL (Continued) **S113140090**

from other personnel at the facility; and 4) The applicable requirements of universal waste regarding labeling, collecting, handling, consolidating, and shipping universal wastes at the facility, including, but not limited to, the prohibition on the disposal of universal wastes, and for personnel involved in shipping universal wastes who are G hazmat employeesG .

Violation Notes: Returned to compliance on 04/04/2016. There is no records for employees handling universal waste that they have been trained on universal waste. All employees handling universal waste must be trained to do so. Train employees and provide verification to the County within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain and/or maintain an Active EPA ID.
Violation Notes: Returned to compliance on 03/02/2016. Your EPA number is inactive. You must have an active EPA number. Reactivate and provide verification to the County within 30 days. DTSC Form 1358 provided
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes: Returned to compliance on 03/02/2016. There is no evidence of your hazardous waste being shipped off-site since August 2014. I also observed numerous waste containers (Dry cleaning waste). in the Garage storage cage unlabeled and old (based on generation rates). You must dispose of waste every 180 days. Dispose of all waste on-site immediately and provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes: Returned to compliance on 04/04/2016. There is no records for employees handling hazardous waste that they have been trained on hazardous waste. All employees handling waste must be trained to do so. Train employees and provide verification to the County within 30

FOUR SEASONS HOTEL (Continued) **S113140090**

	days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	01-31-2018
Citation:	HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 02/26/2018. HMBP must be certified annually. Last submission was September 2015. Please review and revise HMBP as needed within 30 days of receipt of new userID and password for the portal.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	10-29-2013
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to ensure incompatible waste and/or materials are not placed or stored in the same container or nearby or into an unwashed container, which previously contained incompatible waste and/or materials, so that it does not potentially result in the following: 1) Generate extreme heat or pressure, fire or explosion, or violent reaction; 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; 3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; 4) Damage the structural integrity of the device or facility containing the waste; or 5) Through other like means threaten human health or the environment.
Violation Notes:	Returned to compliance on 01/08/2014. Pool chemicals observed store together in a closet, muriatic acid and hypochlorite solution should be segregated to prevent chlorine gas.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	01-31-2018
Citation:	22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35
Violation Description:	Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.
Violation Notes:	Returned to compliance on 03/22/2018. See narrative for violation for hazardous waste above.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW

FOUR SEASONS HOTEL (Continued) **S113140090**

Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	10-29-2013
Citation:	HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Description:	Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes:	Returned to compliance on 01/08/2014. Diesel fuel for backup generator not reported on HMBP
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	22 CCR 23 66273.5 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.5
Violation Description:	Failure to properly manage mercury containing lamp bulbs which are destined for reclamation or recycling from the date the bulbs were first discarded or broken.
Violation Notes:	Returned to compliance on 03/02/2016. Your universal waste must be stored in closed containers when not actively filling them. Your batteries drums are overflowing and your lamps are stored in a box without a lid. Place all universal waste in a closed container. Provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 03/02/2016. Every waste container that I observed was incorrectly labeled or not labeled at all. All waste containers must be labeled compliantly. label all waste containers immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	01-31-2018
Citation:	HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95, Section(s) 25505.1
Violation Description:	Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.

FOUR SEASONS HOTEL (Continued) **S113140090**

Violation Notes:	The owner of the property must be given written notification of the storage of hazardous materials onsite and the availability of the HMBP. If Four Seasons leases the property, please use the template provided by the inspector (with revisions, as needed) to notify the property owner within 30 days and copy the inspector. Otherwise, within 30 days please provide a statement that Four Seasons is the property owner.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	10-29-2013
Citation:	22 CCR 23 66273.5 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.5
Violation Description:	Failure to properly manage mercury containing lamp bulbs which are destined for reclamation or recycling from the date the bulbs were first discarded or broken.
Violation Notes:	Returned to compliance on 01/08/2014.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	01-31-2018
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes:	Returned to compliance on 03/22/2018. EPAID# has become deactivated. Please re-activate the number within 30 days. Use the materials provided by the inspector to re-activate the number and ensure electronic verification, which should enable better maintenance of the EPAID#.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 03/02/2016. Your facility has spills that I observed that have not been cleaned up. You must clean up all spills immediately upon discovery. Two areas where spills were observed: 1. Elevator mechanical room; spilled oil 2. Laundry chemical room; spills all over floor, walls and drums Additionally your dock storage closet for the pool chemicals contains chemicals incompatibly stored. This

FOUR SEASONS HOTEL (Continued) **S113140090**

type of storage could lead to a leak or release. Clean up closet immediately Clean up these areas immediately and provide verification to the County within 30 days

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description: Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes: Returned to compliance on 01/08/2014. Facility had blocked eyewash station, blocked fire extinguishers throughout the kitchen and a blocked emergency gas shutoff valve.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 19 CCR 4 2729.2(a)(1) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(1)
Violation Description: Owner/Operator failed to complete and/or submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes: Returned to compliance on 01/08/2014. 24 hour emergency response phone numbers not accurate on plan. One employee is no longer with the company.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34
Violation Description: Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal

FOUR SEASONS HOTEL (Continued) **S113140090**

wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".
Violation Notes: Returned to compliance on 03/02/2016. Your universal waste containers(batteries & lamps) are not labeled properly. All universal waste containers must be labeled compliantly. label all containers immediately and provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 03/02/2016. Based upon my observations of noncompliance with waste containers I believe you do not have an inspection program. You must inspect your waste areas weekly to ensure compliance. Develop a procedure for weekly inspections, maintain this program and provide verification of such a program to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.
Violation Notes: Returned to compliance on 03/30/2018. Observed hazardous dry cleaner waste in a drum with start date of November 2016 and universal fluorescent tubes with a start date of February 2016. All hazardous waste must be disposed within 6 months of accumulation start date and all universal waste must be disposed within a year of accumulation start date. Please dispose of these two waste streams within the next 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95,

FOUR SEASONS HOTEL (Continued) **S113140090**

Section(s) Multiple
Violation Description: Business Plan Program - Release/Leaks/Spills - General
Violation Notes: Returned to compliance on 03/22/2018. Spills observed in the dry cleaning chemicals storage area. Please clean up these spills immediately and maintain the area spill free. Provide verification of cleanup to inspector within 7 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-31-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-03-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-30-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

FOUR SEASONS HOTEL (Continued) **S113140090**

Eval Date:	10-29-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-31-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	portal approvals
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-31-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-03-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-22-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

FOUR SEASONS HOTEL (Continued) **S113140090**

Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Site Address: 2050 UNIVERSITY AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-29-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Site Address: 2050 UNIVERSITY AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-29-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Nilesh Lal
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2050 UNIVERSITY AVE

FOUR SEASONS HOTEL (Continued) **S113140090**

Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	EPA HOTEL DEVELOPMENT LLC
Entity Title:	Not reported
Affiliation Address:	2050 university
Affiliation City:	east palo alto
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94303
Affiliation Phone:	(650) 566-1200
Affiliation Type Desc:	Property Owner
Entity Name:	FourSeasons Hotel
Entity Title:	Not reported
Affiliation Address:	2050 university ave
Affiliation City:	east palo alto
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94303
Affiliation Phone:	(650) 566-1221
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Nilesh Lal
Entity Title:	Not reported
Affiliation Address:	2050 university ave
Affiliation City:	east palo alto
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Nilesh Lal
Entity Title:	Chief Engineer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator

FOUR SEASONS HOTEL (Continued) **S113140090**

Entity Name:	Fourseasons Hotel
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 470-2831
Affiliation Type Desc:	Parent Corporation
Entity Name:	FOUR SEASONS HOTEL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

B45 **FOUR SEASONS HOTEL SILICON VALLEY** **RCRA-SQG** **1024876664**
NNE **2050 UNIVERSITY AVE** **CAR000280834**
< 1/8 **PALO ALTO, CA 94303**
0.017 mi.
90 ft. **Site 3 of 3 in cluster B**

Relative:
Lower

Actual:
29 ft.

RCRA-SQG:

Date form received by agency:	2018-02-26 00:00:00.0
Facility name:	FOUR SEASONS HOTEL SILICON VALLEY
Facility address:	2050 UNIVERSITY AVE PALO ALTO, CA 94303
EPA ID:	CAR000280834
Mailing address:	UNIVERSITY AVE PALO ALTO, CA 94303
Contact:	NILESH LAL
Contact address:	UNIVERSITY AVE PALO ALTO, CA 94303
Contact country:	US
Contact telephone:	650-470-2831
Contact email:	NILESH.LAL@FOURSEASONS.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	DTRS PALO ALTO
Owner/operator address:	UNIVERSITY AVENUE PALO ALTO, CA 94303
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported

FOUR SEASONS HOTEL SILICON VALLEY (Continued) **1024876664**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: DTRS PALO ALTO
Owner/operator address: UNIVERSITY AVENUE
PALO ALTO, CA 94303
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:

. Waste code: 121
. Waste name: Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)

. Waste code: F039
. Waste name: LEACHATE RESULTING FROM THE TREATMENT, STORAGE, OR DISPOSAL OF WASTES CLASSIFIED BY MORE THAN ONE WASTE CODE UNDER SUBPART D, OR FROM A MIXTURE OF WASTES CLASSIFIED UNDER SUBPARTS C AND D OF THIS PART. (LEACHATE RESULTING FROM THE MANAGEMENT OF ONE OR MORE OF THE FOLLOWING EPA HAZARDOUS WASTES AND NO OTHER HAZARDOUS WASTES RETAINS ITS HAZARDOUS WASTE CODE(S): F020, F021, F022, F023, F026, F027, AND/OR F028.)

Violation Status: No violations found

C46 **PENBAY CORPORATION** **EDR Hist Cleaner** **1020060857**
NNW **1997 MANHATTAN** **N/A**
< 1/8 **PALO ALTO, CA 94303**
0.017 mi.
92 ft. **Site 2 of 4 in cluster C**

Relative: EDR Hist Cleaner
Lower

Actual:
28 ft.

Year:	Name:	Type:
1971	PENBAY CORPORATION	Drycleaning Plants, Except Rugs
1972	PENBAY CORPORATION	Drycleaning Plants, Except Rugs
1973	PENBAY CORPORATION	Drycleaning Plants, Except Rugs
1974	PENBAY CORPORATION	Drycleaning Plants, Except Rugs

C47 **THE FRIENDLY PLACE RESTAURANT** **San Mateo Co. BI** **S123180611**
NNW **583 OCONNOR** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.035 mi.
183 ft. **Site 3 of 4 in cluster C**

Relative: San Mateo Co. BI:
Lower

Actual:
28 ft.

Name:	THE FRIENDLY PLACE RESTAURANT
Address:	583 OCONNOR
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0022540
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0049958
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

C48 **DOBKO CHEVRON SERVICE** **EDR Hist Auto** **1021511788**
NNW **555 OCONNOR** **N/A**
< 1/8 **PALO ALTO, CA 94303**
0.037 mi.
196 ft. **Site 4 of 4 in cluster C**

Relative: EDR Hist Auto
Lower

Actual:
28 ft.

Year:	Name:	Type:
1969	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1970	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1971	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1972	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1973	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1974	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1975	DOBKO CHEVRON SERVICE	Gasoline Service Stations

D49 **LA TIENDITA MARKET** **San Mateo Co. BI** **S123182953**
NW **510 OCONNOR** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.062 mi.
330 ft. **Site 1 of 4 in cluster D**

Relative: San Mateo Co. BI:
Lower
Actual: Name: LA TIENDITA MARKET
29 ft. Address: 510 OCONNOR
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0049775
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0068167
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

D50 **LA TIENDITA MARKET** **San Mateo Co. BI** **S123181867**
NW **510 OCONNOR** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.062 mi.
330 ft. **Site 2 of 4 in cluster D**

Relative: San Mateo Co. BI:
Lower
Actual: Name: LA TIENDITA MARKET
29 ft. Address: 510 OCONNOR
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0028724
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049949
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

D51 **RAVENSWOOD SCHOOL** **RCRA NonGen / NLR** **1024745011**
NW **2021 EUCLID AVENUE** **CAC002964777**
< 1/8 **EAST PALO ALTO, CA 94303**
0.089 mi.
471 ft. **Site 3 of 4 in cluster D**

Relative: RCRA NonGen / NLR:
Lower
Date form received by agency: 2018-06-04 00:00:00.0
Actual: Facility name: RAVENSWOOD SCHOOL
28 ft. Facility address: 2021 EUCLID AVENUE
EAST PALO ALTO, CA 94303
EPA ID: CAC002964777
Contact: STEVE EICHMAN, CBO
Contact address: 2021 EUCLID AVENUE
EAST PALO ALTO, CA 94303
Contact country: Not reported
Contact telephone: 650-329-2800
Contact email: ANNIELIZ.BRIDGES@US.BELFOR.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

RAVENSWOOD SCHOOL (Continued) **1024745011**

Owner/Operator Summary:

Owner/operator name:	STEVE EICHMAN, CBO
Owner/operator address:	2021 EUCLID AVENUE EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-329-2800
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	STEVE EICHMAN, CBO
Owner/operator address:	2021 EUCLID AVENUE EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-329-2800
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

D52 **RESIDENCE** **San Mateo Co. BI** **S106981806**
NW **495 OCONNOR** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.090 mi.
477 ft. **Site 4 of 4 in cluster D**

Relative:
Lower

Actual:
29 ft.

San Mateo Co. BI:

Name:	RESIDENCE
Address:	495 OCONNOR
City,State,Zip:	MENLO PARK, CA 94025
Region:	SAN MATEO
Facility ID:	FA0023894

RESIDENCE (Continued) **S106981806**

Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0028006
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

E53 **THE SOBRATO ORGANIZATION** **San Mateo Co. BI** **S124430740**
NNE **2100 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.134 mi.
706 ft. **Site 1 of 10 in cluster E**

Relative: San Mateo Co. BI:
Lower
Name: THE SOBRATO ORGANIZATION
Actual: Address: 2100 UNIVERSITY
23 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0066310
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0089435
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Active, billable
Program Category: BUSINESS PLAN PROGRAM

E54 **RAVENSWOOD COMMUNITY** **San Mateo Co. BI** **S123180386**
NNE **2100 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.134 mi.
706 ft. **Site 2 of 10 in cluster E**

Relative: San Mateo Co. BI:
Lower
Name: RAVENSWOOD COMMUNITY
Actual: Address: 2100 UNIVERSITY
23 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0014587
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041654
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

E55 **CHEVRON 91081** **RCRA NonGen / NLR** **1025882661**
North **2101 UNIVERSITY AVE** **CAR000148007**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.134 mi.
710 ft. **Site 3 of 10 in cluster E**

Relative: RCRA NonGen / NLR:
Lower
Date form received by agency: 2004-06-18 00:00:00.0
Actual: Facility name: CHEVRON 91081
23 ft. Facility address: 2101 UNIVERSITY AVE
EAST PALO ALTO, CA 94303-0000
EPA ID: CAR000148007
Mailing address: PO BOX 6004

CHEVRON 91081 (Continued) **1025882661**

SAN RAMON, CA 94583-0000
Contact: KWAME AWUKU
Contact address: 6001 BOLLINGER CANYON RD.
SAN RAMON, CA 94583
Contact country: Not reported
Contact telephone: 877-386-6044
Contact email: NAWTDESK@CHEVRON.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: CHEVRON OF LONG BEACH
Owner/operator address: PO BOX 6004
SAN RAMON, CA 94583
Owner/operator country: Not reported
Owner/operator telephone: 877-386-6044
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CHEVRON PRODUCTS CO
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 1997-02-03 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: CHEVRON PRODUCTS CO
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1997-02-03 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: KWAME AWUKU
Owner/operator address: 6001 BOLLINGER CANYON RD.
SAN RAMON, CA 94583
Owner/operator country: Not reported
Owner/operator telephone: 877-386-6044
Owner/operator email: Not reported

CHEVRON 91081 (Continued) **1025882661**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: Yes
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 2003-09-11 00:00:00.0
Site name: CHEVRON 91081
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

E56 **CHEVRON 9-1081** **LUST** **S105030392**
North **2101 UNIVERSITY** **San Mateo Co. BI** **N/A**
1/8-1/4 **E PALO ALTO, CA 94303**
0.134 mi.
710 ft. **Site 4 of 10 in cluster E**

Relative: **Lower**
Actual: **23 ft.**

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Pollution Characterization
Case Number: 890013
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported

CHEVRON 9-1081 (Continued) **S105030392**

Pollution Characterization Began: 1/1/1965
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

San Mateo Co. BI:

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0038463
Description: GENERATES <27 GAL/YEAR
Facility Status: Active, billable
Program Category: HAZARDOUS WASTE PROGRAM

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040386
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0025552
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Active, billable
Program Category: BUSINESS PLAN PROGRAM

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0022981
Description: UNDERGROUND TANK - GENERAL
Facility Status: Active, billable
Program Category: UNDERGROUND TANK PROGRAM

E57 **CHEVRON SERVICE STATION 91081** **LUST** **S103641369**
North **2101 UNIVERSITY AVE** **SWEEPS UST** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **HIST CORTESE**
0.134 mi. **CERS**
710 ft. **Site 5 of 10 in cluster E**

Relative: **Lower**
Actual: **23 ft.**

LUST:

Name:	CHEVRON 9-1081
Address:	2101 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100926
Global Id:	T0608100926
Latitude:	37.462912312
Longitude:	-122.14197901
Status:	Completed - Case Closed
Status Date:	07/17/2012
Case Worker:	Not reported
RB Case Number:	41-1012
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	890013
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Extracted from CRA's DECEMBER 19, 2008 DISPENSER ISLAND AND PRODUCT LINE SOIL SAMPLING REPORT, San Mateo County does not take responsibility for the accuracy of the statements made or any professional interpretations made in the referenced report. The site is an active Chevron service station located on the northwest corner of the intersection of University Avenue and Donahoe Street in East Palo Alto, California in a mixed residential and commercial area. Site structures include a station building, three gasoline underground gasoline storage tanks (USTs), eight dispensers, and associated underground piping. 1997 Dispenser Islands and Product Piping Removal: In February 1997, Touchstone Developments (Touchstone) of Santa Rosa, California oversaw the removal of four dispenser islands and the associated piping, and collected soil samples beneath the former dispenser islands and product lines at approximately 3 fbg. No groundwater was encountered in the pits. Eight of the eleven samples contained total petroleum hydrocarbons as gasoline (TPHg) at concentrations ranging from 0.084 milligrams per kilogram (mg/kg) to 260 mg/kg. Lead was detected in seven soil samples with concentrations ranging between 10 mg/kg and 24 mg/kg (consistent with naturally occurring lead concentrations). Approximately 120 cubic yards (yd3) of soil were excavated from the product line trenches; 100 yd3 were removed from the site and 20 yd3 of were reused as backfill. 1997 Monitoring Well Installation: In September 1997, G-R of Dublin, California installed groundwater monitoring wells MW-1 through MW-3. Soil samples collected within the capillary fringe from well borings MW-1 and MW-2 contained up to 18 mg/kg TPHg, 0.3 mg/kg benzene, and 1.5 mg/kg methyl tertiary-butyl ether (MTBE). No TPHg, benzene, or MTBE were detected in soil from the capillary fringe from MW-3. 1998 Monitoring Well Installation: In June 1998, G-R installed groundwater monitoring wells MW-4 through MW-6. A soil sample collected from MW-4 at 10.5 fbg contained 970 mg/kg TPHg and 2.2 mg/kg benzene. No TPHg or benzene was detected in soil samples collected from offsite wells MW-5 and MW-6. MTBE was detected in the initial groundwater sample from MW-5 and MW-6 at 200

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

micrograms per liter (%g/L) and 360 %g/L, respectively. 2004 Well Receptor Survey Report: Cambria Environmental Technology Inc. (Cambria) conducted a well receptor survey of all properties within 300 feet upgradient and crossgradient, and 1,000 feet downgradient of the site. Of the 75 questionnaires mailed, 21 questionnaires were returned and identified one active and one inactive well within the survey area. An active domestic irrigation well is located at 2126 University Avenue approximately 350 feet north-northeast (downgradient) of the site, and the inactive well is located at 2137 Cooley Avenue, approximately 860 feet northeast (downgradient) of the site. The active irrigation well has a shallow completion depth (18 feet) and small casing diameter (4-inches). Groundwater extraction rates from this well are expected to be very low and are not likely to significantly affect local groundwater flow or induce petroleum hydrocarbon migration from the site. No sumps were identified in the returned questionnaires. Cambria also contacted the SMCHD and American Water Services (AWS V the local water purveyor) to identify other potential water supply wells within a 2,000-foot radius of the site. SMCHDs records identified eight irrigation wells, eleven monitoring wells, six properly destroyed wells, and one improperly destroyed well within a 2,000-foot radius of the site. No municipal drinking-water wells were identified by the SMCHD or AWS within 1,500 feet downgradient of the site. No drinking-water wells were identified within 800 feet upgradient or crossgradient from the site. AWS stated that they do not have any water supply wells within 2,000 feet of the site and that they currently receive their water from the HetchHetchy reservoir. 2004 Monitoring Wells Installation: In August 2004, Cambria installed groundwater monitoring wells MW-7 and MW-8. No TPHg or BTEX were detected in any soil samples collected from the well borings. The initial groundwater samples collected from MW-7 and MW-8 contained MTBE concentrations of 1,000 %g/L and 2,900 %g/L, respectively. 2005 OffSite Subsurface Investigation: In August 2005, Cambria advanced direct push borings B-1 through B-6. The results of the investigation indicated that dissolved MTBE in groundwater had migrated northeast (downgradient) of the site. 2006 OffSite Monitoring Well Installation: In March 2006, Cambria installed monitoring wells MW-9, MW-10 and MW-11 to further define the lateral and vertical extent of the dissolved MTBE plume. No TPHg or BTEX were detected in any groundwater samples collected from wells MW-9, MW-10 and MW-11. MTBE was only detected in the groundwater sample from well MW-11, at 11 %g/L. 2007 Well Destruction: In August and September 2007, CRA destroyed offsite wells MW-7, MW-8, and MW-9, located on the properties at 2100-2118 University Avenue, at the request of the property owner. Wells MW-5, MW-6, MW-10, and MW-11, located in high traffic areas of University and Capitol Avenues, were also destroyed due to the health and safety risks associated with the monitoring and maintenance of these wells. Well MW-7 was destroyed by drilling out the sand pack and casing. The rest of the wells were destroyed by pressure grouting. On November 10, 2008, CRA collected nine compliance soil samples beneath the dispensers and in the product piping trench between the southern dispenser islands.

LUST:

Global Id:	T0608100926
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/17/2012
Action: Closure/No Further Action Letter - #20120717

Global Id: T0608100926
Action Type: Other
Date: 05/01/1997
Action: Leak Reported

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/22/2009
Action: Staff Letter - #20090722

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2006
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2005
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2007
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2006
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2003
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2000
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Date: 11/15/2004
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2001
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2002
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 12/04/2003
Action: Soil and Water Investigation Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 07/19/2004
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 07/20/2004
Action: Unknown

Global Id: T0608100926
Action Type: RESPONSE
Date: 09/30/2004
Action: Unknown

Global Id: T0608100926
Action Type: RESPONSE
Date: 10/03/2005
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 06/08/2006
Action: Soil and Water Investigation Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 08/02/2007
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 03/30/2007
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/30/2005
Action: Other Workplan

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Global Id: T0608100926
Action Type: RESPONSE
Date: 03/22/2006
Action: Soil and Water Investigation Workplan

Global Id: T0608100926
Action Type: RESPONSE
Date: 10/30/2007
Action: Unknown

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2007
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2002
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2001
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2004
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2003
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2005
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 12/04/2003
Action: Sensitive Receptor Survey Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 02/14/2006
Action: Soil and Water Investigation Workplan

Global Id: T0608100926
Action Type: RESPONSE

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Date: 05/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 07/20/2010
Action: Soil and Water Investigation Workplan

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 04/20/2010
Action: Staff Letter - #20100420

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 08/04/2010
Action: Staff Letter - #20100804

Global Id: T0608100926
Action Type: RESPONSE
Date: 12/03/2010
Action: Soil and Water Investigation Report

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 02/18/2011
Action: Staff Letter - #20110218

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 12/14/2010
Action: Staff Letter - #20101214

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 10/18/2011
Action: Staff Letter - #20111018

Global Id: T0608100926
Action Type: Other
Date: 04/08/1997
Action: Leak Discovery

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 02/14/2011
Action: Other Report / Document - Regulator Responded

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 05/09/1997
Action: Notice of Responsibility - #1

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/28/2004
Action: Staff Letter - #20040728

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 03/21/2006
Action: Staff Letter - #20060321

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 06/30/2004
Action: Staff Letter - #20040630

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 10/26/2005
Action: * Historical Enforcement - #20051026

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 04/27/2000
Action: Staff Letter - #20000427

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/30/2007
Action: * Historical Enforcement - #20070730

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 03/09/2005
Action: * Verbal Communication - #20050309

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 08/02/2006
Action: Staff Letter - #20060802

Global Id: T0608100926
Action Type: ENFORCEMENT

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Date: 12/05/2006
Action: Technical Correspondence / Assistance / Other - #20061205

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 03/15/2006
Action: * Historical Enforcement - #20060315

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 12/04/2002
Action: Staff Letter - #20021204

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 06/06/2005
Action: Staff Letter - #20050606

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 01/11/2006
Action: Staff Letter - #20060111

Global Id: T0608100926
Action Type: RESPONSE
Date: 10/18/2012
Action: Well Destruction Report

LUST:
Global Id: T0608100926
Status: Open - Case Begin Date
Status Date: 03/16/1997

Global Id: T0608100926
Status: Open - Site Assessment
Status Date: 03/16/1997

Global Id: T0608100926
Status: Open - Site Assessment
Status Date: 12/04/2002

Global Id: T0608100926
Status: Open - Verification Monitoring
Status Date: 03/01/2006

Global Id: T0608100926
Status: Completed - Case Closed
Status Date: 07/17/2012

SAN MATEO CO. LUST:
Name: CHEVRON 9-1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890013

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Facility Status: 9- Case Closed
Global ID: T0608100926
APN Number: 063292180
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

SWEEPS UST:
Name: CHEVRON SERVICE STATION 91081
Address: 2101 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890013
Number: 2
Board Of Equalization: Not reported
Referral Date: 03-30-94
Action Date: 03-30-94
Created Date: 10-13-88
Owner Tank Id: 1
SWRCB Tank Id: 41-000-890013-000001
Tank Status: A
Capacity: 10000
Active Date: 03-30-94
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Name: CHEVRON SERVICE STATION 91081
Address: 2101 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890013
Number: 2
Board Of Equalization: Not reported
Referral Date: 03-30-94
Action Date: 03-30-94
Created Date: 10-13-88
Owner Tank Id: 2
SWRCB Tank Id: 41-000-890013-000002
Tank Status: A
Capacity: 10000
Active Date: 03-30-94
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Name: CHEVRON SERVICE STATION 91081
Address: 2101 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890013
Number: 2
Board Of Equalization: Not reported
Referral Date: 03-30-94
Action Date: 03-30-94
Created Date: 10-13-88

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Owner Tank Id: 3
SWRCB Tank Id: 41-000-890013-000003
Tank Status: A
Capacity: 10000
Active Date: 03-30-94
Tank Use: M.V. FUEL
STG: P
Content: PLUS UNLEADED
Number Of Tanks: Not reported

HIST CORTESE:
edr_fname: CHEVRON
edr_fadd1: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 41-1012

CERS:
Name: CHEVRON 9-1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 240549
CERS ID: T0608100926
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

E58 **CHEVRON SERVICE STATION #1081** **UST** **U004262432**
North **2101 UNIVERSITY AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.134 mi.
710 ft. **Site 6 of 10 in cluster E**

Relative:
Lower

Actual:
23 ft.

UST:
Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 41-000-018329
Permitting Agency: San Mateo County Environmental Health
Latitude: 37.462963
Longitude: -122.142189

E59 **91061** **HIST UST** **U001595857**
North **2101 UNIVERSITY AV** **N/A**
1/8-1/4 **PALO ALTO, CA 94303**
0.134 mi.
710 ft. **Site 7 of 10 in cluster E**

Relative: HIST UST:
Lower

Actual:
23 ft.

Name:	91061
Address:	2101 UNIVERSITY AV
City,State,Zip:	PALO ALTO, CA 94303
File Number:	0002CFED
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002CFED.pdf
Region:	STATE
Facility ID:	00000061983
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	STORUM, WILLIAM A.
Telephone:	4153263194
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	001
Container Num:	1
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1970
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1970
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor

91061 (Continued) **U001595857**

Tank Num:	003
Container Num:	3
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1970
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	0000100
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1970
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	0000100
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

E60 **CHEVRON SERVICE STATION #1081** **CERS HAZ WASTE** **S121737760**
North **2101 UNIVERSITY AVE** **CERS TANKS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **CERS**
0.134 mi.
710 ft. **Site 8 of 10 in cluster E**

Relative: **Lower**
Actual: **23 ft.**

CERS HAZ WASTE:

Name:	CHEVRON SERVICE STATION #1081
Address:	2101 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	104877
CERS ID:	10066609
CERS Description:	Hazardous Waste Generator

CERS TANKS:

Name:	CHEVRON SERVICE STATION #1081
Address:	2101 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	104877

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

CERS ID: 10066609
CERS Description: Underground Storage Tank

CERS:
Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 104877
CERS ID: 10066609
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 104877
Site Name: CHEVRON SERVICE STATION #1081
Violation Date: 12-06-2018
Citation: 23 CCR 16 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 01/10/2019. Sensor S-1 (Diesel piping and UDCs 1-4) failed to trigger alarm. Please repair/replace sensor and test with inspector present within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 104877
Site Name: CHEVRON SERVICE STATION #1081
Violation Date: 12-21-2015
Citation: HSC 6.7 25290.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e)
Violation Description: Failure to maintain the interstitial space under constant vacuum, pressure, or hydrostatic such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment. (Product Tight)
Violation Notes: Returned to compliance on 12/21/2015. Tank 4, Diesel only VPH, 2014 install VPH for Tank 4 only: S2 vac float failed initially. New float installed, tested and passed while onsite
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-20-2014
Violations Found: No

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Type: Other, not routine, done by local agency
Eval Notes: secondary containment test results efiled.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-30-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: hMBP AND UST TANK FORMS REVIEWED
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-05-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: CERS review and approvals
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-30-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-06-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-21-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-26-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval General Type: Other/Unknown
Eval Date: 01-15-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw sb989 results
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-04-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-12-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Review UST forms in CERs
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-18-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: includes HMBP review
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-30-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-07-2017
Violations Found: No

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-21-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-16-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: VPH plan check system for new Diesel tanks.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST forms in CERS
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-21-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ELD TEST RESULTS efiled
Eval Division: San Mateo County Environmental Health

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-12-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: AMC scanning and contacting chevron reps
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-02-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 review and efiled
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 report
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-29-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Documentation follow up
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-06-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-07-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-19-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-20-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Diesel STP not re-setting after 208 alarm triggered. Replaced 208 in diesel, retested, passed. Diesel piping, UDCs, and vent sump under vacuum. Each tested for communication and alarm. To facilitate testing and reduce the time required for the certification and inspection your technician recommends placing gauge or ball valve on end of test line. Problems testing the PLLD for diesel were resolved after the diesel turbine re-established vacuum.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-20-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-24-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Program: UST
Eval Source: CERS

Coordinates:
Site ID: 104877
Facility Name: CHEVRON SERVICE STATION #1081
Env Int Type Code: HWG
Program ID: 10066609
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.462952
Longitude: -122.142174

Affiliation:
Affiliation Type Desc: Identification Signer
Entity Name: Ted Lamph
Entity Title: Retail OE/HES Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 326-3194

Affiliation Type Desc: Parent Corporation
Entity Name: CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Property Owner Name
Entity Name: CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title: Not reported
Affiliation Address: P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City: SAN RAMON
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94583
Affiliation Phone: (925) 842-9002

Affiliation Type Desc: Document Preparer
Entity Name: TED LAMPH

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	UST Tank Owner
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Affiliation Type Desc:	UST Tank Operator
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	Environmental Contact
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	CHARLES BITTLE
Entity Title:	RETAIL HES
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 842-9002

F61 **A1 AUTOMOTIVE REPAIR SHOP** **San Mateo Co. BI** **S113755992**
NNE **648 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.150 mi.
790 ft. **Site 1 of 4 in cluster F**

Relative: **Lower**

Actual: **23 ft.**

San Mateo Co. BI:

Name:	A1 AUTOMOTIVE REPAIR SHOP
Address:	648 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0014217
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0024591
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable
Program Category:	HAZARDOUS WASTE PROGRAM

Name:	A1 AUTOMOTIVE REPAIR SHOP
Address:	648 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0014217
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0024592
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable

A1 AUTOMOTIVE REPAIR SHOP (Continued) **S113755992**

Program Category:	BUSINESS PLAN PROGRAM
Name:	A1 AUTOMOTIVE REPAIR SHOP
Address:	648 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0014217
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040378
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER
Name:	A1 AUTOMOTIVE REPAIR SHOP
Address:	648 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0014217
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0028274
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable
Program Category:	UNDERGROUND TANK PROGRAM

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62 **DREW HEALTH FOUNDATION** **San Mateo Co. BI** **S123180568**
North **2111 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.152 mi.
804 ft.

Relative: San Mateo Co. BI:
Lower

Actual: Name:	DREW HEALTH FOUNDATION
22 ft. Address:	2111 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0022306
Prog Element Code:	SQG (1-199 LBS/MO) HEALTH FACILITY/SNF
Record Id:	PR0023887
Description:	SQG HEALTH FACILITY/SNF (1-199 LB/MO)
Facility Status:	Inactive, non-billable
Program Category:	MEDICAL WASTE

G63 **RAVENSWOOD CITY SCHOOL DISTRICT** **San Mateo Co. BI** **S124430647**
North **2110 EUCLID** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.153 mi.
809 ft. **Site 1 of 8 in cluster G**

Relative: San Mateo Co. BI:
Lower

Actual: Name:	RAVENSWOOD CITY SCHOOL DISTRICT
23 ft. Address:	2110 EUCLID
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0065902
Prog Element Code:	MEDICAL WASTE MANAGEMENT - GENERAL
Record Id:	PR0088930

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S124430647**

Description: MEDICAL WASTE MANAGEMENT - GENERAL
Facility Status: Active, billable
Program Category: MEDICAL WASTE

H64 **IKEA EAST PALO ALTO** **CHMIRS S114000473**
ENE **1700 BAYSHORE** **San Mateo Co. BI N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.159 mi.
838 ft. **Site 1 of 3 in cluster H**

Relative: **Lower**
Actual: **21 ft.**

CHMIRS:

Name:	Not reported
Address:	1700 EAST BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA 94303
OES Incident Number:	13-4113
OES notification:	07/03/2013
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Unknown
Other:	Not reported
Date/Time:	1636
Year:	2013
Agency:	NRC
Incident Date:	7/3/2013
Admin Agency:	San Mateo County Environmental Health
Amount:	Not reported

IKEA EAST PALO ALTO (Continued) **S114000473**

Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Unknown
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per NRC Fax: Caller is reporting that a customer vehicle was leaking gasoline due to unknown causes. REMEDIAL ACTIONS, Fire Dept is cleaning up material and gathering the gas into buckets.

San Mateo Co. BI:

Name:	IKEA EAST PALO ALTO
Address:	1700 BAYSHORE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0027603
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0080715
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Active, billable
Program Category:	HAZARDOUS WASTE PROGRAM

Name:	IKEA EAST PALO ALTO
Address:	1700 BAYSHORE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0027603
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0075335
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	IKEA EAST PALO ALTO
Address:	1700 BAYSHORE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0065367
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0049960
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS

IKEA EAST PALO ALTO (Continued) **S114000473**

Facility Status: Inactive, non-billable
Program Category: STORMWATER

H65 **IKEA US WEST INC** **RCRA NonGen / NLR** **1024845778**
ENE **1700 E BAYSHORE RD** **CAL000399126**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.159 mi.
838 ft. **Site 2 of 3 in cluster H**

Relative:
Lower

Actual:
21 ft.

RCRA NonGen / NLR:
Date form received by agency: 2014-07-23 00:00:00.0
Facility name: IKEA US WEST INC
Facility address: 1700 E BAYSHORE RD
EAST PALO ALTO, CA 94303-2559
EPA ID: CAL000399126
Contact: TROY HUNT
Contact address: 1700 E BAYSHORE RD
EAST PALO ALTO, CA 94303
Contact country: Not reported
Contact telephone: 650-324-2777
Contact email: TROY.HUNT@IKEA.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: TROY HUNT
Owner/operator address: 1700 E BAYSHORE RD
EAST PALO ALTO, CA 94303
Owner/operator country: Not reported
Owner/operator telephone: 650-324-2777
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: IKEA US WEST INC
Owner/operator address: 420 ALAN WOOD RD
CONSHOHOCKEN, PA 19428
Owner/operator country: Not reported
Owner/operator telephone: 610-834-0180
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes

IKEA US WEST INC (Continued) **1024845778**

Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

H66 **IKEA EAST PALO ALTO** **CERS HAZ WASTE** **S121750472**
ENE **1700 E BAYSHORE RD** **CERS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.159 mi.
838 ft. **Site 3 of 3 in cluster H**

Relative:
Lower

Actual:
21 ft.

CERS HAZ WASTE:

Name:	IKEA EAST PALO ALTO
Address:	1700 E BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	181101
CERS ID:	10506661
CERS Description:	Hazardous Waste Generator

CERS:

Name:	IKEA EAST PALO ALTO
Address:	1700 E BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	181101
CERS ID:	10506661
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	181101
Site Name:	IKEA EAST PALO ALTO
Violation Date:	01-24-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 02/12/2018. Verification of emergency response, spill cleanup, and evacuation training unavailable during inspection. Within 30 days, please provide copies of this training (initial and refresher) for each employee within the last 12 months.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	181101
Site Name:	IKEA EAST PALO ALTO
Violation Date:	01-27-2016
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

IKEA EAST PALO ALTO (Continued) **S121750472**

Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 02/08/2016. All of your waste containers are not properly labeled. You must properly label and date all waste containers. Label all waste containers compliantly and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	181101
Site Name:	IKEA EAST PALO ALTO
Violation Date:	01-24-2018
Citation:	HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95, Section(s) 25505.1
Violation Description:	Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.
Violation Notes:	Verification of written notification to property owner of the storage of hazardous materials and availability of HMBP unavailable during inspection. Please used template provided by inspector to notify the property owner and copy the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	181101
Site Name:	IKEA EAST PALO ALTO
Violation Date:	01-27-2016
Citation:	22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34
Violation Description:	Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".
Violation Notes:	Returned to compliance on 02/08/2016. All of your universal waste containers are not properly labeled. You must properly label and date all universal waste containers. Label all universal waste containers compliantly and provide verification to the County within 30 days

IKEA EAST PALO ALTO (Continued) **S121750472**

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-27-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-09-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: prep for dumpster dive inspection on monday
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-27-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-19-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-24-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Facility has a set of Bloom Energy fuel cells. All maintenance and servicing including disposal of any hazardous waste is handled by Bloom Energy. Facilities manager Francisco will provide written verification. Facility is currently replacing all fluorescent tubes in the building and parking lot and generating more universal waste than is routine.
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-24-2018

IKEA EAST PALO ALTO (Continued) **S121750472**

Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-27-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-26-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	inquiry
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-28-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-05-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-13-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-23-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported

IKEA EAST PALO ALTO (Continued) **S121750472**

Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-22-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: file review and prep for investigation.
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-27-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-07-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

IKEA EAST PALO ALTO (Continued) **S121750472**

Coordinates:
- Site ID: 181101
- Facility Name: IKEA EAST PALO ALTO
- Env Int Type Code: HWG
- Program ID: 10506661
- Coord Name: Not reported
- Ref Point Type Desc: Center of a facility or station.
- Latitude: 37.460690
- Longitude: -122.138240

Affiliation:
- Affiliation Type Desc: Legal Owner
- Entity Name: IKEA US GENERAL PARTNER INC
- Entity Title: Not reported
- Affiliation Address: 20700 SAVALON
- Affiliation City: CARSON
- Affiliation State: CA
- Affiliation Country: United States
- Affiliation Zip: 90746
- Affiliation Phone: (650) 324-2777

- Affiliation Type Desc: Environmental Contact
- Entity Name: ahmad nojan
- Entity Title: Not reported
- Affiliation Address: 1700 east bayshore rd
- Affiliation City: east palo alto
- Affiliation State: CA
- Affiliation Country: Not reported
- Affiliation Zip: 94303
- Affiliation Phone: Not reported

- Affiliation Type Desc: Operator
- Entity Name: ahmad nojan
- Entity Title: Not reported
- Affiliation Address: Not reported
- Affiliation City: Not reported
- Affiliation State: Not reported
- Affiliation Country: Not reported
- Affiliation Zip: Not reported
- Affiliation Phone: (650) 324-2777

- Affiliation Type Desc: CUPA District
- Entity Name: San Mateo County Environmental Health
- Entity Title: Not reported
- Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
- Affiliation City: San Mateo
- Affiliation State: CA
- Affiliation Country: Not reported
- Affiliation Zip: 94403
- Affiliation Phone: (650) 372-6200

- Affiliation Type Desc: Document Preparer
- Entity Name: ahmad nojan
- Entity Title: Not reported
- Affiliation Address: Not reported
- Affiliation City: Not reported

IKEA EAST PALO ALTO (Continued) **S121750472**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1700 E BAYSHORE BLVD
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	ahmad nojan
Entity Title:	risk and compliance
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	IKEA EAST PALO ALTO
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

G67 **RAVENSWOOD CITY SCHOOL DISTRICT** **CERS HAZ WASTE** **S113163622**
North **2120 EUCLID AVE** **CERS TANKS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **EMI**
0.159 mi. **HAZNET**
840 ft. **Site 2 of 8 in cluster G** **CERS**

Relative:
Lower

Actual:
23 ft.

CERS HAZ WASTE:

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	400418
CERS ID:	10064314
CERS Description:	Hazardous Waste Generator

CERS TANKS:

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	400418
CERS ID:	10064314
CERS Description:	Underground Storage Tank

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

EMI:

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2017
County Code:	41
Air Basin:	SF
Facility ID:	100157
Air District Name:	BA
SIC Code:	5411
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00154746
Reactive Organic Gases Tons/Yr:	0.00154746
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

HAZNET:

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2000
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Unspecified organic liquid mixture
TSD EPA ID:	CAD008252405
TSD County:	19
Disposal Method:	Recycler
Tons:	5.2438

Additional Info:

Year:	2000
Shipment Date:	20000210
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000218
Manifest ID:	99581412
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982444481
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	Not reported
Meth Code:	R01

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Quantity Tons:	2.5284
Waste Quantity:	3
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000210
Creation Date:	5/3/2000 0:00:00
Receipt Date:	20000223
Manifest ID:	99581413
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008252405
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	D001
Meth Code:	R01
Quantity Tons:	5.0568
Waste Quantity:	6
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000215
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000218
Manifest ID:	99581428
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982444481
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.374
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2000
Shipment Date:	20000215
Creation Date:	5/3/2000 0:00:00
Receipt Date:	20000222
Manifest ID:	99581430
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	CAD981634116
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008252405
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	D001
Meth Code:	R01
Quantity Tons:	0.187
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2000
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Unspecified organic liquid mixture
TSD EPA ID:	CAD982444481
TSD County:	36
Disposal Method:	Recycler
Tons:	2.9024

Additional Info:

Year:	2000
Shipment Date:	20000210
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000218
Manifest ID:	99581412
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982444481

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.5284
Waste Quantity:	3
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000210
Creation Date:	5/3/2000 0:00:00
Receipt Date:	20000223
Manifest ID:	99581413
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008252405
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	D001
Meth Code:	R01
Quantity Tons:	5.0568
Waste Quantity:	6
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000215
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000218
Manifest ID:	99581428
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982444481
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD982444481
TSDF Alt Name:	Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Waste Code:	343
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.374
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2000
Shipment Date:	20000215
Creation Date:	5/3/2000 0:00:00
Receipt Date:	20000222
Manifest ID:	99581430
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD000603738
Trans Name:	Not reported
Trans 2 EPA ID:	CAD981634116
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008252405
TSDF Alt Name:	Not reported
Waste Code:	343
RCRA Code:	D001
Meth Code:	R01
Quantity Tons:	0.187
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	1997
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Waste oil and mixed oil
TSD EPA ID:	CAL000161743
TSD County:	43
Disposal Method:	Recycler
Tons:	2.66

Additional Info:

Year:	1997

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Shipment Date:	19970515
Creation Date:	9/12/1997 0:00:00
Receipt Date:	19970516
Manifest ID:	96320498
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD981385149
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000048571
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000048571
TSDF Alt Name:	Not reported
Waste Code:	221
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	1.254
Waste Quantity:	330
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1997
Shipment Date:	19970918
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19970919
Manifest ID:	96320613
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD981385149
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000161743
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	221
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.66
Waste Quantity:	700
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	1997

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Waste oil and mixed oil
TSD EPA ID:	CAL000048571
TSD County:	43
Disposal Method:	Recycler
Tons:	1.254

Additional Info:

Year:	1997
Shipment Date:	19970515
Creation Date:	9/12/1997 0:00:00
Receipt Date:	19970516
Manifest ID:	96320498
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD981385149
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000048571
Trans Name:	Not reported
TSDF Alt EPA ID:	CAL000048571
TSDF Alt Name:	Not reported
Waste Code:	221
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	1.254
Waste Quantity:	330
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1997
Shipment Date:	19970918
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19970919
Manifest ID:	96320613
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD981385149
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000161743
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	221
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	2.66
Waste Quantity:	700

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	1998
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Asbestos containing waste
TSD EPA ID:	CAD981382732
TSD County:	01
Disposal Method:	Disposal, Land Fill
Tons:	1.0535

Additional Info:

Year:	1998
Shipment Date:	19980423
Creation Date:	6/26/1998 0:00:00
Receipt Date:	19980430
Manifest ID:	97244594
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD150823508
Trans Name:	Not reported
Trans 2 EPA ID:	CAR000017657
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1998
Shipment Date:	19980420
Creation Date:	6/26/1998 0:00:00
Receipt Date:	19980421
Manifest ID:	96320792
Gen EPA ID:	CAL912605650

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Trans EPA ID:	CAD981385149
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000161743
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	221
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.216
Waste Quantity:	320
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1998
Shipment Date:	19980109
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19980114
Manifest ID:	96617197
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD150823508
Trans Name:	Not reported
Trans 2 EPA ID:	CAR000017657
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.8428
Waste Quantity:	1
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	1998
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Gen County:	41
Waste Category:	Waste oil and mixed oil
TSD EPA ID:	CAL000161743
TSD County:	43
Disposal Method:	Transfer Station
Tons:	1.216

Additional Info:

Year:	1998
Shipment Date:	19980423
Creation Date:	6/26/1998 0:00:00
Receipt Date:	19980430
Manifest ID:	97244594
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD150823508
Trans Name:	Not reported
Trans 2 EPA ID:	CAR000017657
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	1998
Shipment Date:	19980420
Creation Date:	6/26/1998 0:00:00
Receipt Date:	19980421
Manifest ID:	96320792
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD981385149
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAL000161743
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	221
RCRA Code:	Not reported
Meth Code:	H01
Quantity Tons:	1.216
Waste Quantity:	320
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Additional Code 5:	Not reported
Year:	1998
Shipment Date:	19980109
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19980114
Manifest ID:	96617197
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD150823508
Trans Name:	Not reported
Trans 2 EPA ID:	CAR000017657
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981382732
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.8428
Waste Quantity:	1
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2012
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Unspecified oil-containing waste
TSD EPA ID:	CAD980887418
TSD County:	01
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	2.18255

Additional Info:

Year:	2012
Shipment Date:	20120920
Creation Date:	11/22/2012 22:15:09
Receipt Date:	20120924
Manifest ID:	009443767JJK
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

TSDF EPA ID:	CAD980887418
Trans Name:	EVERGREEN OIL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	223
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.035
Waste Quantity:	70
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2012
Shipment Date:	20120118
Creation Date:	3/19/2012 20:30:14
Receipt Date:	20120118
Manifest ID:	009444855JJK
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980887418
Trans Name:	EVERGREEN OIL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	223
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	2.14755
Waste Quantity:	515
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2003
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
TSD EPA ID:	CAD053044053
TSD County:	01

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Disposal Method:	Transfer Station
Tons:	0.05004

Additional Info:

Year:	2003
Shipment Date:	20030110
Creation Date:	5/6/2003 18:31:20
Receipt Date:	20030115
Manifest ID:	22185323
Gen EPA ID:	CAL912605650
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD053044053
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD053044053
TSDF Alt Name:	Not reported
Waste Code:	213
RCRA Code:	D039
Meth Code:	H01
Quantity Tons:	0.05004
Waste Quantity:	12
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2003
Shipment Date:	20031121
Creation Date:	8/11/2004 14:31:23
Receipt Date:	20031212
Manifest ID:	22599503
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	PHILIP TRANSPORATION & REMEDIATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTRURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code:	223
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.1
Waste Quantity:	200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name: RAVENSWOOD CITY SCHOOL DISTRICT

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2003
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Unspecified oil-containing waste
TSD EPA ID:	NVD980895338
TSD County:	99
Disposal Method:	Disposal, Land Fill
Tons:	0.1

Additional Info:

Year:	2003
Shipment Date:	20030110
Creation Date:	5/6/2003 18:31:20
Receipt Date:	20030115
Manifest ID:	22185323
Gen EPA ID:	CAL912605650
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD053044053
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD053044053
TSDF Alt Name:	Not reported
Waste Code:	213
RCRA Code:	D039
Meth Code:	H01
Quantity Tons:	0.05004
Waste Quantity:	12
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2003
Shipment Date:	20031121
Creation Date:	8/11/2004 14:31:23
Receipt Date:	20031212
Manifest ID:	22599503
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	CAD063547996
Trans 2 Name:	PHILIP TRANSPORATION & REMEDIATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTRURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code:	223

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	0.1
Waste Quantity:	200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2015
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Off-specification, aged or surplus organics
TSD EPA ID:	CAD059494310
TSD County:	43
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	2.1

Additional Info:

Year:	2015
Shipment Date:	20151209
Creation Date:	3/2/2016 22:15:29
Receipt Date:	20151216
Manifest ID:	005132380SKS
Gen EPA ID:	CAL912605650
Trans EPA ID:	TXR000081205
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	CLEAN HARBORS
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	331
RCRA Code:	D001
Meth Code:	H141
Quantity Tons:	2.1
Waste Quantity:	4200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Click this hyperlink while viewing on your computer to access
15 additional CA HAZNET: record(s) in the EDR Site Report.

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2011
Gepaid:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Gen County:	41
Waste Category:	Unspecified oil-containing waste
TSD EPA ID:	CAD980887418
TSD County:	01
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.05

Additional Info:

Year:	2011
Shipment Date:	20111115
Creation Date:	1/20/2012 20:31:14
Receipt Date:	20111116
Manifest ID:	003781277JJK
Gen EPA ID:	CAL912605650
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980887418
Trans Name:	EVERGREEN OIL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	223
RCRA Code:	Not reported
Meth Code:	H141
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Click this hyperlink while viewing on your computer to access
15 additional CA HAZNET: record(s) in the EDR Site Report.

CERS:

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	400418

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

CERS ID: 10064314
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes: Returned to compliance on 10/28/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description: Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/28/2015. In Portal
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2015
Citation: 23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description: Failure of service technician, installer, designated operator, and/or employee to obtain and maintain proper manufacturer certification.
Violation Notes: Returned to compliance on 12/07/2015. Your Financial Certification has expired. You must have a current certification and submit this to the County. Submit a new Financial Certification to the County electronically within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2015
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain and/or maintain an Active EPA ID.
Violation Notes: Returned to compliance on 12/07/2015. Your EPA number is inactive. You must have an active EPA number. Reactivate your number immediately and provide verification to the County within 30 days. (DTSC form 1358 provided)
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-26-2016
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description: Failure to comply with one or more of the following: Failure to install or maintain a liquid-tight spill bucket. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container. Be resistant to galvanic corrosion.
Violation Notes: Returned to compliance on 11/09/2016. Diesel spill bucket drain valve failed. Please replace drain valve within 14 days.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 10/28/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-31-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 11/09/2017. Observed in hazardous waste storage shed, one open rolling container with used oil, and 1 drum of used oil filters and 1 drum of contaminated solids that need accumulation start dates. Please empty the open rolling container into a drum and label properly. Label the used oil filter drum with a label provided by the inspector for used oil filters. Label the other drum with the standard hazardous waste label. Please provide photo verification to inspector within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2015
Citation: 22 CCR 23 66273.36 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.36
Violation Description: Failure of the universal waste handler to initially train and provide

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

annually, thereafter, all personnel who manage or who supervise those who manage universal wastes and to maintain a written record by date indicating the names of personnel who received the information. The universal waste handler shall maintain these records for at least three years from the date the person last managed any universal waste at the facility. This training shall include: 1) The types and hazards associated with the universal waste that personnel may manage at the facility; 2) The proper disposition of universal wastes managed at the facility; 3) The proper procedures for responding to releases of universal wastes including the position titles and the means of contacting those personnel at the facility who are designated to respond to reports of releases and/or to respond to questions received from other personnel at the facility; and 4) The applicable requirements of universal waste regarding labeling, collecting, handling, consolidating, and shipping universal wastes at the facility, including, but not limited to, the prohibition on the disposal of universal wastes, and for personnel involved in shipping universal wastes who are G hazmat employeesG .

Violation Notes: Returned to compliance on 12/07/2015. There are no records of your employees being trained. All employees handling universal waste must be trained. You must train your universal waste handlers within 30 days and provide verification to the County.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 23 CCR 16 2715(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(a)
Violation Description: Failure to submit statement of UST compliance and/or Designated Operator certification.
Violation Notes: Returned to compliance on 01/14/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2015
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes: Returned to compliance on 12/07/2015. There are no records of your employees being trained. All employees handling hazardous waste must be trained. You must train your waste handlers within 30 days and provide verification to the County. Second year in a row for this violation.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Citation:	HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description:	Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes:	Returned to compliance on 01/14/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-31-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 02/05/2018. Observed batteries on ground near other debris from a district building. This debris should be sorted before it is dumped at the Ravenswood facility to avoid crushing any hazardous materials that may be present in the load. Please implement a process to ensure this occurs and send a copy of the procedure to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2015
Citation:	22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34
Violation Description:	Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".
Violation Notes:	Returned to compliance on 12/07/2015. Your waste lamp boxes are not labeled properly or at all. You must label all waste fluorescent lamp boxes. Do so immediately and provide verification to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-31-2017
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes:	Returned to compliance on 10/31/2017. Facility EPAID# deactivated due to staff changes. Please re-activate the number and sign up for electronic verification questionnaire. Copy your inspector on this request. Contact your inspector with any questions.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-26-2016
Citation:	23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description:	Failure to submit or update a plot plan.
Violation Notes:	Returned to compliance on 01/24/2018. Plot plan is missing information and mislabeled. Please revise and resubmit within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	HSC 6.7 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25286
Violation Description:	Failure to obtain and maintain a valid Board of Equalization account number.
Violation Notes:	Returned to compliance on 01/14/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes:	Returned to compliance on 01/14/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	11-02-2015
Citation:	HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7,

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

	Section(s) 25292(e)
Violation Description:	Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
Violation Notes:	Returned to compliance on 01/11/2016. UDC #1 failed SB989. Client notified 11/2/15
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes:	Returned to compliance on 10/28/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes:	Returned to compliance on 12/07/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes:	Returned to compliance on 01/14/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 10/28/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-31-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-31-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Installation date 9-1-1998.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-31-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-05-2019

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-26-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-28-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-30-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-19-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-18-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-02-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 and AMC report review and documentation
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST forms in portal
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-26-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Last SB989 testing 10-27-15. Installation date 9-1-98. Single 2 x 2000-gallon compartment DW tank. Floats & chains in UDCs required roughly 12 ounces to trigger. Test water flowed away from cup. Conventional suction and whether DW not confirmed for diesel.

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Inspector will review situation with specialist and report back in 14 days.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-28-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-28-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-30-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-31-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-08-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: amc results
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Enforcement Action:
Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Enf Action Date: 08-23-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: 1/29/18: facility violations have yet to be resolved 4/23/18:Facility violations closed in dispatch center.
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-28-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-28-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-28-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Delma Camacho
Entity Title: Not reported
Affiliation Address: 2120 EUCLID
Affiliation City: EAST PALO ALTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94303

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2120 EUCLID
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303
Affiliation Phone:	Not reported
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Entity Title:	Not reported
Affiliation Address:	2160 EUCLID AVE
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303-
Affiliation Phone:	(650) 329-2800
Affiliation Type Desc:	UST Tank Operator
Entity Name:	Carl Taft
Entity Title:	Not reported
Affiliation Address:	785 yuba drive
Affiliation City:	mountain view
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94041
Affiliation Phone:	(650) 987-2253
Affiliation Type Desc:	Identification Signer
Entity Name:	Delma Camacho
Entity Title:	Transportation Supervisor
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Delma Camacho
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	RAVENSWOOD CITY SCHOOL DIST
Entity Title:	Not reported
Affiliation Address:	2120 EUCLID
Affiliation City:	EAST PALO ALTO

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94303
Affiliation Phone: (650) 838-3569

Affiliation Type Desc: Parent Corporation
Entity Name: RAVENSWOOD CITY SCHOOL DIST
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Operator
Entity Name: RAVENSWOOD CITY SCHOOL DIST
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 329-2800

Affiliation Type Desc: UST Permit Applicant
Entity Name: Mahendra Chahal
Entity Title: Director of MOT
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 329-2800

Affiliation Type Desc: UST Tank Owner
Entity Name: RAVENSWOOD CITY SCHOOL DISTRICT
Entity Title: Not reported
Affiliation Address: 2160 EUCLID AVE
Affiliation City: EAST PALO ALTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94303-
Affiliation Phone: (650) 329-2800

G68 **RAVENSWOOD CITY SCHOOL DISTRICT** **RCRA NonGen / NLR** **1024875448**
North **2120 EUCLID AVE** **CAL912605650**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.159 mi.
840 ft. **Site 3 of 8 in cluster G**

Relative:
Lower

Actual:
23 ft.

RCRA NonGen / NLR:

Date form received by agency:	1991-09-17 00:00:00.0
Facility name:	RAVENSWOOD CITY SCHOOL DISTRICT
Facility address:	2120 EUCLID AVE EAST PALO ALTO, CA 94303-1703
EPA ID:	CAL912605650
Contact:	DELMA CAMACHO
Contact address:	2120 EUCLID AVE EAST PALO ALTO, CA 94303-1703
Contact country:	Not reported
Contact telephone:	650-838-3569
Contact email:	DCAMACHO@RAVENSWOODSCHOOLS.ORG
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	DELMA CAMACHO
Owner/operator address:	2120 EUCLID AVE EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-838-3569
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	RAVENSWOOD CITY SCHOOL DISTRICT
Owner/operator address:	2120 EUCLID AVE EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-329-2800
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **1024875448**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

E69 **COUNTRY TIME MARKET** **San Mateo Co. BI** **S123179944**
NNE **635 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.162 mi.
855 ft. **Site 9 of 10 in cluster E**

Relative: **Lower**
Actual: **22 ft.**

San Mateo Co. BI:
Name: COUNTRY TIME MARKET
Address: 635 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0004195
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041635
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

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70 **RCRA NonGen / NLR** **1025830064**
ESE **5 NEWELL COURT** **CAC003009618**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.167 mi.
880 ft.

Relative: **Lower**
Actual: **30 ft.**

RCRA NonGen / NLR:
Date form received by agency: 2019-04-10 00:00:00.0
Facility name: Not reported
Facility address: 5 NEWELL COURT
EAST PALO ALTO, CA 94303
EPA ID: CAC003009618
Contact: MELISSA BRIDGEMAN
Contact address: 1864 W. BAYSHORE ROAD
EAST PALO ALTO, CA 94303
Contact country: Not reported
Contact telephone: 623-296-8649
Contact email: MBRIDGEMAN@ALLRESCO.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: WOODLAND PARK COMMUNITIES
Owner/operator address: 5 NEWELL COURT
EAST PALO ALTO, CA 94303
Owner/operator country: Not reported
Owner/operator telephone: 623-296-8649
Owner/operator email: Not reported

(Continued) **1025830064**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MELISSA BRIDGEMAN
Owner/operator address: 1864 W. BAYSHORE ROAD
EAST PALO ALTO, CA 94303
Owner/operator country: Not reported
Owner/operator telephone: 623-296-8649
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

E71 **B & M** **San Mateo Co. BI** **S123181563**
NNE **2118 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.172 mi.
909 ft. **Site 10 of 10 in cluster E**

Relative: San Mateo Co. BI:
Lower
Name: B & M
Actual: Address: 2118 UNIVERSITY
21 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0027404
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049954
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

G72 **GOODWILL PROPERTY** **LUST** **S106034992**
NNW **1475 E BAYSHORE RD** **N/A**
1/8-1/4 **EAST PALO ALTO, CA**
0.172 mi.
909 ft. **Site 4 of 8 in cluster G**

Relative:
Lower

Actual:
23 ft.

SAN MATEO CO. LUST:

Name:	GOODWILL PROPERTY
Address:	1475 E BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA
Region:	SAN MATEO
Facility ID:	890023
Facility Status:	9- Case Closed
Global ID:	T0608156921
APN Number:	063184010
Case Type:	EAST PALO ALTO, CA
EDR Link ID:	EAST PALO ALTO, CA

G73 **GOODWILL PROPERTY** **LUST** **S109285798**
NNW **1475 EAST BAYSHORE ROAD** **CERS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.172 mi.
909 ft. **Site 5 of 8 in cluster G**

Relative:
Lower

Actual:
23 ft.

LUST:

Name:	GOODWILL PROPERTY
Address:	1475 EAST BAYSHORE ROAD
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608156921
Global Id:	T0608156921
Latitude:	37.4633794917219
Longitude:	-122.144901752472
Status:	Completed - Case Closed
Status Date:	02/26/2004
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	890023
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0608156921
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608156921
Action Type:	Other
Date:	10/01/1998
Action:	Leak Reported

GOODWILL PROPERTY (Continued) **S109285798**

Global Id: T0608156921
Action Type: RESPONSE
Date: 05/22/2003
Action: Preliminary Site Assessment Workplan

Global Id: T0608156921
Action Type: RESPONSE
Date: 07/11/2003
Action: Soil and Water Investigation Report

Global Id: T0608156921
Action Type: RESPONSE
Date: 12/01/2003
Action: Electronic Reporting Submittal Due

Global Id: T0608156921
Action Type: RESPONSE
Date: 11/19/2003
Action: Tank Removal Report / UST Sampling Report

Global Id: T0608156921
Action Type: Other
Date: 10/01/1998
Action: Leak Discovery

Global Id: T0608156921
Action Type: REMEDIATION
Date: 08/24/2003
Action: Excavation

Global Id: T0608156921
Action Type: ENFORCEMENT
Date: 02/26/2004
Action: Closure/No Further Action Letter - #20040226

Global Id: T0608156921
Action Type: ENFORCEMENT
Date: 05/19/2003
Action: Staff Letter - #20030519A

Global Id: T0608156921
Action Type: ENFORCEMENT
Date: 03/20/2003
Action: Notice of Responsibility - #20030320

Global Id: T0608156921
Action Type: ENFORCEMENT
Date: 04/11/2003
Action: Staff Letter - #20030411

Global Id: T0608156921
Action Type: ENFORCEMENT
Date: 05/19/2003
Action: Staff Letter - #20030519B

LUST:
Global Id: T0608156921

GOODWILL PROPERTY (Continued) **S109285798**

Status: Open - Case Begin Date
Status Date: 10/01/1998

Global Id: T0608156921
Status: Open - Site Assessment
Status Date: 03/20/2003

Global Id: T0608156921
Status: Open - Remediation
Status Date: 05/19/2003

Global Id: T0608156921
Status: Open - Verification Monitoring
Status Date: 09/29/2003

Global Id: T0608156921
Status: Completed - Case Closed
Status Date: 02/26/2004

CERS:
Name: GOODWILL PROPERTY
Address: 1475 EAST BAYSHORE ROAD
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 252551
CERS ID: T0608156921
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

F74 **EL GALOPE TAQUERIA** **San Mateo Co. BI** **S123179979**
NNE **641 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.174 mi.
917 ft. **Site 2 of 4 in cluster F**

Relative:
Lower

Actual:
21 ft.

San Mateo Co. BI:
Name: EL GALOPE TAQUERIA
Address: 641 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0004459
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049956
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

F75 **JONES MORTUARY** **LUST** **S105427667**
NE **660 DONOHOE** **CERS** **N/A**
1/8-1/4 **E PALO ALTO, CA 94303**
0.175 mi.
923 ft. **Site 3 of 4 in cluster F**

Relative:
Lower

Actual:
22 ft.

LUST:

Name:	JONES MORTUARY
Address:	660 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608152821
Global Id:	T0608152821
Latitude:	37.462636
Longitude:	-122.140441
Status:	Completed - Case Closed
Status Date:	09/13/2003
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	890020
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608152821
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608152821
Action Type:	Other
Date:	01/30/2002
Action:	Leak Reported
Global Id:	T0608152821
Action Type:	RESPONSE
Date:	06/29/2003
Action:	Electronic Reporting Submittal Due
Global Id:	T0608152821
Action Type:	RESPONSE
Date:	11/11/2003
Action:	Request for Closure
Global Id:	T0608152821
Action Type:	Other
Date:	01/30/2002
Action:	Leak Discovery
Global Id:	T0608152821

JONES MORTUARY (Continued) **S105427667**

Action Type: ENFORCEMENT
Date: 04/01/2002
Action: Notice of Responsibility - #1

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 09/13/2003
Action: Closure/No Further Action Letter - #2

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 08/11/2003
Action: Staff Letter - #20030811

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 08/29/2002
Action: Staff Letter - #20020829

LUST:
Global Id: T0608152821
Status: Open - Case Begin Date
Status Date: 01/30/2002

Global Id: T0608152821
Status: Open - Site Assessment
Status Date: 01/30/2002

Global Id: T0608152821
Status: Open - Verification Monitoring
Status Date: 08/29/2002

Global Id: T0608152821
Status: Completed - Case Closed
Status Date: 09/13/2003

SAN MATEO CO. LUST:
Name: JONES MORTUARY
Address: 660 DONOHOE ST
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890020
Facility Status: 9- Case Closed
Global ID: T0608152821
APN Number: 063312440
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 890020
How Discovered: OM
Leak Cause: Unknown

JONES MORTUARY (Continued) **S105427667**

Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 1/1/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 8/29/2002

CERS:
Name: JONES MORTUARY
Address: 660 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 209197
CERS ID: T0608152821
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

F76 **JONES MORTUARY INC** **San Mateo Co. BI** **S123182466**
NE **660 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.175 mi.
923 ft. **Site 4 of 4 in cluster F**

Relative:
Lower

Actual:
22 ft.

San Mateo Co. BI:
Name: JONES MORTUARY INC
Address: 660 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0044936
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0057174
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

I77 **GIRAND RESIDENCE** **LUST** **S103971588**
South **590 CRESCENT** **HIST LUST** **N/A**
1/8-1/4 **PALO ALTO, CA 94301** **HIST CORTESE**
0.180 mi.
950 ft. **Site 1 of 2 in cluster I**

Relative:
Lower

Actual:
28 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	05S3W36F02f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	8/1/1999
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST SANTA CLARA:

Name:	GIRAND RESIDENCE
Address:	590 E CRESCENT DR
City,State,Zip:	PALO ALTO, CA
Region:	SANTA CLARA
SCVWD ID:	05S3W36F02F
Date Closed:	01/21/2000
EDR Link ID:	05S3W36F02F

HIST LUST SANTA CLARA:

Name:	Girand Residence
Address:	590 E Crescent Dr
City:	Palo Alto
Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	05S3W36F02
Oversite Agency:	SCVWD
Date Listed:	2000-01-21 00:00:00
Closed Date:	2000-01-21 00:00:00

HIST CORTESE:

edr_fname:	GIRAND RESIDENCE
edr_fadd1:	590 CRESCENT
City,State,Zip:	PALO ALTO, CA 94301
Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-2349

I78
South
1/8-1/4
0.181 mi.
954 ft.

PRIVATE RESIDENCE — **LUST** — **S110655460**
PRIVATE RESIDENCE — **N/A**
PALO ALTO, CA 94301

Site 2 of 2 in cluster I

Relative:
Lower

Actual:
28 ft.

LUST:

Name:	PRIVATE RESIDENCE
Address:	PRIVATE RESIDENCE
City,State,Zip:	PALO ALTO, CA 94301
Lead Agency:	SANTA CLARA COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608545440
Global Id:	T0608545440
Latitude:	37.455557
Longitude:	-122.142323
Status:	Completed - Case Closed
Status Date:	01/21/2000
Case Worker:	UST
RB Case Number:	Not reported
Local Agency:	SANTA CLARA COUNTY LOP
File Location:	All Files are on GeoTracker or in the Local Agency Database
Local Case Number:	Not reported
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0608545440
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608545440
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

LUST:

Global Id:	T0608545440
Action Type:	Other
Date:	12/15/1998
Action:	Leak Reported

Global Id:	T0608545440
Action Type:	RESPONSE
Date:	01/04/1999
Action:	Unauthorized Release Form

Global Id:	T0608545440
Action Type:	RESPONSE

PRIVATE RESIDENCE (Continued) **S110655460**

Date: 01/21/2000
Action: Other Report / Document

Global Id: T0608545440
Action Type: RESPONSE
Date: 08/13/1999
Action: Tank Removal Report / UST Sampling Report

Global Id: T0608545440
Action Type: ENFORCEMENT
Date: 01/21/2000
Action: Closure/No Further Action Letter

LUST:
Global Id: T0608545440
Status: Open - Case Begin Date
Status Date: 12/15/1998

Global Id: T0608545440
Status: Open - Site Assessment
Status Date: 08/01/1999

Global Id: T0608545440
Status: Completed - Case Closed
Status Date: 01/21/2000

G79 **RAVENSWOOD CITY SCHOOL DIST.** **SWEEPS UST** **S103642168**
North **2160 EUCLID AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.183 mi.
965 ft. **Site 6 of 8 in cluster G**

Relative: SWEEPS UST:
Lower
Actual: Name: RAVENSWOOD CITY SCHOOL DIST.
22 ft. Address: 2160 EUCLID AVE
City: EAST PALO ALTO
Status: Not reported
Comp Number: 890021
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890021-000001
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 2

Name: RAVENSWOOD CITY SCHOOL DIST.
Address: 2160 EUCLID AVE
City: EAST PALO ALTO

RAVENSWOOD CITY SCHOOL DIST. (Continued) **S103642168**

Status:	Not reported
Comp Number:	890021
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890021-000002
Tank Status:	Not reported
Capacity:	2000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

G80 **RAVENSWOOD CITY SCHOOL DIST** **UST** **U004266210**
North **2160 EUCLID AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.183 mi.
965 ft. **Site 7 of 8 in cluster G**

Relative: UST:
Lower

Actual:
22 ft.

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	190626_009839
Permitting Agency:	San Mateo County Environmental Health
Latitude:	37.463787
Longitude:	-122.14328

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	Not reported
Permitting Agency:	San Mateo County Environmental Health
Latitude:	37.463787
Longitude:	-122.14328

G81 **RAVENSWOOD CITY SCHOOL DIST** **San Mateo Co. BI** **S113755505**
North **2160 EUCLID** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.183 mi.
965 ft. **Site 8 of 8 in cluster G**

Relative: San Mateo Co. BI:
Lower

Actual:
22 ft.

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0009839
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040368
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

RAVENSWOOD CITY SCHOOL DIST (Continued) **S113755505**

Program Category:	STORMWATER
Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0009839
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0028245
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM
Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0009839
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0028246
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Active, billable
Program Category:	HAZARDOUS WASTE PROGRAM
Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0009839
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0022986
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Active, billable
Program Category:	UNDERGROUND TANK PROGRAM

82
SSW
1/8-1/4
0.199 mi.
1051 ft.

542 CENTER DRIVE
PALO ALTO, CA 94301

RCRA NonGen / NLR **1025837932**
CAC003017528

Relative:
Lower

Actual:
30 ft.

RCRA NonGen / NLR:

Date form received by agency:	2019-05-31 00:00:00.0
Facility name:	Not reported
Facility address:	542 CENTER DRIVE PALO ALTO, CA 94301
EPA ID:	CAC003017528
Contact:	MICHAEL FLETCHER
Contact address:	542 CENTER DRIVE PALO ALTO, CA 94301
Contact country:	Not reported
Contact telephone:	408-483-0562
Contact email:	ALEJANDRAMALDONADO@ALLIANCE-ENVIRO.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

(Continued) **1025837932**

Owner/Operator Summary:

Owner/operator name:	MICHAEL FLETCHER
Owner/operator address:	542 CENTER DRIVE PALO ALTO, CA 94301
Owner/operator country:	Not reported
Owner/operator telephone:	408-483-0562
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	MICHAEL FLETCHER
Owner/operator address:	542 CENTER DRIVE PALO ALTO, CA 94301
Owner/operator country:	Not reported
Owner/operator telephone:	408-483-0562
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	Yes
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

J83 **MARIAS TAQUERIA** **San Mateo Co. BI** **S123179256**
NNE **2150 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.213 mi.
1123 ft. **Site 1 of 7 in cluster J**

Relative:
Lower

Actual:
20 ft.

San Mateo Co. BI:

Name:	MARIAS TAQUERIA
Address:	2150 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0000736

MARIAS TAQUERIA (Continued) **S123179256**

Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041633
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

J84 **MI PUEBLITO** **San Mateo Co. BI** **S123183584**
NNE **2150 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.213 mi.
1123 ft. **Site 2 of 7 in cluster J**

Relative: **Lower**
Actual: **20 ft.**

San Mateo Co. BI:
Name: MI PUEBLITO
Address: 2150 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0054822
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0075604
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

J85 **EPA FISH CHICKEN** **San Mateo Co. BI** **S123182730**
NNE **2150 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94043**
0.213 mi.
1123 ft. **Site 3 of 7 in cluster J**

Relative: **Lower**
Actual: **20 ft.**

San Mateo Co. BI:
Name: EPA FISH CHICKEN
Address: 2150 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94043
Region: SAN MATEO
Facility ID: FA0046997
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0064076
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

K86 **CARDENAS MARKETS #215** **CERS HAZ WASTE** **S122491933**
East **1731 E BAYSHORE RD** **CERS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.217 mi.
1147 ft. **Site 1 of 2 in cluster K**

Relative: **Lower**
Actual: **23 ft.**

CERS HAZ WASTE:
Name: CARDENAS MARKETS #215
Address: 1731 E BAYSHORE RD
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 438814
CERS ID: 10764007
CERS Description: Hazardous Waste Generator

CARDENAS MARKETS #215 (Continued) **S122491933**

CERS:

Name:	CARDENAS MARKETS #215
Address:	1731 E BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	438814
CERS ID:	10764007
CERS Description:	Chemical Storage Facilities

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200

Affiliation Type Desc:	Parent Corporation
Entity Name:	Cardenas Markets, LLC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2501 E.Guasti Rd.
Affiliation City:	Ontario
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	91761
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Mirna Ruacho
Entity Title:	Quality Assurance Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Cardenas Markets #215
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported

CARDENAS MARKETS #215 (Continued) **S122491933**

Affiliation Phone:	(650) 248-2171
Affiliation Type Desc:	Document Preparer
Entity Name:	Mirna Ruacho
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Mi Pueblo Newco, LLC
Entity Title:	Not reported
Affiliation Address:	2501 E.Guasti Rd.
Affiliation City:	Ontario
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	91761
Affiliation Phone:	(909) 923-7426
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mirna Ruacho
Entity Title:	Not reported
Affiliation Address:	2501 E.Guasti Rd.
Affiliation City:	Ontario
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	91761
Affiliation Phone:	Not reported

K87 **CARDENAS MARKET #215** **RCRA NonGen / NLR** **1024867100**
East **1731 E BAYSHORE RD** **CAL000435693**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.217 mi.
1147 ft. **Site 2 of 2 in cluster K**

Relative: **Lower**

Actual: **23 ft.**

RCRA NonGen / NLR:

Date form received by agency:	2018-05-03 00:00:00.0
Facility name:	CARDENAS MARKET #215
Facility address:	1731 E BAYSHORE RD EAST PALO ALTO, CA 94303
EPA ID:	CAL000435693
Mailing address:	2501 GUASTI RD ONTARIO, CA 91761
Contact:	MARTIN REYES
Contact address:	1731 E BAYSHORE RD EAST PALO ALTO, CA 94303
Contact country:	Not reported
Contact telephone:	650-248-2171
Contact email:	QUALITY@CMKTS.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

CARDENAS MARKET #215 (Continued) **1024867100**

Owner/Operator Summary:

Owner/operator name:	MARTIN REYES
Owner/operator address:	1731 E BAYSHORE RD EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-248-2171
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	CARDENAS MARKETS LLC
Owner/operator address:	2501 GUASTI RD ONTARIO, CA 91761
Owner/operator country:	Not reported
Owner/operator telephone:	909-923-7426
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

J88 **RANCHO GRANDE SUPERMARKET** **San Mateo Co. BI** **S123180578**
NNE **2148 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.227 mi.
1199 ft. **Site 4 of 7 in cluster J**

Relative: **Lower**

Actual: **19 ft.**

San Mateo Co. BI:

Name:	RANCHO GRANDE SUPERMARKET
Address:	2148 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0022335

RANCHO GRANDE SUPERMARKET (Continued) **S123180578**

Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041657
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

J89 **TADLOCKS AUTO SUPPLY INC** **San Mateo Co. BI** **S113755254**
NNE **2160 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.243 mi.
1285 ft. **Site 5 of 7 in cluster J**

Relative: San Mateo Co. BI:
Lower

Actual:
19 ft.

Name:	TADLOCKS AUTO SUPPLY INC
Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0003207
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0028762
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	TADLOCKS AUTO SUPPLY INC
Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0003207
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040361
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

Name:	TADLOCKS AUTO SUPPLY INC
Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0003207
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0024510
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable
Program Category:	HAZARDOUS WASTE PROGRAM

Name:	KELLYS AUTOMOTIVE REPAIR
Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0022459
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0024542
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable
Program Category:	HAZARDOUS WASTE PROGRAM

Name: AUTOZONE #3302

TADLOCKS AUTO SUPPLY INC (Continued) **S113755254**

Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0036049
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0053412
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	AUTOZONE #3302
Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0036049
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0053414
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

Name:	AUTOZONE #3302
Address:	2160 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0036049
Prog Element Code:	2221
Record Id:	PR0053413
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT - LQG
Facility Status:	Active, billable
Program Category:	HAZARDOUS WASTE PROGRAM

J90 **AUTOZONE #3302** **RCRA NonGen / NLR** **1024810742**
NNE **2160 UNIVERSITY AVE** **CAL000291406**
1/8-1/4 **PALO ALTO, CA 94303**
0.243 mi.
1285 ft. **Site 6 of 7 in cluster J**

Relative: **Lower**
Actual: **19 ft.**

RCRA NonGen / NLR:

Date form received by agency:	2005-02-22 00:00:00.0
Facility name:	AUTOZONE #3302
Facility address:	2160 UNIVERSITY AVE PALO ALTO, CA 94303-1714
EPA ID:	CAL000291406
Mailing address:	DEPT 8190, 123 S FRONT ST MEMPHIS, TN 38103-3607
Contact:	BRYAN BLAIR
Contact address:	DEPT 8190, 123 SOUTH FRONT STREET MEMPHIS, TN 38103
Contact country:	Not reported
Contact telephone:	901-495-7217
Contact email:	BRYAN.BLAIR@AUTOZONE.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

AUTOZONE #3302 (Continued) **1024810742**

Owner/operator name:	BRYAN BLAIR
Owner/operator address:	DEPT 8190, 123 SOUTH FRONT STREET MEMPHIS, TN 38103
Owner/operator country:	Not reported
Owner/operator telephone:	901-495-7217
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	AUTO ZONE CORPORTATION
Owner/operator address:	123 S FRONT ST MEMPHIS, TN 38103
Owner/operator country:	Not reported
Owner/operator telephone:	901-495-6500
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

J91 **AUTOZONE #3302** **CERS HAZ WASTE** **S121771293**
NNE **2160 UNIVERSITY AVE** **CERS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.243 mi.
1285 ft. **Site 7 of 7 in cluster J**

Relative: CERS HAZ WASTE:
Lower

Name:	AUTOZONE #3302
Address:	2160 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	386885
CERS ID:	10070122
CERS Description:	Hazardous Waste Generator

Actual:
19 ft.

AUTOZONE #3302 (Continued) **S121771293**

CERS:
Name: AUTOZONE #3302
Address: 2160 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 386885
CERS ID: 10070122
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 386885
Site Name: AUTOZONE #3302
Violation Date: 01-14-2014
Citation: 40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description: Failure to ensure incompatible waste and/or materials are not placed or stored in the same container or nearby or into an unwashed container, which previously contained incompatible waste and/or materials, so that it does not potentially result in the following: 1) Generate extreme heat or pressure, fire or explosion, or violent reaction; 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; 3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; 4) Damage the structural integrity of the device or facility containing the waste; or 5) Through other like means threaten human health or the environment.
Violation Notes: Returned to compliance on 03/11/2014. Facility observed to be storing acids and bases together in hazardous waste storage area. They were asked to segregate these storage areas to prevent spills, release, reactions.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 386885
Site Name: AUTOZONE #3302
Violation Date: 01-26-2018
Citation: 22 CCR 15 66265.192(a) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(a)
Violation Description: Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer prior to placing the tank system in service. The written assessment shall state that, the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed to meet the regulation.
Violation Notes: PE-certified tank assessments for 2 waste oil tanks were not available at the time of the inspection. Please provide the assessments within 30 days if the tanks have been assessed. If they have not, within 30 days have the tanks certified or complete the exemption forms, have forms signed by the CUPA and by the local fire department, and keep copies on site. Provide either the exemption forms or the tank assessments to the inspector within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

AUTOZONE #3302 (Continued) **S121771293**

Site ID:	386885
Site Name:	AUTOZONE #3302
Violation Date:	01-26-2018
Citation:	HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description:	Failure to properly manage used oil and/or fuel filters in accordance with the requirements.
Violation Notes:	Returned to compliance on 03/26/2018. Oil observed in the bottom of the metal used oil filter drum. Ensure oil filters are complete drained before placing in the drum. Develop a procedure for draining them and provide a copy to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	386885
Site Name:	AUTOZONE #3302
Violation Date:	01-26-2018
Citation:	22 CCR 15 66265.35 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.35
Violation Description:	Failure to maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Department that aisle space is not needed for any of these purposes.
Violation Notes:	Returned to compliance on 03/20/2018. Area in front of hazardous waste drums occupied by large pallets of stock. Unable to access drums. Clear this area and maintain unblocked by stock or waste. Send photo verification to inspector within 15 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	386885
Site Name:	AUTOZONE #3302
Violation Date:	01-26-2018
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 03/26/2018. Facility is victim of regular overnight drop-offs of multi-gallon containers of used oil. They were observed near the tanks and in other areas of the store. Designate an area for storage of these containers so they are not missed at the end of the day when you will be emptying them into the tanks. Provide photo verification of the use of a designated public used oil storage area within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	386885
Site Name:	AUTOZONE #3302
Violation Date:	01-14-2014
Citation:	22 CCR 16 66266.130 - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.130
Violation Description:	Failure to properly handle, manage, label, and recycle used oil and fuel filters.

AUTOZONE #3302 (Continued) **S121771293**

Violation Notes:	Returned to compliance on 03/11/2014.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	386885
Site Name:	AUTOZONE #3302
Violation Date:	01-26-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 03/26/2018. Provide records for training all current staff in emergency response and spill cleanup (initial and refresher) within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	01-04-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-15-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	photos sent to corporate
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-30-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-26-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Facility disposes of some damaged retail products including an occasional quart of oil. The VAST majority of used oil here comes from the public. The facility has already disposed of 440 gallons of used oil this month.
Eval Division:	San Mateo County Environmental Health

AUTOZONE #3302 (Continued) **S121771293**

Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-07-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: reinspect for abandoned HW in parking lot, non-MT containers in dumpster and in facility trash ready to go to dumpster
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-14-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-14-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-29-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-04-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

AUTOZONE #3302 (Continued) **S121771293**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-26-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-29-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-21-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 386885
Site Name: AUTOZONE #3302
Site Address: 2160 UNIVERSITY AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 01-14-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 386885
Facility Name: AUTOZONE #3302
Env Int Type Code: HMBP
Program ID: 10070122
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.464382
Longitude: -122.141235

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Andrew Beaven
Entity Title: Not reported
Affiliation Address: Dept 8190, 123 South Front Street

AUTOZONE #3302 (Continued) **S121771293**

Affiliation City:	Memphis
Affiliation State:	TN
Affiliation Country:	Not reported
Affiliation Zip:	38103
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	AutoZone Inc
Entity Title:	Not reported
Affiliation Address:	123 South Front Street
Affiliation City:	MEMPHIS
Affiliation State:	TN
Affiliation Country:	United States
Affiliation Zip:	38103
Affiliation Phone:	(901) 495-6500
Affiliation Type Desc:	Parent Corporation
Entity Name:	Auto Zone
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Document Preparer
Entity Name:	Deborah Williams
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Autozone
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(916) 631-0383
Affiliation Type Desc:	Property Owner

AUTOZONE #3302 (Continued) **S121771293**

Entity Name:	GDB, LLC Attn: David Tadlock
Entity Title:	Not reported
Affiliation Address:	35550 Palomares Road
Affiliation City:	Castro Valley
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94552
Affiliation Phone:	(510) 886-2143
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	123 S FRONT ST - DEPT 8190
Affiliation City:	MEMPHIS
Affiliation State:	TN
Affiliation Country:	Not reported
Affiliation Zip:	38103
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Deborah Williams
Entity Title:	Environmental Coordinator
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

L92 **OWENS DEVELOPMENT** **LUST** **S100947357**
SSE **13464 MIDDLEFORK** **CPS-SLIC** **N/A**
1/4-1/2 **LOS ALTOS, CA 95030** **HIST LUST**
0.278 mi. **HIST CORTESE**
1468 ft. **Site 1 of 3 in cluster L**

Relative: **Lower**

Actual: **27 ft.**

LUST REG 3:

Region:	3
Regional Board:	Central Coast Region
Facility County:	Monterey
Global ID:	T0605300321
Status:	Pollution Characterization
Case Number:	516
Local Case Num:	Not reported
Case Type:	U
Substance:	Waste Oil
Quantity:	Not reported
Abatement Method:	U
Leak Source:	UNK
Leak Cause:	UNK
How Stopped:	Not reported
How Discovered:	OM
Release Date:	10/25/1988
Discovered Date:	10/25/88
Enter Date:	11/14/1988
Stop Date:	Not reported
Review Date:	11/10/1988
Enforce Date:	Not reported

OWENS DEVELOPMENT (Continued) **S100947357**

Close Date:	Not reported
Enforcement Type:	Not reported
Responsible Party:	Not reported
RP Address:	Not reported
Contact:	Not reported
Cross Street:	Not reported
Local Agency:	27000
Lead Agency:	Local Agency
Staff Initials:	WNL
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	11/10/1988
Remedial Plan:	Not reported
Remedial Action:	Not reported
Monitoring:	/ /
Pilot Program:	UST
Interim Action:	0
Funding:	Not reported
MTBE Class:	*
Max MTBE Grnd Wtr:	Not reported
Max MTBE Soil:	Not reported
Max MTBE Data:	/ /
MTBE Tested:	NRQ
Lat/Long:	36.599242 / -121.8895448
Soil Qualifier:	Not reported
Grnd Wtr Qualifier:	Not reported
Mtbe Concentratn:	0
Mtbe Fuel:	0
Org Name:	Not reported
Basin Plan:	9.50
Beneficial:	Not reported
Priority:	0
UST Cleanup Fund ID:	Not reported
Suspended:	Not reported
Operator:	Not reported
Water System:	CYPRESS COMMUNITY CHURCH WS
Well Name:	LPA REPORTED PRIMARY SOURCE
Distance From Well:	0
Assigned Name:	2702030-001GEN
Summary:	FURTHER BORINGS TO DETERMINE EXTENT OF CONTAMINATION
Region:	3
Regional Board:	Central Coast Region
Facility County:	Monterey
Global ID:	T0605300363
Status:	Preliminary site assessment workplan submitted
Case Number:	688
Local Case Num:	Not reported
Case Type:	U
Substance:	Gasoline
Quantity:	Not reported
Abatement Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Leak Source:	Tank
Leak Cause:	Corrosion
How Stopped:	Not reported

OWENS DEVELOPMENT (Continued) **S100947357**

How Discovered:	Tank Closure
Release Date:	09/18/1989
Discovered Date:	9/18/89
Enter Date:	09/27/1989
Stop Date:	Not reported
Review Date:	09/27/1989
Enforce Date:	Not reported
Close Date:	Not reported
Enforcement Type:	Not reported
Responsible Party:	Not reported
RP Address:	Not reported
Contact:	Not reported
Cross Street:	RUSSEL
Local Agency:	27000
Lead Agency:	Local Agency
Staff Initials:	JWG
Confirm Leak:	Not reported
Workplan:	1/1/75
Prelim Assess:	Not reported
Pollution Char:	/ /
Remedial Plan:	Not reported
Remedial Action:	Not reported
Monitoring:	/ /
Pilot Program:	UST
Interim Action:	0
Funding:	R
MTBE Class:	*
Max MTBE Grnd Wtr:	Not reported
Max MTBE Soil:	Not reported
Max MTBE Data:	/ /
MTBE Tested:	NT
Lat/Long:	36.7417855 / -121.6568634
Soil Qualifier:	Not reported
Grnd Wtr Qualifier:	Not reported
Mtbe Concentratn:	0
Mtbe Fuel:	1
Org Name:	Not reported
Basin Plan:	9.10
Beneficial:	Not reported
Priority:	0
UST Cleanup Fund ID:	Not reported
Suspended:	Not reported
Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Distance From Well:	0
Assigned Name:	Not reported
Summary:	SITE INVESTIGATION SHOWS PROBABLE CONTAMINATION TO 16FT. CORE SAMPLE MAY BE NECESSERY TO DETERMINE IF WATER CONTAMINTED.

SLIC REG 2:

Region:	2
Facility ID:	43S0878
Facility Status:	Leak being confirmed
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Tank Closure

OWENS DEVELOPMENT (Continued) **S100947357**

Leak Cause: UNK
Leak Source: UNK
Date Confirmed: 1/18/1988
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Name: Wood Residence
Address: 111 Island Dr
City: Palo Alto
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 05S3W36F01
Oversite Agency: SCVWD
Date Listed: 1994-08-12 00:00:00
Closed Date: 1997-01-06 00:00:00

HIST CORTESE:
edr_fname: UNKNOWN
edr_fadd1: 1149 MARTIN LUTHER KING
City,State,Zip: BERKELEY, CA
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1555

L93 **WOOD RESIDENCE** **LUST** **S110060974**
SSE **111 ISLAND** **HIST CORTESE** **N/A**
1/4-1/2 **PALO ALTO, CA 94301**
0.278 mi.
1468 ft. **Site 2 of 3 in cluster L**

Relative:
Lower

Actual:
27 ft.

LUST SANTA CLARA:
Name: WOOD RESIDENCE
Address: 111 ISLAND DR
City,State,Zip: PALO ALTO, CA
Region: SANTA CLARA
SCVWD ID: 05S3W36F01F
Date Closed: 01/06/1997
EDR Link ID: 05S3W36F01F

HIST CORTESE:
edr_fname: WOOD RESIDENCE
edr_fadd1: 111 ISLAND
City,State,Zip: PALO ALTO, CA 94301
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1901

L94 **WOOD RESIDENCE** **LUST** **S106610976**
SSE **111 ISLAND DR** **N/A**
1/4-1/2 **PALO ALTO, CA 94301**
0.278 mi.
1468 ft. **Site 3 of 3 in cluster L**

Relative: **Lower**

Actual: **27 ft.**

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	05S3W36F01f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

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95 **PRIVATE RESIDENCE** **LUST** **S110655383**
SSE **PRIVATE RESIDENCE** **N/A**
1/4-1/2 **PALO ALTO, CA 94301**
0.295 mi.
1555 ft.

Relative: **Lower**

Actual: **28 ft.**

LUST:

Name:	PRIVATE RESIDENCE
Address:	PRIVATE RESIDENCE
City,State,Zip:	PALO ALTO, CA 94301
Lead Agency:	SANTA CLARA COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608501819
Global Id:	T0608501819
Latitude:	37.45402
Longitude:	-122.14042
Status:	Completed - Case Closed
Status Date:	01/06/1997
Case Worker:	UST
RB Case Number:	Not reported
Local Agency:	SANTA CLARA COUNTY LOP
File Location:	All Files are on GeoTracker or in the Local Agency Database
Local Case Number:	Not reported
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0608501819
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

PRIVATE RESIDENCE (Continued) **S110655383**

Global Id: T0608501819
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

LUST:
Global Id: T0608501819
Action Type: Other
Date: 01/01/1993
Action: Leak Reported

Global Id: T0608501819
Action Type: ENFORCEMENT
Date: 01/06/1997
Action: Closure/No Further Action Letter

Global Id: T0608501819
Action Type: RESPONSE
Date: 01/06/1997
Action: Other Report / Document

LUST:
Global Id: T0608501819
Status: Open - Case Begin Date
Status Date: 01/01/1993

Global Id: T0608501819
Status: Completed - Case Closed
Status Date: 01/06/1997

---

96 **SHELL STATION** **LUST** **S109285813**
NNE **2194 UNIVERSITY** **CERS** **N/A**
1/4-1/2 **EAST PALO ALTO, CA 94303**
0.303 mi.
1598 ft.

Relative:
Lower

Actual:
18 ft.

LUST:
Name: SHELL STATION
Address: 2194 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608182543
Global Id: T0608182543
Latitude: 37.465311
Longitude: -122.141234
Status: Completed - Case Closed
Status Date: 12/10/2004
Case Worker: Not reported
RB Case Number: Not reported
Local Agency: Not reported
File Location: Local Agency Warehouse

SHELL STATION (Continued) **S109285813**

Local Case Number: 890022
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608182543
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608182543
Action Type: Other
Date: 12/03/2002
Action: Leak Reported

Global Id: T0608182543
Action Type: RESPONSE
Date: 08/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 02/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 05/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 08/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 11/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 04/13/2004
Action: Request for Closure

Global Id: T0608182543
Action Type: Other
Date: 12/03/2002
Action: Leak Discovery

Global Id: T0608182543

SHELL STATION (Continued) **S109285813**

Action Type: ENFORCEMENT
Date: 12/30/2002
Action: Notice of Responsibility - #1

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 12/10/2004
Action: Closure/No Further Action Letter - #20041210

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 04/01/2003
Action: Staff Letter - #20030401

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 02/10/2004
Action: Staff Letter - #20040210

LUST:
Global Id: T0608182543
Status: Open - Case Begin Date
Status Date: 12/03/2002

Global Id: T0608182543
Status: Open - Verification Monitoring
Status Date: 02/10/2004

Global Id: T0608182543
Status: Completed - Case Closed
Status Date: 12/10/2004

SAN MATEO CO. LUST:
Name: SHELL STATION
Address: 2194 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890022
Facility Status: 9- Case Closed
Global ID: T0608182543
APN Number: 063321400
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

CERS:
Name: SHELL STATION
Address: 2194 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 217626
CERS ID: T0608182543
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)

SHELL STATION (Continued) **S109285813**

Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

97
West
1/4-1/2
0.319 mi.
1683 ft.

LAUREL SCHOOL UPPER CAMPUS
275 ELLIOTT DR
MENLO PARK, CA 94025

ENVIROSTOR **S115779977**
SCH **N/A**
HAZNET
NPDES
CIWQS

Relative:
Higher

Actual:
39 ft.

ENVIROSTOR:

Name:	O'CONNOR SCHOOL SITE
Address:	275 ELLIOTT DRIVE
City,State,Zip:	MENLO PARK, CA 94025
Facility ID:	60001979
Status:	Active
Status Date:	02/21/2014
Site Code:	204261
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	6
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Mellan Songco
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	37.45961
Longitude:	-122.1484
APN:	063-430-310-1, 063430310
Past Use:	AGRICULTURAL - ROW CROPS, SCHOOL - ELEMENTARY
Potential COC:	Under Investigation Arsenic Chlordane DDD DDE DDT Lead Polychlorinated biphenyls (PCBs Toxaphene Dieldrin
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	Laurel School Upper Campus
Alias Type:	Alternate Name
Alias Name:	063-430-310-1
Alias Type:	APN
Alias Name:	063430310
Alias Type:	APN
Alias Name:	204261
Alias Type:	Project Code (Site Code)
Alias Name:	60001979
Alias Type:	Envirostor ID Number

Completed Info:

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/18/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 03/06/2014
Comments: Scoping meeting at Terraphase Office in Oakland at noon, then site visit with Terraphase and District at 2:00 pm.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 03/25/2014
Comments: EOA execution letter completed and sent to District with fully executed EOA on 3/25/2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 06/20/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/21/2015
Comments: On May 21, 2015, the District and DTSC entered into an O&M Agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Phase I Report for Background, O'Connor School Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Geotechnical Report for Background, O'Connor School Site

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/11/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/21/2015
Comments: On May 21, 2015, DTSC approved the PEA Report and the SFPD 4.15 with a further action determination. The District entered into an O&M Agreement with DTSC on 5/21/2015 for the NOA in the AB material

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

underneath the parking area/building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/29/2014
Comments: On May 29, 2014, DTSC received the PEA Workplan Addendum and approved it for implementation on the same day.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/17/2015
Comments: On July 16, 2015, DTSC conducted a site visit during the District's construction project where there's NOA intrusive work. During the site visit, DTSC observed the dust monitoring, dust mitigation and posting of the site that NOA intrusive work activities will be happening at the site per the O&M Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/04/2018
Comments: On April 4, 2018, DTSC approved the revised Radon Sampling Workplan for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/28/2017
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 01/11/2019
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 01/14/2019
Schedule Revised Date: Not reported

SCH:

Name: O'CONNOR SCHOOL SITE
Address: 275 ELLIOTT DRIVE
City,State,Zip: MENLO PARK, CA 94025
Facility ID: 60001979
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 6

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Mellan Songco
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204261
Assembly:	24
Senate:	13
Special Program Status:	Not reported
Status:	Active
Status Date:	02/21/2014
Restricted Use:	NO
Funding:	School District
Latitude:	37.45961
Longitude:	-122.1484
APN:	063-430-310-1, 063430310
Past Use:	AGRICULTURAL - ROW CROPS, SCHOOL - ELEMENTARY
Potential COC:	Under Investigation, Arsenic, Chlordane, DDD, DDE, DDT, Lead, Polychlorinated biphenyls (PCBs, Toxaphene, Dieldrin
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	Laurel School Upper Campus
Alias Type:	Alternate Name
Alias Name:	063-430-310-1
Alias Type:	APN
Alias Name:	063430310
Alias Type:	APN
Alias Name:	204261
Alias Type:	Project Code (Site Code)
Alias Name:	60001979
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	12/18/2018
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	03/06/2014
Comments:	Scoping meeting at Terraphase Office in Oakland at noon, then site visit with Terraphase and District at 2:00 pm.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/25/2014
Comments:	EOA execution letter completed and sent to District with fully executed EOA on 3/25/2014.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Amendment - Order/Agreement

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Completed Date: 06/20/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/21/2015
Comments: On May 21, 2015, the District and DTSC entered into an O&M Agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Phase I Report for Background, O'Connor School Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Geotechnical Report for Background, O'Connor School Site

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/11/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/21/2015
Comments: On May 21, 2015, DTSC approved the PEA Report and the SFPD 4.15 with a further action determination. The District entered into an O&M Agreement with DTSC on 5/21/2015 for the NOA in the AB material underneath the parking area/building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/29/2014
Comments: On May 29, 2014, DTSC received the PEA Workplan Addendum and approved it for implementation on the same day.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/17/2015
Comments: On July 16, 2015, DTSC conducted a site visit during the District's construction project where there's NOA intrusive work. During the site visit, DTSC observed the dust monitoring, dust mitigation and posting of the site that NOA intrusive work activities will be happening at the site per the O&M Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/04/2018

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Comments: On April 4, 2018, DTSC approved the revised Radon Sampling Workplan for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/28/2017
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 01/11/2019
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 01/14/2019
Schedule Revised Date: Not reported

HAZNET:
Name: LAUREL SCHOOL UPPER CAMPUS
Address: 275 ELLIOTT DR
Address 2: Not reported
City,State,Zip: MENLO PARK, CA 940252624
Year: 2015
Gepaid: CAC002814277
Contact: AHMAD SHEIKHOLESLAMI
Telephone: 6503217140
Mailing Name: Not reported
Mailing Address: 181 ENCINAL AVE
Gen County: 41
Waste Category: Polychlorinated biphenyls and material containing PCBs
TSD EPA ID: AZD983476680
TSD County: 99
Disposal Method: Not reported
Tons: 0.20497

Additional Info:
Year: 2015
Shipment Date: 20150603
Creation Date: 7/16/2015 22:15:18
Receipt Date: 20150603
Manifest ID: 012796037JJK
Gen EPA ID: CAC002814277
Trans EPA ID: CAR000037283
Trans Name: WORLD ENVIRONMENTAL & ENERGY INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD982042475
Trans Name: RECOLOGY HAY ROAD LANDFILL
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Waste Code:	151
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	6.9
Waste Quantity:	30
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2015
Shipment Date:	20150721
Creation Date:	10/5/2015 22:15:07
Receipt Date:	20150722
Manifest ID:	012796318JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAR000037283
Trans Name:	WORLD ENVIRONMENTAL & ENERGY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980675276
Trans Name:	CLEAN HARBORS BUTTONWILLOW LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	611
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	21.15
Waste Quantity:	15
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2015
Shipment Date:	20150605
Creation Date:	5/24/2016 16:37:46
Receipt Date:	Not reported
Manifest ID:	013048579JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAD982411993
Trans Name:	AERC RECYCLING SOLUTIONS INC
Trans 2 EPA ID:	CAR000206086
Trans 2 Name:	NORTH STATE ENVIRONMENTAL
TSDF EPA ID:	AZD983476680
Trans Name:	LIGHTING RESOURCES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	Not reported
Quantity Tons:	0.20497
Waste Quantity:	186

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Quantity Unit:	K
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	LAUREL SCHOOL UPPER CAMPUS
Address:	275 ELLIOTT DR
Address 2:	Not reported
City,State,Zip:	MENLO PARK, CA 940252624
Year:	2015
Gepaid:	CAC002814277
Contact:	AHMAD SHEIKHOLESLAMI
Telephone:	6503217140
Mailing Name:	Not reported
Mailing Address:	181 ENCINAL AVE
Gen County:	41
Waste Category:	Asbestos containing waste
TSD EPA ID:	CAD982042475
TSD County:	48
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	6.9

Additional Info:

Year:	2015
Shipment Date:	20150603
Creation Date:	7/16/2015 22:15:18
Receipt Date:	20150603
Manifest ID:	012796037JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAR000037283
Trans Name:	WORLD ENVIRONMENTAL & ENERGY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982042475
Trans Name:	RECOLOGY HAY ROAD LANDFILL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	6.9
Waste Quantity:	30
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2015
Shipment Date:	20150721
Creation Date:	10/5/2015 22:15:07
Receipt Date:	20150722
Manifest ID:	012796318JJK

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Gen EPA ID:	CAC002814277
Trans EPA ID:	CAR000037283
Trans Name:	WORLD ENVIRONMENTAL & ENERGY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980675276
Trans Name:	CLEAN HARBORS BUTTONWILLOW LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	611
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	21.15
Waste Quantity:	15
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2015
Shipment Date:	20150605
Creation Date:	5/24/2016 16:37:46
Receipt Date:	Not reported
Manifest ID:	013048579JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAD982411993
Trans Name:	AERC RECYCLING SOLUTIONS INC
Trans 2 EPA ID:	CAR000206086
Trans 2 Name:	NORTH STATE ENVIRONMENTAL
TSDF EPA ID:	AZD983476680
Trans Name:	LIGHTING RESOURCES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	Not reported
Quantity Tons:	0.20497
Waste Quantity:	186
Quantity Unit:	K
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	LAUREL SCHOOL UPPER CAMPUS
Address:	275 ELLIOTT DR
Address 2:	Not reported
City,State,Zip:	MENLO PARK, CA 940252624
Year:	2015
Gepaid:	CAC002814277
Contact:	AHMAD SHEIKHOLESLAMI
Telephone:	6503217140
Mailing Name:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Mailing Address:	181 ENCINAL AVE
Gen County:	41
Waste Category:	Contaminated soil from site clean-up
TSD EPA ID:	CAD980675276
TSD County:	15
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	21.15

Additional Info:

Year:	2015
Shipment Date:	20150603
Creation Date:	7/16/2015 22:15:18
Receipt Date:	20150603
Manifest ID:	012796037JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAR000037283
Trans Name:	WORLD ENVIRONMENTAL & ENERGY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982042475
Trans Name:	RECOLOGY HAY ROAD LANDFILL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	151
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	6.9
Waste Quantity:	30
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2015
Shipment Date:	20150721
Creation Date:	10/5/2015 22:15:07
Receipt Date:	20150722
Manifest ID:	012796318JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAR000037283
Trans Name:	WORLD ENVIRONMENTAL & ENERGY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980675276
Trans Name:	CLEAN HARBORS BUTTONWILLOW LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	611
RCRA Code:	Not reported
Meth Code:	H132
Quantity Tons:	21.15
Waste Quantity:	15
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2015
Shipment Date:	20150605
Creation Date:	5/24/2016 16:37:46
Receipt Date:	Not reported
Manifest ID:	013048579JJK
Gen EPA ID:	CAC002814277
Trans EPA ID:	CAD982411993
Trans Name:	AERC RECYCLING SOLUTIONS INC
Trans 2 EPA ID:	CAR000206086
Trans 2 Name:	NORTH STATE ENVIRONMENTAL
TSDF EPA ID:	AZD983476680
Trans Name:	LIGHTING RESOURCES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	261
RCRA Code:	Not reported
Meth Code:	Not reported
Quantity Tons:	0.20497
Waste Quantity:	186
Quantity Unit:	K
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

NPDES:

Name:	LAUREL UPPER SCHOOL CAMPUS
Address:	275 ELLIOT DRIVE
City,State,Zip:	MENLO PARK, CA 94027
Facility Status:	Terminated
NPDES Number:	CAS000002
Region:	2
Agency Number:	0
Regulatory Measure ID:	453401
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	2 41C372558
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/02/2015
Termination Date Of Regulatory Measure:	04/12/2017
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	181 Encinal Ave
Discharge Name:	Menlo Park City School District
Discharge City:	Atherton
Discharge State:	California
Discharge Zip:	94027
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	453401
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	03/27/2015
Processed Date:	04/02/2015
Status:	Terminated
Status Date:	04/12/2017
Place Size:	6
Place Size Unit:	Acres
Contact:	Ahmad Sheikholeslami
Contact Title:	Not reported
Contact Phone:	650-321-7140
Contact Phone Ext:	5614
Contact Email:	ahmad@mpcsd.org
Operator Name:	Menlo Park City School District
Operator Address:	181 Encinal Ave
Operator City:	Atherton
Operator State:	California
Operator Zip:	94027
Operator Contact:	Ahmad Sheikholeslami
Operator Contact Title:	Not reported
Operator Contact Phone:	650-321-7140
Operator Contact Phone Ext:	5614
Operator Contact Email:	ahmad@mpcsd.org
Operator Type:	Other
Developer:	Menlo Park City School District
Developer Address:	181 Encinal Ave
Developer City:	Atherton
Developer State:	California
Developer Zip:	94027
Developer Contact:	Ahmad Sheikholeslami
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisquito
Certifier:	Ahmad Sheikholeslami
Certifier Title:	Chief Business and Operations Officer
Certification Date:	27-MAR-15
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	453401
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/02/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Menlo Park City School District
Discharge Address:	181 Encinal Ave
Discharge City:	Atherton
Discharge State:	California
Discharge Zip:	94027
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Name:	LAUREL UPPER SCHOOL CAMPUS
Address:	275 ELLIOT DRIVE
City,State,Zip:	MENLO PARK, CA 94027
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41C372558
Regulatory Measure Type:	Construction
Program Type:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	04/12/2017
Operator Name:	Menlo Park City School District
Operator Address:	181 Encinal Ave
Operator City:	Atherton
Operator State:	California
Operator Zip:	94027

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	453401
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	03/27/2015
Processed Date:	04/02/2015
Status:	Terminated
Status Date:	04/12/2017
Place Size:	6
Place Size Unit:	Acres
Contact:	Ahmad Sheikholeslami
Contact Title:	Not reported
Contact Phone:	650-321-7140
Contact Phone Ext:	5614
Contact Email:	ahmad@mpcsd.org
Operator Name:	Menlo Park City School District
Operator Address:	181 Encinal Ave
Operator City:	Atherton
Operator State:	California
Operator Zip:	94027
Operator Contact:	Ahmad Sheikholeslami
Operator Contact Title:	Not reported
Operator Contact Phone:	650-321-7140
Operator Contact Phone Ext:	5614
Operator Contact Email:	ahmad@mpcsd.org

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Operator Type:	Other
Developer:	Menlo Park City School District
Developer Address:	181 Encinal Ave
Developer City:	Atherton
Developer State:	California
Developer Zip:	94027
Developer Contact:	Ahmad Sheikholeslami
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisquito
Certifier:	Ahmad Sheikholeslami
Certifier Title:	Chief Business and Operations Officer
Certification Date:	27-MAR-15
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	453401
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/02/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Menlo Park City School District
Discharge Address:	181 Encinal Ave
Discharge City:	Atherton
Discharge State:	California
Discharge Zip:	94027
Received Date:	Not reported
Processed Date:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

LAUREL SCHOOL UPPER CAMPUS (Continued) **S115779977**

CIWQS:

Name:	LAUREL UPPER SCHOOL CAMPUS
Address:	275 ELLIOT DRIVE
City,State,Zip:	MENLO PARK, CA 94027
Agency:	Menlo Park City School District
Agency Address:	181 Encinal Ave, Atherton, CA 94027
Place/Project Type:	Construction
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 41C372558
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	04/02/2015
Termination Date:	04/12/2017
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.45943
Longitude:	-122.14667

---

98 **EAST PALO ALTO - GREEN STREET 794** **US BROWNFIELDS** **1024008518**
NE **794 GREEN ST.** **FINDS** **N/A**
1/4-1/2 **PALO ALTO, CA 94303**
0.344 mi.
1815 ft.

Relative: **Lower**

Actual: **17 ft.**

US BROWNFIELDS:

Name:	EAST PALO ALTO - GREEN STREET 794
Address:	794 GREEN ST.
City,State,Zip:	PALO ALTO, CA 94303
Recipient Name:	R9 TBA (STAG Funded)
Grant Type:	TBA
Property Number:	Not reported
Parcel size:	.25
Latitude:	37.4640676
Longitude:	-122.1375431
HCM Label:	Not reported
Map Scale:	Not reported
Point of Reference:	Not reported
Highlights:	Not reported
Datum:	Not reported
Acres Property ID:	225141
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Assessment Funding:	10000
Assessment Funding Source:	US EPA - TBA Funding
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	EPA
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase I Environmental Assessment
Accomplishment Count:	1
Cooperative Agreement Number:	n/a
Start Date:	12/01/2014 00:00:00
Ownership Entity:	Private
Completion Date:	07/11/2016 00:00:00
Current Owner:	Apostolic Assembly of Faith
Did Owner Change:	N
Cleanup Required:	Y
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	U
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	.25
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	There is a site history of agricultural land use and more recently use of Site for vehicle storage. The proposed reuse of this Site is as a day care facility or early childhood education program. Cleanup of the Site will be required to a residential standard before planned reuse/redevelopment can begin. The findings of this TBA may also have implications for the resident caretaker and two children who currently reside on the Site.
Below Poverty Number:	1919

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Below Poverty Percent:	22.1%
Meidan Income:	16461
Meidan Income Number:	4241
Meidan Income Percent:	48.8%
Vacant Housing Number:	177
Vacant Housing Percent:	7.8%
Unemployed Number:	480
Unemployed Percent:	5.5%

Name:	EAST PALO ALTO - GREEN STREET 794
Address:	794 GREEN ST.
City,State,Zip:	PALO ALTO, CA 94303
Recipient Name:	R9 TBA (STAG Funded)
Grant Type:	TBA
Property Number:	Not reported
Parcel size:	.25
Latitude:	37.4640676
Longitude:	-122.1375431
HCM Label:	Not reported
Map Scale:	Not reported
Point of Reference:	Not reported
Highlights:	Not reported
Datum:	Not reported
Acres Property ID:	225141
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	67300
Assessment Funding Source:	US EPA - TBA Funding
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	EPA
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase II Environmental Assessment
Accomplishment Count:	0
Cooperative Agreement Number:	n/a
Start Date:	12/01/2014 00:00:00
Ownership Entity:	Private
Completion Date:	07/11/2016 00:00:00
Current Owner:	Apostolic Assembly of Faith
Did Owner Change:	N
Cleanup Required:	Y
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	U
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	.25
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	There is a site history of agricultural land use and more recently use of Site for vehicle storage. The proposed reuse of this Site is as a day care facility or early childhood education program. Cleanup of the Site will be required to a residential standard before planned reuse/redevelopment can begin. The findings of this TBA may also have implications for the resident caretaker and two children who currently reside on the Site.
Below Poverty Number:	1919
Below Poverty Percent:	22.1%
Meidan Income:	16461
Meidan Income Number:	4241
Meidan Income Percent:	48.8%
Vacant Housing Number:	177
Vacant Housing Percent:	7.8%
Unemployed Number:	480
Unemployed Percent:	5.5%

FINDS:

Registry ID: 110070106108

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

M99 **WILLRICH RESIDENCE** **LUST** **S102441308**
SSE **1452 HAMILTON AVE** **HIST LUST** **N/A**
1/4-1/2 **PALO ALTO, CA 94301** **HIST CORTESE**
0.353 mi.
1866 ft. **Site 1 of 3 in cluster M**

Relative: **Lower**
Actual: **27 ft.**

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	05S3W36G01f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	10/30/1992
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

HIST LUST SANTA CLARA:

Name:	Willrich Residence
Address:	1452 Hamilton Ave
City:	Palo Alto
Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	05S3W36G01
Oversite Agency:	SCVWD
Date Listed:	1992-05-20 00:00:00
Closed Date:	1992-12-22 00:00:00

HIST CORTESE:

edr_fname:	WILLRICH RESIDENCE
edr_fadd1:	1452 HAMILTON
City,State,Zip:	PALO ALTO, CA 94301
Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-0376

M100 **RESIDENCE** **LUST** **S101594525**
SSE **1452 HAMILTON** **SWEEPS UST** **N/A**
1/4-1/2 **PALO ALTO, CA 94303** **CA FID UST**
0.353 mi.
1866 ft. **Site 2 of 3 in cluster M**

Relative: **Lower**
Actual: **27 ft.**

LUST SANTA CLARA:

Name:	WILLRICH RESIDENCE
Address:	1452 HAMILTON AVE
City,State,Zip:	PALO ALTO, CA
Region:	SANTA CLARA
SCVWD ID:	05S3W36G01F
Date Closed:	12/22/1992
EDR Link ID:	05S3W36G01F

RESIDENCE (Continued) **S101594525**

SWEEPS UST:

Name:	RESIDENCE
Address:	1452 HAMILTON
City:	PALO ALTO
Status:	Not reported
Comp Number:	841
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-006-000841-000001
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	1

CA FID UST:

Facility ID:	43004147
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	1452 HAMILTON
Mailing Address 2:	Not reported
Mailing City,St,Zip:	PALO ALTO 94303
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

M101 **PRIVATE RESIDENCE** **LUST** **S110655351**
SSE **PRIVATE RESIDENCE** **N/A**
1/4-1/2 **PALO ALTO, CA 94301**
0.354 mi.
1868 ft. **Site 3 of 3 in cluster M**

Relative: **Lower**
Actual: **27 ft.**

LUST:

Name:	PRIVATE RESIDENCE
Address:	PRIVATE RESIDENCE
City,State,Zip:	PALO ALTO, CA 94301
Lead Agency:	SANTA CLARA COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608500428
Global Id:	T0608500428
Latitude:	37.4531852278737
Longitude:	-122.14017033577
Status:	Completed - Case Closed

PRIVATE RESIDENCE (Continued) **S110655351**

Status Date: 12/22/1992
Case Worker: UST
RB Case Number: Not reported
Local Agency: SANTA CLARA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0608500428
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608500428
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

LUST:
Global Id: T0608500428
Action Type: Other
Date: 05/15/1992
Action: Leak Reported

Global Id: T0608500428
Action Type: ENFORCEMENT
Date: 12/22/1992
Action: Closure/No Further Action Letter

Global Id: T0608500428
Action Type: ENFORCEMENT
Date: 07/06/1992
Action: Notice of Responsibility - #39189

Global Id: T0608500428
Action Type: RESPONSE
Date: 09/14/1988
Action: Other Report / Document

Global Id: T0608500428
Action Type: REMEDIATION
Date: 05/15/1992
Action: Excavation

LUST:
Global Id: T0608500428

PRIVATE RESIDENCE (Continued) **S110655351**

Status: Open - Case Begin Date
Status Date: 05/15/1992

Global Id: T0608500428
Status: Open - Site Assessment
Status Date: 10/30/1992

Global Id: T0608500428
Status: Completed - Case Closed
Status Date: 12/22/1992

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102 SSW 1/4-1/2 0.378 mi. 1997 ft. **ELLENBERGER PROPERTY**
1240 DANA ST
PALO ALTO, CA 94301

LUST S101303774
HIST LUST N/A
HIST CORTESE
CERS

Relative: Lower

Actual: 29 ft.

LUST:
Name: ELLENBERGER PROPERTY
Address: 1240 DANA ST
City,State,Zip: PALO ALTO, CA 94301
Lead Agency: SANTA CLARA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608531648
Global Id: T0608531648
Latitude: 37.453294
Longitude: -122.146035
Status: Completed - Case Closed
Status Date: 06/26/1996
Case Worker: UST
RB Case Number: Not reported
Local Agency: SANTA CLARA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0608531648
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608531648
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

ELLENBERGER PROPERTY (Continued) **S101303774**

LUST:
Global Id: T0608531648
Action Type: Other
Date: 01/01/1991
Action: Leak Reported

Global Id: T0608531648
Action Type: ENFORCEMENT
Date: 06/26/1996
Action: Closure/No Further Action Letter

Global Id: T0608531648
Action Type: RESPONSE
Date: 06/26/1996
Action: Other Report / Document

LUST:
Global Id: T0608531648
Status: Open - Case Begin Date
Status Date: 01/01/1991

Global Id: T0608531648
Status: Open - Site Assessment
Status Date: 03/17/1991

Global Id: T0608531648
Status: Completed - Case Closed
Status Date: 06/26/1996

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 05S3W36E01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/17/1991
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Name: ELLENBERGER PROPERTY
Address: 1240 DANA ST
City,State,Zip: PALO ALTO, CA
Region: SANTA CLARA
SCVWD ID: 05S3W36E01F
Date Closed: 06/26/1996
EDR Link ID: 05S3W36E01F

ELLENBERGER PROPERTY (Continued) **S101303774**

HIST LUST SANTA CLARA:
- Name: Ellenberger Property
- Address: 1240 Dana St
- City: Palo Alto
- Region: SANTA CLARA
- Region Code: 2
- SCVWD ID: 05S3W36E01
- Oversite Agency: SCVWD
- Date Listed: 1992-06-08 00:00:00
- Closed Date: 1996-06-26 00:00:00

HIST CORTESE:
- edr_fname: ELLENBERGER PROPERTY
- edr_fadd1: 1240 DANA
- City,State,Zip: PALO ALTO, CA 94301
- Region: CORTESE
- Facility County Code: 43
- Reg By: LTNKA
- Reg Id: 43-1724

CERS:
- Name: ELLENBERGER PROPERTY
- Address: 1240 DANA ST
- City,State,Zip: PALO ALTO, CA 94301
- Site ID: 214940
- CERS ID: T0608531648
- CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
- Affiliation Type Desc: Local Agency Caseworker
- Entity Name: UST CASE WORKER - SANTA CLARA COUNTY LOP
- Entity Title: Not reported
- Affiliation Address: 1555 Berger Drive, Suite 300
- Affiliation City: SAN JOSE
- Affiliation State: CA
- Affiliation Country: Not reported
- Affiliation Zip: Not reported
- Affiliation Phone: 4089183400

- Affiliation Type Desc: Regional Board Caseworker
- Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
- Entity Title: Not reported
- Affiliation Address: 1515 CLAY ST SUITE 1400
- Affiliation City: OAKLAND
- Affiliation State: CA
- Affiliation Country: Not reported
- Affiliation Zip: Not reported
- Affiliation Phone: Not reported

103
ENE
1/4-1/2
0.385 mi.
2031 ft.

SIRI BROS PARTNERSHIP
2012 CLARK
EAST PALO ALTO, CA 94303

CPS-SLIC
HIST CORTESE
CERS

S102859799
N/A

Relative:
Lower

Actual:
15 ft.

CPS-SLIC:

Name:	SIRI BROS PARTNERSHIP
Address:	2012 CLARK
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	10/19/1999
Global Id:	T0608101657
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	899014
Latitude:	37.4617874429523
Longitude:	-122.134434989075
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

HIST CORTESE:

edr_fname:	SIRI BROS PARTNERSHIP
edr_fadd1:	2012 CLARK
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-1047

CERS:

Name:	SIRI BROS PARTNERSHIP
Address:	2012 CLARK
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	192378
CERS ID:	T0608101657
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

N104 **EPA III** **LUST** **S112948002**
ESE **1800 W BAYSHORE RD** **HAZNET** **N/A**
1/4-1/2 **EAST PALO ALTO, CA 94303**
0.431 mi.
2278 ft. **Site 1 of 2 in cluster N**

Relative:
Lower

Actual:
21 ft.

SAN MATEO CO. LUST:

Name:	J & J RENTALS AND SALES
Address:	1800 W BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA
Region:	SAN MATEO
Facility ID:	890027
Facility Status:	9- Case Closed
Global ID:	T0608111865
APN Number:	063501290
Case Type:	EAST PALO ALTO, CA
EDR Link ID:	EAST PALO ALTO, CA

HAZNET:

Name:	EPA III
Address:	1800 W BAYSHORE RD
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943032701
Year:	2005
Gepaid:	CAC002594535
Contact:	JILL RUSSELL
Telephone:	6502271525
Mailing Name:	Not reported
Mailing Address:	1800 W BAYSHORE RD
Gen County:	41
Waste Category:	Other empty containers 30 gallons or more
TSD EPA ID:	CAD009466392
TSD County:	07
Disposal Method:	Recycler
Tons:	0.5

Additional Info:

Year:	2005
Shipment Date:	20051129
Creation Date:	3/11/2006 18:31:13
Receipt Date:	Not reported
Manifest ID:	24043625
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083003699
Trans Name:	LUTREL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	Not reported
Quantity Tons:	Not reported
Waste Quantity:	184
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported

EPA III (Continued) **S112948002**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005
Shipment Date:	20051130
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051130
Manifest ID:	24043605
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083003699
Trans Name:	LUTREL TRUCKING INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	184
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005
Shipment Date:	20050825
Creation Date:	1/18/2006 10:22:44
Receipt Date:	20050826
Manifest ID:	24528396
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD982030173
Trans Name:	ECOLOGY CONTROL INDUSTRIES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	ECOLOGY CONTROL INDUSTRIES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005

EPA III (Continued) **S112948002**

Shipment Date:	20051201
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051201
Manifest ID:	24043608
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083003699
Trans Name:	LUTREL TRUCKING
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	18
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2005
Shipment Date:	20051130
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051130
Manifest ID:	24043625
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083603699
Trans Name:	LUTREL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	184
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Name:	EPA III
Address:	1800 W BAYSHORE RD
Address 2:	Not reported
City,State,Zip:	EAST PALO ALTO, CA 943032701
Year:	2005

EPA III (Continued) **S112948002**

Gepaid: CAC002594535
Contact: JILL RUSSELL
Telephone: 6502271525
Mailing Name: Not reported
Mailing Address: 1800 W BAYSHORE RD
Gen County: 41
Waste Category: Other inorganic solid waste
TSD EPA ID: CAT000646117
TSD County: 16
Disposal Method: Disposal, Land Fill
Tons: Not reported

Additional Info:
Year: 2005
Shipment Date: 20051129
Creation Date: 3/11/2006 18:31:13
Receipt Date: Not reported
Manifest ID: 24043625
Gen EPA ID: CAC002594535
Trans EPA ID: CAD083003699
Trans Name: LUTREL
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000646117
Trans Name: CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code: 181
RCRA Code: Not reported
Meth Code: Not reported
Quantity Tons: Not reported
Waste Quantity: 184
Quantity Unit: Not reported
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Year: 2005
Shipment Date: 20051130
Creation Date: 3/14/2007 18:30:14
Receipt Date: 20051130
Manifest ID: 24043605
Gen EPA ID: CAC002594535
Trans EPA ID: CAD083003699
Trans Name: LUTREL TRUCKING INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000646117
Trans Name: CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID: CAT000646117
TSDF Alt Name: Not reported
Waste Code: 181
RCRA Code: Not reported
Meth Code: D80
Quantity Tons: Not reported
Waste Quantity: 184

EPA III (Continued) **S112948002**

Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005
Shipment Date:	20050825
Creation Date:	1/18/2006 10:22:44
Receipt Date:	20050826
Manifest ID:	24528396
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD982030173
Trans Name:	ECOLOGY CONTROL INDUSTRIES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	ECOLOGY CONTROL INDUSTRIES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported
Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005
Shipment Date:	20051201
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051201
Manifest ID:	24043608
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083003699
Trans Name:	LUTREL TRUCKING
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	18
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

EPA III (Continued) **S112948002**

Additional Code 5: Not reported

Year: 2005
Shipment Date: 20051130
Creation Date: 3/14/2007 18:30:14
Receipt Date: 20051130
Manifest ID: 24043625
Gen EPA ID: CAC002594535
Trans EPA ID: CAD083603699
Trans Name: LUTREL
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000646117
Trans Name: CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID: CAT000646117
TSDF Alt Name: Not reported
Waste Code: 181
RCRA Code: Not reported
Meth Code: D80
Quantity Tons: Not reported
Waste Quantity: 184
Quantity Unit: Not reported
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Name: EPA III
Address: 1800 W BAYSHORE RD
Address 2: Not reported
City,State,Zip: EAST PALO ALTO, CA 943032701
Year: 2005
Gepaid: CAC002594535
Contact: JILL RUSSELL
Telephone: 6502271525
Mailing Name: Not reported
Mailing Address: 1800 W BAYSHORE RD
Gen County: 41
Waste Category: Other inorganic solid waste
TSD EPA ID: CAT000646117
TSD County: 16
Disposal Method: Not reported
Tons: Not reported

Additional Info:
Year: 2005
Shipment Date: 20051129
Creation Date: 3/11/2006 18:31:13
Receipt Date: Not reported
Manifest ID: 24043625
Gen EPA ID: CAC002594535
Trans EPA ID: CAD083003699
Trans Name: LUTREL
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000646117

EPA III (Continued) **S112948002**

Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	Not reported
Quantity Tons:	Not reported
Waste Quantity:	184
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2005
Shipment Date:	20051130
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051130
Manifest ID:	24043605
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083003699
Trans Name:	LUTREL TRUCKING INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	184
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Year:	2005
Shipment Date:	20050825
Creation Date:	1/18/2006 10:22:44
Receipt Date:	20050826
Manifest ID:	24528396
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD982030173
Trans Name:	ECOLOGY CONTROL INDUSTRIES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD009466392
Trans Name:	ECOLOGY CONTROL INDUSTRIES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code:	512
RCRA Code:	Not reported

EPA III (Continued) **S112948002**

Meth Code:	R01
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005
Shipment Date:	20051201
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051201
Manifest ID:	24043608
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083003699
Trans Name:	LUTREL TRUCKING
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	18
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Year:	2005
Shipment Date:	20051130
Creation Date:	3/14/2007 18:30:14
Receipt Date:	20051130
Manifest ID:	24043625
Gen EPA ID:	CAC002594535
Trans EPA ID:	CAD083603699
Trans Name:	LUTREL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code:	181
RCRA Code:	Not reported
Meth Code:	D80
Quantity Tons:	Not reported
Waste Quantity:	184
Quantity Unit:	Not reported
Additional Code 1:	Not reported

EPA III (Continued) **S112948002**

Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

N105 **J & J RENTALS AND SALES** **LUST S109285656**
ESE **1800 WEST BAYSHORE ROAD** **CERS N/A**
1/4-1/2 **EAST PALO ALTO, CA 94303**
0.431 mi.
2278 ft. **Site 2 of 2 in cluster N**

Relative: **Lower**
Actual: **21 ft.**

LUST:

Name:	J & J RENTALS AND SALES
Address:	1800 WEST BAYSHORE ROAD
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608111865
Global Id:	T0608111865
Latitude:	37.4558510300447
Longitude:	-122.134290933609
Status:	Completed - Case Closed
Status Date:	06/06/2011
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	890027
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline, Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Extracted from PSI's November 16, 2009 Soil and Groundwater Investigation Report, San Mateo County does not take responsibility for the accuracy of the statements made or any professional interpretations made in the referenced report. The subject site consists of a triangular-shaped parcel measuring approximately "-acre in plan area. The site is bound by West Bayshore Road on the northeast, an apartment building on the southeast, and Clarke Avenue on the west. The site is developed with an ell-shaped, single-story structure (currently a laundromat) of about 3,500 square feet and associated landscaped and asphalt-paved parking and drive areas. The structure has a concrete slab-on-grade floor with ceramic tile covering. A Phase I Environmental Site Assessment (ESA) of the property was performed in 2004 which determined that the existing building was occupied by J & J Rental, a lawn mower rental and service shop, between 1974 and 2004. A steel cover, believed to be associated with a sump, was identified at a location south of the building in the paved storage area. A Phase II investigation was performed that identified an Underground Storage Tank (UST) south of the building. Measurement using a stick lowered through a fill pipe under the steel cover indicated a depth to the bottom of the UST of about 6 feet below ground surface (bgs). Upon removal from the UST, the bottom inch of the stick was wet, with no hydrocarbon odor noted. Two hand-auger soil borings were advanced in the area of the UST to about 10 feet bgs. Analysis of soil samples collected from depths of 7 and 10 feet bgs in the borings indicated no detectable petroleum-related hydrocarbons or volatile organic compounds (VOCs), however chromium was detected in samples from both borings. In August

J & J RENTALS AND SALES (Continued) **S109285656**

2005, the single-wall, steel UST (estimated 500 gallon capacity) was removed from the site. The UST contained about inch of water with no sludge observed. The bottom of the western end of the UST was observed to be corroded, and stained soil and petroleum hydrocarbon odor were noted in soils at that end of the excavation. Excavation in the area of observed hydrocarbon contamination extended down an additional 2 feet, with similar contamination observed at a depth of about 8 feet bgs. Analysis of soil samples collected from the bottom of the excavation (S-1 and S-2) indicated the presence of Total Petroleum Hydrocarbons as gasoline (TPH-G) and TPH as motor oil (TPH-MO) at concentrations up to 4,100 milligrams per kilogram (mg/kg) and 30,000 mg/kg, respectively. Other volatile and semi-volatile organic compounds were detected at lower concentrations. Chromium and lead were also detected in the soil samples. The excavation was lined with visqueen and backfilled with the excavated soil. In October 2005, additional soil and groundwater investigation was performed in order to define the extent of the contamination. Three borings (C-1 through C-3) were drilled adjacent to the western end of the UST excavation, to a depth of about 15 feet bgs. Groundwater was encountered at approximately 14 feet bgs. Analysis of groundwater samples indicated the presence of petroleum hydrocarbons at concentrations up to 100,000 micrograms per liter ("g/L), as well as benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tert-butyl ether (MTBE), perchloroethylene (PCE) and lead. Based on the findings from the October 2005 investigation, additional over-excavation in the area of the former UST was performed. The excavation extended down to a depth of about 12 feet bgs, where seepage of groundwater was noted. This excavation resulted in the removal of about 60 tons of petroleum-impacted soil and about 450 gallons of petroleum-impacted groundwater. Eight sidewall soil samples, collected at depths of between 7 and 11 feet bgs, were analyzed for TPH, VOCs, semi-volatile organic compounds (SVOCs), and metals. The highest TPH concentrations (up to 460 mg/kg TPH-G, 3,600 mg/kg TPH as diesel and 3,300 mg/kg TPH-MO) were detected in the samples collected from 10 and 11 feet bgs, corresponding to the capillary fringe. The sample collected from the northeast sidewall of the pit contained the highest concentrations of petroleum hydrocarbons. The excavation was subsequently backfilled with clean, imported soil. The report concluded that the source of the contamination (the UST and soil above the capillary fringe) has been removed. Four groundwater monitoring wells (MW-1 through MW-4) were installed at the site, screened at between 10 and 20 feet bgs. The approximate locations of the monitoring wells are shown on Figure 2. Except for a moderate petroleum hydrocarbon odor in the soils at MW-4 from about 11 to 13 feet bgs, no indication of soil contamination was noted during drilling. Initial groundwater monitoring indicated depth to water at the site ranging from 12.04 to 12.71 feet below the top of the well casings with a flow direction towards the north. Analysis of groundwater samples collected from the wells indicated petroleum hydrocarbon contamination present only in the sample collected from source-area well MW-4. Soil samples were not submitted for analysis. The consultant concluded that this is a low risk site warranting a %case closed% status from the San Mateo County Environmental Health Department (SMEHD). Subsequent groundwater sampling and analysis was performed in the 2nd, 3rd and 4th Quarters of 2007 and in 1st Quarter, 2009. Groundwater flow direction in April 2007 was calculated to be toward the east, however all subsequent monitoring

J & J RENTALS AND SALES (Continued) **S109285656**

events have indicated flow towards the north-northwest. Analytical results for all monitoring events indicate no petroleum hydrocarbon contamination detected in wells MW-1 through MW-3. All 2007 monitoring events indicated petroleum hydrocarbon contamination detected only in source-area well MW-4. The 2009 monitoring event however, indicated no petroleum hydrocarbon contamination present in any of the wells above laboratory reporting limits. Per the direction of the SMEHD in December 2007, the current groundwater monitoring program includes measuring groundwater levels in all wells, purging, sampling, and laboratory analysis of samples from MW-2, MW-3, and MW-4 on a semi-annual basis, and analysis of samples from MW-1 on an annual basis. In response to the December 2007 directive from the SMEHD, a workplan was prepared for the site to further define the extent of soil and groundwater contamination. The workplan included two 20-foot soil borings within the former UST excavation, one 15-foot soil boring north of the excavation, and one 15-foot soil boring off-site and to the east of the excavation. The workplan also included analysis of soil samples for metals and analysis of soil and groundwater samples for TPH-G, TPH as diesel (TPH-D), TPHMO and VOCs. The SMEHD approved the workplan in November 2008, with the conditions that the proposed northern boring location be moved inside the structure, that total boring depths be based on the need for vertical assessment, that the borings be backfilled with cement, and that the final report include justification of sampling locations.

LUST:
Global Id: T0608111865
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 12/27/2007
Action: Staff Letter - #20071227A

Global Id: T0608111865
Action Type: Other
Date: 08/25/2005
Action: Leak Reported

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 11/18/2008
Action: Staff Letter - #20081118

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 06/21/2007
Action: Staff Letter - #20070621

Global Id: T0608111865

J & J RENTALS AND SALES (Continued) **S109285656**

Action Type: ENFORCEMENT
Date: 01/11/2009
Action: Unauthorized Release Form - #20090111

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 03/07/2007
Action: Staff Letter - #20070307

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 07/30/2009
Action: Technical Correspondence / Assistance / Other - #20090730

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 04/12/2006
Action: Staff Letter - #20060412

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 07/30/2009
Action: Staff Letter - #20090730

Global Id: T0608111865
Action Type: RESPONSE
Date: 05/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608111865
Action Type: RESPONSE
Date: 05/12/2006
Action: Electronic Reporting Submittal Due

Global Id: T0608111865
Action Type: RESPONSE
Date: 06/15/2009
Action: Soil and Water Investigation Report

Global Id: T0608111865
Action Type: RESPONSE
Date: 08/01/2006
Action: Preliminary Site Assessment Workplan

Global Id: T0608111865
Action Type: RESPONSE
Date: 01/10/2006
Action: Electronic Reporting Submittal Due

Global Id: T0608111865
Action Type: RESPONSE
Date: 11/24/2006
Action: Soil and Water Investigation Report

Global Id: T0608111865
Action Type: RESPONSE
Date: 11/15/2007

J & J RENTALS AND SALES (Continued) **S109285656**

Action: Monitoring Report - Quarterly

Global Id: T0608111865
Action Type: RESPONSE
Date: 02/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0608111865
Action Type: RESPONSE
Date: 08/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0608111865
Action Type: RESPONSE
Date: 05/02/2008
Action: Soil and Water Investigation Workplan

Global Id: T0608111865
Action Type: RESPONSE
Date: 05/15/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 02/18/2010
Action: Technical Correspondence / Assistance / Other - #20100218

Global Id: T0608111865
Action Type: RESPONSE
Date: 11/15/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0608111865
Action Type: RESPONSE
Date: 05/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608111865
Action Type: RESPONSE
Date: 11/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608111865
Action Type: RESPONSE
Date: 10/14/2010
Action: Other Report / Document

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 07/14/2010
Action: Staff Letter - #20100714

Global Id: T0608111865
Action Type: RESPONSE
Date: 04/22/2011
Action: Well Destruction Report

J & J RENTALS AND SALES (Continued) **S109285656**

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 02/23/2011
Action: Notification - Fee Title Owners Notice - #20110223

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 02/23/2011
Action: Staff Letter - #20110223

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 06/06/2011
Action: Closure/No Further Action Letter - #20110606

Global Id: T0608111865
Action Type: Other
Date: 08/25/2005
Action: Leak Discovery

Global Id: T0608111865
Action Type: REMEDIATION
Date: 11/14/2005
Action: Excavation

Global Id: T0608111865
Action Type: REMEDIATION
Date: 11/15/2005
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 11/10/2005
Action: Staff Letter - #20051110B

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 08/04/2006
Action: Staff Letter - #20060804

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 11/10/2005
Action: Notice of Responsibility - #20051110A

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 12/27/2007
Action: Staff Letter - #20071227B

Global Id: T0608111865
Action Type: ENFORCEMENT
Date: 05/12/2008
Action: Staff Letter - #20080512

Global Id: T0608111865
Action Type: ENFORCEMENT

J & J RENTALS AND SALES (Continued) **S109285656**

Date: 11/15/2006
Action: Warning Letter - #20061115

Global Id: T0608111865
Action Type: Other
Date: 08/25/2005
Action: Leak Stopped

LUST:
Global Id: T0608111865
Status: Open - Case Begin Date
Status Date: 08/31/2005

Global Id: T0608111865
Status: Open - Site Assessment
Status Date: 11/10/2005

Global Id: T0608111865
Status: Open - Site Assessment
Status Date: 03/07/2007

Global Id: T0608111865
Status: Completed - Case Closed
Status Date: 06/06/2011

CERS:
Name: J & J RENTALS AND SALES
Address: 1800 WEST BAYSHORE ROAD
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 213345
CERS ID: T0608111865
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

106
East
1/4-1/2
0.437 mi.
2305 ft.

SIRI BROS NURSERY INC **LUST** **S104493657**
940 O'CONNOR **N/A**
E PALO ALTO, CA 94303

Relative:
Lower

Actual:
16 ft.

LUST:
Name: SIRI BROS NURSERY INC
Address: 940 O'CONNOR
City,State,Zip: EAST PALO ALTO, CA 94303
Lead Agency: SAN MATEO COUNTY LOP

SIRI BROS NURSERY INC (Continued) **S104493657**

Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100499
Global Id:	T0608100499
Latitude:	37.460753
Longitude:	-122.132428
Status:	Completed - Case Closed
Status Date:	03/01/1991
Case Worker:	Not reported
RB Case Number:	41-0523
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	890004
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608100499
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608100499
Action Type:	Other
Date:	09/11/1989
Action:	Leak Reported

Global Id:	T0608100499
Action Type:	Other
Date:	09/11/1989
Action:	Leak Discovery

Global Id:	T0608100499
Action Type:	ENFORCEMENT
Date:	09/11/1989
Action:	Notice of Responsibility - #1

LUST:

Global Id:	T0608100499
Status:	Open - Case Begin Date
Status Date:	09/11/1989

Global Id:	T0608100499
Status:	Completed - Case Closed
Status Date:	03/01/1991

SAN MATEO CO. LUST:

Name:	SIRI BROS NURSERY INC
Address:	1977 TATE ST
City,State,Zip:	EAST PALO ALTO, CA

SIRI BROS NURSERY INC (Continued) **S104493657**

Region: SAN MATEO
Facility ID: 890004
Facility Status: 9- Case Closed
Global ID: T0608100499
APN Number: 063666010
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 890004
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

107
ENE
1/4-1/2
0.439 mi.
2318 ft.

SIRI BROS PARTNERSHIP **LUST** **S106483321**
951 OCONNOR ST **N/A**
EAST PALO ALTO, CA

Relative:
Lower

Actual:
14 ft.

SAN MATEO CO. LUST:
Name: SIRI BROS PARTNERSHIP
Address: 951 OCONNOR ST
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 899014
Facility Status: 9- Case Closed
Global ID: T0608101657
APN Number: 063491030
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

108
SW
1/4-1/2
0.469 mi.
2477 ft.

SOLTAU PROPERTY **LUST** **S105193356**
1111 HAMILTON AVE **HIST LUST** **N/A**
PALO ALTO, CA 94301 **CERS**

Relative:
Higher

Actual:
39 ft.

LUST:
Name: SOLTAU PROPERTY
Address: 1111 HAMILTON AVE
City,State,Zip: PALO ALTO, CA 94301
Lead Agency: SANTA CLARA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608516870

SOLTAU PROPERTY (Continued) **S105193356**

Global Id: T0608516870
Latitude: 37.454522
Longitude: -122.150442
Status: Completed - Case Closed
Status Date: 11/28/2001
Case Worker: UST
RB Case Number: Not reported
Local Agency: SANTA CLARA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: Not reported
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Not reported

LUST:
Global Id: T0608516870
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608516870
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

LUST:
Global Id: T0608516870
Action Type: Other
Date: 11/20/2001
Action: Leak Reported

Global Id: T0608516870
Action Type: ENFORCEMENT
Date: 11/28/2001
Action: Closure/No Further Action Letter

Global Id: T0608516870
Action Type: ENFORCEMENT
Date: 11/20/2001
Action: Other Report

Global Id: T0608516870
Action Type: ENFORCEMENT
Date: 11/20/2001
Action: Other Report

Global Id: T0608516870
Action Type: ENFORCEMENT
Date: 11/20/2001

SOLTAU PROPERTY (Continued) **S105193356**

Action: Unauthorized Release Form

LUST:
Global Id: T0608516870
Status: Open - Case Begin Date
Status Date: 11/13/2001

Global Id: T0608516870
Status: Open - Site Assessment
Status Date: 11/13/2001

Global Id: T0608516870
Status: Completed - Case Closed
Status Date: 11/28/2001

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 05S3W36E02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 11/13/2001
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Name: SOLTAU PROPERTY
Address: 1111 HAMILTON AVE
City,State,Zip: PALO ALTO, CA
Region: SANTA CLARA
SCVWD ID: 05S3W36E02F
Date Closed: 11/28/2001
EDR Link ID: 05S3W36E02F

HIST LUST SANTA CLARA:
Name: Soltau Property
Address: 1111 Hamilton Ave
City: Palo Alto
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 05S3W36E02
Oversite Agency: SCVWD
Date Listed: 2001-11-26 00:00:00
Closed Date: 2001-11-28 00:00:00

CERS:
Name: SOLTAU PROPERTY

SOLTAU PROPERTY (Continued) **S105193356**

Address: 1111 HAMILTON AVE
City,State,Zip: PALO ALTO, CA 94301
Site ID: 248172
CERS ID: T0608516870
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: UST CASE WORKER - SANTA CLARA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1555 Berger Drive, Suite 300
Affiliation City: SAN JOSE
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 4089183400

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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109 **755 SCHEMBRI LANE** **ENVIROSTOR** **S123133187**
NNE **755 SCHEMBRI LANE** **VCP** **N/A**
1/4-1/2 **EAST PALO ALTO, CA 94303**
0.486 mi.
2564 ft.

Relative: **Lower**
Actual: **16 ft.**

ENVIROSTOR:
Name: 755 SCHEMBRI LANE
Address: 755 SCHEMBRI LANE
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60002708
Status: No Further Action
Status Date: 10/23/2018
Site Code: 202197
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 1.5
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Nicole Yuen
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: , 24
Senate: , 13
Special Program: Voluntary Cleanup Program
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.46751

755 SCHEMBRI LANE (Continued) **S123133187**

Longitude: -122.1376
APN: 063-361-260, 063-361-400, 063361260, 063361400
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: Chlordane DDE DDT Dieldrin
Confirmed COC: Chlordane DDE DDT Dieldrin
Potential Description: SOIL
Alias Name: 063-361-260
Alias Type: APN
Alias Name: 063-361-400
Alias Type: APN
Alias Name: 063361260
Alias Type: APN
Alias Name: 063361400
Alias Type: APN
Alias Name: 202197
Alias Type: Project Code (Site Code)
Alias Name: 60002708
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 08/17/2018
Comments: Request for Agency Oversight Application submitted by the Site owner to DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/23/2018
Comments: Organochlorine pesticides from past agricultural use were detected in shallow soil samples collected at the Site. Arsenic, dieldrin, DDE/DDT, chlordane, and beta-BHC were the only contaminants detected at concentrations above the applicable residential DTSC screening levels and the USEPA Regional Screening Levels. Arsenic concentrations were consistent with naturally-occurring background concentrations in Santa Clara County. Soil with contaminant concentrations above residential screening levels were excavated from the Site. This work was conducted without DTSC oversight and summarized in the report reviewed by DTSC. DTSC concludes that no further action is required at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/03/2018
Comments: Voluntary Oversight Agreement between DTSC and the Richard and Susan Jacobsen Family Trust. DTSC will review the submitted data to determine if remediation conducted without DTSC oversight fully addressed hazardous substances on the Site that may pose a significant risk to human health and the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/17/2018
Comments: This letter provides notification to the project proponent that DTSC

755 SCHEMBRI LANE (Continued) **S123133187**

was determined to be the appropriate lead agency for oversight of this project.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Name: 755 SCHEMBRI LANE
Address: 755 SCHEMBRI LANE
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60002708
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.5
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Nicole Yuen
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 202197
Assembly: , 24
Senate: , 13
Special Programs Code: Voluntary Cleanup Program
Status: No Further Action
Status Date: 10/23/2018
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.46751 / -122.1376
APN: 063-361-260, 063-361-400, 063361260, 063361400
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: 30004, 30007, 30008, 30207
Confirmed COC: 30004,30007,30008,30207
Potential Description: SOIL
Alias Name: 063-361-260
Alias Type: APN
Alias Name: 063-361-400
Alias Type: APN
Alias Name: 063361260
Alias Type: APN
Alias Name: 063361400
Alias Type: APN
Alias Name: 202197
Alias Type: Project Code (Site Code)
Alias Name: 60002708
Alias Type: Envirostor ID Number

Completed Info:

755 SCHEMBRI LANE (Continued) **S123133187**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	08/17/2018
Comments:	Request for Agency Oversight Application submitted by the Site owner to DTSC.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	10/23/2018
Comments:	Organochlorine pesticides from past agricultural use were detected in shallow soil samples collected at the Site. Arsenic, dieldrin, DDE/DDT, chlordane, and beta-BHC were the only contaminants detected at concentrations above the applicable residential DTSC screening levels and the USEPA Regional Screening Levels. Arsenic concentrations were consistent with naturally-occurring background concentrations in Santa Clara County. Soil with contaminant concentrations above residential screening levels were excavated from the Site. This work was conducted without DTSC oversight and summarized in the report reviewed by DTSC. DTSC concludes that no further action is required at the Site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	10/03/2018
Comments:	Voluntary Oversight Agreement between DTSC and the Richard and Susan Jacobsen Family Trust. DTSC will review the submitted data to determine if remediation conducted without DTSC oversight fully addressed hazardous substances on the Site that may pose a significant risk to human health and the environment.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	08/17/2018
Comments:	This letter provides notification to the project proponent that DTSC was determined to be the appropriate lead agency for oversight of this project.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

O110 **MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2** **ENVIROSTOR** **S114002217**
ENE **980 AND 992 MYRTLE STREET** **VCP** **N/A**
1/2-1 **EAST PALO ALTO, CA 94303** **DEED**
0.512 mi.
2703 ft. **Site 1 of 2 in cluster O**

Relative:
Lower

Actual:
12 ft.

ENVIROSTOR:

Name:	MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2
Address:	980 AND 992 MYRTLE STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60001925
Status:	Certified O&M - Land Use Restrictions Only
Status Date:	06/30/2015
Site Code:	201984
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	0.9
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Claude Jemison
Supervisor:	Mark Piros
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Voluntary Cleanup Program
Restricted Use:	YES
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.46288
Longitude:	-122.1326
APN:	063352170
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	Arsenic DDD DDE DDT Lead Dieldrin
Confirmed COC:	Arsenic DDD DDE DDT Lead Dieldrin
Potential Description:	SOIL
Alias Name:	063352170
Alias Type:	APN
Alias Name:	201984
Alias Type:	Project Code (Site Code)
Alias Name:	60001925
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	11/12/2013
Comments:	Fact Sheet for RAW comment period of 11/18 to 12/24/2013.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	01/27/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Plan
Completed Date:	01/30/2015

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Community Profile
Completed Date:	10/09/2013
Comments:	The Community Profile for the phase 1 school site was updated for demographics and elected officials for use at this site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Workplan
Completed Date:	09/19/2013
Comments:	Workplan for soil and groundwater sampling to supplemen the Phase 1 ESA data. Previous data and results of this sampling will be used in the human health risk evaluation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	08/14/2014
Comments:	Soil remediation by capping and school construction completed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Report
Completed Date:	02/27/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	02/23/2017
Comments:	Report for gymnasium construction and annual cap inspection.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction Monitoring Report
Completed Date:	03/12/2018
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	06/23/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	09/23/2013
Comments:	Agreement signed for cleanup of lead and pesticide contamination in soil at the proposed school expansion.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Date: 12/26/2013
Comments: Finalized NOE. No comments were received during the 37-day comment period that ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 06/29/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/27/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/13/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/10/2013
Comments: The document presents the results of soil sampling and risk evaluation. Contaminants of concern includes pesticides and lead.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/27/2013
Comments: Final RAW approved for removal of contaminated soil from the Site. Contaminants include arsenic, lead, chlordane, dieldrin and DDT.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 12/24/2013
Comments: Public comment period on the Draft RAW ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: LUR - Notification Response
Completed Date: 06/30/2016
Comments: Not reported

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	08/28/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	10/09/2017
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	10/09/2018
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	5 Year Review Reports
Schedule Due Date:	11/14/2019
Schedule Revised Date:	11/12/2020

VCP:

Name:	MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2
Address:	980 AND 992 MYRTLE STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60001925
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	0.9
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Claude Jemison
Supervisor:	Mark Piros
Division Branch:	Cleanup Berkeley
Site Code:	201984
Assembly:	24
Senate:	13
Special Programs Code:	Voluntary Cleanup Program
Status:	Certified O&M - Land Use Restrictions Only
Status Date:	06/30/2015
Restricted Use:	YES
Funding:	Responsible Party
Lat/Long:	37.46288 / -122.1326
APN:	063352170
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	30001, 30006, 30007, 30008, 30013, 30207
Confirmed COC:	30001,30006,30007,30008,30013,30207

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Potential Description: SOIL
Alias Name: 063352170
Alias Type: APN
Alias Name: 201984
Alias Type: Project Code (Site Code)
Alias Name: 60001925
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/12/2013
Comments: Fact Sheet for RAW comment period of 11/18 to 12/24/2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/27/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 01/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 10/09/2013
Comments: The Community Profile for the phase 1 school site was updated for demographics and elected officials for use at this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 09/19/2013
Comments: Workplan for soil and groundwater sampling to supplemen the Phase 1 ESA data. Previous data and results of this sampling will be used in the human health risk evaluation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/14/2014
Comments: Soil remediation by capping and school construction completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 02/27/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/23/2017

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Comments:	Report for gymnasium construction and annual cap inspection.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction Monitoring Report
Completed Date:	03/12/2018
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	06/23/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	09/23/2013
Comments:	Agreement signed for cleanup of lead and pesticide contamination in soil at the proposed school expansion.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	12/26/2013
Comments:	Finalized NOE. No comments were received during the 37-day comment period that ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction
Completed Date:	06/29/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	06/30/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	08/27/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	09/13/2016
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Risk Assessment Report

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Date:	10/10/2013
Comments:	The document presents the results of soil sampling and risk evaluation. Contaminants of concern includes pesticides and lead.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	12/27/2013
Comments:	Final RAW approved for removal of contaminated soil from the Site. Contaminants include arsenic, lead, chlordane, dieldrin and DDT.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Notice
Completed Date:	12/24/2013
Comments:	Public comment period on the Draft RAW ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	LUR - Notification Response
Completed Date:	06/30/2016
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	08/28/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	10/09/2017
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	10/09/2018
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	5 Year Review Reports
Schedule Due Date:	11/14/2019
Schedule Revised Date:	11/12/2020

DEED:

Name:	MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2
Address:	980 AND 992 MYRTLE STREET
City,State,Zip:	EAST PALO ALTO, CA 94303

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Envirostor ID: 60001925
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: Envirostor Land Use Restrictions

O111 **MYRTLE STREET HIGH SCHOOL CAMPUS** **ENVIROSTOR** **S110121734**
ENE **1010, 1020, 1040, 1054 & 1056 MYRTLE STREET** **SCH** **N/A**
1/2-1 **EAST PALO ALTO, CA 94303**
0.543 mi.
2868 ft. **Site 2 of 2 in cluster O**

Relative:
Lower

Actual:
12 ft.

ENVIROSTOR:
Name: MYRTLE STREET HIGH SCHOOL CAMPUS
Address: 1010, 1020, 1040, 1054 & 1056 MYRTLE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60001223
Status: Certified
Status Date: 02/08/2011
Site Code: 204238
Site Type: School Cleanup
Site Type Detailed: School
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Mellan Songco
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Assembly: 24
Senate: 13
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.4631
Longitude: -122.132
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA
Potential COC: Chlordane DDD DDE DDT Lead Dieldrin
Confirmed COC: 30004-NO 30013-NO 30006-NO 30007-NO 30008-NO 31000-NO 30207-NO
Potential Description: CSS, SOIL
Alias Name: Myrtle Street Campus
Alias Type: Alternate Name
Alias Name: 204238
Alias Type: Project Code (Site Code)
Alias Name: 60001223
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/21/2011

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Comments: Received signed Removal Action Site Certification

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/21/2010
Comments: DTSC sent responses to public comments received during the draft RAW public comment period.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 03/15/2010
Comments: received fully executed agreement

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 12/23/2009
Comments: mailed fully executed EOA agreement to district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/21/2010
Comments: Finalized the Sequoia Union High School District's NOE for the Myrtle St Campus. Forwarded the original copy of the NOE to the Office of Planning and Environmental Analysis on June 21, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/27/2010
Comments: DTSC (B. Duke) observed the implementation of the approved RAW on July 27, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/07/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/15/2010
Comments: DTSC approved the PEA with a further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/22/2009
Comments: An electronic copy of the Phase I Environmental Site Assessment for the Myrtle Street Campus was received on December 12, 2009 to be used as background information.

Completed Area Name: PROJECT WIDE

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/10/2010
Comments: Received the electronic copy of the PEA workplan on 2/10/2010. This PEA workplan presents the sampling activities discussed during prior meetings and have already implemented. The PEA report will present this data.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/21/2010
Comments: DTSC approved the final RAW for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 05/17/2010
Comments: DTSC finalized the Community Profile Report for the Myrtle Street High School Campus.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/29/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 05/04/2010
Comments: DTSC approved the SSI with a further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/13/2010
Comments: Final Factsheet was provided to the District to be filed in the information repository for the 30-day public comment period. The public comment period is from May 17 through June 15, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/25/2010
Comments: DTSC approved the Sandis confirmation land survey

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 12/23/2010
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: MYRTLE STREET HIGH SCHOOL CAMPUS
Address: 1010, 1020, 1040, 1054 & 1056 MYRTLE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60001223
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Mellan Songco
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Site Code: 204238
Assembly: 24
Senate: 13
Special Program Status: Not reported
Status: Certified
Status Date: 02/08/2011
Restricted Use: NO
Funding: School District
Latitude: 37.4631
Longitude: -122.132
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA
Potential COC: Chlordane, Chlordane, DDD, DDE, DDT, Lead, Dieldrin
Confirmed COC: 30004-NO, 30013-NO, 30006-NO, 30007-NO, 30008-NO, 31000-NO, 30207-NO
Potential Description: CSS, SOIL
Alias Name: Myrtle Street Campus
Alias Type: Alternate Name
Alias Name: 204238
Alias Type: Project Code (Site Code)
Alias Name: 60001223
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/21/2011
Comments: Received signed Removal Action Site Certification

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/21/2010
Comments: DTSC sent responses to public comments received during the draft RAW

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

public comment period.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 03/15/2010
Comments: received fully executed agreement

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 12/23/2009
Comments: mailed fully executed EOA agreement to district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/21/2010
Comments: Finalized the Sequoia Union High School District's NOE for the Myrtle St Campus. Forwarded the original copy of the NOE to the Office of Planning and Environmental Analysis on June 21, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/27/2010
Comments: DTSC (B. Duke) observed the implementation of the approved RAW on July 27, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/07/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/15/2010
Comments: DTSC approved the PEA with a further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/22/2009
Comments: An electronic copy of the Phase I Environmental Site Assessment for the Myrtle Street Campus was received on December 12, 2009 to be used as background information.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/10/2010
Comments: Received the electronic copy of the PEA workplan on 2/10/2010. This PEA workplan presents the sampling activities discussed during prior meetings and have already implemented. The PEA report will present this data.

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	06/21/2010
Comments:	DTSC approved the final RAW for implementation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Community Profile
Completed Date:	05/17/2010
Comments:	DTSC finalized the Community Profile Report for the Myrtle Street High School Campus.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Workplan
Completed Date:	03/29/2010
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	05/04/2010
Comments:	DTSC approved the SSI with a further action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	05/13/2010
Comments:	Final Factsheet was provided to the District to be filed in the information repository for the 30-day public comment period. The public comment period is from May 17 through June 15, 2010.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	08/25/2010
Comments:	DTSC approved the Sandis confirmation land survey
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	12/23/2010
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

112
NE
1/2-1
0.772 mi.
4076 ft.

1010 RUNNYMEDE
1010 RUNNYMEDE
EAST PALO ALTO, CA 94303

ENVIROSTOR
CPS-SLIC
CERS

S110121975
N/A

Relative:
Lower

Actual:
13 ft.

ENVIROSTOR:

Name:	1010 RUNNYMEDE
Address:	1010 RUNNYMEDE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60001548
Status:	Inactive - Needs Evaluation
Status Date:	10/01/2018
Site Code:	201908
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Tom Lanphar
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.46830
Longitude:	-122.1320
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA, AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA
Potential COC:	Lead Under Investigation
Confirmed COC:	Under Investigation 30013-NO
Potential Description:	SOIL
Alias Name:	T0608106461
Alias Type:	GeoTracker Global ID
Alias Name:	201908
Alias Type:	Project Code (Site Code)
Alias Name:	60001548
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	11/09/2011
Comments:	letter to property owner requesting information and meeting
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	08/02/2012
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening

1010 RUNNYMEDE (Continued) **S110121975**

Completed Date: 11/05/2012
Comments: Site Assessment completed

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CPS-SLIC:
Name: KUNG PROPERTY
Address: 1010 RUNNYMEDE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Region: STATE
Facility Status: **Open - Remediation**
Status Date: 04/13/2004
Global Id: T0608106461
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 899019
Latitude: 37.468469955
Longitude: -122.133450781
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: SAN MATEO COUNTY LOP
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Soil
Potential Contaminants of Concern: Chlordane, DDD / DDE / DDT, Other Insecticides / Pesticide / Fumigants / Herbicides
Site History: Extracted from Purcell, Rhodes, and Associates' August 9, 2007 Soi lremediation Work Plan, San Mateo County does not take responsibility for the accuracy of the statements made or any professional interpretations made in the referenced report. Harza. March 27, 2001 This study consisted ol four sample locations, with one location in each quadrant of the property. One or more chlorinated pesticides were detected in each of the four samplings. Chlordane concentrations ranged from 88 to 120 parts per billion (ppb), DDE ranged from 74 to 1,300 ppb, DDT ranged from 72 to 1,000 ppb, dieldrin was detected in two of the sample locations at concentrations of 21 and 130 ppb, and heptachlor epoxide was detected in two sample locations at concentrations of 90 and 760 ppb. ICES. Julv 8, 2002 A site assessment was conducted by Innovative & Creative Environmental Solutions (ICES) in 2002. Twentyfour soil samples were collected. The results of this assessment was that only two organochlorine pesticides, DDE and DDT were detected with total cumulative DD compound concentrations ranging to 1.895 parts per million (ppm) in the upper 9 inches of the giound surface. Below this depth, concentrations ranged from nondetect to 0.0089 ppm. None of these samples detected chlordane, dieldrin or heptachlor epoxide. Based upon the concentrations detected by Harza, ICES prepared a Work Plan for soil remediation by removal and disposal of the upper 6 to 9 inches of the entire site. This Work Plan was approved by the San Mateo County Health Department. Assessco. Inc.. September 21, 2006 Al

1010 RUNNYMEDE (Continued) **S110121975**

conducted additional sampling and analysis at this site, and concluded that organochlorine pesticides Dieldrin, Heptachlor Epoxide, and DDD-DDE-DDT compounds, and the heavy metal arsenic were detected above regulatory criteria. Al prepared a Work Plan recommending that the upper 12 inches of soil in three designated excavation areas be removed for disposal at a license disposal facility. San Mateo Countv Health Department, October 26, 2006 The County Health Department (CHD) reviewed the proposed Work Plan prepared by Al, and provided comment. The CHD noted that the proposed depth and extent of proposed remediation are estimates and may be much greater than anticipated. The CHD commented that site specific clean up goals were not proposed, and that default regulatory criteria was proposed as clean up goals. The CHD was concerned over the potential impact of the amount of excavation performed versus what could be considered acceptable for protection of human health and the environment, particularly with respect to arsenic. The CHD also noted the Work Plan did not present a methodology or frequency for confirmation sampling to assess clean up activities.

Click here to access the California GeoTracker records for this facility:

CERS:

Name:	KUNG PROPERTY
Address:	1010 RUNNYMEDE STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	259297
CERS ID:	T0608106461
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	DENO MILANO - SAN MATEO COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	2000 ALAMEDA DE LAS PULGAS SUITE 100
Affiliation City:	SAN MATEO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	6503726292

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

113
WNW
1/2-1
0.864 mi.
4563 ft.

KNOWN
600 WILLOW ROAD
MENLO PARK, CA 92231

Notify 65 **S100178925**
N/A

Relative:
Higher

Actual:
40 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

114
NNE
1/2-1
0.889 mi.
4695 ft.

ELECTRITE PLATING COMPANY INC
1805 BAY ROAD
PALO ALTO, CA 94303

ENVIROSTOR **1000181332**
LUST **N/A**
FINDS
ECHO
HIST CORTESE
CERS

Relative:
Lower

Actual:
18 ft.

ENVIROSTOR:

Name:	ELECTRITE COMPANY, INC
Address:	1805 BAY ROAD
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	41340028
Status:	Refer: RWQCB
Status Date:	07/29/1994
Site Code:	Not reported
Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	* CERC2
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.47238
Longitude:	-122.1345
APN:	063133130
Past Use:	NONE SPECIFIED
Potential COC:	* LIQUIDS WITH PH <= 2 * Metals - Sludge * CONTAMINATED SOIL * ACID SOLUTION 2>PH WITH METALS * ALKALINE SOLUTION 2<PH<12.5, WITH METALS Lead Cadmium and compounds Chromium VI Cyanide (free Nickel
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	063133130
Alias Type:	APN
Alias Name:	CAD009119959
Alias Type:	EPA Identification Number
Alias Name:	41340028
Alias Type:	Envirostor ID Number

ELECTRITE PLATING COMPANY INC (Continued) **1000181332**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	08/01/1980
Comments:	FACILITY IDENTIFIED ACTIVE SITE I.D.'D IND. OF DRIVE BY * EQ

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	11/03/1987
Comments:	PRELIM ASSESS DONE SI MEDIUM TO ENCOMPASS EXTENT OF GRG WTR AND SOIL CONTMN.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	07/20/1987
Comments:	SITE SCREENING DONE FROM 1963 SITE USED FOR PLATING OPERATIONS. SURVEY FORM COMPLETED BY CO IN 1980 INDICATES WASTES DISPOSED OF TO THE SEWER. NO WASTES WERE DISPOSED OF OFF SITE PRIOR TO 1972

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	04/20/2007
Comments:	Further Action required SFBRWQCB is the lead. Plating shop with illegal discharges to the sewer.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

LUST:

Name:	ELECTRITE COMPANY INC
Address:	1805 BAY RD
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608101036
Global Id:	T0608101036
Latitude:	37.472383
Longitude:	-122.134547
Status:	Completed - Case Closed
Status Date:	04/13/2009
Case Worker:	Not reported
RB Case Number:	41-1127
Local Agency:	Not reported
File Location:	Not reported
Local Case Number:	899002

ELECTRITE PLATING COMPANY INC (Continued) **1000181332**

Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608101036
Action Type: Other
Date: 02/15/1994
Action: Leak Reported

Global Id: T0608101036
Action Type: ENFORCEMENT
Date: 04/13/2009
Action: Closure/No Further Action Letter

Global Id: T0608101036
Action Type: Other
Date: 02/15/1994
Action: Leak Discovery

Global Id: T0608101036
Action Type: Other
Date: 02/15/1994
Action: Leak Stopped

LUST:
Global Id: T0608101036
Status: Open - Case Begin Date
Status Date: 02/15/1994

Global Id: T0608101036
Status: Open - Site Assessment
Status Date: 07/14/1998

Global Id: T0608101036
Status: Completed - Case Closed
Status Date: 04/13/2009

LUST REG 2:
Region: 2
Facility Id: 41-1127
Facility Status: Pollution Characterization
Case Number: 899002
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: 7/14/1998
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

ELECTRITE PLATING COMPANY INC (Continued) **1000181332**

FINDS:

Registry ID: 110006466751

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000181332
Registry ID:	110006466751
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110006466751

HIST CORTESE:

edr_fname:	ELECTRITE COMPANY INC
edr_fadd1:	1805 BAY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-1127

CERS:

Name:	ELECTRITE COMPANY INC
Address:	1805 BAY RD
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	200748
CERS ID:	T0608101036
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EAST PALO ALTO	S106234944	PENINSULA SPORTSMENS CLUB	UNIVERSITY AVENUE		CPS-SLIC
EAST PALO ALTO	S121687280	UNIVERSITY PLAZA	2100 UNVERSITY AVE & 675 DONOH	94303	CIWQS
MENLO PARK	S107539038		ISABELLA & GARFIELD		CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/13/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 76

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 11/22/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 67

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 11/22/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 67

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 14

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/11/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 66

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 12/17/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019
Date Data Arrived at EDR: 08/28/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 75
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52
Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/11/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72
Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 59

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/15/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/11/2019
Number of Days to Update: 70

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/05/2019
Date Data Arrived at EDR: 12/06/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 70

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/06/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 58

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 66

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 11/12/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/19/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/09/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 370

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 84

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/06/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 8
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 78

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2019
Date Data Arrived at EDR: 10/09/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 72

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/15/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/25/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 64

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 37

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 12/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 10/06/2019
Date Data Arrived at EDR: 10/08/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 86
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/19/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 43
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 10/31/2019
Date Data Arrived at EDR: 11/01/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 40

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 09/27/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 63

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/12/2019
Number of Days to Update: 62

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 03/29/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/22/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 66

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/08/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 54

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/19/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/19/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/07/2019
Date Data Arrived at EDR: 10/08/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/11/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/16/2019
Date Data Arrived at EDR: 09/18/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 49
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/11/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 11/18/2019
Number of Days to Update: 90
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
-> Description here.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 11/14/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 85

Source: -> Agency name here.
Telephone: -> Phone here.
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 10/03/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 51

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 63

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/03/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 43

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/12/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/08/2019
Date Data Arrived at EDR: 10/10/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 62

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/13/2019
Date Data Arrived at EDR: 11/14/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 70

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/30/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 11/05/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 64

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 61

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List

Cupa facility list

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/08/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List

Cupa facility list

Date of Government Version: 07/22/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 12/11/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/15/2020
Date Data Arrived at EDR: 01/16/2020
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 22

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 10/16/2019
Date Made Active in Reports: 12/12/2019
Number of Days to Update: 57

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 71
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/27/2020
Number of Days to Update: 68
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29
Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 44

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 11/20/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 67

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/30/2019
Date Data Arrived at EDR: 10/30/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 42

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 11/05/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 66

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 52
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/06/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/07/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/08/2019
Number of Days to Update: 38
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/26/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 69

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 10/16/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 52

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/11/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/05/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 10/30/2019
Date Data Arrived at EDR: 11/01/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 68

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 06/18/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 29

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 66

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/23/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 69

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 51

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/10/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/25/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 30

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 63

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/03/2020
Number of Days to Update: 60

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 01/30/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/07/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/18/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

UNIVERSITY CIRCLE
1900, 1950 & 2000 EAST UNIVERSITY AVENUE
PALO ALTO, CA 94303

TARGET PROPERTY COORDINATES

Latitude (North):	37.458933 - 37° 27' 32.16''
Longitude (West):	122.142896 - 122° 8' 34.43''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	575803.6
UTM Y (Meters):	4145925.8
Elevation:	32 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640620 PALO ALTO, CA
Version Date:	2012
East Map:	5641106 MOUNTAIN VIEW, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

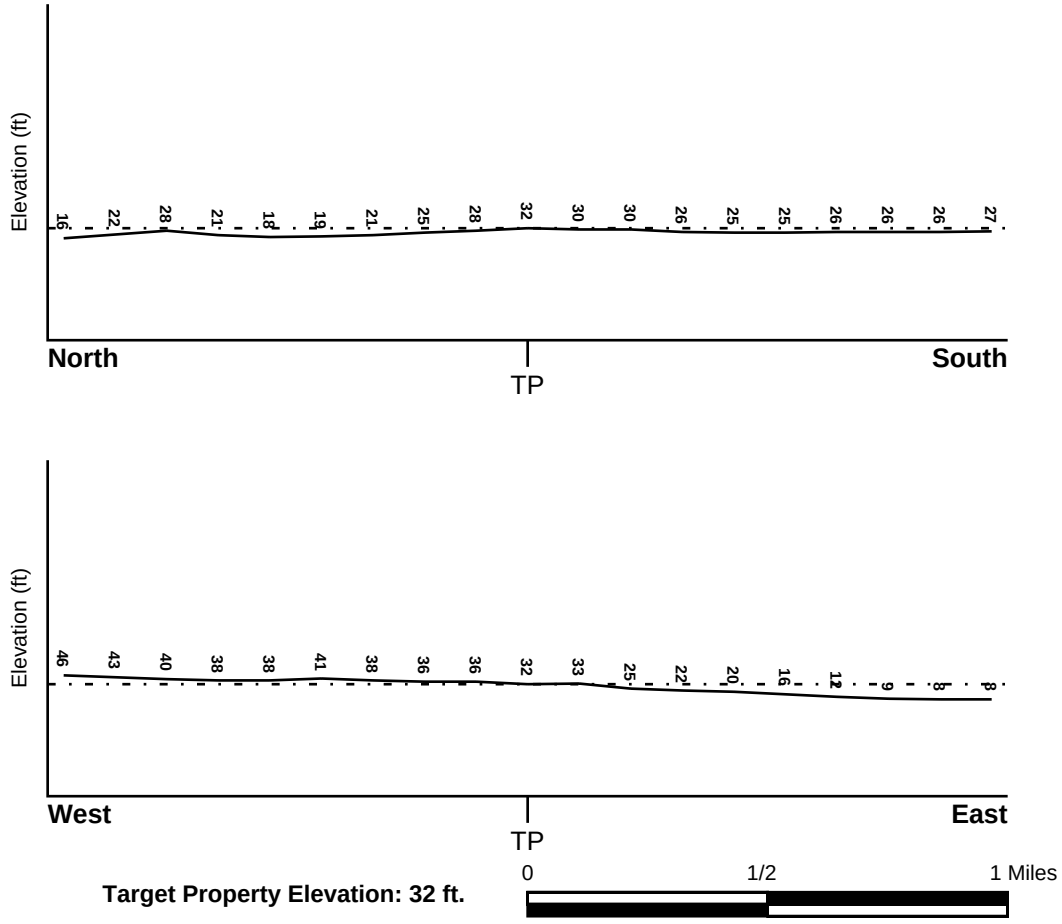
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 32 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06081C0309E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06081C0306E	FEMA FIRM Flood data
06081C0307E	FEMA FIRM Flood data
06081C0308E	FEMA FIRM Flood data
06081C0328E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
PALO ALTO	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	0 - 1/8 Mile SE	NE
2	0 - 1/8 Mile NNE	NE
C19	1/2 - 1 Mile NNE	N
21	1/2 - 1 Mile ESE	NE
D23	1/2 - 1 Mile NNE	ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
D24	1/2 - 1 Mile NNE	ENE
25	1/2 - 1 Mile WNW	Not Reported
E26	1/2 - 1 Mile WNW	NE
E27	1/2 - 1 Mile WNW	Not Reported
1G	1/2 - 1 Mile NNE	ENE
2G	1/2 - 1 Mile NNE	ENE
3G	1/2 - 1 Mile NNE	N
4G	1/2 - 1 Mile WNW	Not Reported
5G	1/2 - 1 Mile WNW	NE
6G	1/2 - 1 Mile WNW	Not Reported
7G	0 - 1/8 Mile NNE	NE
8G	0 - 1/8 Mile SE	NE
9G	1/2 - 1 Mile ESE	NE

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

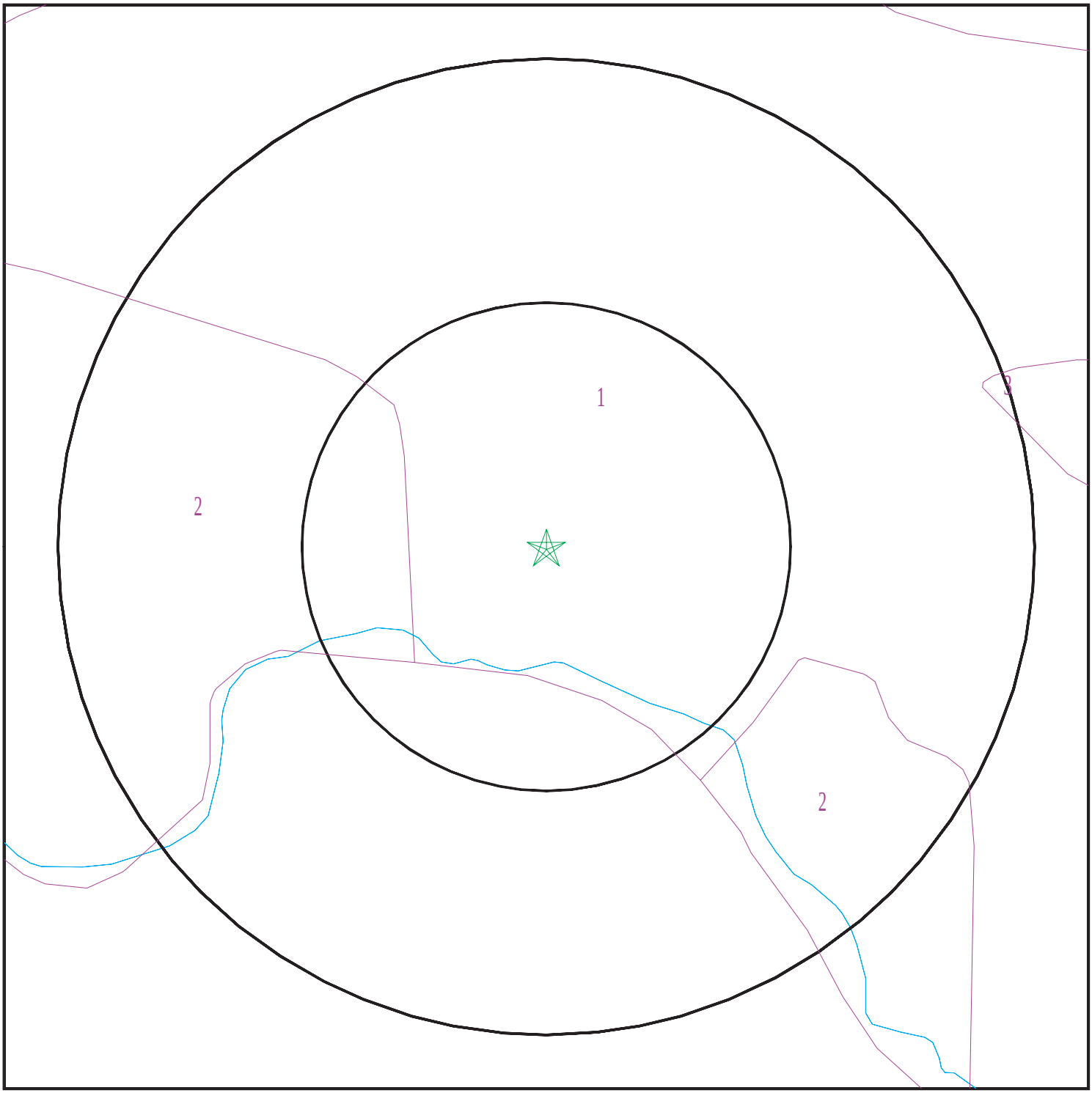
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5973678.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	University Circle	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1900, 1950 & 2000 East University Avenue Palo Alto CA 94303	CONTACT:	Vanessa Pina
LAT/LONG:	37.458933 / 122.142896	INQUIRY #:	5973678.2s
		DATE:	February 18, 2020 7:58 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: Orthents

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	USGS40000183299	1/8 - 1/4 Mile SW
4	USGS40000183311	1/4 - 1/2 Mile West
A5	USGS40000183250	1/2 - 1 Mile South
A6	USGS40000183245	1/2 - 1 Mile South
A7	USGS40000183244	1/2 - 1 Mile South
A8	USGS40000183247	1/2 - 1 Mile South
A9	USGS40000183246	1/2 - 1 Mile South
18	USGS40000183284	1/2 - 1 Mile WSW
C20	USGS40000183365	1/2 - 1 Mile NNE
22	USGS40000183384	1/2 - 1 Mile North

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
14	CA4310009	1/2 - 1 Mile North

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A10	CADWR8000034662	1/2 - 1 Mile South
A11	CADWR8000034659	1/2 - 1 Mile South
A12	CADWR8000034660	1/2 - 1 Mile South
A13	CADWR8000034661	1/2 - 1 Mile South
B15	5875	1/2 - 1 Mile NW
B16	5876	1/2 - 1 Mile NW
B17	5877	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 5973678.2s

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	University Circle	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1900, 1950 & 2000 East University Avenue Palo Alto CA 94303	CONTACT:	Vanessa Pina
		INQUIRY #:	5973678.2s
LAT/LONG:	37.458933 / 122.142896	DATE:	February 18, 2020 7:58 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **SE** **0 - 1/8 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890005 NE 26.36 27.41 Not Reported 11/05/1992	**AQUIFLOW**	**50006**
2 **NNE** **0 - 1/8 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890003 NE 8.45 11.01 Not Reported 06/08/1998	**AQUIFLOW**	**50010**

3
SW
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000183299**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36F002M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19921111	Well Depth:	260
Well Depth Units:	ft	Well Hole Depth:	260
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1992-11-11
Feet below surface:	60	Feet to sea level:	Not Reported
Note:	Not Reported		

4
West
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000183311**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36D001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19660706	Well Depth:	550
Well Depth Units:	ft	Well Hole Depth:	608
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A5
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183250**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36L010M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	195408	Well Depth:	65
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-04-28
Feet below surface:	9.45	Feet to sea level:	Not Reported
Note:	Not Reported		

A6
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183245**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36P003M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	740
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

A7
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183244**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36P002M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	930
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A8
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183247**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36POO5M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	200
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

A9
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183246**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36P004M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	560
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

A10
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034662**

State Well #:	05S03W36P005M	Station ID:	47594
Well Name:	05S03W36P005	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	200	Basin Name:	Santa Clara
Well Completion Rpt #:	795749		

A11
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034659**

State Well #:	05S03W36P002M	Station ID:	47591
Well Name:	05S03W36P002	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	930	Basin Name:	Santa Clara

Well Completion Rpt #: 795746

A12
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034660**

State Well #:	05S03W36P003M	Station ID:	47592
Well Name:	05S03W36P003	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	740	Basin Name:	Santa Clara
Well Completion Rpt #:	795747		

A13
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034661**

State Well #:	05S03W36P004M	Station ID:	47593
Well Name:	05S03W36P004	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	560	Basin Name:	Santa Clara
Well Completion Rpt #:	795748		

14
North
1/2 - 1 Mile
Lower

FRDS PWS **CA4310009**

Epa region:	09	State:	CA
Pwsid:	CA4310009	Pwsname:	CITY OF PALO ALTO
Cityserved:	Not Reported	Stateserved:	CA
Zipserved:	Not Reported	Fipscounty:	06085
Status:	Active	Retpopsrvd:	62000
Pwssvcconn:	19344	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	GHAFFARI, JAVAD	Contactorgname:	GHAFFARI, JAVAD
Contactphone:	650-496-6932	Contactaddress1:	P.O. BOX 10250
Contactaddress2:	250 HAMILTON AVE.	Contactcity:	PALO ALTO
Contactstate:	CA	Contactzip:	94303
Pwsactivitycode:	A		

Pwsid:	CA4310009	Facid:	7249
Facname:	HALE - TREATED CL2	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

Pwsid:	CA4310009	Facid:	7250
Facname:	PEERS - TREATED CL2	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

Pwsid:	CA4310009	Facid:	7252
Facname:	RINCONADA - TREATED CL2	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

Pwsid:	CA4310009	Facid:	800
Facname:	HALE - TREATED - INACTIVE	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

Pwsid:	CA4310009	Facid:	801
Facname:	PEERS - TREATED - INACTIVE		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		

Pwsid:	CA4310009	Facid:	802
Facname:	RINCONADA - TREATED - INACTIVE		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		

Pwsid:	CA4310009	Facid:	803
Facname:	SAND HILL ROAD STATION - TREATED		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	other	Trtprocess:	fluoridation
Factypecode:	TP		

PWS ID:	CA4310009	PWS name:	CITY OF PALO ALTO
Address:	Not Reported	Care of:	Not Reported
City:	PALO ALTO	State:	CA
Zip:	94303	Owner:	CITY OF PALO ALTO
Source code:	Purchases surface water	Population:	57000

PWS ID:	CA4310009	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	County:	SANTA CLARA
Source:	Purchases surface water	Treatment Objective:	Z
Process:	FLUORIDATION	Population:	58000

PWS ID:	CA4310009	Activity status:	Active
Date system activated:	7706	Date system deactivated:	Not Reported
Retail population:	00056000	System name:	CITY OF PALO ALTO
System address:	Not Reported	System address:	250 HAMILTON AVE
System city:	PALO ALTO	System state:	CA
System zip:	94303		

County FIPS:	Not Reported	City served:	PALO ALTO

County FIPS:	085	City served:	PALO ALTO

Population served:	50,001 - 75,000 Persons	Treatment:	Mixed (treated and untreated)

Latitude:	372808	Longitude:	1220824

Violation id:	1017003	Orig code:	S
State:	CA	Violation Year:	2010
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2010
Cmp edt:	07/31/2010		

Violation id:	1217004	Orig code:	S
State:	CA	Violation Year:	2012

Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	05/01/2012
Cmp edt:	05/31/2012		
System Name:	CITY OF PALO ALTO	Violation Type:	01
Contaminant:	0100	Compliance Begin:	1995-03-01
Compliance End:	1995-03-31	Violation ID:	9505002
Enforcement Date:	1995-05-03	Enforcement Action:	SFL
Violation ID:	1017003	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	09/07/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1217004	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	06/22/2012
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	92V0001	Orig Code:	F
Enforcemnt FY:	2000	Enforcement Action:	03/01/2000
Enforcement Detail:	Fed Compliance achieved	Enforcement Category:	Resolving

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B15
NW
1/2 - 1 Mile
Lower

CA WELLS 5875

Seq:	5875	Prim sta c:	05S/03W-25M03 M
Frds no:	4110020001	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 01 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	8	Status:	IU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		

B16
NW
1/2 - 1 Mile
Lower

CA WELLS 5876

Seq:	5876	Prim sta c:	05S/03W-25M04 M
Frds no:	4110020004	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 05	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		
Sample date:	22-AUG-17	Finding:	226.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	444.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	21.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	22-AUG-17	Finding:	47.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	22-AUG-17	Finding:	75.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	93.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	16.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	51.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	7.71
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	226.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	0.486
Chemical:	TURBIDITY, FIELD	Report units:	NTU
Dlr:	0.1		
Sample date:	22-AUG-17	Finding:	0.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	745.

Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.77
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	183.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-OCT-16	Finding:	73.
Chemical:	ALUMINUM	Report units:	UG/L
Dlr:	50.		
Sample date:	08-SEP-15	Finding:	1.27
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	7.57
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	52.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	17.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	97.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	95.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	50.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	08-SEP-15	Finding:	424.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.557
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	1.2
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	1.59
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.26
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.664
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.11
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.25
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	801.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	7.76
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.8
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.5
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.76
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-SEP-14	Finding:	463.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.22
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	47.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	03-SEP-14	Finding:	100.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	85.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	15.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	183.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	678.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.38
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	0.45
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	5.1
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	508.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	2.
Chemical:	CYANIDE	Report units:	UG/L
Dlr:	100.		

Sample date:	19-MAY-14	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	48.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-MAY-14	Finding:	100.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	92.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	16.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	186.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	228.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	228.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	7.62
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	820.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	4.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	6.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	0.56
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.44
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.3
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L

Dlr:	0.		
Sample date:	23-JUL-13	Finding:	2.e-002
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	1.29
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		
Sample date:	05-JUN-12	Finding:	6.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JUN-12	Finding:	0.194
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-JUN-12	Finding:	0.91
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	0.3
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	1.9
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		

B17
NW
1/2 - 1 Mile
Lower

CA WELLS 5877

Seq:	5877	Prim sta c:	05S/03W-25M05 M
Frds no:	4110020005	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 06	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		
Sample date:	22-AUG-17	Finding:	0.92
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-AUG-17	Finding:	0.92
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	22-AUG-17	Finding:	520.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	0.229
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	11-OCT-16	Finding:	801.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	7.67
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	236.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	236.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.99
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	207.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	54.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	18.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	100.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	91.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	52.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	11-OCT-16	Finding:	0.25
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	0.316
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.27
Chemical:	GROSS BETA MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.742
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.09
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.59
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	3.22
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	08-SEP-15	Finding:	1.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	0.543
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	442.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	1.03
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	181.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	5.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAY-14	Finding:	206.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	0.347
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	4.3
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	19-MAY-14	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	53.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-MAY-14	Finding:	91.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	96.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	18.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	53.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	231.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	231.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	804.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	4.3
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	2.e-002
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.44
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.85
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.26
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	4.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	23-JUL-13	Finding:	1.94
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		
Sample date:	05-JUN-12	Finding:	52.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-JUN-12	Finding:	439.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JUN-12	Finding:	0.124
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-JUN-12	Finding:	79.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	2.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	99.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	17.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	60.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	234.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	511.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	234.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	7.71
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

18
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000183284**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W35G010M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported		
Aquifer Type:	Mixed (confined and unconfined multiple aquifers)		
Construction Date:	19551212	Well Depth:	840
Well Depth Units:	ft	Well Hole Depth:	935
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1994-05-11
Feet below surface:	34.27	Feet to sea level:	Not Reported
Note:	Not Reported		

C19
NNE
1/2 - 1 Mile
Lower

AQUIFLOW **64278**

Site ID:	890011
Groundwater Flow:	N
Shallow Water Depth:	8.5
Deep Water Depth:	9
Average Water Depth:	Not Reported
Date:	12/11/1995

C20
NNE
1/2 - 1 Mile
Lower

FED USGS **USGS40000183365**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W25G001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19580424	Well Depth:	54
Well Depth Units:	ft	Well Hole Depth:	54
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-05-01
Feet below surface:	9.15	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
21 **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890015 NE 8 12 Not Reported 11/1998	**AQUIFLOW**	**50008**

22
North
1/2 - 1 Mile
Lower

FED USGS **USGS40000183384**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W25F001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19791229	Well Depth:	334
Well Depth Units:	ft	Well Hole Depth:	351
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-05-02
Feet below surface:	9.89	Feet to sea level:	Not Reported
Note:	Not Reported		

			Database	EDR ID Number
D23 **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890009 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64292**

			Database	EDR ID Number
D24 **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0666 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64293**

			Database	EDR ID Number
25 **WNW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440016 Not Reported 24.63 25.3 Not Reported 02/16/1989	**AQUIFLOW**	**51116**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
E26 **WNW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440021 NE 28 29 Not Reported 01/15/1992	**AQUIFLOW**	**51136**
E27 **WNW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440026 Not Reported 18.35 28.22 Not Reported 12/21/1993	**AQUIFLOW**	**51142**
1G **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890009 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64292**
2G **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0666 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64293**
3G **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890011 N 8.5 9 Not Reported 12/11/1995	**AQUIFLOW**	**64278**
4G **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440016 Not Reported 24.63 25.3 Not Reported 02/16/1989	**AQUIFLOW**	**51116**
5G **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440021 NE 28 29 Not Reported 01/15/1992	**AQUIFLOW**	**51136**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
6G **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440026 Not Reported 18.35 28.22 Not Reported 12/21/1993	**AQUIFLOW**	**51142**
7G **NNE** **0 - 1/8 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890003 NE 8.45 11.01 Not Reported 06/08/1998	**AQUIFLOW**	**50010**
8G **SE** **0 - 1/8 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890005 NE 26.36 27.41 Not Reported 11/05/1992	**AQUIFLOW**	**50006**
9G **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890015 NE 8 12 Not Reported 11/1998	**AQUIFLOW**	**50008**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94303	22	0

Federal EPA Radon Zone for SAN MATEO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94303

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

APPENDIX D: QUALIFICATIONS

PARTNER

Education

BA, Environmental Studies, University of California at Santa Barbara
MBA, Finance and Marketing, Santa Clara University, Leavey School of Business, Santa Clara, CA

Registrations

AHERA Asbestos Building Inspection Certification, State of California

Highlights

24 years of experience in the environmental consulting/real estate due diligence industries
19 years performing Phase Environmental Site Assessments; Transaction Screen Assessments; Environmental Desktop Reports; Asbestos Surveys; HUD Phase I Environmental Site Assessments; Freddie Mac and Fannie Mae Phase I Environmental Site Assessments; and Radon Testing

Experience Summary

Beginning in the early 1990s, Mr. Olsen worked for various San Jose based environmental firms as a research analyst, gathering government agency, historical research and geologic information utilized in ESAs. In the late 1990s through early 2000s he managed the day-to-day operations of a team of research analyst and GIS related research and projects. From the early 2000s through the present, Mr. Olsen has been conducting and performing Phase I ESAs and subsurface investigations for various national environmental consulting firms.

Project Experience

Westfield Oakridge Shopping Mall. Mr. Olsen conducted a Phase I Environmental Site Assessments on a 1.2 million square foot Westfield Shoppingtown mall (Oakridge Mall, San Jose, California)

Humboldt Redwood Company. Mr. Olsen conducted a Phase I Environmental Site Assessments on a 660-acre Humboldt Redwood Company lumber mill, co-generation plant and maintenance facility, along with 207,000 acres of timberland (Scotia, California)

Talavera. Mr. Olsen conducted a Freddie Mac Phase I Environmental Site Assessments on a 350-unit multi-family residential apartment facility (Las Vegas, Nevada)

Automobile Dealership Portfolio. Mr. Olsen recently conducted seven (7) Phase I Environmental Site Assessments on automobile dealerships/service facilities (San Jose, Newark, Pleasanton, Colma and Hayward, California)

Greka Energy. Mr. Olsen conducted a Phase I Environmental Site Assessment on an asphalt and crude oil refinery (Santa Maria, California)

PARTNER

Lauren E. Gannon
Project Scientist

Education

B.S. Environmental Engineering, University of Southern California

Registrations

Engineer-in-Training, Certificate No. EIT 128365
AHERA Asbestos Building Inspector Program

Training

OSHA 40-Hour HAZWOPER Training
Annual 8-Hour HAZWOPER Refreshers

Highlights

10 years in the environmental consulting industry
7 years of experience in soil and groundwater contamination investigations and remediation
3 years performing due diligence assessments

Experience Summary

Ms. Gannon serves as a Project Scientist for Partner Engineering and Science, Inc. (Partner), performing Phase I Environmental Site Assessments in accordance with EPA's All Appropriate Inquiry (AAI) and the Small Business Association (SBA) requirements. Ms. Gannon has performed various Phase I Environmental Site Assessments, Environmental Transaction Screens, Phase II Subsurface Investigations, and Mold Assessments throughout the United States. Ms. Gannon also serves as a senior technical reviewer on environmental due diligence assessments.

Ms. Gannon has been responsible for the completion of Phase I Environmental Site Assessments for various properties including gasoline service stations, industrial facilitates, manufacturing plants, machine shops, and potentially contaminated sites. Ms. Gannon has coordinated the completion of various assignments across the United States, most notably throughout the West region. Ms. Gannon has extensive field experience soil and groundwater sampling.

Project Experience

Phase I Environmental Site Assessments

Phase I Environmental Site Assessments, Gas Stations, Los Angeles, California. Ms. Gannon has performed multiple Phase I ESAs of gasoline stations throughout the Greater Los Angeles area, and has identified potentially leaking underground storage tanks (USTs), necessitating subsequent soil and groundwater assessments.

Phase I Environmental Site Assessment, Industrial Facilities, Various Locations Throughout Los Angeles, California. Ms. Gannon has performed multiple Phase I ESAs for industrial sites of various sizes.

Phase I Environmental Site Assessment, Industrial Facility/Former Gas Station, Santa Fe Springs, California. Ms. Gannon performed a Phase I ESA for a large industrial facility with former gas station operations.

Phase I Environmental Site Assessment, High-Rise Office Building, Los Angeles, California. Ms. Gannon conducted a Phase I ESA on a 20-story professional office building as well as the adjacent multi-level parking garage.

Phase I Environmental Site Assessment, Hotel, Beverly Hills, California. Ms. Gannon performed a Phase I ESA for a well-known, five-star, full service hotel with onsite dry cleaning and previous onsite gas station operations.

Remediation

Soil Stockpile Sampling and Reuse/Disposal, Los Angeles Unified School District, Los Angeles, California. Ms. Gannon served as Project Manager for several projects involving soil sampling at several LAUSD school sites to determine options for soil reuse or disposal. Ms. Gannon devised investigation strategies, wrote sampling work plans, and finalized investigative reports. She was responsible for staffing and scheduling field work, coordination of subcontractors and property managers, direction of staff employees, and oversight of field activities, data analyses, and report preparation.

Retail Site Assessment and Remediation, Confidential Oil Company, Los Angeles, California. Ms. Gannon served as Project Engineer and performed dual phase extraction testing, soil vapor extraction/air sparge testing, soil and soil vapor sampling, well installations, and reporting.

Soil Vapor Extraction System, Confidential Aerospace Company, Southern California. Ms. Gannon served as Project Engineer and operated an SVE system to remediate VOC-impacted soil using catalytic oxidation and vapor phase granular activated carbon. Ms. Gannon conducted quarterly soil vapor sampling, reviewed analytical data to calculate VOC mass removal rates and evaluate system performance, coordinated field technicians and subcontractors, and managed the quarterly O&M activities and reporting.

Soil Vapor Extraction and Air Sparge System, CBS Outdoor, Inc., Los Angeles, CA. Ms. Gannon was involved with the installation of a soil vapor extraction and air sparge remediation system that utilized a thermal oxidizer. Ms. Gannon conducted operation and maintenance, oversight of construction and installation, and quarterly reporting.

Contact

LGannon@partneresi.com

Education

B.S. in Environmental Technology, North Carolina State University

Registrations

North Carolina-Licensed Asbestos Inspector (No.12453)
South Carolina-Licensed Asbestos Inspector (No. BI-00537)

Training

AHERA Certified Asbestos Building Inspector
OSHA 40-hour HAZWOPER Certification
OSHA 8-hour HAZWOPER Annual Refresher
Structural Pest Control Board of California Branch III Technical Training, Certificate
Fannie Mae Property Condition Assessment Training, Certificate

Highlights

Over 11 years in the environmental and engineering consulting industry
Principal of Partner Engineering and Science, Inc. (Partner)
Client Manager at Partner Engineering and Science, Inc. (Partner)

Experience Summary

Mr. Chang currently serves as a Client Manager for Partner providing solutions to clients' due diligence and engineering needs. He is responsible for account development and management and for ensuring consistency, quality, and on-time delivery of due diligence and engineering services provided by Partner. Mr. Chang has extensive experience managing all aspects of due diligence, specializing in environmental and engineering due diligence, for nationwide and local clients such as:

- Residential Developers
- Commercial Developers
- Mortgage Brokers
- Real Estate Brokers
- Individual Property Owners and Buyers
- Institutional Investors
- REITS
- Financial Institutions including:
- Portfolio Lenders
- SBA Lenders
- HUD Lenders
- Fannie Mae Lenders
- Freddie Mac Lenders
- Private Equity Funds
- Insurance Lenders

Mr. Chang has been personally involved in the details of over 5,000 real estate transactions for various client types and therefore understands the specific needs and scopes of work required for the different parties involved in the transaction. Mr. Chang has served as an environmental scientist, project manager, senior author, or client manager for projects associated with thousands of real estate transactions. Mr. Chang is familiar with the due diligence requirements of a varied number of reporting standards, including the current standard ASTM E1527-13, EPA's All Appropriate Inquiry (AAI). Mr. Chang has extensive knowledge of the specialized requirements of Fannie Mae and Freddie Mac. He also has experience with fulfilling and designing numerous customized client scopes of work including institutional level assessments.

Mr. Chang's due diligence resume includes experience at all levels, advising lenders and real estate investors through the following product types:

- Phase I Environmental Site Assessments
- Phase II Subsurface Investigations
- Phase III Site Characterizations
- Remedial Cost Estimates
- Remediation Design and Implementation
- Environmental Transaction Screens
- Property Condition Assessments
- Probable Maximum Loss Assessments
- Property Condition Evaluations
- Industrial Hygiene Evaluations

Specifically, Mr. Chang has performed Phase I Environmental Site Assessments, Environmental Transaction Screens, Phase II and III Subsurface Investigations, Underground Storage Tank Removals, Property Condition Assessments (PCAs), Small Loan PCAs, Regulatory Compliance Assessments, Asbestos Surveys, Lead-based Paint Surveys, Radon Studies, Mold Assessments and Lead-in-water sampling and analysis.

Project Experience

Confidential Investor, Various Locations, South Eastern United States. Client Manager for Phase I ESAs and Property Condition Assessments for the acquisition of a 62-building office portfolio that included 6.9 MM square feet for over $1 Billion.

Confidential Auto Repair Client, Various Locations, United States. Project Manager and Senior Reviewer for Phase I ESAs of an acquisition of 66 automotive repair facilities across the United States.

Plum Creek Timberland, Eastern North Carolina. Conducted site reconnaissance, aerial photograph review, regulatory agency database review, meeting with owner's representatives, historical research, and report preparation for approximately 55,000 acres of timberland located throughout eastern North Carolina using the ASTM E 2247-02 Standard.

Confidential Client, Marion, North Carolina. Project Manager and site assessor for a Phase I ESA and Compliance Audit for an approximately 70,000 square foot metal plating facility.

Equity Office Portfolio, Various Locations, United States. Site assessor for equity-level PCAs of 13 office buildings in Colorado and California ranging from four- to 16-stories and associated parking garages. The buildings contained a total of approximately 2.9 million square feet of office and support space. The assessments included the use of specialists including mechanical and electrical engineers.

Genworth Financial, Various Locations, United States. Site assessor for numerous commercial properties including: office buildings, apartments, shopping centers, restaurants, and warehouses ranging in-size from 3,000 square feet to greater than 100,000 square feet.

Dry-Cleaning Solvent Clean-up Act Program, North Carolina. Project manager for DENR enforced assessment of VOC-affected groundwater beneath Dry Cleaning sites within the state of North Carolina.

Projects have involved both soil and groundwater assessment activities to define onsite soil source areas and onsite/offsite groundwater plumes. Activities are currently ongoing.

Asbestos Surveys, Various Locations. Conducted bulk sample collection, report preparation and abatement oversight for private and municipal clients in North Carolina and South Carolina.

SPCC Plans, Various Locations. Conducted site reconnaissance and report preparation of multiple spill prevention control and countermeasure (SPCC) plans for government and industrial clients. Additionally, prepared and conducted initial training session for SPCC plans.

Environmental Compliance, Various Locations. Conducted environmental compliance audits, prepared waste stream determination profiles, and updated environmental compliance manuals with federal, state and local regulations for terminal trucking facilities throughout the east coast. Managed Environmental, Health and Safety audits at facilities throughout the US. Managed the preparation of SWPPPs, submittal of NOIs, and certificate of no exposures throughout the southeast.

Petroleum Impacted Sites, Various Locations. Remedial activities on petroleum impacted sites including refineries, bulk storage plants, and retail stations. Activities include; remediation system installation and O&M, monitor well installation, underground storage tank removal, and other tasks.

Affiliations

Member, Urban Land Institute
Member, Commercial Real Estate Women

Speaking

Bisnow Conference Series Moderator

Publications

Should You Pick a Freddie or Fannie Report? GlobeSt.com, February 21, 2014.

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June 4, 2021

Ms. Carolyn Neer, MUP, AICP Candidate
Associate Project Manager
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San José, CA 95126

Via email: **cneer@davidjpowers.com**

Subject: **University Circle Phase II, East Palo Alto, CA – Addendum to the Noise and Vibration Assessment**

Dear Ms. Neer:

In May 2021, *Illingworth & Rodkin, Inc*. prepared a noise and vibration assessment for the University Circle Phase II office building project[1] in East Palo Alto, California. An Above-Grade Garage Alternative (Alternative) has been proposed for this project, which would consist of an office building of the same size and in the same location with the inclusion of parking provided through the following combination: 1) reallocating existing underutilized parking spaces in the existing above-grade parking garage; 2) expanding the existing above-grade parking garage from four levels to 6.5 levels; and 3) expanding the existing below-grade parking garage.

This addendum letter discusses the potential impacts generated by the Alternative at existing land uses in the project vicinity.

Proposed Project Construction

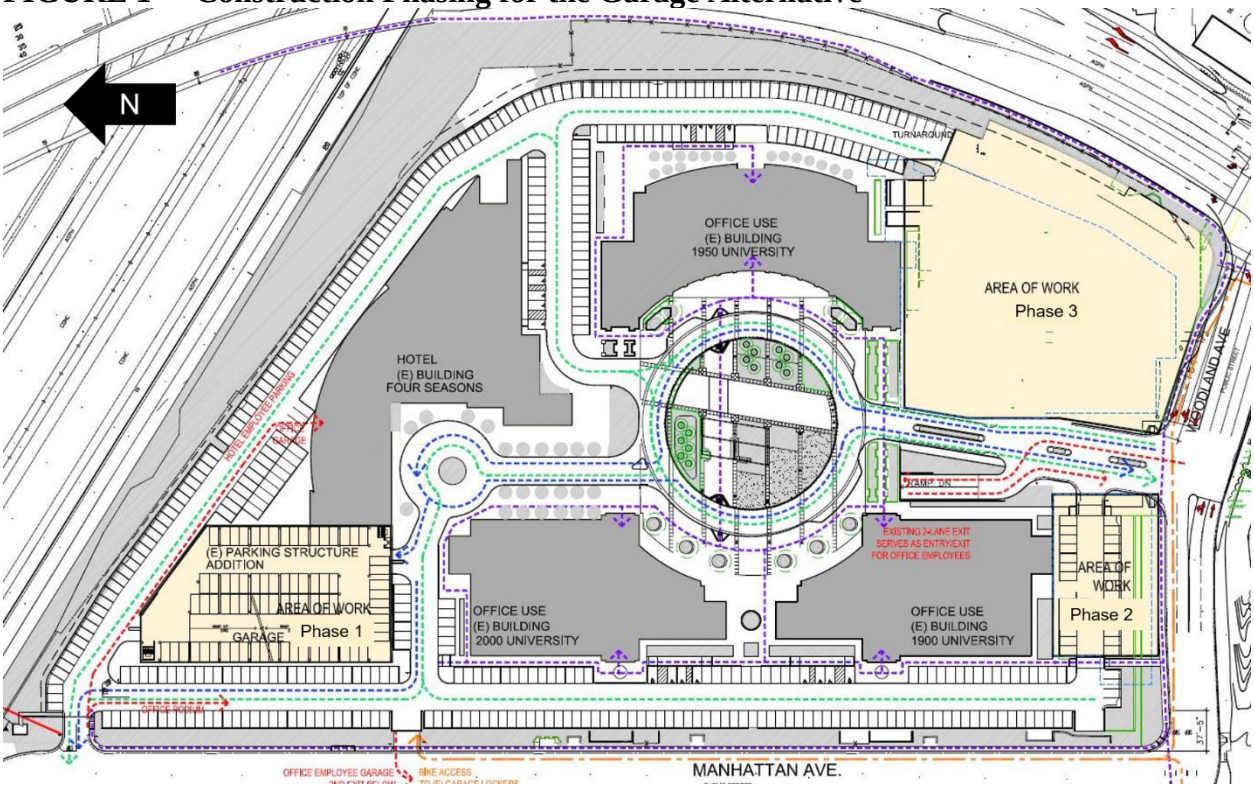
Construction of the Alternative would occur over a period of approximately 44 months and would be completed in three phases: 1) expansion of the above-grade garage; 2) expansion of the below-grade garage; and 3) construction of the office building. Figure 1 shows the construction phasing for the Alternative. Expansion of the above-grade parking garage (Phase 1) would be completed in approximately 15 months. Upon completion of this phase, excavation for and expansion of the below-grade parking garage (Phase 2) and for the proposed office building (Phase 3) would begin. Expansion of the below-grade parking garage (Phase 2) would be completed in approximately 15

[1] Illingworth & Rodkin, Inc., "University Circle Phase II Noise and Vibration Assessment," May 26, 2021.

months. Phase 3 would overlap with Phase 2, and after the completion of Phase 2, Phase 3 would continue for an additional 13 months. The maximum depth of excavation required for construction of the below-grade parking garage expansion is 16 feet. Additionally, micro piles would be drilled between 80 and 150 feet below the ground surface to provide additional structural support for the 2.5 additional levels that would be added the existing above-grade garage.

During each phase of construction, the proposed construction hours would be 7:00 a.m. to 10:00 p.m. Most of the construction activities, which would include heavy on-site equipment, is expected to occur between 7:00 a.m. and 4:00 p.m. Activities occurring between 4:00 p.m. and 10:00 p.m. is expected to include off-site hauling.

FIGURE 1 Construction Phasing for the Garage Alternative



Construction Noise

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Section 15.04.125 of the City's Municipal Code limits construction allowable hours to 7:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on Saturdays. No construction is allowed on Sundays. For large, complex projects, Policy 7.11 of the City's General Plan recommends construction hours to be limited to 7:00 a.m. to 7:00 p.m. on weekdays and to 9:00 a.m. to 7:00 p.m. on Saturdays and holidays, with no work allowed on Sundays. Additionally, Section 8.52 of the City's Municipal Code exempts construction noise occurring between 7:00 a.m. and 8:00 p.m. from the exterior and interior thresholds established in the Municipal Code for receiving land uses such as residences, schools, hospitals, churches, or public libraries. For all construction occurring between 7:00 p.m. and 10:00 p.m., construction noise levels would be limited to 55 dBA at the exterior property lines of the nearby residential land uses and to 45 dBA in the residential interiors.

Ambient noise levels at the nearest noise-sensitive receptors to the south and to the east of the project site would typically range from 56 to 74 dBA L_{eq} during daytime hours between 7:00 a.m. and 10:00 p.m. based on recent measurements made in the project vicinity.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The highest maximum noise levels generated by project construction would typically range from about 80 to 90 dBA L_{max} at a distance of 50 feet from the noise source, and typical hourly average noise levels would range from 75 to 89 dBA L_{eq} for a commercial office building and from 71 to 89 dBA L_{eq} for parking garages, as measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). A list of typical maximum instantaneous noise levels and hourly average noise level ranges were provided in the May 2021 noise assessment.

For each phase, a list of the type of construction equipment and quantities of equipment were provided for each stage of construction. Tables 1 through 3 summarize the stages and the equipment provided for each phase of construction. The equipment was used as inputs into the FHWA's Roadway Construction Noise Model (RCNM) to predict the combined average noise level for each stage. To model worst-case conditions, it was assumed that all equipment per stage would be operating simultaneously. For construction noise, the use of multiple pieces of equipment simultaneously would add together as a collective noise source. While every piece of equipment per phase would likely be scattered throughout the site, the noise-sensitive receptors surrounding the site would be subject to the collective noise source generated by all equipment operating at once. In Table 3, the range of noise levels represents construction noise generated by Phase 3 activities only and when overlapping with Phase 2 activities.

TABLE 1 Summary of Construction Equipment Estimated During Phase 1, Calculated at a Distance of 50 feet

Stage of Construction (Dates)	Equipment (Quantity)	Combined L_{eq}, dBA
Demolition (1/1/2024-2/26/2024)	Concrete/Industrial Saw (3) Rubber-Tired Dozer (2) Tractor/Loader/Backhoe (2)	89
Site Preparation (2/26/2024-3/11/2024)	Rubber-Tired Dozer (1) Tractor/Loader/Backhoe (2)	84

Stage of Construction (Dates)	Equipment (Quantity)	Combined L_{eq}, dBA
Trenching/Foundation (3/11/2024-6/3/2024)	Drill Rig (2) Cement and Mortar Mixer (3) Other Construction Equipment (1) Pump (1)	86
Building – Exterior (6/3/2024-12/16/2024)	Crane (1) Forklift (1) Generator Set (2) Cement and Mortar Mixer (3) Dumpsters/Tenders (2) Pump (2) Other Construction Equipment (1) Tractor/Loader/Backhoe (1) Welder (10)	89
Building – Interior/ Architectural Coating (12/16/2024-2/17/2025)	Air Compressor (3) Other Construction Equipment (1) Aerial Lift (2)	84
Paving (2/17/2025-3/31/2025)	Cement and Mortar Mixer (10) Paving Equipment (3) Roller (2) Pressure Washer (2) Tractor/Loader/Backhoe (1)	92

TABLE 2 Summary of Construction Equipment Estimated During Phase 2, Calculated at a Distance of 50 feet

Stage of Construction (Dates)	Equipment (Quantity)	Combined L_{eq}, dBA
Demolition (5/1/2025-5/8/2025)	Concrete/Industrial Saw (1) Excavator (1) Rubber-Tired Dozer (1) Tractor/Loader/Backhoe (1)	86
Site Preparation (5/8/2025-5/15/2025)	Grader (1) Rubber-Tired Dozer (1) Tractor/Loader/Backhoe (1)	85
Grading/Excavation (5/15/2025-8/7/2025)	Excavator (2) Grader (1) Rubber-Tired Dozer (1) Concrete/Industrial Saw (1) Tractor/Loader/Backhoe (2)	88
Trenching/Foundation (8/7/2025-10/30/2025)	Tractor/Loader/Backhoe (2) Excavator (2) Drill Rig (2) Cement and Mortar Mixer (4) Cement and Mortar Mixer (3) Other Construction Equipment (1)	92

Stage of Construction (Dates)	Equipment (Quantity)	Combined L_{eq}, dBA
	Pump (1) Concrete/Industrial Saw (4)	
Building – Exterior (10/30/2025-4/9/2026)	Crane (1) Forklift (1) Generator Set (2) Cement and Mortar Mixer (4) Cement and Mortar Mixer (3) Dumpsters/Tenders (3) Pump (1) Other Construction Equipment (1) Tractor/Loader/Backhoe (2) Welder (10)	90
Building – Interior/ Architectural Coating (4/9/2026-6/11/2026)	Air Compressor (4) Other Construction Equipment (1) Aerial Lift (1)	84
Paving (6/11/2026-7/30/2026)	Cement and Mortar Mixer (3) Paving Equipment (2) Roller (2) Pressure Washer (2) Tractor/Loader/Backhoe (1)	91

TABLE 3 Summary of Construction Equipment Estimated During Phase 3, Calculated at a Distance of 50 feet

Stage of Construction (Dates)	Equipment (Quantity)	Combined L_{eq}, dBA
Demolition (5/1/2025-5/22/2025)	Concrete/Industrial Saw (2) Excavator (2) Rubber-Tired Dozer (1) Tractor/Loader/Backhoe (1)	88 to 91
Site Preparation (5/22/2025-6/12/2025)	Grader (2) Rubber-Tired Dozer (2) Tractor/Loader/Backhoe (1)	87 to 91
Grading/Excavation (6/12/2025-10/16/2025)	Excavator (7) Grader (1) Rubber-Tired Dozer (2) Concrete/Industrial Saw (2) Tractor/Loader/Backhoe (7)	92 to 95
Trenching/Foundation (10/16/2025-2/19/2026)	Tractor/Loader/Backhoe (4) Excavator (4) Drill Rig (4) Cement and Mortar Mixer (8) Cement and Mortar Mixer (6) Other Construction Equipment (1) Pump (2)	95 to 97

Stage of Construction (Dates)	Equipment (Quantity)	Combined L_{eq}, dBA
	Concrete/Industrial Saw (8)	
Building – Exterior (2/19/2026-11/26/2026)	Crane (1) Forklift (1) Generator Set (4) Cement and Mortar Mixer (8) Cement and Mortar Mixer (6) Dumpsters/Tenders (5) Pump (1) Other Construction Equipment (1) Tractor/Loader/Backhoe (2) Welder (32)	92 to 94
Building – Interior/ Architectural Coating (11/26/2026-5/27/2027)	Air Compressor (9) Other Construction Equipment (1) Aerial Lift (4)	86
Paving (5/27/2027-9/2/2027)	Cement and Mortar Mixer (10) Paving Equipment (3) Roller (2) Pressure Washer (2) Tractor/Loader/Backhoe (1)	92

To assess construction noise impacts at the receiving property lines of noise-sensitive receptors in the project site vicinity, the collective worst-case hourly average noise level for each stage summarized in Tables 1 through 3 for Phases 1 through 3, respectively, was assumed to propagate from the geometrical center of each building to the nearest property line of the surrounding land uses. The receptors directly impacted by each construction site would vary. As shown in Figure 1, Phase 1 would include the construction of the above-ground garage on the north side of the University Circle complex. Construction is expected to start in early January 2024 and conclude at the end of March 2025. Table 4 summarizes the construction noise levels estimated at the property lines of the nearest surrounding residential land uses, which would include the Four Seasons hotel located along University Circle. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional 5 to 10 dBA noise reduction at distant receptors.

The nearest residential land uses located to the west, the commercial buildings to the south and southwest, and the hotel to the east of the Phase 1 garage would have direct line-of-sight, and the estimated noise levels in Table 4 do not include reductions due to shielding; however, the residences located south of Woodland Drive and east of University Avenue would be at least partially shielded by intervening buildings. While these receptors are not shown in Table 4, construction noise at these receptors would be at or below 60 dBA L_{eq} throughout Phase 1 construction, assuming a conservative 10 dBA reduction due to intervening buildings.

TABLE 4 Construction Noise Levels During Phase 1 Estimated at Nearby Sensitive Land Uses

Stage of Construction	Calculated Hourly Average L_{eq} at Noise-Sensitive Receptors, dBA			
	West Res (195ft)	SW Comm (225ft)	East Hotel (75ft)	South Comm (150ft)
Demolition	78	76	86	80
Site Preparation	72	71	81	75
Trenching/Foundation	74	73	83	77
Building – Exterior	77	76	85	79
Building – Interior/ Architectural Coating	72	71	80	74
Paving	79	78	88	82

Both Phases 2 and 3 would start at the beginning of May 2025, with the completion of Phase 2 occurring at the end of July 2026 and the completion of Phase 3 occurring in early September 2027. Table 5 summarizes the estimated construction noise levels for Phase 2 only (i.e., overlapping with Phase 3 is not assumed for the results of Table 5). Table 6 summarizes the estimated construction noise levels for Phase 3, as well as the overlapping periods with Phase 2. For both of these phases, the hotel would be north of the buildings and would be partially shielded due to existing intervening office buildings. Noise levels at the hotel would be up to 63 dBA L_{eq} for Phase 2 and up to 66 dBA L_{eq} for Phase 3 individually and would be up to 68 dBA L_{eq} during the overlapping periods of these phases, assuming a conservative 10 dBA reduction from intervening buildings.

TABLE 5 Construction Noise Levels During Phase 2 Estimated at Nearby Sensitive Land Uses

Stage of Construction	Calculated Hourly Average L_{eq} at Noise-Sensitive Receptors, dBA			
	West Res (210ft)	NW Res (315ft)	South Res (115ft)	North Comm (60ft)
Demolition	73	70	79	84
Site Preparation	72	69	77	83
Grading/ Excavation	76	72	81	87
Trenching/ Foundation	80	76	85	90
Building – Exterior	77	74	82	88
Building – Interior/ Architectural Coating	72	68	77	83
Paving	78	75	84	89

TABLE 6 Construction Noise Levels During Phase 3 and During the Overlapping Periods with Phase 2 Estimated at Nearby Sensitive Land Uses

Stage of Construction	Calculated Hourly Average L_{eq} at Noise-Sensitive Receptors, dBA			
	South Res (280ft)	North Comm (130ft)	West Comm (210ft)	East Res (250ft)
Demolition	73-76	80-83	75-79	74-77
Site Preparation	72-76	78-82	74-78	73-77
Grading/ Excavation	77-80	84-87	80-83	78-81
Trenching/ Foundation	80-82	86-88	82-84	81-83
Building – Exterior	77-79	84-86	79-82	78-80
Building – Interior/ Architectural Coating	71	78	74	72
Paving	77	84	80	78

Estimated construction noise levels summarized in Tables 4 through 6 are expected to occur between 7:00 a.m. and 4:00 p.m., which fall within the City's allowable construction hours and would not be subject to the 55 dBA threshold. These construction noise levels would exceed ambient levels by more than 5 dBA L_{eq} throughout project construction at noise-sensitive receptors in the project site vicinities. Since project construction is expected to exceed one year in duration, the project would require the inclusion of construction best management practices as project conditions of approval.

Outside of the allowable construction hours, only truck hauling activities, which would include loading trucks and trucks entering and existing the sites, are expected to occur. It is estimated that a total of 7,136 hauling trips (one way) would be required for the project alternative (all phases). This would result in about four trucks per day at each construction site. Assuming worst-case conditions, up to two trucks would be assumed to occur in a given hour between 7:00 p.m. and 10:00 p.m. Noise levels during these hours would range from 57 to 61 dBA L_{eq} at the nearest surrounding residences during all three phases and would be up to 64 dBA L_{eq} at the hotel during Phase 1. This would exceed the 55 dBA exterior noise limit at the surrounding residential land uses throughout the construction of the project alternative and require additional measures to be implemented between the hours of 7:00 p.m. and 10:00 p.m.

Policy 7.11 of the City's General Plan requires the implementation of a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints to reduce noise impacts on neighboring residents and other uses. A typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:

Standard Construction Noise Controls

- Limit the use of heavy equipment to between 7:00 a.m. and 7:00 p.m. on weekdays and to between 9:00 a.m. and 7:00 p.m. Saturdays and holidays. Where feasible, prohibit construction on Sundays;

- Utilize "quiet" models of air compressors and other stationary noise sources where such technology exists;

- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;

- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;

- Locate staging areas and construction material areas as far away as possible from adjacent land uses;

- Prohibit all unnecessary idling of internal combustion engines;

- Construct solid plywood fences along the construction site boundaries with direct line-of-sight to noise-sensitive receptors. Constructing temporary noise barrier fences to shield these receptors would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps. For this project, a minimum height of 8 to 10 feet for the temporary barrier should be used.

- Where feasible, limit the quantity of equipment operating simultaneously to 10 pieces of equipment or less.

- Designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem are implemented.

- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.

With the implementation of standard noise controls in GP Policy 7.11 and the Municipal Code allowable construction hours, the temporary construction noise impact between 7:00 a.m. and 7:00 p.m. would be reduced to a less-than-significant level.

Additional measures would be required to reduce the impact to a less-than-significant level during evening hours between 7:00 p.m. and 10:00 p.m. Such measures would include the following:

- Prohibit the use of noisy equipment outdoors between 7:00 p.m. and 10:00 p.m.

- Where possible, loading and unloading of trucks should be limited to the hours of 7:00 a.m. to 7:00 p.m.

- Limit the number of truck deliveries to two trucks an hour between the hours of 7:00 p.m. and 10:00 p.m.

- Prohibit truck hauling routes along Manhattan Avenue between the hours of 7:00 p.m. and 10:00 p.m.

With a temporary barrier surrounding the construction sites, these measures would reduce the hourly average noise levels to meet the City's 55 dBA daytime exterior noise limit at the surrounding residential uses. Further, the 45 dBA daytime interior limit would be met at the surrounding residences and adjacent hotel. This would be less-than-significant impact.

Construction Vibration Assessment

The construction of the project alternative may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. While the proposed project alternative is expected to include micropiles to support the 2.5-level addition to the above-grade parking garage, neither impact nor vibratory pile driving, which can cause excessive vibration, is planned. As an alternative construction method, these micropiles will be drilled into the ground.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. No known ancient buildings or buildings that are documented to be structurally weakened adjoin the project area. Conservatively, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

Table 7 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. While specific equipment listed in Table 1 for the proposed project may not be included in Table 7, all vibration levels for each piece of equipment expected to be used in the proposed project would be represented by the vibration levels summarized in Table 7, falling within the range of 0.003 and 0.210 in/sec PPV at a distance of 25 feet. Vibration levels perceived at receptors would vary depending on soil conditions, construction methods, and equipment used. Table 7 also summarizes the distances to the 0.3 in/sec PPV threshold for all nonhistorical buildings.

TABLE 7 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Minimum Distance to Meet 0.3 in/sec PPV (feet)
Clam shovel drop		0.202	18
Hydromill (slurry wall)	in soil	0.008	1
	in rock	0.017	2
Vibratory roller		0.210	19
Hoe ram		0.089	9
Large bulldozer		0.089	9
Caisson drilling		0.089	9
Loaded trucks		0.076	8
Jackhammer		0.035	4
Small bulldozer		0.003	<1

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., May 2021.

During each phase of construction, all off-site residential and commercial buildings would be 70 feet or more from the nearest construction site. At these distances, vibration levels would be at or below 0.068 in/sec PPV, which would be below the 0.3 in/sec PPV threshold. While these levels may be perceptible to off-site occupants, damage to the structures would not be expected.

For existing office buildings and the hotel located along the University Circle campus, however, would be located within 10 feet of the proposed project buildings. Table 8 summarizes the vibration levels at the nearest buildings surrounding all construction sites. As shown in the table, each construction site has a building located within 5 feet construction site boundary and would potentially be exposed to vibration levels exceeding 0.3 in/sec PPV.

TABLE 8 Vibration Source Levels for Construction Equipment Propagated to the Nearest Buildings Along University Circle

Equipment		Estimated Vibration Levels at Surrounding Structures, in/sec PPV				
		Hotel – East of Phase 1 (5ft)	Comm – South of Phase 1 (55ft)	Comm – North of Phase 2 (5ft)	Comm – North of Phase 3 (5ft)	Comm – West of Phase 3 (85ft)
Clam shovel drop		**1.186**	0.085	**1.186**	**1.186**	0.053
Hydromill (slurry wall)	in soil	0.047	0.003	0.047	0.047	0.002
	in rock	0.100	0.007	0.100	0.100	0.004
Vibratory Roller		**1.233**	0.088	**1.233**	**1.233**	0.055
Hoe Ram		**0.523**	0.037	**0.523**	**0.523**	0.023
Large bulldozer		**0.523**	0.037	**0.523**	**0.523**	0.023
Caisson drilling		**0.523**	0.037	**0.523**	**0.523**	0.023
Loaded trucks		**0.446**	0.032	**0.446**	**0.446**	0.020
Jackhammer		0.206	0.015	0.206	0.206	0.009
Small bulldozer		0.018	0.001	0.018	0.018	0.001

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., May 2021.

A study completed by the US Bureau of Mines analyzed the effects of blast-induced vibration on buildings in USBM RI 8507.[2] The findings of this study have been applied to buildings affected by construction-generated vibrations.[3] As reported in USBM RI 8507[2] and reproduced by Dowding,[3] Figure 2 presents the damage probability, in terms of "threshold damage," "minor damage," and "major damage," at varying vibration levels. Threshold damage, which is described as cosmetic damage in this report, would entail hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects. Minor damage would include hairline cracking in masonry or the loosening of plaster, and major structural damage would include wide cracking or shifting of foundation or bearing walls. As shown in Figure 2, maximum vibration levels of 1.2 in/sec PPV would result in approximately 20% of threshold damage or cosmetic damage, while no minor or major damage was observed with maximum vibration levels of 1.2 in/sec PPV. At 0.5 in/sec PPV, no minor or major damage would be expected, and there would be less than 5% chance of threshold damage or cosmetic damage.

Typical construction equipment, as shown in Table 8, would have the potential to produce vibration levels of 0.3 in/sec PPV or more at the existing building immediately adjoining the construction sites of Phases 1, 2, and 3. While no minor or major damage would be expected to occur at these buildings, there is the potential to result in vibration levels above the threshold for cosmetic damage. This is a significant impact.

[2] Siskind, D.E., M.S. Stagg, J.W. Kopp, and C.H. Dowding, Structure Response and Damage Produced by Ground Vibration form Surface Mine Blasting, RI 8507, Bureau of Mines Report of Investigations, U.S. Department of the Interior Bureau of Mines, Washington, D.C., 1980.

[3] Dowding, C.H., Construction Vibrations, Prentice Hall, Upper Saddle River, 1996.

At these locations, and in other surrounding areas within 200 feet, vibration levels would potentially be perceptible. By use of administrative controls, such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration during hours with the least potential to affect nearby businesses, perceptible vibration can be kept to a minimum.

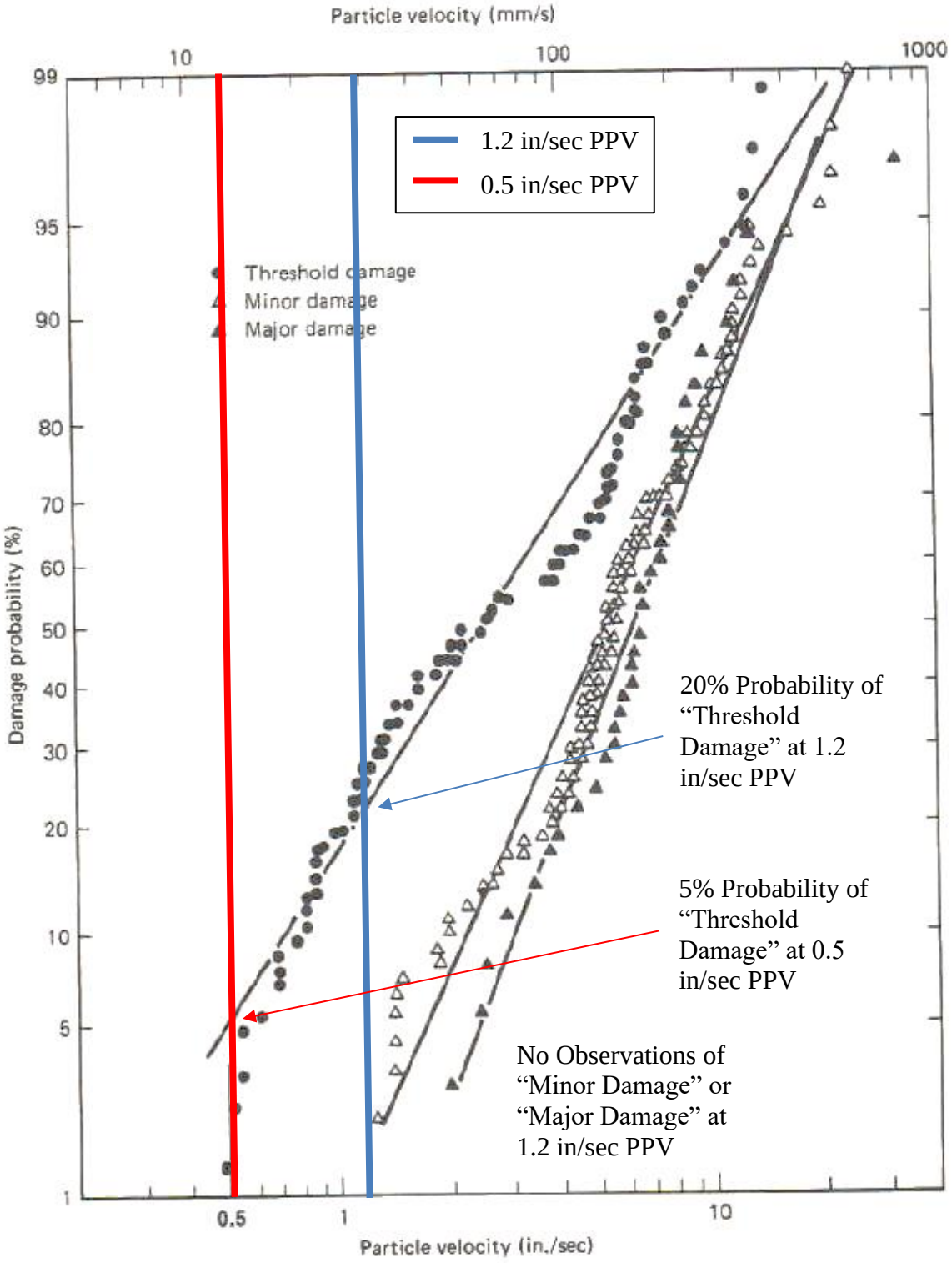
Mitigation Measure 2:

The following measures are recommended to reduce vibration impacts from construction activities to a less-than-significant impact:

- Limit vibration-inducing equipment to the extent feasible.
- Where possible, use of the heavy vibration-generating construction equipment shall be prohibited within 20 feet of the adjacent buildings to the north and east.
- Use smaller equipment to minimize vibration levels below the limits near the existing building to the north.
- Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
- Avoid dropping heavy objects or materials.

The implementation of these measures would reduce the impact to a less-than-significant level.

FIGURE 2 Probability of Cracking and Fatigue from Repetitive Loading



Source: Dowding, C.H., Construction Vibrations, Prentice Hall, Upper Saddle River, 1996, as modified by Illingworth & Rodkin, Inc., May 2021.

Operational Noise

The previous noise and vibration assessment included assessments of all potential impacts generated by the operation of the proposed office building. Under the Alternative, the proposed office building would be the same and would be in the same location; therefore, the proposed office building in the Alternative would not generate any additional impacts. The trips generated by the office building would also not change from the original project.

While the expansion of the above-ground parking structure at the north end of the University Circle complex would include additional vehicles as compared to existing conditions, this parking garage would be located in the same location, adjacent to U.S. Highway 101. Due to the close proximity to U.S. 101, the increase in minor parking lot noise would not generate a perceptible noise level increase at the nearby noise-sensitive receptors.

The expansion of the below-grade parking garage, which is located in the northwest corner of the Woodland Avenue/University Circle intersection, would be below the surface. Therefore, the additional parking lot noise produced by this garage would be adequately shielded from all surrounding noise-sensitive uses.

The Alternative would not generate any additional operational noise impacts on existing receptors in the project site vicinity. With no additional trips generated by the Alternative, the permanent noise level increase under this alternative would be the same as the proposed project assessed in the May 2021 assessment.

♦ ♦ ♦

Please feel free to contact us with any questions on the analysis or if we can be of further assistance.

Sincerely,

Carrie J. Janello
Senior Consultant
Illingworth & Rodkin, Inc.

(19-148)

UNIVERSITY CIRCLE PHASE II NOISE AND VIBRATION ASSESSMENT

EAST PALO ALTO, CALIFORNIA

May 26, 2021

♦ ♦ ♦

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INTRODUCTION

A six-story office building is proposed within the University Circle Phase II development in East Palo Alto, California. The proposed project would provide approximately 180,000 square feet of office space on floors one through six and approximately 513 parking stalls on three floors of underground parking. The project building would be positioned at the corner of University Avenue and Woodland Avenue and would be designed in accordance with the style and shape of the existing buildings located in the University Circle development.

This report evaluates the project's potential to result in significant noise and vibration impacts with respect to California Environmental Quality Act (CEQA) guidelines. The report is divided into three sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise and groundborne vibration, summarizes applicable regulatory criteria, and discusses the results of the ambient noise monitoring survey completed to document existing noise conditions; 2) the General Plan Consistency Section discusses noise and land use compatibility utilizing policies in the City of East Palo Alto's General Plan; and 3) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts, provides a discussion of each project impact, and presents measures, where necessary, to mitigate the impacts of the project on sensitive receptors in the vicinity.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (*frequency*) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA).* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a

method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level* (*CNEL*) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level* (*DNL* or L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Effects of Noise

Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn}. Typically, the highest steady traffic noise level during the daytime is about equal to the L_{dn} and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, those facing major roadways and freeways typically need special glass windows.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 50 dBA L_{dn}. At a L_{dn} of about 60 dBA, approximately 12 percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 25-30 percent of the population. There is, therefore, an increase of about 2 percent per dBA between a L_{dn} of 60-70 dBA. Between a L_{dn} of 70-80 dBA, each decibel increase increases by about 3 percent the percentage of the population highly annoyed. People appear to respond more adversely to aircraft noise. When the L_{dn} is 60 dBA, approximately 30-35 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 3 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 4 percent increase in the percentage of the population highly annoyed.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2018.

Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous or frequent intermittent vibration levels produce. The guidelines in Table 3 represent syntheses of vibration criteria for human response and potential damage to buildings resulting from construction vibration.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to cause damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces; minor, including limited surface cracking; or major, that may threaten the structural integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. The damage criteria presented in Table 3 include several categories for ancient, fragile, and historic structures, the types of structures most at risk to damage. Most buildings are included within the categories ranging from “Historic and some old buildings” to “Modern industrial/commercial buildings”. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

TABLE 3 Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013.

Regulatory Background

This section describes the relevant guidelines, policies, and standards established by State Agencies, Santa Clara County, and the City of East Palo Alto. The State CEQA Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

State of California

State CEQA Guidelines. The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(b) Generation of excessive groundborne vibration or groundborne noise levels;

(c) For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.

2019 California Building Cal Green Code. The State of California established exterior sound transmission control standards for new non-residential buildings as set forth in the 2019 California Green Building Standards Code (Section 5.507.4.1 and 5.507.4.2). The sections that pertain to this project are as follows:

> **5.507.4.1 Exterior noise transmission, prescriptive method.** Wall and roof-ceiling assemblies exposed to the noise source making up the building envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when the building falls within the 65 dBA L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway noise source, as determined by the local general plan noise element.
>
> **5.507.4.2 Performance method.** For buildings located, as defined by Section 5.507.4.1, wall and roof-ceiling assemblies exposed to the noise source making up the building envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level ($L_{eq\,(1\text{-}hr)}$) of 50 dBA in occupied areas during any hour of operation.

The performance method, which establishes the acceptable interior noise level, is the method typically used when applying these standards.

Santa Clara County

Santa Clara County Airport Land Use Commission Comprehensive Land Use Plan. The Comprehensive Land Use Plan adopted by the Santa Clara County Airport Land Use Commission contains standards for projects within the vicinity of Palo Alto Airport, which are relevant to this project:

4.3.2.1 Noise Compatibility Policies

Policy N-2 In addition to the other guidelines and policies herein, the Noise Compatibility Guidelines presented in Table 4-1 shall be used to determine if a specific land use is consistent with this CLUP.

Policy N-3 Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5 (2022 Aircraft Noise Contours).

Policy N-6 Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 presents acceptable noise levels for other land uses in the vicinity of the Airport.

Table 4 - 1

NOISE COMPATIBILITY GUIDELINES

LAND USE CATEGORY	CNEL					
	55-60	60-65	65-70	70-75	75-80	80-85
Residential – low density Single-family, duplex, mobile homes	*	**	**	**	****	****
Residential – multi-family, condominiums, townhouses	*	**	**	**	****	****
Transient lodging - motels, hotels	*	**	**	**	****	****
Schools, libraries, churches, hospitals, nursing homes	*	**	**	**	****	****
Auditoriums, concert halls, amphitheaters	**	**	**	**	****	****
Sports arena, outdoor spectator sports, parking	*	*	**	**	**	****
Playgrounds, neighborhood parks	*	*	**	**	**	****
Office buildings, business commercial and professional	*	*	*	**	**	****
Industrial, manufacturing, utilities, agriculture	*	*	*	**	**	**
* Generally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Outdoor activities are not likely to be adversely affected.					
** Conditionally Acceptable	Specified land uses may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design. Outdoor activities may be adversely affected.					
**** Unacceptable	New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies. Outdoor activities are likely to be adversely affected.					

Source: Palo Alto Comprehensive Plan (1998), Land Use Compatibility for Community Noise Environment Element, page N-28

City of East Palo Alto

Vista 2035 East Palo Alto General Plan. The City of East Palo Alto adopted the 2035 General Plan Final Version in March 2017. The Safety and Noise Chapter of the General Plan[1] provides goals and policies to reduce noise within the community. The goals and policies that apply to the proposed project are as follows:

Goal SN-6: Minimize the effects of noise through proper land use planning.

Intent: To ensure that new noise-sensitive land uses in the City are located in a compatible noise environment or adequately mitigated in order to provide a compatible exterior and interior noise environment.

> **Policy 6.1. Noise standards.** Use the Interior and Exterior Noise Standards (Table 10-1) for transportation noise sources. Use the City's Noise Ordinance for evaluating non-transportation noise sources when making planning and development decisions. Require that applicants demonstrate that the noise standards will be met prior to project approval.
>
> **Policy 6.2. Compatibility standards.** Utilize noise/land use compatibility standards and the Noise Ordinance as guides for future development decisions.
>
> **Policy 6.3. Noise control.** Provide noise controls measures, such as berms, walls, and sound attenuating construction in areas of new construction or rehabilitation.
>
> **Policy 6.4. Airport-adjacent land uses.** Maintain the non-residential designation for land near the airport in order to prevent new noise-sensitive residential uses from being constructed in areas with excessive aircraft noise.

[1] City of East Palo Alto, *Vista 2035 East Palo Alto General Plan*, Safety and Noise Chapter, Adopted October 4, 2016. Final Version March 2017.

Table 10-1. Interior and Exterior Noise Standards		
Land Use	Noise Standards[1]	
	Interior[2, 3]	Exterior
Residential – Single family, multifamily, duplex, mobile home	CNEL 45 dB	CNEL 65 dB[4]
Residential – Transient lodging, hotels, motels, nursing home, hospitals	CNEL 45 dB	CNEL 65 dB[4]
Private offices, church sanctuaries, libraries, board rooms, conference rooms, theaters, auditoriums, concert halls, meeting halls, etc.	Leq(12) 45 dB(A)	-
Schools	Leq(12) 45 dB(A)	Leq(12) 67 dB(A)[5]
General offices, reception, clerical, etc.	Leq(12) 50 dB(A)	-
Bank lobby, retail store, restaurant, typing pool, etc.	Leq(12) 55 dB(A)	-
Manufacturing, kitchen, warehousing, etc.	Leq(12) 65 dB(A)	-
Parks, playgrounds	-	CNEL 65 dB[5]
Golf courses, outdoor spectator sports, amusement parks	-	CNEL 70 dB[5]

Notes:

1. CNEL: Community Noise Equivalent Level; Leq (12): The A-weighted equivalent sound level averaged over a 12-hour period (usually the hours of operation).
2. Noise standard with windows closed. Mechanical ventilation shall be provided per UBC requirements to provide a habitable environment.
3. Indoor environment excluding bathrooms, toilets, closets, and corridors.
4. Outdoor environment limited to rear yard of single family homes, multifamily patios, and balconies (with a depth of 6' or more) and common recreation areas.
5. Outdoor environment limited to playground areas, picnic areas and other areas of frequent human use.

Source: Title 24, California Code of Regulations

Goal SN-7: Minimize transportation- and non-transportation-related noise impacts, especially on noise-sensitive land uses.

Intent: To maintain and improve the noise environment at noise-sensitive land uses throughout the City.

Policy 7.1. Noise ordinance. Continually enforce and periodically review the City's Noise Ordinance for adequacy (including requiring construction activity to comply with established work schedule limits). Amend as needed to address community needs and development patterns.

Policy 7.2. CEQA acoustical analysis. Require an acoustical analysis to evaluate mitigation measures for noise-generating projects that are likely to cause the following criteria to be exceeded or to cause a significant adverse community response:

- Cause the L_{dn}/CNEL at noise-sensitive uses to increase by 3 dBA or more and exceed the "normally acceptable" level.

- Cause the L_{dn}/CNEL at noise-sensitive uses to increase by 5 dBA or more and remain "normally acceptable."

Policy 7.7. Site design review. Utilize site design review to identify potential noise impacts on new development, especially from nearby transportation sources. Encourage the use of noise barriers (walls, berms, or landscaping), setbacks and/or other buffers.

Policy 7.11. Construction noise. The City shall require that contractors use available noise suppression devices and techniques and limit construction hours near residential uses. Reasonable noise reduction measures shall be incorporated into the construction plan and implemented during all phases of construction activity to minimize the exposure of neighboring properties. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:

- Involve substantial noise-generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses. A typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:

- Limit construction activity to weekdays between 7:00 a.m. and 7:00 p.m. and Saturdays and holidays between 9:00 a.m. and 7:00 p.m., with no construction on Sundays;

- Utilize "quiet" models of air compressors and other stationary noise sources where such technology exists;

- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;

- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;

- Locate staging areas and construction material areas as far away as possible from adjacent land uses;

- Prohibit all unnecessary idling of internal combustion engines;

- If impact pile driving is proposed, multiple-pile drivers shall be considered to expedite construction. Although noise levels generated by multiple pile drivers would be higher

than the noise generated by a single pile driver, the total duration of pile driving activities would be reduced;

- If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected;

- If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing;

- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem are implemented.

- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.

City of East Palo Alto Municipal Code. Chapter 8.52, Noise Control, of the City's Municipal Code seeks to protect the citizens of East Palo Alto from unnecessary, excessive, and annoying noise; to maintain quiet in areas where noise levels are low; and to implement programs to reduce unacceptable noise. The regulations limit the amount of noise that may be created as measured at the exterior of any dwelling unit, school, hospital, church, or public library. Table 4 provides the Municipal Code's exterior noise standards. In addition, Chapter 8.52 limits the creation of noise that results in excessive noise levels within any dwelling unit. Table 5 provides the standards for interior noise in dwelling units. Exemptions to these standards are provided for activities such as special events and noise sources due to construction activities not taking place between 8:00 p.m. and 7:00 a.m.[2]

[2] City of East Palo Alto, 2017, *East Palo Alto Municipal Code*, Chapter 8.52, Noise Control.

TABLE 4 Receiving Land Use: Noise Level Standards for Single or Multiple Family Residence, School, Hospital, Church, or Public Library Properties

Category	Cumulative Number of Minutes in Any 1-Hour Time Period	Noise Level Standards, dBA	
		Daytime (7:00 am – 10:00 pm)	Nighttime (10:00 pm – 7:00 am)
1	30	55	50
2	15	50	55
3	5	65	60
4	1	70	60
5	0	75	70

Notes:

A. In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in 5 dBA increments so as to encompass the background noise level.

B. Each of the noise level standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.

C. If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards in this table.

Source: City of East Palo Alto Municipal Code, 2017.

While Table 4 does summarize the levels provided in the Municipal Code for each category, the original Municipal Code document has two typos: Category 2 should be 60 dBA during daytime hours and 55 dBA during nighttime hours, and Category 4 should be 70 dBA during daytime hours and 65 dBA during nighttime hours. For any analysis involving these categories, the corrected levels are used.

Section 15.04.125 of the City's Municipal Code limits construction activity to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays. No construction activity is allowed on Sundays or national holidays.

TABLE 5 Interior Noise Level Standards – Dwelling Unit

Category	Cumulative Number of Minutes in Any 1-Hour Time Period	Noise Level Standards, dBA	
		Daytime (7:00 am – 10:00 pm)	Nighttime (10:00 pm – 7:00 am)
1	5	45	40
2	1	50	45
3	0	55	50

Notes:

A. In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in 5 dBA increments so as to encompass the background noise level.

B. Each of the noise level standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.

C. If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards in this table.

Source: City of East Palo Alto Municipal Code, 2017.

Existing Noise Environment

The project site currently serves as a surface parking lot for the University Circle mixed-use development, located southwest of the U.S. Highway 101 (U.S. 101) / University Avenue overpass. The proposed building will be the fourth and final office tower within the University Circle development. The project site is bordered by University Avenue to the east and Woodland Avenue to the south. Additional land uses in the project vicinity include multi-family residences located to the east across University Avenue and single-family residences to the south across Woodland Avenue.

The noise environment at the site and in the surrounding area results primarily from vehicular traffic along U.S. 101 and University Avenue. Traffic along Woodland Avenue and University Circle would also contribute to the existing noise environment.

Due to Shelter-in-Place restrictions implemented by the State of California[3] at the time of this study, traffic volumes along the surrounding roadways were substantially reduced and not representative of typical conditions. A noise monitoring survey was not completed to document ambient noise levels during this time period because resultant noise levels would not be representative of typical existing conditions.

In order to establish the environmental baseline for the project, noise data contained in the East Palo Alto General Plan, the East Palo Alto General Plan Update Draft Environmental Impact Report (EIR),[4] and measurements from prior projects were reviewed. According to the noise contours included in the Noise Element of the City's General Plan, existing noise levels at the project site would range from 65 to 75 dBA CNEL, as shown in Figure 1. According to Table 4.11-11 of the East Palo Alto General Plan Update Draft EIR, existing noise levels were calculated to be 70 dBA CNEL at 75 feet from the centerline of University Avenue between Donohoe Street and Woodland Avenue and 68 dBA CNEL at 75 feet from the centerline of Woodland Avenue between Euclid Avenue and University Avenue.

A noise monitoring survey for the East Palo Alto General Plan Update Draft EIR was completed in 2015. Among the measurements completed, one long-term noise measurement (LT-8) was made at the corner of Scofield Avenue and Circle Drive, west of Highway 101 from Tuesday, April 21, 2015 to Thursday, April 23, 2015. LT-8 was positioned approximately 40 feet south of the centerline of Scofield Avenue and 15 feet from the centerline of Circle Drive. Typical daytime hourly average noise levels ranged from 56 to 74 dBA L_{eq} and typical nighttime hourly average noise levels ranged from 45 to 61 dBA L_{eq}. The average CNEL at this location ranged from 62 to 65 dBA.

A noise monitoring survey completed for the U.S. 101 Managed Lanes Project[5] in September 2016 included two long-term measurements (L108 and L116) along U.S. 101, approximately 0.5 miles to the east and west of the project site. Figure 2 shows the locations of L108 and L116, as well as

[3] Cal. Exec. Order No. N-33-20, (Mar. 19, 2020).

[4] Circlepoint, "Draft Environmental Impact Report: City of East Palo Alto General Plan Update," prepared for City of East Palo Alto, April 2016.

[5] Illingworth & Rodkin, Inc., "U.S. 101 Managed Lanes Project Noise Study Report," October 2017.

LT-8 from the General Plan Update EIR, with respect to the project site. The long-term noise measurements, L108 and L116, were made approximately 180 and 230 feet from the centerline of U.S. 101, respectively. A 14-foot noise barrier was located along U.S. 101 at the L108 location, while there was not a noise barrier at the L116 location. Hourly average noise levels at L108 typically ranged from 64 to 69 dBA L_{eq} during the day and from 58 to 67 dBA L_{eq} at night. The average L_{dn}/CNEL on Tuesday, September 27, 2016 was 70 dBA. Hourly average noise levels at L116 typically ranged from 69 to 72 dBA L_{eq} during the day and from 61 to 71 dBA L_{eq} at night. The average L_{dn}/CNEL on Tuesday, September 20, 2016 was 74 dBA.

Figures 3 through 5 show the daily trend in noise levels at LT-8, L108, L116, respectively.

After reviewing these data, the Federal Highway Administration's (FHWA) Traffic Noise Model, version TNM 2.5, (TNM 2.5) was used to calculate existing noise conditions specific to the proposed project. Existing traffic noise levels were calculated along the major roadways surrounding the site, which include U.S. 101, University Avenue, and Woodland Avenue. Calculations accounted for the source of noise (traffic), the frequency spectra of the noise source, the topography of the area, and existing buildings and barriers. Existing peak hour traffic data, provided by the traffic consultants,[6] traffic data obtained from the Caltrans Traffic Census Program,[7] and posted travel speeds were also input into the model for local roadways and highways. Along University Avenue, the vehicle distribution assumed for the TNM model included 95% autos, 3% medium-duty trucks, and 2% heavy-duty trucks. The Caltrans truck volumes from the AADT distribution data was used to establish the volume mix along U.S. 101 of 95% autos, 3% medium trucks, and 2% heavy trucks.

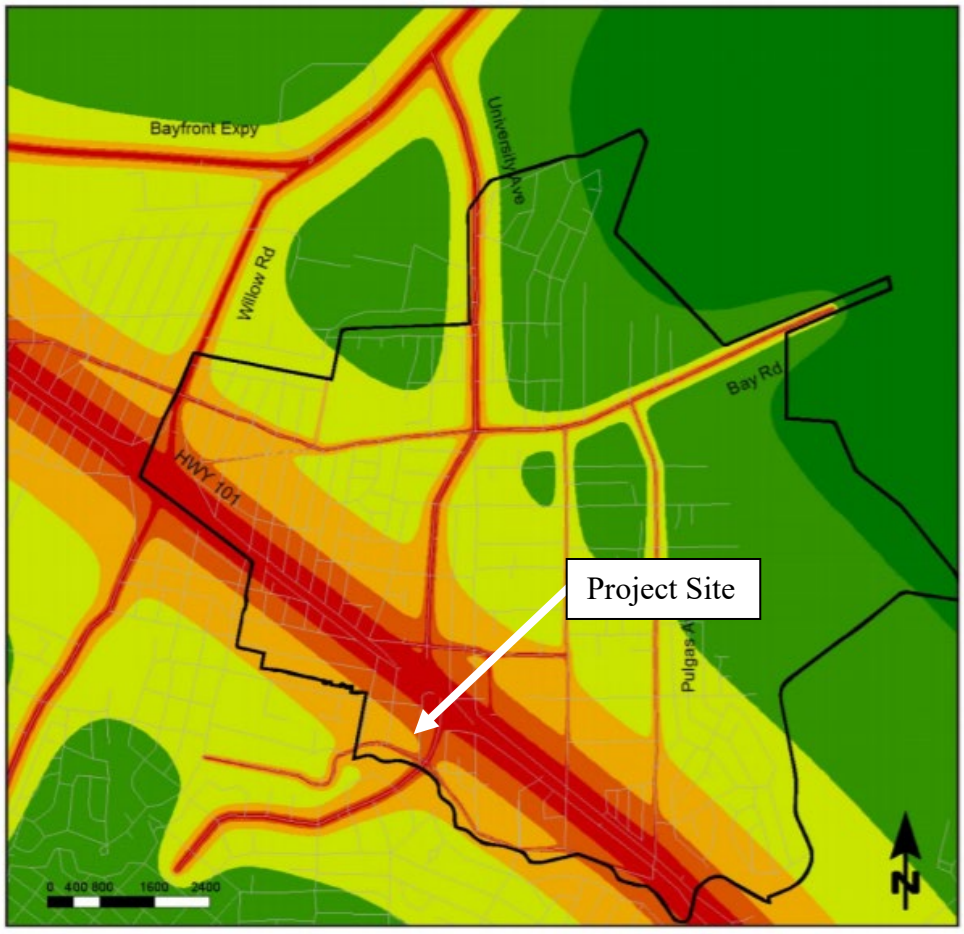
Based on the model calculations, existing noise levels at setbacks of 180 feet (L108) and 230 feet (L116) from the centerline of U.S. 101 were estimated to be 69 and 75 dBA CNEL, respectively. These modeled results are within 1 dBA CNEL of the 2016 noise measurements. Existing noise levels at the LT-8 location were calculated to be 65 dBA CNEL, which is consistent with the upper range of the 2015 measurements. This site is representative of the existing noise environment at receptors to the southeast of the project site with a greater setback distance from University Avenue. From the TNM model, existing noise levels would be 73 dBA CNEL at the northeastern corner of the project site and 72 dBA CNEL along the proposed building's eastern and southern façades. Sound levels along the western portion of the project site would range from approximately 69 dBA CNEL at the southwestern corner of the proposed building to 67 dBA CNEL at the northwestern corner of the proposed building. The model calculations also indicate existing noise levels of approximately 68 dBA CNEL at the nearest residential property line to the south, across Woodland Avenue, and 73 dBA CNEL at the nearest residential property line to the east, across University Avenue.

[6] Hexagon Transportation Consultants, Inc., "University Circle Phase II Traffic Counts," February 13, 2020.

[7] https://dot.ca.gov/programs/traffic-operations/census

FIGURE 1 Project Site in Relation to East Palo Alto General Plan Traffic Noise Contours

Figure 10-6 - Existing (2015) Traffic Noise



Existing Noise Levels from Vehicle Traffic along Major Roadways in decibels (dB)

East Palo Alto City Limits

> 75 dB

70-75 dB

65-70 dB

60-65 dB

55-60 dB

<55 dB

FIGURE 2 Project Site in Relation to East Palo Alto General Plan Update Draft EIR (LT-8) and U.S. 101 Managed Lanes Noise Measurements (L108 and L116)

FIGURE 3 Daily Noise Trends at LT-8, Tuesday, April 21, 2015 through Thursday, April 23, 2015

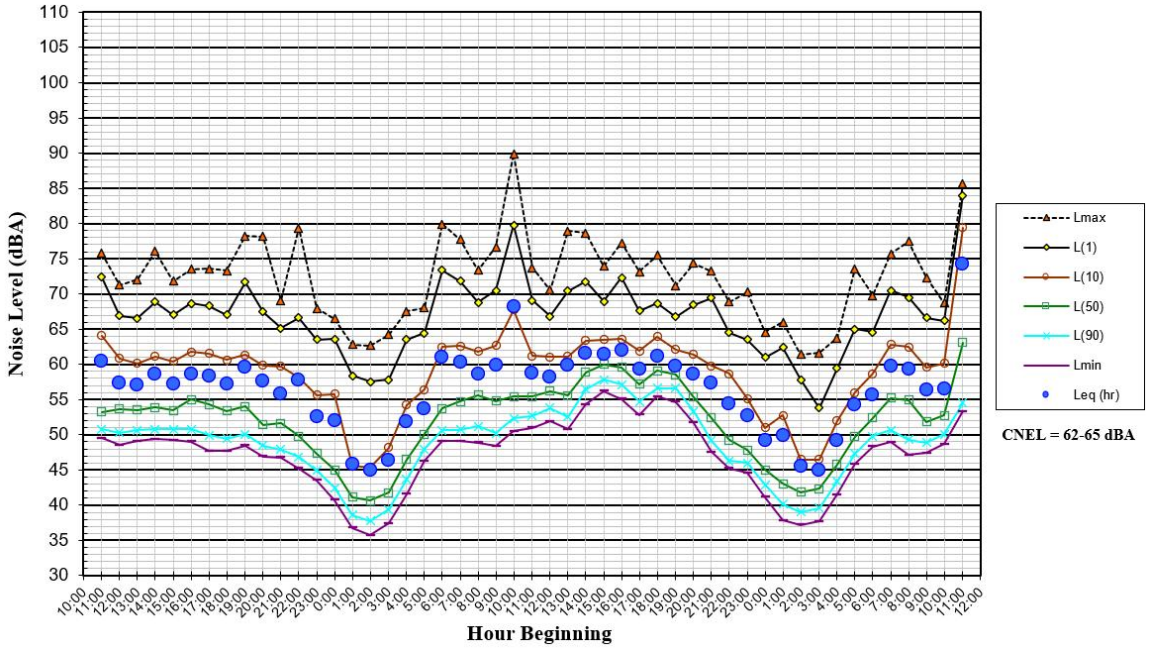


FIGURE 4 Daily Noise Trends at L108, Tuesday, September 27, 2016

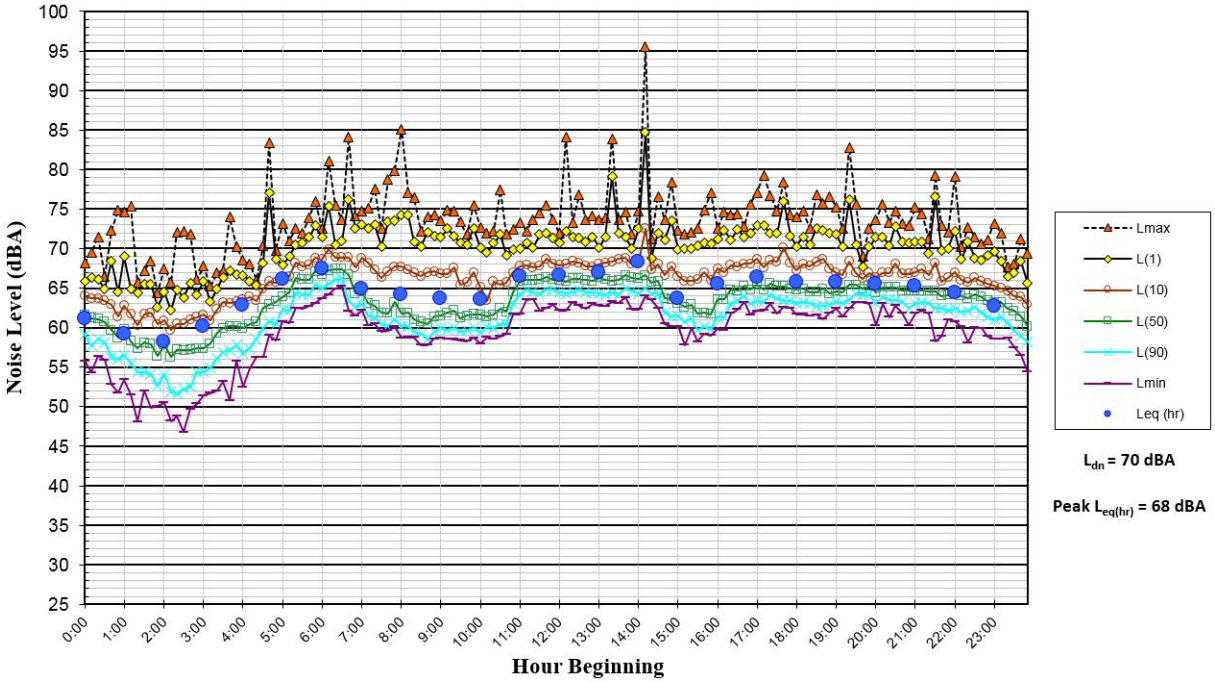
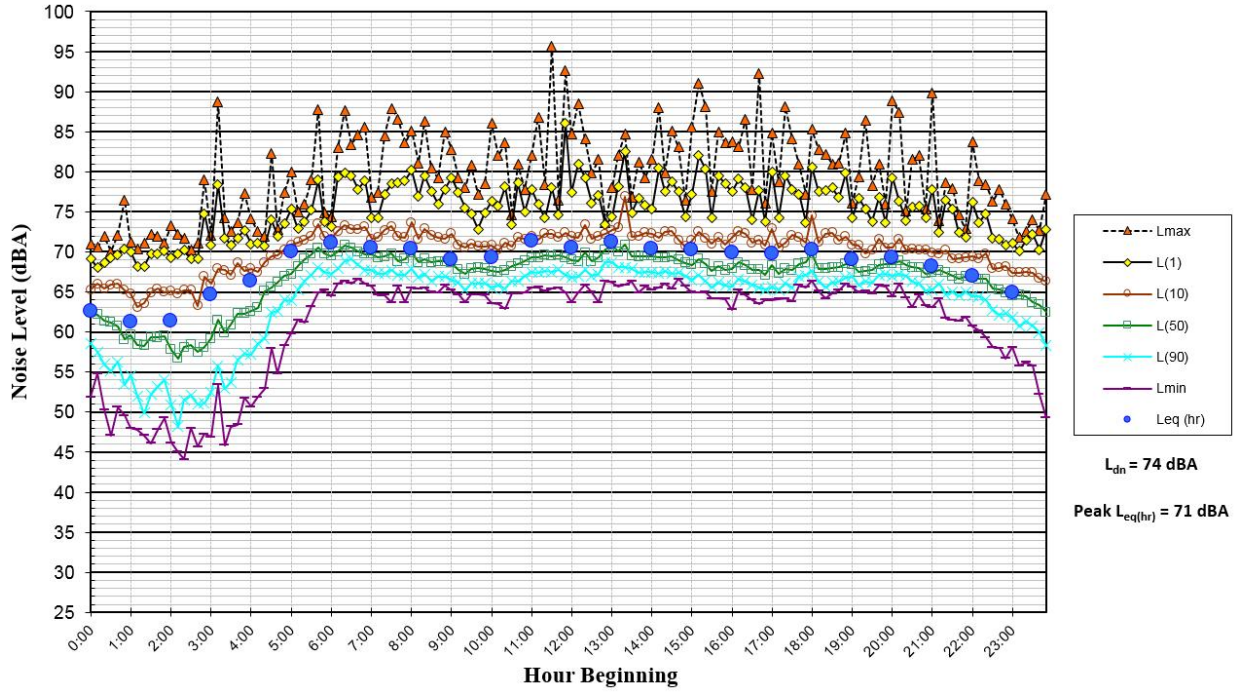


FIGURE 5 Daily Noise Trends at L116, Tuesday, September 20, 2016



GENERAL PLAN CONSISTENCY ANALYSIS

Noise and Land Use Compatibility

Table 10-1 of the City of East Palo Alto General Plan does not specify exterior noise level thresholds for common outdoor use areas of office buildings. The 2019 Cal Green Code requires interior noise levels for nonresidential uses to be maintained at or below 50 dBA $L_{eq(1\text{-}hr)}$. Additionally, interior noise levels for private offices should be maintained at or below 45 dBA $L_{eq(12)}$, according to Table 10-1 of the City's General Plan. $L_{eq(12)}$ is the A-weighted equivalent sound level averaged over a 12-hour period (usually the hours of operation).

The future noise environment at the project site would continue to result primarily from vehicular traffic along U.S. 101 and University Avenue. Existing and future traffic conditions from the project's traffic study were compared to estimate future traffic noise increases within the project vicinity. For purposes of estimating the worst-case scenario, the cumulative plus project traffic scenario was modeled in TNM 2.5 to estimate future peak hour noise levels. Based on these results, future traffic conditions in the project site vicinity are anticipated to increase by up to 2 dBA CNEL. Therefore, the future noise environment would be up to 75 dBA CNEL at the northeastern corner of the project site and 74 dBA CNEL along the building's eastern façade.

Future Exterior Noise Environment

Three outdoor use areas were identified in the site plan: 1) a deck on the second floor; 2) a rooftop deck on the sixth floor; and 3) a private plaza on the ground floor along the eastern façade of the building. The center of the second-floor deck and the center of the rooftop deck would be set back approximately 150 and 140 feet, respectively, from the centerline of University Avenue. While the rooftop deck would have direct line-of-sight to U.S. 101, the second-floor deck would be partially shielded by the project building. The center of the private plaza would be within 120 feet of University Avenue and would have direct line-of-sight to U.S. 101. Therefore, the future noise exposure is expected to be up to 72 dBA CNEL at the center of the second-floor deck, 74 dBA CNEL at the center of the rooftop deck, and up to 75 dBA CNEL at the center of the private plaza.

The City does not have an exterior noise level threshold for office buildings because these spaces are not normally areas of frequent human use that would benefit from a lower noise level; therefore, the outdoor activity areas proposed by the project would be compatible with the future noise environment.

Future Interior Noise Environment

The northeastern corner of the building, which is closest to U.S. 101, would be exposed to noise levels of up to 72 dBA $L_{eq(1\text{-}hr)}$. The eastern building façade, which is adjacent to University Avenue, would be set back from the centerline of the roadway by approximately 130 feet. As the façade curves toward a southern exposure to Woodland Avenue, the façade would be set back from the centerline of Woodward Avenue by approximately 50 feet. At these distances, the eastern-southern curved façade would be exposed to future exterior noise levels of up to 71 dBA $L_{eq(1\text{-}hr)}$. The western façade would be shielded from traffic along University Avenue and U.S. 101 and

would experience future exterior noise levels that range from 66 dBA $L_{eq(1\text{-}hr)}$ at the northwest corner to 68 dBA $L_{eq(1\text{-}hr)}$ at the southwest corner.

Standard construction materials for commercial uses would provide about 25 dBA of noise reduction in interior spaces. The inclusion of adequate forced-air mechanical ventilation systems is normally required so that windows may be kept closed at the occupant's discretion and would provide an additional 5 dBA reduction. Standard construction materials in combination with forced-air mechanical ventilation would satisfy the threshold of 50 dBA $L_{eq(1\text{-}hr)}$ for general offices and 45 dBA $L_{eq(12)}$ for private offices.

Spaces where lower noise levels would be desired, such as private offices and conference rooms, may benefit from additional noise control in order to meet a lower, more desirable interior noise level. Additional noise control could be accomplished by selecting higher sound-rated windows (STC 34 or greater along the northern and eastern-southern exterior façades).

NOISE IMPACTS AND MITIGATION MEASURES

Significance Criteria

The following criteria were used to evaluate the significance of noise and vibration resulting from the project:

- A significant noise impact would be identified if the project would generate a substantial temporary or permanent noise level increase over ambient noise levels at existing noise-sensitive receptors surrounding the project site and that would exceed applicable noise standards presented in the General Plan or Municipal Code at existing noise-sensitive receptors surrounding the project site.

    - A significant noise impact would be identified if construction-related noise would temporarily increase ambient noise levels at sensitive receptors. The City of East Palo Alto considers large or complex projects involving substantial noise-generating activities and lasting more than 12 months significant when within 500 feet of residential land uses or within 200 feet of commercial land uses or offices.

    - According to Policy 7.2 of the City's General Plan, a significant impact would occur if the permanent noise level increase due to project-generated traffic was 3 dBA CNEL and exceed the "normally acceptable" level or was 5 dBA CNEL or greater and remained "normally acceptable." Based on Table 10-1, it is assumed that the 65 dBA CNEL exterior noise standard would be considered "normally acceptable" for residential land uses.

    - A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.

- A significant impact would be identified if the construction of the project would generate excessive vibration levels surrounding receptors. Groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

- A significant noise impact would be identified if the project would expose people residing or working in the project area to excessive aircraft noise levels.

Impact 1a: **Temporary Construction Noise.** Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels due to project construction activities. **This is a less-than-significant impact with the incorporation of standard controls.**

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Section 15.04.125 of the City's Municipal Code limits construction activities to between 7:00 a.m. and 6:00 p.m. on weekdays and to between 9:00 a.m. and 5:00 p.m. on Saturdays. Construction activities are prohibited on Sundays and national holidays. During these allowable hours, construction noise would be exempt from the City's exterior and interior noise level standards at single- or multi-family residences, schools, hospitals, churches, and public libraries. Additionally, Policy 7.11 of the City's General Plan states that a significant construction noise impact would occur if substantial noise-generating construction activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) occurred within 500 feet of residential uses or 200 feet of commercial or office uses for more than 12 months. Further, large complex projects would require a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints to be in place prior to the start of construction and to be implemented during construction to reduce noise impacts on neighboring residents and other uses.

The proposed construction hours for this project would be 7:00 a.m. to 10:00 p.m. Most of the construction activities, which would include heavy on-site equipment, is expected to occur between 7:00 a.m. and 4:00 p.m. Activities occurring between 4:00 p.m. and 10:00 p.m. is expected to include off-site hauling. For all construction occurring between 7:00 p.m. and 10:00 p.m., construction noise levels would not be exempt from the City's daytime thresholds of 55 dBA at the exterior property lines of the nearby residential land uses and of 45 dBA in the residential interiors.

Ambient noise levels at the nearest noise-sensitive receptors to the south and to the east of the project site would typically range from 56 to 74 dBA L_{eq} during daytime hours between 7:00 a.m. and 10:00 p.m. based on recent measurements made in the project vicinity.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The highest maximum noise levels generated by project construction would typically range from about 80 to 90 dBA L_{max} at a distance of 50 feet from the noise source. A list of typical maximum instantaneous noise levels measured at 50 feet are provided in Table 6. Table 7 shows the hourly average noise level ranges, by construction phase for various types of construction projects. Typical hourly average construction-generated noise levels for commercial office buildings are about 75 to 89 dBA L_{eq}, as measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional 5 to 10 dBA noise reduction at distant receptors.

Based on the expected construction schedule provided for the proposed project, demolition would start at the beginning of May 2025, and paving would conclude at the beginning of May 2028, which would total approximately 3 years. Table 8 summarizes the number of days anticipated for each construction phase and the estimated noise levels calculated at the property lines of the nearest sensitive receptors. Equipment for each phase was used as inputs into the FHWA's Roadway Construction Noise Model (RCNM) to predict the combined average noise level. To model worst-case conditions, it was assumed that all equipment per phase would be operating simultaneously. For construction noise, the use of multiple pieces of equipment simultaneously would add together as a collective noise source. While every piece of equipment per phase would likely be scattered throughout the site, the noise-sensitive receptors surrounding the site would be subject to the collective noise source generated by all equipment operating at once. Therefore, to assess construction noise impacts at the receiving property lines of noise-sensitive receptors, the collective worst-case hourly average noise level for each phase was centered at the geometrical center of the site and propagated to the nearest property line of the surrounding land uses. These noise level estimates are also shown in Table 8. These levels do not assume reductions due to intervening buildings or existing barriers.

Estimated construction noise levels shown in Table 8 are expected to occur between 7:00 a.m. and 4:00 p.m., which fall within the City's allowable construction hours and would not be subject to the 55 dBA threshold. These construction noise levels would exceed ambient levels by more than 5 dBA L_{eq} throughout project construction at noise-sensitive receptors in the project site vicinities. Since project construction is expected to exceed one year in duration, the project would require the inclusion of construction best management practices as project conditions of approval.

Outside of the allowable construction hours, only truck hauling activities, which would include loading trucks and trucks entering and existing the sites, are expected to occur. It is estimated that a total of 16,709 hauling trips (one way) would be required for the proposed project. This would result in about 11 trucks per day. Assuming worst-case conditions, up to two trucks would be assumed to occur in a given hour between 7:00 p.m. and 10:00 p.m. Noise levels during these hours would range from 56 to 57 dBA L_{eq} at the nearest residences to the east and to the south of the project site. This would exceed the 55 dBA exterior noise limit at the surrounding residential land uses throughout the construction of the proposed project and require additional measures to be implemented between the hours of 7:00 p.m. and 10:00 p.m.

TABLE 6 Construction Equipment, 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes: [1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3]Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

TABLE 7 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

TABLE 8 Estimated Construction Noise Levels at Nearby Land Uses

Phase	No. of Work Days	Calculated Hourly Average L_{eq} at Noise-Sensitive Receptors, dBA L_{eq}				
		Comm. North (130 ft)	Comm. West (210 ft)	Res. East (250 ft)	Res. South (280 ft)	Hotel North[a] (440 ft)
Demolition	15	80	75	74	73	59
Site Preparation	15	78	74	73	72	58
Grading & Excavation	120	84	80	78	77	63
Trenching & Foundation	130	86	82	81	80	66
Building – Exterior	225	84	79	78	77	63
Building – Interior & Architectural Coating	145	78	74	72	71	57
Paving	135	84	80	78	77	63

[a] Noise levels estimated at the property line of the hotel includes a conservative 10 dBA reduction due to shielding from intervening buildings.

Standard Construction Noise Controls:

Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life. Policy 7.11 of the City's General Plan requires the implementation of a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints to reduce noise impacts on neighboring residents and other uses. A typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:

- Limit the use of heavy equipment to between 7:00 a.m. and 7:00 p.m. on weekdays and to between 9:00 a.m. and 7:00 p.m. Saturdays and holidays. Where feasible, prohibit construction on Sundays;

- Utilize "quiet" models of air compressors and other stationary noise sources where such technology exists;

- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;

- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;

- Locate staging areas and construction material areas as far away as possible from adjacent land uses;

- Prohibit all unnecessary idling of internal combustion engines;

- Construct solid plywood fences along the construction site boundaries with direct line-of-sight to noise-sensitive receptors. Constructing temporary noise barrier fences to shield these receptors would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps. For this project, a minimum height of 8 to 10 feet for the temporary barrier should be used.

- Where feasible, limit the quantity of equipment operating simultaneously to 10 pieces of equipment or less.

- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem are implemented.

- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.

With the implementation of standard noise controls in GP Policy 7.11 and the Municipal Code allowable construction hours, the temporary construction noise impact between 7:00 a.m. and 7:00 p.m. would be reduced to a less-than-significant level.

Additional measures would be required to reduce the impact to a less-than-significant level during evening hours between 7:00 p.m. and 10:00 p.m. Such measures would include the following:

- Prohibit the use of noisy equipment outdoors between 7:00 p.m. and 10:00 p.m.

- Where possible, loading and unloading of trucks should be limited to the hours of 7:00 a.m. to 7:00 p.m.

- Limit the number of truck deliveries to two trucks an hour between the hours of 7:00 p.m. and 10:00 p.m.

- Prohibit truck hauling routes along Manhattan Avenue between the hours of 7:00 p.m. and 10:00 p.m.

With a temporary barrier surrounding the construction sites, these measures would reduce the hourly average noise levels to meet the City's 55 dBA daytime exterior noise limit at the surrounding residential uses. Further, the 45 dBA daytime interior limit would be met at the surrounding residences and adjacent hotel. This would be less-than-significant impact.

Impact 1b: **Permanent Noise Level Increase.** The proposed project is not expected to cause a substantial permanent noise level increase at the existing residential land uses in the project vicinity. **This is a less-than-significant impact.**

According to Policy 7.2, a significant impact would occur if the permanent noise level increase due to project-generated traffic is 3 dBA CNEL and exceeds the "normally acceptable" level or is 5 dBA CNEL or greater and remains "normally acceptable." While the General Plan does not define what level would be "normally acceptable," it is assumed that the 65 dBA CNEL exterior noise standard in Table 10-1 would be considered "normally acceptable."

Existing noise levels measured at the noise-sensitive receptors surrounding the site exceeded 65 dBA CNEL, and under future conditions, the noise environment at these nearby noise-sensitive receptors would continue to exceed 65 dBA CNEL. Therefore, a significant impact would occur if project-generated traffic increases noise levels along local roadways by 3 dBA CNEL or more. For reference, a 3 dBA CNEL noise increase would be expected if the project would double existing traffic volumes along a roadway.

The traffic study of the proposed project included peak hour existing and existing plus project traffic scenarios. By comparing the traffic volumes of existing plus project traffic volumes to the existing volumes, a traffic noise increase of 2 dBA CNEL was calculated along University Circle,

north of Woodland Avenue. Along every other roadway segment included in the traffic study, a noise level increase of 1 dBA CNEL or less was calculated. Therefore, the permanent traffic noise increase attributable to the project would be 2 dBA CNEL or less in the project vicinity. This would not be considered a significant permanent noise level increase. This is a less-than-significant impact.

Mitigation Measure 1b: None required.

Impact 1c: Noise Levels in Excess of Standards. The proposed project would potentially generate noise in excess of standards established in the City's General Plan or Municipal Code at the nearby sensitive receptors. **This is a potentially significant impact.**

Tables 4 and 5 summarize the Municipal Code's thresholds for exterior and interior noise levels, respectively, as measured on the receiving land uses. Single-family residences are located to the south of the project site, opposite Woodland Avenue, and multi-family residences are located to the east of the project site, opposite University Avenue. Since mechanical equipment could run during daytime and nighttime hours, the exterior noise level thresholds would be 55 dBA L_{50} during daytime hours (between 7:00 a.m. and 10:00 p.m.) and 50 dBA L_{50} during nighttime hours (between 10:00 p.m. and 7:00 a.m.). The interior noise level thresholds would be 45 dBA L_{50} during the daytime hours and 40 dBA L_{50} during nighttime hours.

The proposed project would include mechanical equipment, such as heating, ventilation, and air conditioning systems (HVAC). Site plan indicates that the HVAC units would be located on the rooftop, with a mechanical screen of more than 14 feet tall constructed around the perimeter of the rooftop. However, detailed information on the specific equipment, including type of HVAC units, number of units, noise level information, etc., were not available at the time of this analysis. Additionally, information regarding the mechanical screen was not available at the time of this study.

These types of units would run continuously during daytime and nighttime hours, with multiple units operating simultaneously at any given time. Assuming no shielding provided by screens, noise levels generated by mechanical equipment would potentially exceed the City's Municipal Code thresholds. Conservatively, this would be a potentially significant impact.

Mitigation Measure 1c:

Prior to the issuance of building permits, mechanical equipment generated at the proposed project building shall be selected and designed to reduce impacts on surrounding uses to meet the City's exterior and interior noise level requirements. A qualified acoustical consultant shall be retained by the project applicant to review mechanical noise as the equipment systems are selected in order to determine specific noise reduction measures necessary to reduce noise to comply with the City's 55 dBA L_{50} daytime exterior limit and 50 dBA L_{50} nighttime exterior limit at the nearest residential property lines. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and/or installation of noise barriers, such as enclosures and parapet walls to block the line-of-sight between the noise source and the nearest receptors.

Alternate measures may include locating equipment in less noise-sensitive areas, where feasible. With the implementation of this measure, the impact would be reduced to a less-than-significant level.

Impact 2: **Exposure to Excessive Groundborne Vibration due to Construction.** Construction-related vibration levels resulting from activities at the project site would exceed 0.3 in/sec PPV at the nearest sensitive receptor. **This is a potentially significant impact.**

The construction of the project may generate vibration when heavy equipment or impact tools (e.g. hoe rams) are used in close proximity to existing buildings. Construction activities would include grading, foundation work, paving, and new building framing and finishing. According to the list of construction equipment expected to be used for the proposed project, pile driving, which can cause excessive vibration, would not be required.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. No known ancient buildings or buildings that are documented to be structurally weakened adjoin the project area. Conservatively, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

Table 9 presents typical vibration source levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Table 9 also includes vibration levels calculated at the nearest residential and commercial structures surrounding the site, as measured from the nearest location of heavy construction equipment, which would potentially be the nearest boundary of the project site.

The residential buildings to the south and east would be set back from the project's boundary by at least 125 feet. Therefore, vibration levels would be below 0.04 in/sec PPV, which would be barely to distinctly perceptible, but unlikely to cause any damage to the single- or multi-family residential structures. The nearest commercial building to the west would be as close as 85 feet from construction equipment and would be exposed to vibration levels of up to 0.06 in/sec PPV. Vibration levels at this distance would be distinctly to strongly perceptible but would likely not cause damage to the building. The nearest commercial building to the north would be as close as 5 feet from construction equipment and would be exposed to vibration levels of up to 1.2 in/sec PPV when clam shovel drops and vibratory rollers (or similar types of equipment) are used along the northern boundary of the project site.

TABLE 9 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Estimated Vibration Levels at Surrounding Structures, in/sec PPV			
			Com. North (5 ft)	Com. West (85 ft)	Res. East (125 ft)	Res. South (190 ft)
Clam shovel drop		0.202	**1.186**	0.053	0.034	0.022
Hydromill (slurry wall)	in soil	0.008	0.047	0.002	0.001	0.001
	in rock	0.017	0.100	0.004	0.003	0.002
Vibratory Roller		0.210	**1.233**	0.055	0.036	0.023
Hoe Ram		0.089	**0.523**	0.023	0.015	0.010
Large bulldozer		0.089	**0.523**	0.023	0.015	0.010
Caisson drilling		0.089	**0.523**	0.023	0.015	0.010
Loaded trucks		0.076	**0.446**	0.020	0.013	0.008
Jackhammer		0.035	0.206	0.009	0.006	0.004
Small bulldozer		0.003	0.018	0.001	0.001	0.000

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., May 2020.

A study completed by the US Bureau of Mines analyzed the effects of blast-induced vibration on buildings in USBM RI 8507[8]. The findings of this study have been applied to buildings affected by construction-generated vibrations[9]. As reported in USBM RI 8507[4] and reproduced by Dowding,[5] Figure 6 presents the damage probability, in terms of "threshold damage," "minor damage," and "major damage," at varying vibration levels. Threshold damage, which is described as cosmetic damage in this report, would entail hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects. Minor damage would include hairline cracking in masonry or the loosening of plaster, and major structural damage would include wide cracking or shifting of foundation or bearing walls. As shown in Figure 6, maximum vibration levels of 1.2 in/sec PPV would result in approximately 20% of threshold damage or cosmetic damage, while no minor or major damage was observed with maximum vibration levels of 1.2 in/sec PPV. At 0.5 in/sec PPV, no minor or major damage would be expected, and there would be less than 5% chance of threshold damage or cosmetic damage.

Typical construction equipment, as shown in Table 9, would have the potential to produce vibration levels of 0.3 in/sec PPV or more at the existing building immediately north of the project site. While no minor or major damage would be expected to occur at this building, there is the potential to result in threshold or cosmetic damage. This is a significant impact.

At this location, and in other surrounding areas within 200 feet, vibration levels would potentially be perceptible. By use of administrative controls, such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration during hours with the least potential to affect nearby businesses, perceptible vibration can be kept to a minimum.

[8] Siskind, D.E., M.S. Stagg, J.W. Kopp, and C.H. Dowding, Structure Response and Damage Produced by Ground Vibration form Surface Mine Blasting, RI 8507, Bureau of Mines Report of Investigations, U.S. Department of the Interior Bureau of Mines, Washington, D.C., 1980.

[9] Dowding, C.H., Construction Vibrations, Prentice Hall, Upper Saddle River, 1996.

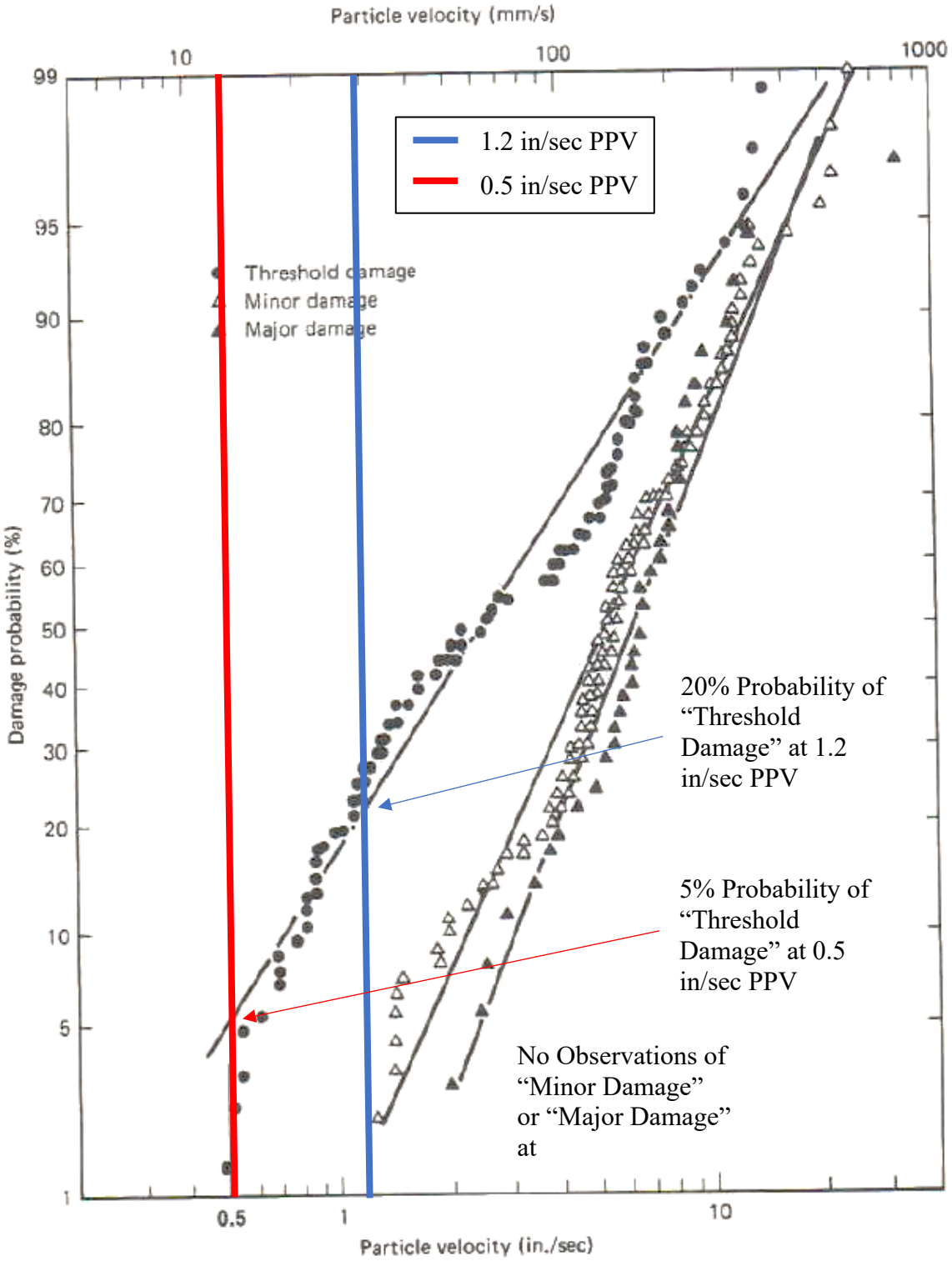
Mitigation Measure 2:

The following measures are recommended to reduce vibration impacts from construction activities to a less-than-significant impact:

- Limit vibration-inducing equipment to the extent feasible.
- Where possible, use of the heavy vibration-generating construction equipment shall be prohibited within 20 feet of the adjacent building to the north.
- Use smaller equipment to minimize vibration levels below the limits near the existing building to the north.
- Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
- Avoid dropping heavy objects or materials.

The implementation of these measures would reduce the impact to a less-than-significant level.

FIGURE 6 Probability of Cracking and Fatigue from Repetitive Loading



Source: Dowding, C.H., Construction Vibrations, Prentice Hall, Upper Saddle River, 1996, as modified by Illingworth & Rodkin, Inc., May 2020.

Impact 3: **Excessive Aircraft Noise.** The project would not expose people working in the project area to excessive aircraft noise levels. **This is a less-than-significant impact.**

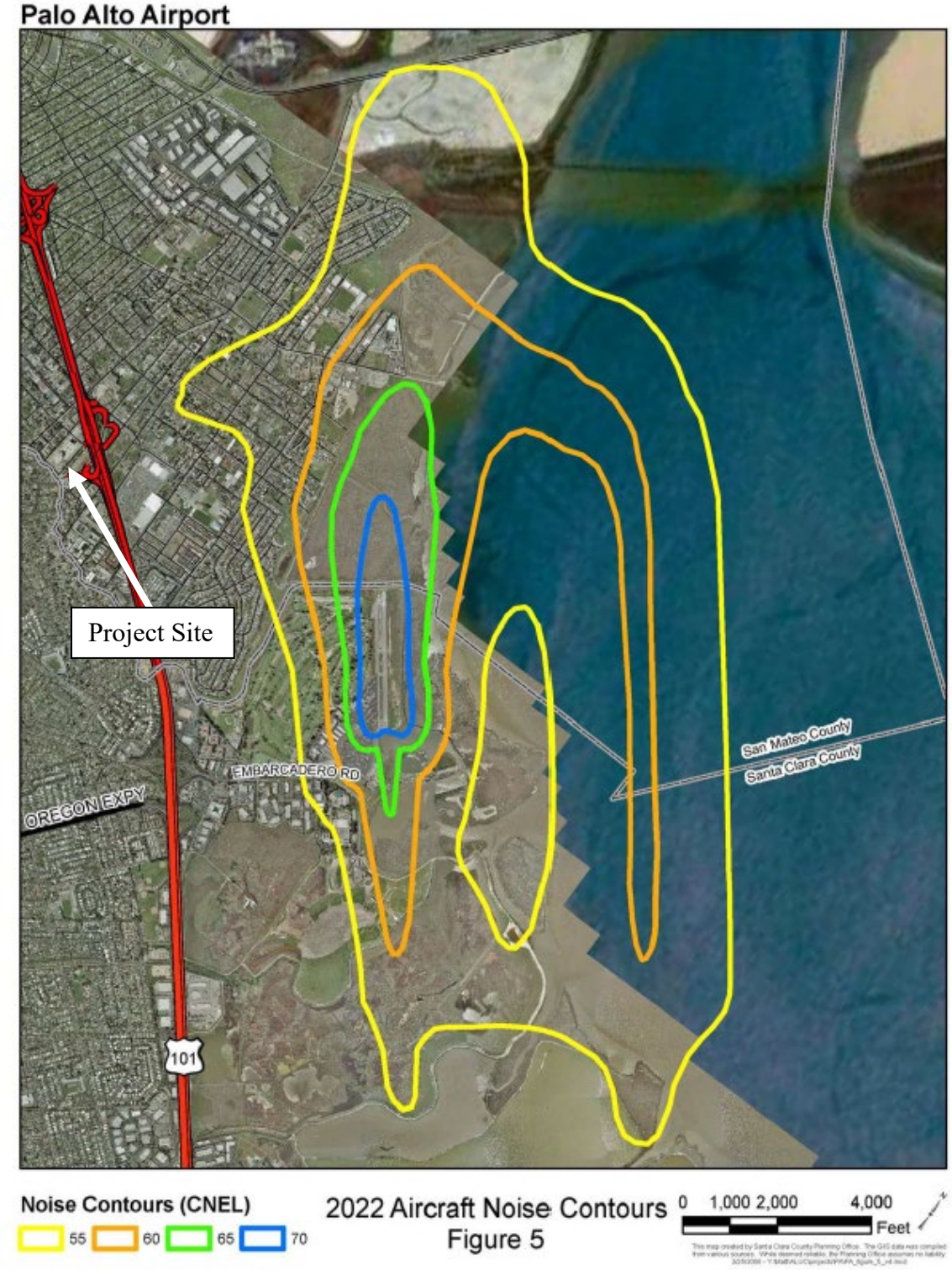
The Palo Alto Airport is a general aviation airport located approximately 1.3 miles east of the project site. The project site lies outside of the 55 dBA CNEL noise contour for 2022, as shown in Figure 7. This means aircraft noise associated with this airport would result in noise levels at or below 55 dBA CNEL by the year 2022. Aircraft noise levels are also well below ambient traffic noise levels produced by U.S. 101. The number of future flights is not expected to substantially increase above existing conditions. According to Table 4-1 of the Palo Alto Comprehensive Plan from 1998, office buildings located outside the 55 dBA CNEL noise contour would be considered generally acceptable. Further, standard construction materials would achieve a 25 to 30 dBA exterior-to-interior noise reduction with the windows closed. Therefore, interior noise levels at the proposed building during daytime hours would be below the City's 45 dBA $L_{eq(12)}$ threshold.

Other airports in the vicinity of the project site include the Moffett Federal Airfield (5 miles southeast), Norman Y. Mineta San José International Airport (12 miles southeast), San Carlos Airport (7 miles northwest), and San Francisco International Airport (15 miles northwest). The project site lies outside the areas of influence for each of the airports, and the noise environment at the site would not substantially increase due to aircraft noise from these airports.

Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project.

Mitigation Measure 3: **None required.**

FIGURE 7 2022 CNEL Noise Contours for Palo Alto Airport Relative to Project Site



Cumulative Impacts

Cumulative noise impacts could result from cumulative traffic conditions and cumulative construction projects.

A significant cumulative traffic noise impact would occur if two criteria are met: 1) if the cumulative traffic noise level increase was 3 dBA CNEL or greater for future levels exceeding 65 dBA CNEL or was 5 dBA CNEL or greater for future levels at or below 65 dBA CNEL; and 2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA CNEL or more attributable solely to the proposed project.

Cumulative traffic noise level increases were calculated by comparing the cumulative no project traffic volumes and the cumulative plus project volumes to existing traffic volumes. A traffic noise increase of 3 dBA CNEL or more was calculated under both cumulative scenarios along the U.S. 101 northbound on-ramp and future Sobrato driveway at Donohoe Street, along University Avenue, south of Bay Road, along Bay Road, east and west of University Avenue, and along Donohoe Street, east of East Bayshore Road. Since the same increase was calculated for both cumulative scenarios (no project and plus project), the project's contribution along these roadway segments would be less than 1 dBA CNEL, which would not be considered a "cumulatively considerable" contribution. All other segments included in the traffic study would result in noise level increases of less than 3 dBA CNEL under cumulative conditions. Therefore, the project would not cause a significant cumulative noise increase at noise-sensitive uses in the project vicinity.

Planned temporary construction projects located within 1,000 feet of the project site include the Woodland Apartment Expansion project, which is located approximately 635 feet northwest of the University Circle Phase II project site. The Woodland Apartment Expansion project proposes to demolish and replace the existing structures with two new mixed-use residential buildings and neighborhood park. The construction schedule for this project has yet to be established; however, it would not likely occur simultaneously with the University Circle Phase II project. It could potentially occur consecutively. The multi-family residential buildings located at the corner of Woodland Avenue and Manhattan Avenue would have some exposure to the construction activities at the University Circle Phase II site; however, due to the intervening University Circle building, which would provide shielding for the residences, the disturbance from the University Circle Phase II project would be minimal. Further, these receptors would have multiple buildings providing shielding from the construction activities at the Woodland Apartments site. Construction from that site would not be considered significant. Therefore, with the inclusion of Mitigation Measures 1a and 2 in this report and those likely included in the Environmental Impact Report for the Woodland Apartment Expansion project, noise and vibration impacts due to cumulative construction would be reduced. This would be a less-than-significant cumulative construction noise impact.

All other planned development projects, including the office tower at 660 Donohoe Street, the hotel project at 630 Donohoe Street, and the mixed-use project at 2111 University Avenue, would be more than 1,000 feet from the northern boundary of the project site, which is too far from one

another that construction noise from the projects simultaneously would contribute to one another. These proposed projects would not share impacted receptors with the University Circle Phase II project. Further, these projects would be north of U.S. Highway 101, which is a substantial noise generator in and of itself. No further cumulative impacts would be expected.

Appendix G

bae urban economics

DRAFT Housing Needs and Displacement Assessment Report for University Circle Phase II

Prepared for the City of East Palo Alto

September 28, 2021

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EXECUTIVE SUMMARY

The City of East Palo Alto (City) has retained BAE Urban Economics (BAE) to conduct a Housing Needs and Displacement Assessment for University Circle Phase II (the Project), a proposed office development at 1900-2000 University Avenue in the City of East Palo Alto. The Assessment presented in this report provides an estimate of the need for housing that the Project would generate as a result of workers employed at the Project as well as the estimated housing need generated by the indirect and induced employment associated with the Project. The Assessment also provides an evaluation of the potential for the Project to lead to the displacement of existing households.

The report provides a quantitative estimate of the direct, indirect, and induced housing need from the Project and a qualitative assessment of the potential displacement impacts. The analysis relies on a qualitative approach to evaluating displacement due to the methodological limitations associated with quantifying the potential displacement impacts from a specific development project.

Summary of Findings

An overview of the findings from the analysis are as follows:

Existing Conditions Findings

- **Some households in East Palo Alto are likely to be vulnerable to displacement pressures, both under current market conditions and if regional housing costs continue to increase.** East Palo Alto has a large number of renter households, which tend to be more susceptible to involuntary displacement than owners. An estimated 800 renter households in East Palo Alto are not protected from large increases in market-rate rents that could cause displacement. Many East Palo Alto renter households live in single-family homes, which are exempt from local rent stabilization ordinances under California State Law. In addition to vulnerabilities due to potential rent increases, renters living in single-family homes could be involuntarily displaced to allow for owner-occupancy. Many households in East Palo Alto have a high housing cost burden, which often makes households vulnerable to displacement.

- **Findings from the Urban Displacement Project indicate that households in parts of Menlo Park may face a similar risk of displacement.** Other areas of Menlo Park have similar market pressures, but a relatively low proportion of existing low-income households that could be affected.

- **Households that are priced out of their current units are likely to face considerable challenges finding homes within the region.** Home sale prices in East Palo Alto and

San Mateo County overall generally exceed the affordability threshold for households with below moderate or moderate incomes. Average market-rate rents are also unaffordable to many below moderate- and moderate-income households.

- **While housing costs in East Palo Alto are typically more affordable than in San Mateo County overall, both the City and the County have experienced substantial recent increases in housing costs.** The January 2021 median home sale price in East Palo Alto was $947,500, up 261 percent from the February 2012 median. The 2021 median home sale price in the County was approximately $1.4 million, up 161 percent from the February 2012 median. The average multifamily asking rent in East Palo Alto was $2,800 as of March 2021, slightly higher than the County average multifamily asking rent. These rents reflect consistent increases over the past decade.

- **Regional housing production has not kept pace with the rapid pace of employment growth in the region, which is likely one factor that has contributed to regional housing cost increases.** The jobs-housing ratio increased between 2010 and 2019 in the Counties of San Mateo, Santa Clara, San Francisco, and Alameda. In San Mateo County, the employment-to-housing unit ratio increased from 1.2 to 1.5 between 2010 and 2019. Other factors that have likely contributed to regional housing cost increases include low interest rates, the effects of the housing market recovery from the foreclosure crisis, and increased demand as Millennials have entered the housing market.

- **Increases in rents and home sale prices in East Palo Alto are tied to regional increases in housing costs.** Increases in rents and sale prices in the City have generally been consistent with Countywide increases. Over the past ten years, residential rents and home sale prices have generally increased in tandem with increases countywide, despite East Palo Alto experiencing a slower rate of employment growth than neighboring cities. These data indicate that broad trends within the regional housing market impact housing cost increases in East Palo Alto to a much larger degree than more localized factors.

- **To the extent that increases in regional employment have impacted housing costs during recent years, the impact of any individual employer or development is likely minimal.** Significant regional and local increases in housing costs over the past decade have coincided with considerable increases in regional employment, rather than any one specific employer or commercial development. While the collective impact of large increases in employment are likely to be a considerable factor affecting housing costs, the impact of any individual employment-based use has likely been minimal.

- **The City of East Palo Alto has enacted policies that partially counteract displacement pressures.** These policies include the City's Rent Stabilization and Eviction for Good

Cause Ordinance as well as programs and policies that increase the City's affordable and market-rate housing supply.

Housing Demand Analysis Findings

- **The Project would generate an estimated 1,067 direct, indirect, and induced jobs.** Of this total, 720 are directly attributable to the Project and 705 are due to the multiplier effects from the Project.[1]

- **Direct, indirect, and induced housing need from the Project would total an estimated 761 units.** An estimated 57 to 131 units of this housing demand would be for units in East Palo Alto, while the Project would generate an estimated need for 17 to 35 housing units in Menlo Park.

Findings Regarding Potential Impacts from the Project

- **The Project would support a small increase in the number of jobs in East Palo Alto.** To the extent that the Project affects the jobs-to-housing unit ratio in East Palo Alto, the change would bring the City marginally closer to the regional jobs-to-housing unit ratio.

- **Due to the regional nature of the housing market, the Project is unlikely to have any measurable impact on displacement pressures in East Palo Alto.** The Project would generate a need for housing among households across a range of income levels, a portion of which would seek housing in East Palo Alto. A significant share of these households would be higher-income households that may be more able to afford higher rents and sale prices than many existing East Palo Alto residents, while other households would be lower-income households that would seek out affordable housing options. Although the cumulative impact of increases in employment throughout the region has likely contributed to significant housing cost increases in East Palo Alto and regionally, the impact on housing costs from any individual project with 720 workers is unlikely to be significant enough to cause the displacement of existing East Palo Alto residents. As discussed in the Existing Conditions chapter of this report, recent housing cost increases in East Palo Alto have generally tracked housing cost increases in the County overall, which suggests that displacement pressures are largely the result of regional housing market trends and East Palo Alto's position within the regional housing market, rather than individual projects that add employment at the scale anticipated from the Project.

- **While existing and planned residential units in East Palo Alto and Menlo Park can potentially accommodate the housing need that the Project would generate in these**

[1] The sum of the direct housing need and the indirect and induced housing need do not sum to the total housing need due to independent rounding.

cities, these existing and planned units may be needed to address existing housing needs. The estimated direct, indirect, and induced housing that the Project would generate in East Palo Alto and Menlo Park could potentially be accommodated through absorption of residential units through the course of typical annual turnover or though absorption of a portion of units in the development pipeline. However, due in part to long-term shortages in regional housing production, these existing and planned housing units are likely needed to address existing housing needs in the region, rather than addressing any net increase in housing need attributable to the Project.

- **The Project is unlikely to have a perceptible impact on the regional housing supply or regional jobs-housing balance.** The Project is estimated to generate 1,425 direct, indirect, and induced jobs in San Mateo and Santa Clara Counties, and a need for 761 housing units. These impacts are well within the range of recent and projected future growth in San Mateo and Santa Clara Counties, and would represent a minimal increase in the number of households in the region. The direct, indirect, and induced employment from the Project would represent a negligible increase in employment in the two Counties and would have virtually no impact on the regional employment-to-housing unit ratio even if no new housing units are built.

- **Because the Project would have a minimal effect on the regional housing supply and jobs-housing balance, it is unlikely to have an impact on displacement on a regional scale.** Recent housing cost increases in the region have coincided with dramatic employment growth and lagging housing production. The cumulative impact of these trends is likely to have been a key contributor to the considerable recent increases in housing costs in the region, rather than individual specific developments at the scale of the Project. The amount of employment growth that the Project would generate is minimal in relation to the amount of growth that was necessary to drive recent housing cost increases in the region. To the extent that employment growth from the Project may have a marginal impact on housing demand and resulting displacement pressures in the region, these impacts are likely to be partially counteracted by new housing unit production and local policies and programs that help to address displacement pressures.

- **Though the Project is unlikely to have a noticeable impact on the local or regional housing market, housing affordability and displacement remain key issues locally and throughout the region, and addressing the incremental impact of the Project and other projects that generate new housing demand will be essential to addressing cumulative housing needs and mitigating displacement pressures over the long term.** Housing costs have increased considerably throughout the region and that many lower- and moderate-income households are unable to afford housing. Meanwhile, some households in East Palo Alto and elsewhere in the region are currently at risk of displacement, while others will likely become vulnerable to displacement if housing

costs continue to increase. Confronting these challenges requires a multifaceted approach to addressing housing affordability at the local and regional level, including the production of housing at various affordability levels.

- **The Project would directly generate revenue that would enable the City of East Palo Alto to partially address the affordable housing need attributable to the Project.** The Project would generate approximately $2.49 million in Affordable Housing Impact Fee — Nonresidential Development (commercial linkage fees), which may be sufficient to enable the City to fund the units needed to address the extremely low-, very low-, and low-income housing need within East Palo Alto that the Project would generate. To the extent that the linkage fees leave a remaining need for extremely low-, very low-, and low-income units in East Palo Alto, the parcel tax (Measure HH) that East Palo Alto voters approved in 2018 would generate enough revenue to enable the City to fund the remaining units within eight years or less. Other strategies will be needed to address the need for housing among new moderate-income and above moderate-income households.

- **There is a continued need for the City of East Palo Alto and cities and counties throughout the region to explore policies to prevent displacement and address housing needs at all income levels.** While the City of East Palo Alto has adopted many policies in support of these objectives, East Palo Alto and other cities and counties throughout the region should continually evaluate options for generating affordable housing funds, facilitating the production of housing for households at all income levels, and preventing displacement.

INTRODUCTION

The City of East Palo Alto (City) retained BAE Urban Economics (BAE) to conduct a Housing Needs and Displacement Assessment (the Assessment) for University Circle Phase II (the Project), a proposed office development at 1900-2000 University Avenue in the City of East Palo Alto. The Assessment presented in this report provides an estimate of the need for housing that the Project would generate as a result of workers employed at the Project as well as the estimated housing need generated by the indirect and induced employment associated with the Project. The Assessment also provides an evaluation of the potential for the regional housing market to meet these housing needs and the potential for the Project to lead to the displacement of existing households.

One goal of the Assessment is to fulfill the City of East Palo Alto's obligations under a January 2017 settlement agreement between the City of East Palo Alto and the City of Menlo Park, which reads as follows:

> *2.6 Study of Multiplier Effect. When the preparation of an EIR is required pursuant to this Agreement, concurrent with the preparation of the EIR, Menlo Park or East Palo Alto, whichever is the lead agency for the Development Project, will conduct a Housing Needs Assessment ("HNA"). The scope of the HNA will, to the extent possible, include an analysis of the multiplier effect for indirect and induced employment by that Development Project and its relationship to the regional housing market and displacement. Nothing In this section Indicates an agreement that such an analysis is required by CEQA.*

In addition to fulfilling these terms of the settlement agreement, a second purpose of this report is to respond to requests that community groups have submitted in response to other similar project proposals, which have requested that the City provide an analysis of the induced demand for affordable housing and displacement impacts that could potentially result from new development. Given the substantial overlap between the analysis requested by community groups for prior projects and the analysis required by the settlement agreement, this report provides analyses to serve both purposes.

Project Description

The proposed Project would include a six-story, 180,000-square foot office building and a three-level, 219,935-square-foot parking garage with 513 spaces. The Project would join an existing office park complex that includes three office buildings, a hotel, and an above-ground parking structure. The consultant preparing the Draft Environmental Impact report for the Project, David J. Powers and Associates, estimates that 720 workers would be employed at the Project. The Project applicant has not announced any future tenant(s) for the Project.

Challenges Associated with Projecting Displacement

In the context of neighborhood change, the term "displacement" typically refers to existing residents' involuntary movement out of the community, usually due to increases in housing costs. Therefore, estimating the projected displacement impacts from a specific project requires an analysis of the impact that the project would have on housing costs and the extent to which increases in housing costs would displace existing households. This section describes the challenges associated with estimating the potential displacement impacts from a specific project due to methodological complications associated with projecting the impact that a specific employment-based use would have on housing costs as well as quantifying the number of households that might be displaced as a result of future housing cost increases.

Challenges Associated with Projecting a Project's Impact on Housing Costs

While employment growth and an associated increase in the demand for housing can be one factor that leads to an increase in housing costs in a region, as is evaluated in this report, increases in housing costs are usually the result of numerous factors, rather than employment growth alone. In addition to increased market demand from new workers, factors that have likely contributed to recent housing cost increases in East Palo Alto and the surrounding region include:

- historically low interest rates;
- macroeconomic events, such as impacts on the housing market as the region has rebounded from the foreclosure crisis since the Great Recession;
- increased market demand as Millennials have moved out of their childhood homes and entered the rental and ownership market; and
- the impact of California Proposition 13 on property tax rates, which creates an incentive for Baby Boomer retirees and empty-nesters to stay in their homes rather than downsizing.

Meanwhile, factors that have partially counteracted upward pressure on housing costs include the City of East Palo Alto's rent stabilization ordinance and the addition of new market-rate and affordable residential units to the local and regional housing supply.

Housing cost increases are the result of a complex interplay between the factors that contribute to cost increases and the factors that counteract upward pressure on housing costs. The relative impact of each of these factors shifts over time and through economic cycles, adding to the challenge of quantifying the impact of new employment, or any other factor individually, on housing costs.

Challenges Associated with Quantifying Future Displacement Effects

In addition to the challenges associated with estimating the impact that new employment or other factors will have on housing costs, there are further challenges associated with quantifying the extent to which future housing cost increases will lead to displacement. Some households in East Palo Alto and the surrounding region have undoubtedly been displaced

during recent years due to housing cost increases, while other households remain vulnerable to displacement if housing cost increases continue or accelerate. However, due to the absence of data that tracks individual households over time, even a detailed analysis of demographic data provides only a general indication of neighborhood change over time, rather than a reliable means of quantifying the number of households that have been displaced involuntarily. These data can provide insight on whether it is likely that displacement has occurred, but not the number of households that have been affected.

Similarly, data on current demographic and housing characteristics provide insight on whether there are a significant number of households that are vulnerable to displacement, but not the number of households that will be displaced due to regional housing cost increases. In general, renter households are more susceptible to displacement than homeowners because homeowners' housing costs are not impacted by changes in the housing market after the homeowner purchases the unit. However, some renter households are protected from market-rate rent increases by rent stabilization ordinances, rent restrictions on affordable units, or due a landlord's decision to limit rent increases on existing tenants. Other renter households may have sufficient income to absorb future rent increases. While increases in housing costs have a real and substantial impact on some households, data are not available to allow for a reliable quantification of the magnitude of future displacement impacts.

Approach Used in this Report

Due to the challenges associated with quantifying the effect that an employment-based use has on housing costs, as well as the impact that increases in housing costs have on displacement, this report provides a qualitative assessment of the potential displacement effects from the Project rather than numerical estimates. A qualitative approach is appropriate given the methodological limitations associated with reliably quantifying the potential future displacement impacts resulting from a specific proposed project.

Report Organization

The remainder of this report is organized as follows:

- **Existing Conditions**, including demographic, housing, and residential real estate market trends in East Palo Alto and San Mateo County. This section also includes a qualitative evaluation of existing displacement risk factors for East Palo Alto residents.
- **Housing Demand Analysis**, which quantifies the total estimated direct, indirect, and induced housing need attributable to the Project, including estimates of the housing need in East Palo Alto and Menlo Park.
- **Potential Impacts from the Project**, which evaluates the potential impacts from the Project on the local and regional housing supply, jobs-housing balance, and displacement pressures.

EXISTING CONDITIONS

This chapter presents demographic, employment, and real estate market data, and provides a qualitative assessment of the existing risk displacement factors in East Palo Alto, as well as more limited qualitative assessment of displacement risk factors in Menlo Park. The data indicate that some existing East Palo Alto and Menlo Park residents may be at risk of displacement, both under current market conditions and if housing costs continue to increase.

This chapter uses a variety of data sources to evaluate existing demographic and housing market trends in East Palo Alto and the wider region. Due to East Palo Alto's location on the border of San Mateo County and adjacent to Santa Clara County, some of the data and analysis presented below use data on both San Mateo and Santa Clara Counties for regional comparison. Because this chapter draws from a number of data sources, the data presented below differ somewhat with respect to the time period for data collection, the methodology for data collection, the types of housing units captured in the data, and the universe of people and households captured in the data. Despite differences between these sources, the data are generally consistent in capturing overall trends related to housing market conditions and displacement risk for the purpose of informing the findings in this report.

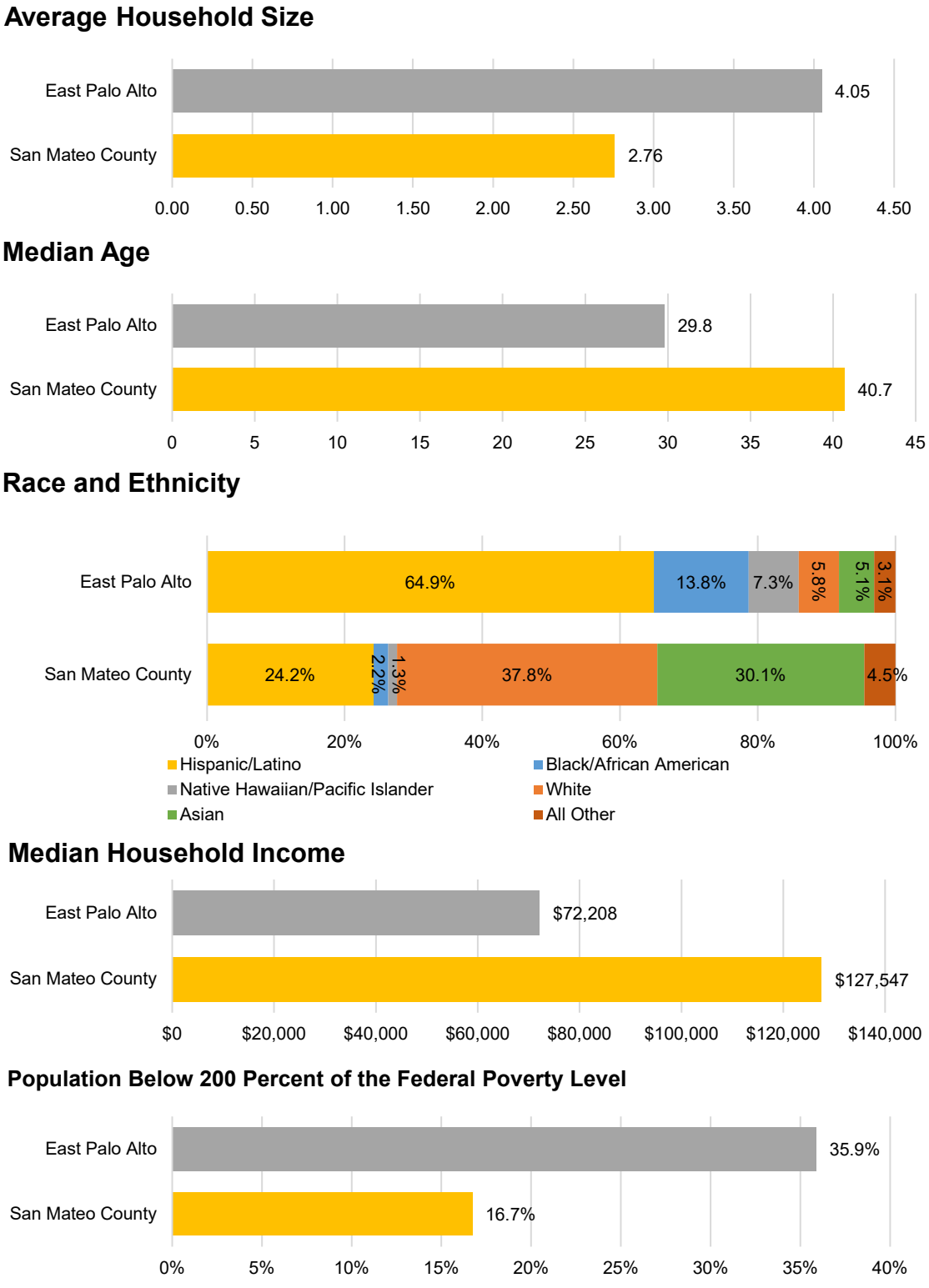
East Palo Alto Demographic Overview

East Palo Alto is demographically distinct from San Mateo County overall, with larger households, a younger population, a higher proportion of Hispanic/Latino residents, and a higher proportion of Black/African American residents. As of 2020, East Palo Alto had a population of approximately 28,600 residents and 7,000 households, according to data from Esri.[2] The average household size in East Palo Alto is 4.05 persons, slightly larger than the City's average household size in 2010 (4.03 persons per household), and significantly larger than the average in San Mateo County overall (2.76 persons per household). The city's median age of 29.8 is 10.9 years younger than the median age in the county. The city's median annual household income of approximately $72,000 is more than $55,000 below that of the county. In addition, the share of the population that is below 200 percent of the Federal Poverty Line in the city (35.9 percent) is more than double the countywide share (16.7 percent).

[2] Esri forecasts demographic summary totals based on a variety of data sources including the U.S. Census Bureau, Bureau of Labor Statistics (BLS), Bureau of Economic Analysis (BEA), American Community Survey (ACS), Current Population Survey (CPS), Housing Vacancy Survey (HVS), Internal Revenue Services (IRS), U.S. Postal Service (USPS), jurisdictional building permits and housing starts and sources from private data vendors such as Zonda and RealPage. Annual Esri demographic updates are point estimates representing July 1st of each update year. For more information see: https://downloads.esri.com/esri_content_doc/dbl/us/J10268_Methodology_Statement_2020-2025_Esri_US_Demographic_Updates.pdf.

In addition, individuals who identify as Hispanic or Latino comprise nearly two-thirds of all East Palo Alto residents as of 2020, compared to just under one-quarter of residents countywide. Non-Hispanic Black/African American residents represent the second largest racial or ethnic group in East Palo Alto, comprising approximately 14 percent of the city's residents in 2020. The number of Black/African American residents fell by nearly 12 percent between 2010 and 2020, by far the largest decline of any racial or ethnic group and in line with the decline in Black/African American residents in San Mateo County. This decline coincided with a 1.4 percent overall population growth in the city and 3.9 percent population growth in the county. Demographic characteristics of East Palo Alto and San Mateo County's population and households are summarized in Figure 1.

Figure 1: Demographic Snapshot, East Palo Alto and San Mateo County, 2020



Sources: Esri Business Analyst, 2019; U.S. Census Bureau, 2013-2017 American Community Survey; BAE, 2019.

Housing Occupancy Trends

This section provides information on housing conditions and occupancy trends for current East Palo Alto residents, including information on tenure, overcrowding, and housing cost burden. As shown, East Palo Alto has a large number of renter households, many of which live in single-family homes, and a large number of households with a high housing cost burden.

Tenure

Unlike San Mateo County, East Palo Alto is a majority-renter city. Renter households comprise 56 percent of East Palo Alto households, compared to just under 41 percent countywide (see Table 1). East Palo Alto saw a 1.0 percent decline in renter-occupied units between 2010 and 2020, while the overall number of occupied housing units increased by just over one percent. Meanwhile, the number of owner-occupied units increased by four percent, which is above and beyond the overall household growth rate. These trends could indicate a loss of rental units in East Palo Alto as single-family rental units have shifted from the rental market and are now owner-occupied.

Table 1: Tenure of Occupied Housing Units, 2010-2020

	2010		2020		2010-2020 Change	
East Palo Alto	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Owner Occupied Units	2,971	42.8%	3,089	44.0%	118	4.0%
Renter Occupied Units	3,969	57.2%	3,931	56.0%	-38	-1.0%
Total Occupied Units	**6,940**	**100.0%**	**7,020**	**100.0%**	**80**	**1.2%**

	2010		2020		2010-2020 Change	
San Mateo County	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Owner Occupied Units	153,110	59.4%	158,601	59.4%	5,491	3.6%
Renter Occupied Units	104,727	40.6%	108,497	40.6%	3,770	3.6%
Total Occupied Units	**257,837**	**100.0%**	**267,098**	**100.0%**	**9,261**	**3.6%**

Note: Totals may not match totals in other tables due to independent rounding.

Sources: Esri Business Analyst; BAE, 2019.

Single-family units comprise a significant share of the rental housing supply in East Palo Alto. Approximately 38 percent of renter households in East Palo Alto live in single family units compared to approximately 30 percent of renter households countywide. However, most renter households live in multifamily units in both geographies.

Table 2: Type of Housing by Tenure, 2015-2019

	City of East Palo Alto		San Mateo County	
Housing Type	**Renter**	**Owner**	**Renter**	**Owner**
Single-Family Units	38.1%	89.9%	30.3%	88.8%
Multifamily Units	61.6%	5.9%	69.0%	9.9%
Mobile Home and Other (a)	0.3%	4.2%	0.8%	1.4%
Total Occupied Units	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note:
(a) Includes boats, RVs, vans, or any other non-traditional residences.

Sources: U.S. Census Bureau, American Community Survey, 2015-2019 Five-Year Sample Data, Table B25032; BAE, 2021.

Overcrowding

East Palo Alto has high rates of overcrowded housing, which is often an indication that households are struggling to afford housing. The U.S. Census defines moderately overcrowded housing units as those that are occupied by more than one person per room but fewer than 1.5 persons per room, and severely overcrowded units as those that are occupied by more than 1.5 persons per room. As shown in Table 3, five-year American Community Survey (ACS) data collected between 2015 and 2019 suggests that 26 percent of all East Palo Alto households are either moderately or severely overcrowded. Overcrowding is more prevalent among East Palo Alto's renter households, 36 percent of which are moderately or severely overcrowded. Despite containing less than three percent of the County's occupied housing stock, East Palo Alto accounts for approximately 19 percent of the moderately or severely overcrowded units in San Mateo County.

Table 3: Housing Unit Overcrowding, 2015-2019

	Renter-Occupied Units		Owner-Occupied Units		Total Occupied Units	
East Palo Alto	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Not Overcrowded	2,984	64.2%	2,734	88.9%	5,718	74.0%
Moderately Overcrowded (a)	849	18.3%	244	7.9%	1,093	14.2%
Severely Overcrowded (b)	815	17.5%	98	3.2%	913	11.8%
Total Occupied Units	**4,648**	**100.0%**	**3,076**	**100.0%**	**7,724**	**100.0%**

	Renter-Occupied Units		Owner-Occupied Units		Total Occupied Units	
San Mateo County	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Not Overcrowded	89,512	85.2%	153,087	96.6%	242,599	92.1%
Moderately Overcrowded (a)	8,354	8.0%	3,979	2.5%	12,333	4.7%
Severely Overcrowded (b)	7,134	6.8%	1,477	0.9%	8,611	3.3%
Total Occupied Units	**105,000**	**100.0%**	**158,543**	**100.0%**	**263,543**	**100.0%**

Notes:
(a) The American Community Survey defines a moderately overcrowded unit as being occupied by more than one but fewer than 1.5 persons per room.
(b) The American Community Survey defines a severely overcrowded unit as being occupied by more than 1.5 persons per room.

Sources: U.S. Census Bureau, American Community Survey, 2015-2019 Five-Year Sample Data, Table B25014; BAE, 2021.

Cost Burden

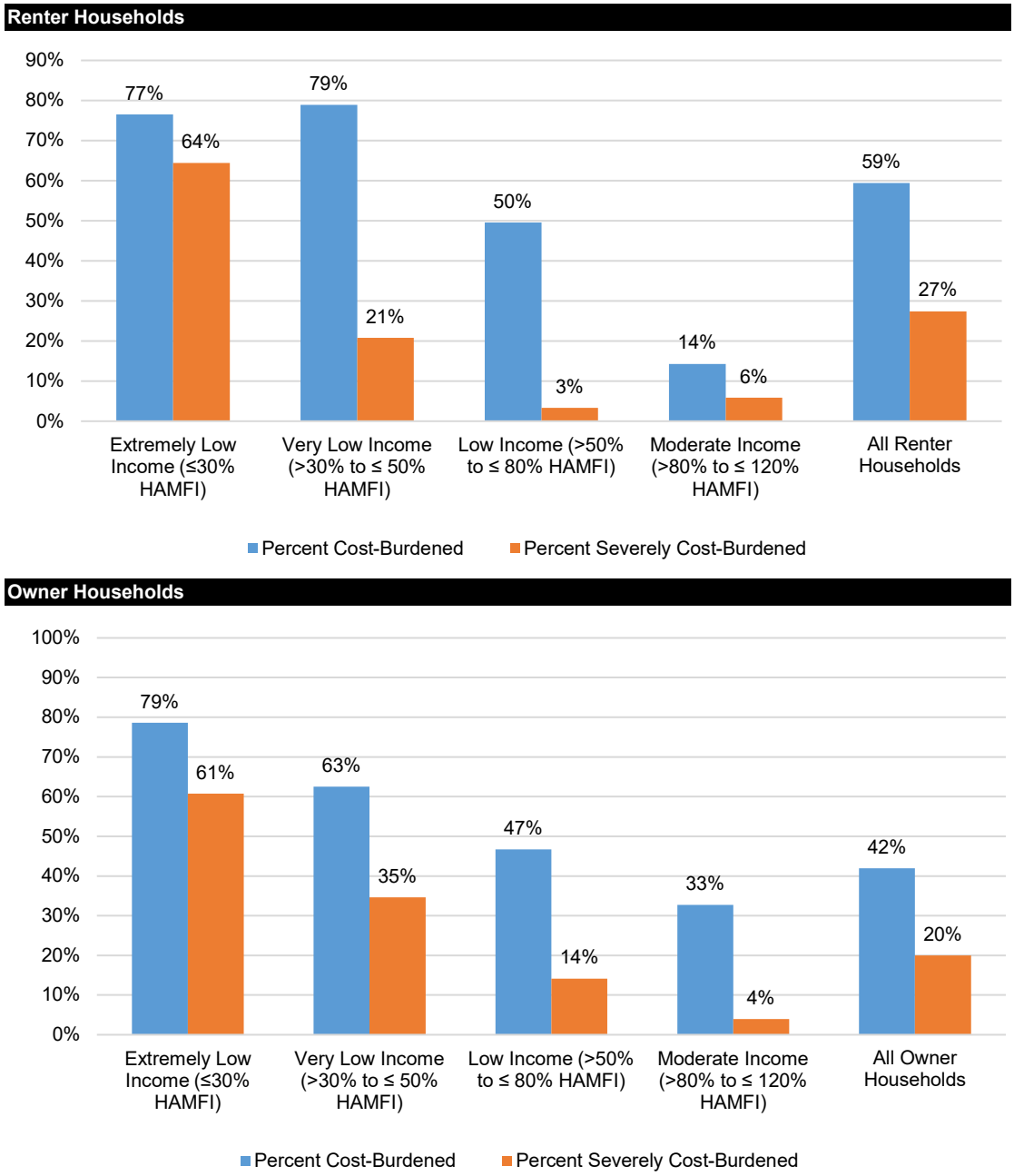
East Palo Alto has high proportions of cost-burdened and severely cost-burdened households. According to the U.S. Department of Housing and Urban Development, cost-burdened households are those that spend more than 30 percent of their gross household incomes on housing costs. Those who spend more than 50 percent of their gross household incomes on housing costs are considered severely cost-burdened. According to ACS data collected between 2013 and 2017[3], 53 percent of all East Palo Alto households were cost-burdened, including 59 percent of renter households and 42 percent of owner households. By comparison, 36 percent of county households are cost burdened, including 46 percent of renter households and 30 percent of owner households.

As Figure 2 shows, rates of cost burdened and severely cost burdened households are particularly high among lower income groups. For example, almost 80 percent of extremely low-income and very low-income renter households in East Palo Alto have a high housing cost burden.

These data indicate that many households in East Palo Alto are struggling to afford their housing and may be vulnerable to displacement if housing costs increase or if they experience a loss of income or unexpected expenses. Lower-income households are particularly vulnerable due to high housing cost burden and because lower-income households are often less able to save money for financial emergencies. Thus lower-income households are more vulnerable to displacement.

[3] At the time these data were collected for this report, the most recent data available at the level of detail shown were collected between 2013 and 2017.

Figure 2: East Palo Alto Cost-Burdened Households by Tenure, 2013-2017



Note: HUD-defined income categories are based on the HUD Area Median Family Income (HAMFI).

Sources: U.S. Department of Housing and Urban Development, 2013-2017 Comprehensive Housing Affordability Strategy (CHAS) data; BAE, 2021.

Housing Market Trends

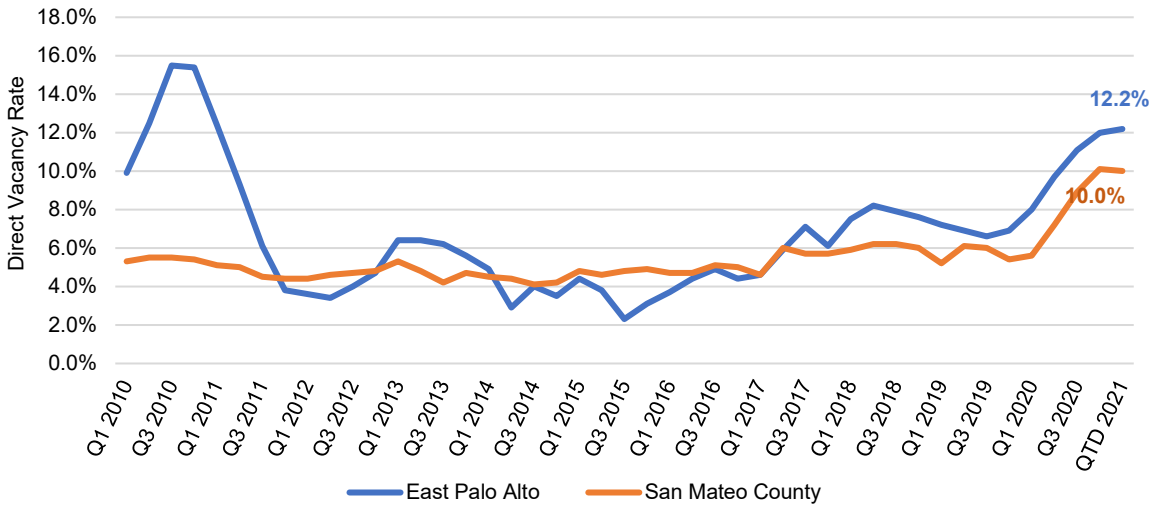
This section provides information on the housing market in East Palo Alto and San Mateo County, including an analysis of existing conditions and trends in housing vacancy, cost, and affordability. This context is critical for evaluating the ability of the current housing market to accommodate the needs of existing and future households.

Vacancy

Data from CoStar[4] demonstrates that East Palo Alto tends to have a slightly higher vacancy rate than San Mateo County overall, though vacancy rates in both the city and county remained relatively low over the past decade until early 2020, when California began to enact restrictions in response to the COVID-19 pandemic. Figure 4 shows that between the fourth quarter of 2019 and the first quarter of 2021, the multifamily rental vacancy rate in East Palo Alto increased from 6.9 percent to 12.2, while the multifamily rental vacancy rate in San Mateo County overall increased from 5.4 percent to 10.0 percent. Although vacancy rates seem to have stabilized somewhat during 2021, these data indicate that some East Palo Alto renters may have been displaced due to the economic impacts of the COVID-19 pandemic. Housing analysts typically cite a five percent rental vacancy rate as a rate that indicates healthy market demand while providing enough vacant units to allow for normal movement of tenants between units within the rental market. Given that vacancy rates are currently well over five percent, these data may indicate potential for existing vacant units to absorb some of the existing and future housing demand.

[4] CoStar is a private data vendor that develops comprehensive commercial and residential real estate research and data through their independent research organization. CoStar gathers market information through extensive data mining of land registry and tax assessor's information and real estate broker surveys. CoStar's market real estate information is also derived from a variety of real estate data platforms such as LoopNet, Apartments.com, BizBuySell, Lands of America, and STR.

Figure 3: Multifamily Rental Vacancy Rate, East Palo Alto and San Mateo County, 2010-2019



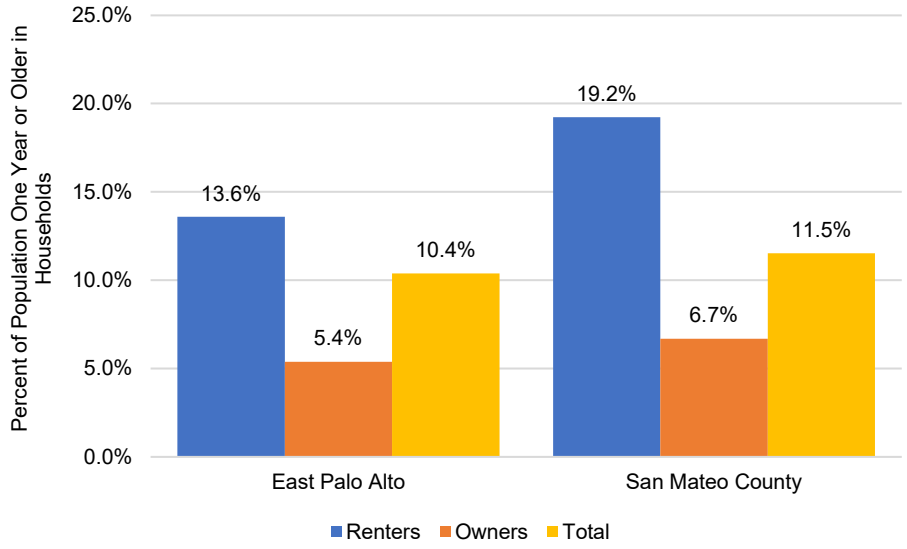
Note:
Data reflect units in market rate multifamily complexes with 5 units or more. QTD 2021 data reflect data as of late March 2021.

Sources: Costar; BAE, 2021.

Housing Unit Turnover

ACS data suggest that 14 percent of rental units and five percent of owner-occupied units in East Palo Alto turn over per year on average during recent years. Figure 4 shows, by household tenure, the percentage of the population that moved in the past year, based on ACS data collected between 2015 and 2019. These data do not provide a direct indication of unit turnover, in part because the data are based on householder responses collected over a defined time period and capture net absorption of any new units added to the inventory in addition to re-tenanting of existing units. Nonetheless, these data provide a general indication of the number of units that are vacated and re-tenanted each year. Based on these estimates, approximately 530 rental units in East Palo Alto and 170 owner-occupied units in East Palo Alto turned over each year during the period covered by these data.

Figure 4: Residents that Moved in the Past Year, 2015-2019



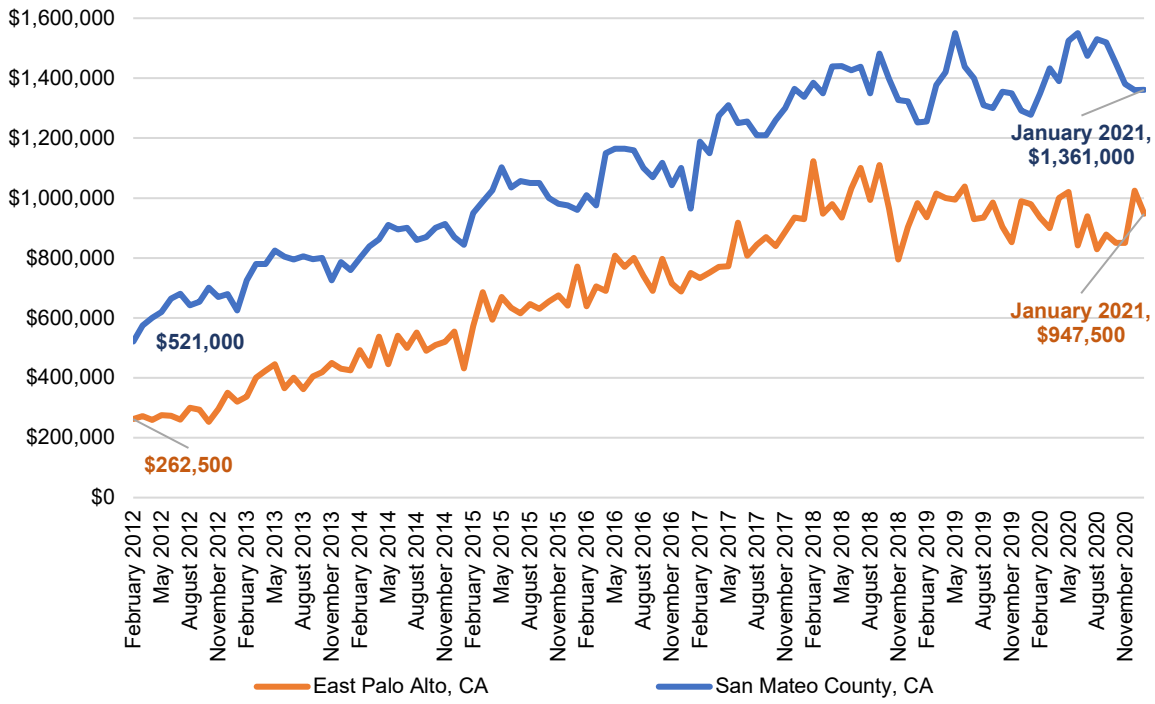
Note:
(a) Universe is population one-year-old or older in households. Geographic mobility status and movement date/origin based on householder response at time of survey.

Sources: U.S. Census Bureau, 2013-2017 American Community Survey, Table B07013; BAE, 2019.

Home Sale Trends

Although the median home sale price in East Palo Alto has remained considerably lower than the Countywide median home sale price, the City has experienced dramatic recent increases in home sale prices, far outpacing the rate of home sale price increases in the County overall. Figure 5 shows annual median sale prices for homes sold in East Palo Alto and San Mateo County between February 2012 and January 2021. In February 2012, the median sale price of homes sold in East Palo Alto was $262,500, approximately half of the median in San Mateo County. By January 2021, the median home sale price in East Palo Alto was $947,500, up 261 percent from the February 2012 median and equal to 70 percent of the February 2021 median for San Mateo County. Between 2012 and 2021, the annual median home sale price in East Palo Alto generally increased in tandem with countywide increases. The median sale price in San Mateo County as of January 2021 was approximately $1.4 million, up 161 percent since February 2012.

Figure 5: Median Home Sale Price Trends, 2012-2021



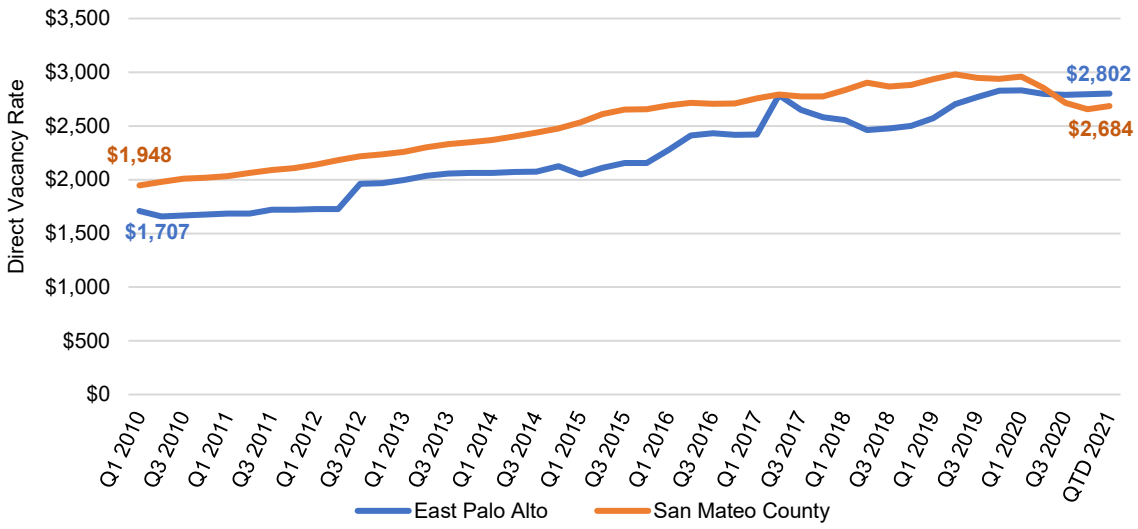
Sources: Redfin Data Center; BAE, 2021.

Rental Market Trends

Residential rents in East Palo Alto tend to be slightly lower than average for San Mateo County, though increases in rents in East Palo Alto generally keep pace with rent increases in the County overall. CoStar tracks 27 market-rate multifamily rental properties in East Palo Alto with five units or more, with a total of 2,258 units. Among these units, the average asking rent was $2,802 per month as of the first quarter of 2021, as shown in Figure 6. Although East Palo Alto has historically offered slightly more affordable rental options within the high-cost San Mateo County housing market, since the third quarter of 2021 the average rent among these units has been slightly higher than the average countywide asking rent for multifamily rental properties with five units or more. The data indicate that rental rates in East Palo Alto increase in tandem with rent increases in the wider regional housing market, making the rental market in the City more expensive over time as housing costs increase throughout the region.

Market-rate rents in East Palo Alto have been substantially more stable during the COVID-19 pandemic than rents countywide; as of March 2021, the average multifamily asking rent in East Palo Alto was one percent lower than in the first quarter of 2020, while the countywide average multifamily asking rent had decreased by approximately nine percent.

Figure 6: Average Asking Rents, Q1 2010 – Q1 2021



Note:
(a) Data reflect units in market rate multifamily complexes with 5 units or more.

Sources: CoStar, 2021; BAE, 2021.

East Palo Alto's residential rental inventory includes approximately 2,700 units that are subject to the City's Rent Stabilization Ordinance, which tend to have rental rates that are lower than the Citywide average. This total includes over 2,500 multifamily rental units and approximately 150 mobile home spaces that are covered by rent stabilization. In 1984, residents approved the City's first rent stabilization ordinance, which limited annual rent increases for units built before that date. However, since 1999, landlords have been allowed to charge market-rate rents every time a unit is vacated and leased to a new tenant.[5]

Housing Affordability

Current market-rate housing costs in East Palo Alto exceed the affordability threshold for most lower- and moderate-income households. Table 4 and Table 5 show the affordable single-family home and condominium sale price for households at various sizes and income levels and compares these affordable sale prices to current home sale prices in East Palo Alto.[6] As shown, the median single-family home sale price in East Palo Alto is higher than the sale price that would be affordable to extremely low-income, very low-income, low-income, and moderate-income households. The median condominium sale price in East Palo Alto is potentially

[5] Vacancy decontrol was mandated after the State legislature passed the Costa-Hawkins Rental Act in 1995, which allows rent to increase to market rates after a qualifying vacancy occurs and reinstates rent control for a new tenant. Costa-Hawkins went into effect in 1999.
[6] Affordable condominium sale prices are lower than affordable single-family home sale prices for households at a given income level because condominium owners are required to pay homeowner's association fees, which reduce the monthly income available for mortgage payments.

affordable to some larger low-income and moderate-income households. However, it should be noted that the median condominium sale price in East Palo Alto fluctuates significantly between months and is often substantially higher than the January 2021 median of $628,000 that was used to inform the calculations shown in Table 5 below. Moreover, there is a limited inventory of condominium units in East Palo Alto, and many may be too small for larger households, making this option unavailable for many households.

Table 4: Affordable Single-Family Home Sale Price, East Palo Alto, 2021

	Household Size				
Maximum Affordable Sale Price	**1 Person**	**2 Person**	**3 Person**	**4 Person**	**5 Person**
Extremely Low Income (up to 30% AMI)					
Household Income (a)	$36,550	$41,800	$47,000	$52,200	$56,400
Max. Affordable Sale Price (b)	$185,701	$212,354	$238,833	$265,312	$286,565
Amount Above (Below) Median Sale Price (c)	($819,299)	($792,646)	($766,167)	($739,688)	($718,435)
Very Low Income (31-50% AMI)					
Household Income (a)	$60,900	$69,600	$78,300	$87,000	$94,000
Max. Affordable Sale Price (b)	$309,386	$353,634	$397,881	$442,129	$477,667
Amount Above (Below) Median Sale Price (c)	($695,614)	($651,366)	($607,119)	($562,871)	($527,333)
Low Income (51-80% AMI)					
Household Income (a)	$97,600	$111,550	$125,500	$139,400	$150,600
Max. Affordable Sale Price (b)	$495,958	$566,859	$637,586	$708,313	$765,277
Amount Above (Below) Median Sale Price (c)	($509,042)	($438,141)	($367,414)	($296,687)	($239,723)
Moderate Income (81-120% AMI)					
Household Income (a)	$120,200	$137,350	$154,550	$171,700	$185,450
Max. Affordable Sale Price (b)	$610,758	$697,860	$785,311	$872,412	$942,268
Amount Above (Below) Median Sale Price (c)	($394,242)	($307,140)	($219,689)	($132,588)	($62,732)

Notes:
(a) Based on California Department of Housing and Community Development income limits for 2020.
(b) Based on a tabulation of how much housing a household could afford with 35% of its gross monthly income given premium and interest, homeowner's insurance, property taxes, and other payments.
(c) Per Redfin Data Center, the median sale price for a single-family home sold in East Palo Alto in January 2021 was $1,005,000.

Sources: Redfin Data Center, 2021; California Department of Housing and Community Development, 2020; Federal Housing Administration, 2020; Freddie Mac, 2020; California Department of Insurance; San Mateo County Controller's Office, 2019-2020; BAE, 2021.

Table 5: Affordable Condominium Sale Price, East Palo Alto, 2021

	Household (Unit) Size				
Market Rents and Utilities	**1 Person (Studio)**	**2 Person (1 BD)**	**3 Person (2 BD)**	**4 Person (3 BD)**	**5 Person (4 BD)**
Average Market-Rate Rent (a)	$1,849	$2,332	$3,216	$6,105	$5,051
Utility Costs (b)	$23	$28	$36	$43	$51
Maximum Affordable Monthly Rent					
Extremely Low Income (up to 30% AMI)					
Household Income (c)	$36,550	$41,800	$47,000	$52,200	$56,400
Max. Affordable Monthly Rent (d)	$891	$1,017	$1,139	$1,262	$1,359
Amount Above (Below) Market Rate Rent	($958)	($1,315)	($2,077)	($4,843)	($3,692)
Very Low Income (31-50% AMI)					
Household Income (c)	$60,900	$69,600	$78,300	$87,000	$94,000
Max. Affordable Monthly Rent (d)	$1,500	$1,712	$1,922	$2,132	$2,299
Amount Above (Below) Market Rate Rent	($350)	($620)	($1,295)	($3,973)	($2,752)
Low Income (51-80% AMI)					
Household Income (c)	$97,600	$111,550	$125,500	$139,400	$150,600
Max. Affordable Monthly Rent (d)	$2,417	$2,761	$3,102	$3,442	$3,714
Amount Above (Below) Market Rate Rent	$568	$429	($115)	($2,663)	($1,337)
Moderate Income (81-120% AMI)					
Household Income (c)	$120,200	$137,350	$154,550	$171,700	$185,450
Max. Affordable Monthly Rent (d)	$2,982	$3,406	$3,828	$4,250	$4,585
Amount Above (Below) Market Rate Rent	$1,133	$1,074	$612	($1,856)	($466)

Notes:
(a) Based on California Department of Housing and Community Development income limits for 2020.
(b) Based on a tabulation of how much housing a household could afford with 35% of its gross monthly income given premium and interest, homeowner's insurance, property taxes, and other payments.
(c) Per Redfin Data Center, the median sale price for a condominium sold in East Palo Alto in January 2021 was $628,000.

Sources: Redfin Data Center, 2021; California Department of Housing and Community Development, 2020; Federal Housing Administration, 2020; Freddie Mac, 2020; California Department of Insurance; San Mateo County Controller's Office, 2019-2020; BAE, 2021.

Market-rate rental units in East Palo Alto are similarly unaffordable to most households with moderate or below-moderate incomes. As shown in Table 6, current average market-rate asking rents for units in multifamily rental properties exceed the affordability threshold for extremely low-income and very low-income households for all household sizes shown, as well as for larger low-income and moderate-income households. However, it should be noted that the income levels shown in Table 6 are based on countywide income thresholds set by the State. As shown in Figure 1, the median annual income among East Palo Alto residents ($72,208) is substantially lower than the countywide income limits for low-income households.

Table 6: Affordable Rent, East Palo Alto, 2021

Market Rents and Utilities	Household (Unit) Size 1 Person (Studio)	2 Person (1 BD)	3 Person (2 BD)	4 Person (3 BD)	5 Person (4 BD)
Average Market-Rate Rent (a)	$1,849	$2,332	$3,216	$6,105	$5,051
Utility Costs (b)	$23	$28	$36	$43	$51
Maximum Affordable Monthly Rent					
Extremely Low Income (up to 30% AMI)					
Household Income (c)	$36,550	$41,800	$47,000	$52,200	$56,400
Max. Affordable Monthly Rent (d)	$891	$1,017	$1,139	$1,262	$1,359
Amount Above (Below) Market Rate Rent	($958)	($1,315)	($2,077)	($4,843)	($3,692)
Very Low Income (31-50% AMI)					
Household Income (c)	$60,900	$69,600	$78,300	$87,000	$94,000
Max. Affordable Monthly Rent (d)	$1,500	$1,712	$1,922	$2,132	$2,299
Amount Above (Below) Market Rate Rent	($350)	($620)	($1,295)	($3,973)	($2,752)
Low Income (51-80% AMI)					
Household Income (c)	$97,600	$111,550	$125,500	$139,400	$150,600
Max. Affordable Monthly Rent (d)	$2,417	$2,761	$3,102	$3,442	$3,714
Amount Above (Below) Market Rate Rent	$568	$429	($115)	($2,663)	($1,337)
Moderate Income (81-120% AMI)					
Household Income (c)	$120,200	$137,350	$154,550	$171,700	$185,450
Max. Affordable Monthly Rent (d)	$2,982	$3,406	$3,828	$4,250	$4,585
Amount Above (Below) Market Rate Rent	$1,133	$1,074	$612	($1,856)	($466)

Notes:
(a) Data reflect average asking rates of units in multifamily properties of five units or more in East Palo Alto as of late March 2021.
(b) Housing Authority of the County of San Mateo allowances for tenant-furnished utilities and other services for a multifamily unit that uses gas cooking, heating, and water heating, as well as electricity for lights and appliances. The allowance is based on the number of bedrooms in the unit and a household is assumed to have one bedroom fewer than the number of people in the household.
(c) Based on California Department of Housing and Community Development income limits for 2020.
(d) These figures are 30% of gross monthly household income, the maximum amount that a household can spend on housing expenses without being considered cost-burdened.

Sources: California Department of Housing and Community Development, 2020; CoStar Group, 2021; BAE, 2021.

Residential Construction Trends

East Palo Alto has experienced a slower pace of housing production in recent years than the county overall. Between 2010 and 2020, the total number of housing units in the city increased by 1.3 percent, compared to an increase of 3.6 percent in the county overall. The city's housing inventory increased by 98 units between 2010 and 2020, at an annual average rate of ten units per year. East Palo Alto experienced particularly slow growth in multifamily units during this period; multifamily units in structures of five or more units increased by just one percent in East Palo Alto, compared to ten percent in San Mateo County overall. The comparatively slow pace of recent growth in East Palo Alto may be partly attributable to an ordinance that the City passed in 2016 that prohibited most new or expanded water connections within the City's water system service area, which essentially prevented processing of all major development applications until the ordinance was recently lifted.

Table 7: Housing Units by Type, 2010-2020

	2010		2020		2010-2020 Change	
	Number	Percent	Number	Percent	Number	Percent
East Palo Alto						
Single Family Detached	4,211	53.9%	4,280	54.1%	69	1.6%
Single Family Attached	328	4.2%	321	4.1%	-7	-2.1%
2-4 Units	267	3.4%	267	3.4%	0	0.0%
5+ Units	2,865	36.6%	2,900	36.6%	35	1.2%
Mobile Homes	148	1.9%	149	1.9%	1	0.7%
Total Units	**7,819**	**100.0%**	**7,917**	**100.0%**	**98**	**1.3%**
San Mateo County						
Single Family Detached	155,189	57.3%	156,638	55.8%	1,449	0.9%
Single Family Attached	25,015	9.2%	25,562	9.1%	547	2.2%
2-4 Units	17,471	6.4%	17,972	6.4%	501	2.9%
5+ Units	70,178	25.9%	77,532	27.6%	7,354	10.5%
Mobile Homes	3,178	1.2%	3,175	1.1%	-3	-0.1%
Total Units	**271,031**	**100.0%**	**280,879**	**100.0%**	**9,848**	**3.6%**

Sources: CA Dept. of Finance, E-5, 2020; BAE, 2021.

Jobs-Housing Balance

During recent decades, housing production in San Mateo County and other parts of the Bay Area has lagged employment growth, which is widely believed to be a primary factor that has contributed to recent increases in housing costs throughout the region. Table 8 shows total employment, number of housing units, and the employment to housing unit ratio trend for San Mateo County since 2010, as well as for Santa Clara, San Francisco, and Alameda Counties. As shown, the employment-to-housing ratio in all four counties has increased since 2010, with all four counties adding significantly more jobs than housing units during this period. Collectively, employment growth in these four counties surpassed housing unit growth by a factor of more than eight to one between 2010 and 2019, meaning that less than one housing unit was added for every eight jobs. San Mateo County had the most significant mismatch between housing unit production and job growth, with fewer than one housing unit added for every 12 jobs. As of 2019, the employment-to-housing unit ratio in San Mateo County was 1.5, up from 1.2 in 2010.[7]

[7] As of the writing of this report, the 2019 employment data are the most recent employment data available from Bureau of Labor Statistics Quarterly Census of Employment and Wages.

Table 8: Employment and Housing Unit Growth, 2010-2019

San Mateo County	2010	2015	2019	2010-2019 Change Number	2010-2019 Change Percent
Employment (a)	317,576	383,668	415,999	98,423	31.0%
Housing Units (b)	271,031	274,612	279,248	8,217	3.0%
Employment-to-Housing Ratio	1.2	1.4	1.5		
Alameda County					
Employment (a)	630,343	728,995	793,213	162,870	25.8%
Housing Units (b)	581,372	591,236	605,977	24,605	4.2%
Employment-to-Housing Ratio	1.1	1.2	1.3		
San Francisco County					
Employment (a)	545,721	674,646	760,775	215,054	39.4%
Housing Units (b)	376,162	384,657	399,372	23,210	6.2%
Employment-to-Housing Ratio	1.5	1.8	1.9		
Santa Clara County					
Employment (a)	842,581	1,017,071	1,119,639	277,058	32.9%
Housing Units (b)	631,920	652,007	671,439	39,519	6.3%
Employment-to-Housing Ratio	1.3	1.6	1.7		

Notes:
(a) Employment data are sourced from Bureau of Labor Statistics, Quarterly Census of Employment and Wages.
(b) Housing unit counts are sourced from CA Dept. of Finance, E-5.

Sources: Bureau of Labor Statistics, Quarterly Census of Employment and Wages; California Department of Finance, E-5 Population and Housing Estimates, 2020; BAE, 2021.

East Palo Alto Jobs-Housing Balance

In contrast to the County overall, East Palo Alto has more housing units than jobs. As shown in Table 7 above, the California Department of Finance estimates that there are 7,917 housing units in East Palo Alto as of 2020. Esri estimates that there were 5,104 jobs in East Palo Alto as of 2020. Based on these figures, East Palo Alto has an estimated employment-to-housing unit ratio of approximately 0.64, essentially the inverse of the countywide ratio.

Relevant City Policies

The City of East Palo Alto has adopted various ordinances, policies, and programs to support the development and preservation of affordable and market-rate housing and protect existing tenants from evictions and rent increases. In 2018, the City adopted an Affordable Housing Strategy with ten major goals, including construction of 500 additional affordable housing units, preservation of 200 deed-restricted units, providing housing for 80 additional homeless residents, approving 50 additional accessory dwelling units, and reestablishing the City's inclusionary housing ordinance, among other goals. The City has made significant progress toward implementing the strategy. The City's affordable housing and anti-displacement efforts, including but not limited to those that have arisen from the affordable housing strategy, help to partially counteract some of the displacement pressures in the regional housing market by increasing the supply of housing at a range of affordability levels and

enacting protections for households that might otherwise be displaced due to changes in the housing market. Some of the major policies that are relevant to this analysis are described below.

Affordable Housing Development Policies

The City of East Palo Alto has implemented a number of programs and policies to increase the City's affordable housing supply. The City of East Palo Alto adopted an inclusionary housing ordinance in 2019, which requires 20 percent of units in a residential development to be income-restricted at levels that range from 35 percent to 120 percent of AMI, depending on whether the project is rental or for-sale. The ordinance applies to all new residential developments, with developments of fewer than five units required to pay a portion of an in-lieu fee. An alternative compliance option to providing the units on-site is payment of an in-lieu fee, which is set at $197,880 for for-sale units and $255,000 for rental units through the 2021-22 fiscal year; the inclusionary obligation for alternatives to on-site units is 25 percent. Additional funding for affordable housing is generated through the City's Affordable Housing Impact Fee — Nonresidential Development (Commercial Linkage Fee), which applies to commercial office development projects in the City at a rate of $11.76 per square foot. Like the Affordable Housing Impact Fee, funds generated by the Commercial Linkage Fee can be used for the construction, acquisition, and rehabilitation of affordable housing.

The City recently worked with MidPen Housing to develop an affordable housing development on a City-owned site at 965 Weeks Street that will provide 136 affordable units. The City approved the project in December 2019 and is expected to break ground in 2023, depending on financing. In addition, the City appropriated $4 million from the Catalyst Housing Fund for the renovation of the Light Tree affordable housing project. The renovation will include nearly doubling the number of units on the project site, resulting in a total of 185 affordable units. The City is also a joint recipient of and Affordable Housing and Sustainable Communities (AHSC) grant for the Light Tree project, and therefore has contributed to the project both directly and indirectly.

Furthermore, in November 2018 East Palo Alto voters approved a ballot measure (Measure HH) to assess a parcel tax on all office buildings in the City at a rate of $2.50 per office square foot. Revenue from the parcel tax accrues to a special fund and is used to create and maintain affordable housing programs and programs that facilitate job opportunities for East Palo Alto residents, with an emphasis on jobs in the science, technology, engineering, and mathematics sectors and building trades. The ballot measure specified that at least 35 percent of the revenues must be reserved for the construction of new affordable housing. This parcel tax creates an ongoing source of revenue for affordable housing in East Palo Alto. The remaining funds will go to assist residents of East Palo Alto with accessing job opportunities, and thus the parcel tax could enable residents to increase their incomes and be better able to afford housing costs overall.

Housing Preservation and Anti-Displacement Policies

The City has a robust rent stabilization program to protect tenants from unreasonable rent increases and arbitrary evictions, thereby helping to prevent displacement of existing residents. Under the City's Rent Stabilization and Eviction for Good Cause Ordinance, owners of multifamily rental units that are covered by the ordinance are permitted to increase rents annually by up to 80 percent of the change in the Consumer Price Index (CPI) for San Francisco. For mobile home tenancies, the maximum allowable rent increase is 100 percent of CPI for San Francisco. Although vacancy decontrol has made it difficult to stabilize rents over the long term, the City has enacted several policies to help curb the removal and conversion of its existing rent-stabilized inventory. Property owners who demolish rent-stabilized properties are required to pay tenant relocation assistance between approximately $10,000 and $17,000 per tenant, as well as moving costs. In 2014, the City adopted a tenant relocation ordinance that tightened restrictions on demolitions of residential properties, provided tenants with protection from landlord harassment, and provided relocation assistance for tenants that are displaced. The City also charges an affordable housing mitigation fee when a property owner converts a rental unit to a condominium and the City's Condominium Conversion Ordinance allows the City to limit conversions when the rental vacancy rate in the City is low. In 2020, the City adopted a local preference policy that applies to all inclusionary units and 50 percent of City-supported, deed-restricted affordable units in a project, to the extent that outside funding sources allow. The policy uses a lottery system with points to give preference for these units to prospective tenants that live or work in East Palo Alto, with the most points for those that live and work in East Palo Alto. This policy helps to target affordable units to existing low-income residents, potentially providing high-quality affordable housing to tenants that may have otherwise been displaced due to increases in housing costs.

In July 2018, the City implemented the RV Safe Parking Program, which provides overnight RV parking space for 20 vehicles on a City-owned site. The goal of the program is to provide displaced East Palo Alto residents, especially families with children in the local school system, with a safe location to park while they search for alternative housing.

Projected Growth

This section provides an overview of planned residential units in East Palo Alto and Menlo Park as well as projected population, household, and employment growth in East Palo Alto, Menlo Park, and San Mateo County. This section includes information on Menlo Park in addition to East Palo Alto to facilitate comparisons between the estimated housing need in each City from the Project, calculated in the next chapter of this report, and projected growth in each City. These comparisons are discussed in the last chapter of this report.

Residential Development Pipeline

Future growth in the residential inventory throughout the region will help to address future housing needs that arise from employment growth and other sources, and could help to

mitigate housing cost increases by adding to the region's housing supply. East Palo Alto currently has a total of 1,324 net new units in the development pipeline, including planned, approved, and under construction projects. The City of Menlo Park has a total of 3,834 units in the development pipeline.

Projected Long-Term Population, Household, and Employment Growth

Table 9 shows projected population, household, and employment growth in East Palo Alto, Menlo Park, and San Mateo County through 2040, according to projections prepared by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). As shown, ABAG and MTC estimate that East Palo Alto will gain 5,420 residents, 1,065 households, and 845 jobs between 2020 and 2040, bringing the City's employment to household ratio from 0.76 to 0.77. During the same period, Menlo Park is projected to gain 2,290 households and 6,065 jobs, increasing the employment to household ratio in Menlo Park from 2.37 to 2.40. ABAG and MTC project that San Mateo County will gain 33,695 households and 72,750 jobs overall between 2020 and 2040, increasing the Countywide employment to household ratio from 1.40 to 1.48.

Table 9: Projected Population, Household, and Employment Growth, 2020-2040

						2020-2040 Change	
Population	**2020**	**2025**	**2030**	**2035**	**2040**	**Number**	**Percent**
East Palo Alto	30,670	30,965	31,285	34,575	36,090	5,420	17.7%
Menlo Park	44,530	48,485	52,865	53,455	54,920	10,390	23.3%
San Mateo County	796,885	816,405	853,215	877,965	916,545	119,660	15.0%
Households							
East Palo Alto	7,610	7,690	7,750	8,415	8,675	1,065	14.0%
Menlo Park	15,390	16,215	17,260	17,335	17,680	2,290	14.9%
San Mateo County	284,220	290,290	302,470	308,360	317,915	33,695	11.9%
Employment							
East Palo Alto	5,810	6,075	6,295	6,400	6,655	845	14.5%
Menlo Park	36,410	36,965	37,195	37,770	42,475	6,065	16.7%
San Mateo County	399,245	415,270	422,960	436,160	471,995	72,750	18.2%

Sources: Association of Bay Area Governments/Metropolitan Transportation Commission, Plan Bay Area 2040 Projections; BAE 2021.

Existing Displacement Risk Analysis

The data on existing conditions presented above and analysis provided by the Urban Displacement Project indicate that some existing households in East Palo Alto are vulnerable to displacement under current conditions, and additional households may be vulnerable if housing costs continue to increase in the area. These findings are consistent with trends in other historically-affordable neighborhoods throughout the Bay Area, many of which have experienced significant recent increases in housing costs.

This section summarizes findings from the Urban Displacement Project in addition to findings from the existing conditions analysis presented above. While the existing conditions analysis

focused on East Palo Alto, this section provides an overview of findings from the Urban Displacement Project as they relate to both East Palo Alto and Menlo Park. This section includes findings for Menlo Park because one purpose of this report is to address displacement analysis requirements outlined in a settlement agreement between the Cities of East Palo Alto and Menlo Park.

Urban Displacement Project

The Urban Displacement Project is a research initiative led by UC Berkeley Professor of City and Regional Planning Karen Chapple and Miriam Zuk, PhD. Using demographic and real estate data, the project has developed a methodology to assess displacement risk in the Bay Area at the Census tract level. In addition to identifying predominantly low income tracts that are losing or are susceptible to losing low income households due to gentrification, the project also identifies moderate-to-high income tracts that are preventing or are at risk of preventing low income households from moving in ("exclusive" areas).

There are four Census tracts partially or fully within East Palo Alto, two of which overlap with parts of northeast Menlo Park. As shown in Table 10, three of the four tracts are categorized as "Low Income – Susceptible to Displacement" while the remaining tract is categorized as "Stable Middle/Moderate Income."

Unlike East Palo Alto, Menlo Park includes several higher-income census tracts. Of the eleven Census tracts partially or fully within Menlo Park, three are predominantly low income and are categorized as "Low Income – Susceptible to Displacement." Two of these tracts are those shared with East Palo Alto. The other low-income tract includes the Belle Haven neighborhood adjacent to East Palo Alto. The remaining Menlo Park tracts, all located southwest of Highway 101, are moderate-to-high income. One is categorized as "Stable Middle/Moderate Income," while the remaining seven are categorized as "Stable Advanced Exclusive."

Table 10: Urban Displacement Project Typologies for East Palo Alto and Menlo Park Census Tracts, 2018

East Palo Alto		
6118	Low Income Susceptible to Displacement	Shared with City of Menlo Park
6119	Stable Middle/Moderate Income	
6120	Low Income Susceptible to Displacement	
6121	Low Income Susceptible to Displacement	Shared with City of Menlo Park
Menlo Park		
6116	Stable Advanced Exclusive	
6117	Low Income Susceptible to Displacement	
6118	Low Income Susceptible to Displacement	Shared with City of Menlo Park
6121	Low Income Susceptible to Displacement	Shared with City of Menlo Park
6125	Stable Advanced Exclusive	
6126	Stable Middle/Moderate Income	
6127	Stable Advanced Exclusive	
6128	Stable Advanced Exclusive	
6129	Stable Advanced Exclusive	
6130	Stable Advanced Exclusive	
6139	Stable Advanced Exclusive	

Sources: Zuk, M., & Chapple, K. (2015). Urban Displacement Project; BAE, 2018.

Existing Displacement Risk Findings

The preceding existing conditions analysis and information from the Urban Displacement Project support the following findings related to existing displacement risk factors:

- **Findings from the Urban Displacement Project indicate that households in East Palo Alto and in Menlo Park's Belle Haven neighborhood are at risk of displacement.** Other areas of Menlo Park have similar market pressures, but a relatively low proportion of existing low-income households that could be affected.

- **East Palo Alto has a large number of renter households, which tend to be more susceptible to involuntary displacement than owners.** Renter households that are not protected from large rent increases tend to be more susceptible to involuntary displacement than homeowners because increases in rents are often based on current market rates for a similar unit. Homeowners are comparatively less susceptible because mortgage and property tax payments do not change based on changes in the market during the time that the homeowner maintains ownership. East Palo Alto has a high proportion of renter households in single-family homes, which are exempt from local rent stabilization ordinances under California State Law. Renters in single-family homes are also more likely than renters in multifamily properties to be forced to move from their units to allow for owner-occupancy, if the landlord decides either that they want to move into the unit or that they want to sell the unit to a new owner that intends to occupy the unit.

- **An estimated 800 renter households in East Palo Alto are not protected from large increases in market-rate rents that could cause displacement.** Households that do not live in units with restrictions on rent increases are at higher risk of unaffordable rent increases in the future as property owners adjust rents to match market rates. There are approximately 3,900 renter households in East Palo Alto, approximately 2,500 of which live in units that are covered by the City's Rent Stabilization Program (not including residents that own their mobilehomes with rent-stabilized space rents) and 571 of which live in deed-restricted affordable units. Some of the remaining 800 renter households might be protected from rent increases through Section 8 rental assistance, while other renter households may have annual incomes that are sufficient to absorb an increase in rents. However, it is likely that at least some of these 800 renter households would be vulnerable to displacement if their rent were to increase.

- **High housing cost burdens among current residents, coupled with increasing market-rate rents, further underscore displacement risk for some existing residents.** For many cost-burdened households, factors such as a large unexpected expense, job loss among a member of the household, or a reduction in work hours can make rent or mortgage payments unaffordable. Because cost burdened households use a large portion of household income for housing costs, these households are often unable to save money to cover unanticipated costs or unforeseen reductions in income. Therefore, many of the City's cost-burdened households may currently be vulnerable to displacement, even without any changes in the market, while other cost-burdened households may become vulnerable to displacement if rents continue to increase. Renter households with high housing cost burdens, especially those that do not live in rent-stabilized units, can be particularly vulnerable to displacement in housing markets with rapidly increasing rents.

- **Households that are priced out of their current units are likely to face considerable challenges finding homes within the region.** Home sale prices in East Palo Alto and San Mateo County overall generally exceed the affordability threshold for households with below moderate or moderate incomes. Average market-rate rents are also unaffordable to many below moderate-income and moderate-income households.

- **While housing costs in East Palo Alto are typically more affordable than in San Mateo County overall, both the City and the County have experienced substantial recent increases in housing costs.** The January 2021 median home sale price in East Palo Alto was $947,500, 3.6 times the February 2012 median. The January 2021 median home sale price in the County was approximately $1.36 million, 2.6 times the February 2012 median. The average multifamily asking rent in East Palo Alto was $2,800 as of the first quarter of 2021, approximately $100 higher than the average multifamily asking rent countywide. These rents reflect consistent increases over the past decade,

with little recent impact on rents in East Palo Alto due to the COVID-19 pandemic, even as rents elsewhere in San Mateo County have experienced a larger impact.

- **Increases in rents and home sale prices in East Palo Alto are tied to regional increases in housing costs.** Increases in rents and sale prices in the City have generally been consistent with Countywide increases. As shown in Figure 5 and Figure 6, multifamily rents and home sale prices in East Palo Alto have generally increased in tandem with rent and sale price increases throughout San Mateo County. Meanwhile, East Palo Alto has captured a considerably smaller share of regional employment growth than other cities in the region. These data indicate that broad trends within the regional housing market impact housing cost increases in East Palo Alto to a much larger degree than more localized factors.

- **Regional housing production has not kept pace with the rapid pace of employment growth in the region, which is likely a major contributor to regional housing cost increases.** The jobs-housing ratio has increased between 2010 and 2019 in the Counties of San Mateo, Santa Clara, San Francisco, and Alameda. In San Mateo County, the employment-to-housing unit ratio increased from 1.2 from 1.5 between 2010 and 2019.

- **To the extent that increases in regional employment have impacted housing costs during recent years, the impact of any individual employer or development is likely minimal.** Between 2015 and 2019, the number of people employed in San Mateo County increased by 32,331. Between the end of 2015 and the end of 2019, the average market-rate asking rent for multifamily units in the County increased by $283 per month and the median home sale price in the County increased by approximately $317,000. While it is not possible to quantify the extent to which these housing cost increases are due to the increase in employment, it is reasonable to assume that approximately 25 to 75 percent of the increase in cost is attributable to the impacts of new employment on the regional housing market, which provides a fairly large range for the extent to which other factors may affect housing costs. Using this assumption yields an estimate that every 100 new workers in the County leads to an increase in average rents totaling $0.22 to $0.66 per month and an increase the median home sale price of $245 to $735. These figures are equal to 0.01 to 0.02 percent of current market rate rents in East Palo Alto and 0.03 to 0.08 percent of current market-rate home sale prices in East Palo Alto. These figures are provided for illustrative purposes only and are not meant to serve as actual estimates of the direct impact of new employment on housing costs.

- **The City of East Palo Alto has enacted policies that partially counteract displacement pressures.** These policies include the City's Rent Stabilization and Eviction for Good Cause Ordinance as well as programs and policies that increase the City's affordable and market-rate housing supply. In addition, in November 2018 East Palo Alto voters

approved a ballot measure to assess a parcel tax on office properties in the City at a rate of $2.50 per office square foot (Measure HH), with funds from the parcel tax reserved for affordable housing and to facilitate job opportunities for East Palo Alto residents.

HOUSING DEMAND ANALYSIS

This chapter provides an estimate of the direct, indirect, and induced housing demand by income level that the Project would generate and describes the methodology used for the analysis. The housing demand estimates described in this chapter inform the assessment of potential displacement impacts in the following chapter.

Overview of Methodology

This analysis includes a study of the housing demand directly attributable to workers that would be employed at the Project as well as the housing demand attributable to the multiplier effects of the Project and the resulting indirect and induced employment. To estimate the mix of workers directly employed on site and absent any information on actual tenants, BAE generated a hypothetical mix of industries for workers that would be employed in the Project based on a selection of industry sectors likely to be office users. BAE then took the distribution of workers by industry for these sectors in Santa Clara and San Mateo Counties combined and applied that distribution to the estimated total employment for the proposed Project.[8]

Using the overall employment levels by sector as inputs, BAE analyzed the employment multiplier effect from the Project using the IMPLAN input-output model and used the most recently available five-year Public Use Microdata Sample from the American Community Survey from the U.S. Census to estimate the resulting number of worker households by income level. IMPLAN is a widely-accepted and utilized software model that estimates the total economic implications, including new employment and total spending, that results from new economic activity within a specified geographic area (see Appendix B for additional information on IMPLAN). This assessment uses IMPLAN to estimate the total number of jobs that the project would generate within the region, which this analysis uses to estimate the total resulting housing demand attributable to the project. This methodology is described in additional detail in each subsection below.

Employment Estimate for University Circle Phase II

For the purposes of the following analysis, the IMPLAN sectors shown in Table 11 were assumed to be the most likely potential users of office space in the Project.

[8] This analysis analyzed impacts in both San Mateo and Santa Clara Counties because East Palo Alto is on the border of San Mateo County and adjacent to Santa Clara County. Therefore, housing demand impacts due to the project would likely to affect both counties.

Table 11: Estimated Distribution of Workers in Proposed Project by Industry Sector

IMPLAN Industry Code	Industry Name	Employment in 2-County Region		Project
		Number	Percent	
423	Newspaper publishers	439	0.07%	0.47
424	Periodical publishers	1,343	0.20%	1.44
425	Book publishers	494	0.07%	0.53
426	Directory, mailing list, and other publishers	107	0.02%	0.11
427	Greeting card publishing	-	0.00%	0.00
428	Software publishers	43,272	6.46%	46.53
438	Internet publishing and broadcasting and web search portals	72,724	10.86%	78.19
439	Nondepository credit intermediation and related activities	12,999	1.94%	13.98
440	Securities and commodity contracts intermediation and brokerage	10,297	1.54%	11.07
442	Other financial investment activities	36,202	5.41%	38.92
443	Direct life insurance carriers	1,248	0.19%	1.34
444	Insurance carriers, except direct life	3,433	0.51%	3.69
445	Insurance agencies, brokerages, and related activities	12,384	1.85%	13.32
446	Funds, trusts, and other financial vehicles	5,767	0.86%	6.20
455	Legal services	13,459	2.01%	14.47
456	Accounting, tax preparation, bookkeeping, and payroll services	15,967	2.38%	17.17
457	Architectural, engineering, and related services	25,281	3.78%	27.18
458	Specialized design services	1,739	0.26%	1.87
459	Custom computer programming services	96,075	14.35%	103.30
460	Computer systems design services	63,468	9.48%	68.24
461	Other computer related services, including facilities management	8,998	1.34%	9.67
462	Management consulting services	15,294	2.28%	16.44
463	Environmental and other technical consulting services	6,481	0.97%	6.97
464	Scientific research and development services	124,890	18.65%	134.28
465	Advertising, public relations, and related services	4,781	0.71%	5.14
466	Photographic services	540	0.08%	0.58
468	Marketing research & all other misc. professional, scientific, & tech. services	4,261	0.64%	4.58
469	Management of companies and enterprises	25,668	3.83%	27.60
470	Office administrative services	7,203	1.08%	7.75
472	Employment services	47,771	7.13%	51.36
473	Business support services	3,750	0.56%	4.03
474	Travel arrangement and reservation services	3,307	0.49%	3.56
	Total Employment in Office-Related Sectors	**669,640**	**100.00%**	**720**

Notes:
Parts may not sum to totals due to independent rounding. Total employment by sector from IMPLAN, for Santa Clara and San Mateo Counties combined. Distribution of total employment by sector for the two counties has been applied to the proposed Project. Total employment in project from EIR.

Sources: IMPLAN; BAE, 2021.

Worker Households by Income Level

In order to determine the household income distribution for workers that would be employed at the Project, as well for the indirect and induced employment attributable to the Project, this analysis uses of a detailed and rich data set published by the U.S. Census known as the Public Use Microdata Sample (PUMS). Derived from a five percent sample of actual responses from households per the American Community Survey, and available for certain defined areas of 100,000 or more of population (known as “PUMAs” or Public Use Microdata Areas), this data source allows one to cross-tabulate variables such as employment by industry and household income. The analysis presented in this chapter uses the data from the 2015 through 2019 five-year period, the most recent data available at the time of this analysis in 2021. The study

region for determining incomes by industry and household size by income encompasses all of Santa Clara and San Mateo Counties, on the assumption that the labor market for this region is generally consistent in wages by occupation and industry as well as typical worker household size by income category.

For the purposes of determining housing needs, households are typically grouped into income categories based on total household income and household size. The income categories are as defined by the California Department of Housing and Community Development (HCD) and are derived using a formula based largely on the percentage of the HCD Area Median Income (AMI), adjusted for household size. This analysis uses 2019 HCD income limits, because the most recent PUMS data available at the time of this analysis were collected between 2015 and 2019, with all incomes adjusted to 2019 dollars. This analysis used PUMS data for workers in San Mateo and Santa Clara Counties to determine the distribution of workers by industry, household size, and income, and categorized each worker reflected in the PUMS data into a household income category according to the household income limits published by (HCD). Table 12 shows the resulting estimated worker household income distribution by major industry group for San Mateo and Santa Clara Counties.

Table 12: Household Income Level by Industry, Working Persons by 2019 Household Income Limits

		Estimated Household Income as a Percent of AMI				
NAICS Code	Industry	Extremely Low	Very Low	Low	Moderate	Above Moderate
Private Sector						
11, 21	Agriculture & Natural Resources	16.2%	24.2%	22.2%	10.7%	26.8%
23	Construction	11.6%	16.0%	24.8%	14.6%	32.9%
31-33	Manufacturing	4.0%	7.1%	14.5%	12.4%	62.0%
42	Wholesale Trade	5.6%	12.1%	18.3%	11.7%	52.3%
44-45	Retail Trade	10.4%	14.7%	24.5%	12.5%	37.9%
48-49, 22	Transportation, Warehousing, & Utilities	9.0%	16.4%	26.3%	14.0%	34.3%
51	Information	2.4%	3.3%	10.3%	8.3%	75.6%
52-53	Finance, Insurance, & Real Estate	4.4%	7.1%	14.9%	10.7%	62.8%
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	2.7%	3.7%	9.6%	10.7%	73.3%
56	Admin, Support, & Waste Mgmt Srvcs	15.6%	19.3%	24.7%	12.4%	28.0%
61	Educational Services	6.2%	9.8%	19.3%	13.9%	50.8%
62	Health Care & Social Assistance	7.2%	10.1%	19.3%	13.3%	50.0%
71-72	Leisure & Hospitality	15.7%	17.4%	26.3%	12.3%	28.4%
81	Other Services Except Public Admin	15.0%	19.0%	22.1%	13.0%	31.0%
Public Sector		6.5%	8.4%	19.6%	15.5%	50.0%

Notes:
Based on a cross tabulation of Public Use Microdata Samples (PUMS) from the 2015-2019 American Community Survey. These incomes were compared to household income limits published by the State of CA Department of Housing and Community Development (HCD) to determine the percentage of households falling into each income category. The analysis controlled for household size, to address the varying HCD income limits for each household size.

Sources: Census, American Community Survey Public-Use Microdata Sample (PUMS) 2015-2019; CA State Department of Housing and Community Development (HCD); BAE, 2021

Housing Need by Income Level from Workers Employed at the Project

As noted above, BAE used the total employment count provided by the Project EIR and generated assumptions about the industry sector of workers that would be employed at the Project, based on the job distribution by industry for San Mateo and Santa Clara Counties. The assumed industry employment mix as shown above in Table 11 reflects typical industries for office workers. BAE then used the PUMS household income distribution by industry data from Table 12 to estimate a household income distribution for workers that would be employed at the Project.

Because households often include more than one worker, new employment at the Project would generate demand for less than one housing unit per worker. BAE queried the PUMS data set to identify the average number of workers per household for households in each income category and used these averages to convert the workers that would be employed at the Project into worker households. Based on this analysis and shown in Table 13, the project would generate an estimated 379 worker households from direct employment, 128 of which would be extremely low-, very low-, low-, and moderate-income worker households. These figures do not include worker households resulting from the indirect and induced employment that the project would generate. Indirect and induced employment and the resulting worker housing demand are evaluated in the following section.

Table 13: Project-Only (Direct) Employment Household Generation by Income Level at University Circle Phase II

NAICS Code	Industry	Total Jobs (b)	Estimated Jobs by Percent of AMI (a) Extremely Low	Very Low	Low	Moderate	Above Moderate
51	Information	127.3	3.1	4.2	13.2	10.6	96.3
52-53	Finance, Insurance, & Real Estate	88.5	3.9	6.3	13.2	9.5	55.6
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	437.5	11.6	16.2	41.8	47.0	320.9
56	Admin, Support, & Waste Mgmt Srvcs	66.7	10.4	12.9	16.5	8.3	18.7
ıt							
	Total Jobs	**720**	**29**	**40**	**85**	**75**	**491**
	Workers per Households (c)	1.90	1.40	1.71	1.89	1.93	1.95
	Number of Households	**379**	**21**	**23**	**45**	**39**	**252**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Job estimates are the output of the IMPLAN model. Columns to right may not sum to Total Jobs due to independent rounding. Assumes private sector workers only.
(c) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public User Microdata Sample; CA Department of Housing and Community Development (HCD); IMPLAN; BAE, 2021.

Housing Need by Income Level from Indirect and Induced Employment

To estimate the multiplier effects of the Project's operations on employment, this study uses IMPLAN, a widely-accepted and utilized software model. At the heart of the model is an input-output dollar flow table. For a specified region, the input-output table accounts for all dollar flows between different sectors of the economy. Using this information, IMPLAN models the way income injected into one sector is spent and re-spent in other sectors of the economy, generating waves of economic activity, or so-called "economic multiplier" effects. Appendix B provides a more detailed overview of IMPLAN.

The IMPLAN model is also able to estimate the number of *direct*, *indirect*, and *induced* jobs generated by a given economic "event." Once the economic events have been entered into the model, IMPLAN reports the following types of impacts:

- Direct Impacts. Direct impacts refer to the set of producer or consumer expenditures applied to the predictive model for impact analysis. It is based on the amount of spending available to flow through the local economy. IMPLAN estimates how the local economy will then respond to these initial changes. The direct impacts may equal the amount of spending input into the model, depending on a variety of factors.
- Indirect Impacts. The indirect impacts refer to the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to income and taxes.
- Induced Impacts. The induced impacts refer to an economy's response to an initial change (direct impact) that occurs through re-spending of income according to household spending patterns. When households earn income, they spend part of that income on goods and services, such as food and healthcare. IMPLAN models households' disposable income spending patterns and distributes them through the local economy.

For the purpose of this analysis, the economic "event" is the Project at full operations and fully leased. By IMPLAN definition, the associated expenditures of the occupants of the project and their employment and worker compensation are *direct* impacts, and the resulting spending of the entities that occupies the Project and their workers generates *indirect* and *induced* impacts. For instance, the household expenditures of the Project's workers generate jobs for cashiers and baggers at grocery stores patronized by the new households. The process initiated by household expenditures continues as these grocery workers and the businesses they work for spend money in subsequent transactions, supporting employment at places other than the initial point of sale, such as wholesalers supplying retail stores, or truck drivers delivering goods to those stores. In turn, these businesses and workers spend money to generate additional activity in the Santa Clara and San Mateo County economies. These are all part of the induced impacts linked to the household expenditures.

As the tenants in the Project purchase services and supplies from other establishments in the region and workers employed in the Project spend money on retail goods, food, health care, personal and professional services, education, and other goods and services, this spending would support job growth across many sectors of the economy. Based on the direct employment by industry sector, IMPLAN was used to estimate these multiplier effects. As shown in Table 14, the indirect and induced employment in Santa Clara and San Mateo Counties is estimated to generate 382 households, with 209 of these households at extremely low-, very low-, low-, and moderate-income levels. This household income distribution was estimated based on industry distribution for the indirect and induced employment, as estimated by IMPLAN, and the PUMS data on industry, household income level, and household size.

Table 14: Indirect and Induced Employment and Household Generation by Income Level from University Circle Phase II

			Estimated Jobs by Percent of AMI (a)				
NAICS Code	Industry	Total Jobs (b)	Extremely Low	Very Low	Low	Moderate	Above Moderate
Private Sector							
11, 21	Agriculture & Natural Resources	0.95	0.15	0.23	0.21	0.10	0.25
23	Construction	4.11	0.48	0.66	1.02	0.60	1.35
31-33	Manufacturing	5.52	0.22	0.39	0.80	0.69	3.42
42	Wholesale Trade	11.62	0.66	1.41	2.12	1.36	6.07
44-45	Retail Trade	54.10	5.64	7.94	13.27	6.77	20.48
48-49, 22	Transportation, Warehousing, & Utilities	51.43	4.65	8.41	13.55	7.19	17.63
51	Information	36.84	0.88	1.21	3.81	3.06	27.87
52-53	Finance, Insurance, & Real Estate	115.63	5.10	8.19	17.27	12.41	72.66
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	103.87	2.75	3.85	9.92	11.16	76.18
56	Admin, Support, & Waste Mgmt Srvcs	90.72	14.14	17.53	22.38	11.25	25.42
61	Educational Services	18.41	1.15	1.80	3.55	2.55	9.36
62	Health Care & Social Assistance	76.40	5.48	7.74	14.78	10.17	38.22
71-72	Leisure & Hospitality	85.21	13.34	14.80	22.37	10.51	24.19
81	Other Services Except Public Admin	47.21	7.08	8.95	10.42	6.12	14.65
Public Sector		3.10	0.20	0.26	0.61	0.48	1.55
ıt							
	Total Jobs	**705**	**62**	**83**	**136**	**84**	**339**
	Workers per Households (c)	1.84	1.40	1.71	1.89	1.93	1.95
	Number of Households	**382**	**44**	**49**	**72**	**44**	**174**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Job estimates are the output of the IMPLAN model. Columns to right may not sum to Total Jobs due to independent rounding.
(c) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public User Microdata Sample; CA Department of Housing and Community Development (HCD); IMPLAN; BAE, 2021.

Total New Worker Households

Table 15 shows the combined total of direct, indirect, and induced employment related to the proposed Project, along with the estimated number of households related to that employment. Overall, the Project is estimated to be associated with the formation of 761 households, of which 336 are at extremely low-, very low-, low-, and moderate-income levels. Some of the housing need shown in the table would be due to indirect and induced employment that the project would generate, rather than the workers employed at the project itself. Because this indirect and induced employment would occur outside of the Project, it is possible that these impacts will be analyzed separately by the City of East Palo Alto or other jurisdictions as new office, retail, and other employment-based uses are proposed to accommodate the new employment. To the extent that there are policies and programs in place to address the housing need from these new developments, such as commercial linkage fees, some of the indirect and induced housing need associated with the Project may be addressed separately from any actions taken related to the Project itself.

Table 15: Project Employment and Household Generation by Income Level from University Circle Phase II

			Estimated Jobs by Percent of AMI (a)				
NAICS Code	Industry	Total Jobs (b)	Extremely Low	Very Low	Low	Moderate	Above Moderate
Private Sector							
11, 21	Agriculture & Natural Resources	0.95	0.15	0.23	0.21	0.10	0.25
23	Construction	4.11	0.48	0.66	1.02	0.60	1.35
31-33	Manufacturing	5.52	0.22	0.39	0.80	0.69	3.42
42	Wholesale Trade	11.62	0.66	1.41	2.12	1.36	6.07
44-45	Retail Trade	54.10	5.64	7.94	13.27	6.77	20.48
48-49, 22	Transportation, Warehousing, & Utilities	51.43	4.65	8.41	13.55	7.19	17.63
51	Information	164.12	3.94	5.41	16.98	13.65	124.14
52-53	Finance, Insurance, & Real Estate	204.15	9.01	14.46	30.49	21.90	128.29
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	541.37	14.35	20.07	51.71	58.18	397.06
56	Admin, Support, & Waste Mgmt Srvcs	157.41	24.53	30.42	38.83	19.51	44.11
61	Educational Services	18.41	1.15	1.80	3.55	2.55	9.36
62	Health Care & Social Assistance	76.40	5.48	7.74	14.78	10.17	38.22
71-72	Leisure & Hospitality	85.21	13.34	14.80	22.37	10.51	24.19
81	Other Services Except Public Admin	47.21	7.08	8.95	10.42	6.12	14.65
Public Sector		3.10	0.20	0.26	0.61	0.48	1.55
ıt							
	Total Jobs	**1,425**	**91**	**123**	**221**	**160**	**831**
	Workers per Households (c)	1.87	1.40	1.71	1.89	1.93	1.95
	Number of Households	**761**	**65**	**72**	**116**	**83**	**425**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Job estimates are the output of the IMPLAN model. Columns to right may not sum to Total Jobs due to independent rounding.
(c) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public User Microdata Sample; CA Department of Housing and Community Development (HCD); IMPLAN; BAE, 2021.

Geographic Distribution of Housing Need

One of the goals of the Housing Needs Analysis is to estimate the direct, indirect, and induced housing needs from the Project in order to satisfy the requirements of a settlement agreement between the Cities of East Palo Alto and Menlo Park. Therefore, this section evaluates the geographic distribution of the total 761-unit housing need (as shown above in Table 15) from the direct, indirect, and induced employment generated by the Project to estimate the future housing need from the Project in East Palo Alto and Menlo Park.

Based on data derived from the Census Longitudinal Employer-Household Dynamics program, approximately 14 percent of existing jobs in East Palo Alto are held by City residents, and an additional four percent of jobs in East Palo Alto are held by workers that live in Menlo Park (see Table 16 below).

Since the indirect and induced jobs could occur anywhere in Santa Clara or San Mateo Counties, those worker households may be more broadly distributed geographically than the workers directly employed in the Project. As also shown in the Table, only 0.6 percent of those working in the two counties live in East Palo Alto, with only 0.8 percent living in Menlo Park.

Table 16: Residence of Persons by Place of Work for East Palo Alto and San Mateo and Santa Clara Counties, 2018

	Place of Work			
	East Palo Alto		Two Counties	
	Jobs		Jobs	
Place of Residence	Number	Percent	Number	Percent
San Mateo County	**1,350**	**32.9%**	**218,719**	**14.5%**
East Palo Alto	590	14.4%	8,649	0.6%
Redwood City	158	3.9%	28,228	1.9%
Menlo Park	156	3.8%	11,808	0.8%
San Mateo	106	2.6%	34,349	2.3%
Remainder of County	340	8.3%	135,685	9.0%
Santa Clara County	**1,015**	**24.8%**	**719,224**	**47.5%**
San Jose	403	9.8%	384,599	25.4%
Sunnyvale	136	3.3%	61,908	4.1%
Mountain View	110	2.7%	34,837	2.3%
Santa Clara	89	2.2%	50,763	3.4%
Palo Alto	83	2.0%	23,673	1.6%
Remainder of County	194	4.7%	163,444	10.8%
Alameda County	**708**	**17.3%**	**167,868**	**11.1%**
Hayward	149	3.6%	19,352	1.3%
Fremont	128	3.1%	49,232	3.3%
Oakland	101	2.5%	19,457	1.3%
Union City	81	2.0%	12,739	0.8%
Newark	49	1.2%	9,414	0.6%
Remainder of County	200	4.9%	57,674	3.8%
San Francisco City & County	**166**	**4.0%**	**88,232**	**5.8%**
Contra Costa County	**148**	**3.6%**	**51,508**	**3.4%**
San Joaquin County	**86**	**2.1%**	**24,337**	**1.6%**
Santa Cruz County	**71**	**1.7%**	**25,550**	**1.7%**
All Other Places	**557**	**13.6%**	**217,383**	**14.4%**
Total	**4,101**	**100.0%**	**1,512,821**	**100.0%**

Note: Only top five cities and top eight counties with workers at jobs in East Palo are listed.
Sources: U.S. Census Bureau, Longitudinal Employer-Household Dynamics via OnTheMap; BAE, 2021.

While the suppliers, service providers, and retailers serving the Project occupants per the IMPLAN estimates could be anywhere in the two counties, it is likely that to some extent they will tend to be closer to East Palo Alto and nearby Menlo Park, as worker daytime expenditures would occur near the Project, and where services and suppliers are available in proximity to the Project, they would be more likely to be used by the Project's tenants. As a result, the geographic distribution of worker households due to direct and indirect employment will likely fall somewhere between the distribution for workers employed in East Palo Alto and the distribution for workers employed anywhere in the two counties. Therefore, to bracket the range of likely impacts, this analysis uses two different baseline assumptions to estimate the housing need in East Palo Alto and Menlo Park that would result from the Project:

1. Low scenario – New worker household residence patterns for the direct employment mirror the residential location patterns of current East Palo Alto workers, and new worker residence patterns for indirect and induced employment mirror the residential patterns of those working anywhere in the two counties.
2. High scenario –Worker household residence patterns for all the workers associated with the Project through direct, indirect, and induced employment mirror the residential location patterns of current East Palo Alto workers.

As shown in Table 17, in the baseline scenario the estimated worker households attributed to the Project ranges from 57 to 109 for East Palo Alto and 17 to 29 for Menlo Park. If the housing need in both East Palo Alto and Menlo Park is 20 percent higher than indicated by the baseline assumptions, a total of 68 to 131 households would live in East Palo Alto and 21 to 35 would live in Menlo Park. Detailed assumptions regarding this estimate can be found in Appendix C.

Table 17: New Worker Households by Place of Residence

Using Current Distribution of Workers

Place of Residence	Low Estimate	High Estimate
East Palo Alto	**57**	**109**
Menlo Park	**17**	**29**
All Other Places	687	623
Total	761	761

20% Increase in Workers Living in East Palo Alto & Menlo Park

Place of Residence	Low Estimate	High Estimate
East Palo Alto	**68**	**131**
Menlo Park	**21**	**35**
All Other Places	672	595
Total	761	761

Note: For detail, see Appendix C.

Sources: U.S. Census Bureau, Longitudinal Employer-Household Dynamics via OnTheMap; American Community Survey, 2015-2019, including the Public User Microdata Sample; IMPLAN; BAE, 2021.

POTENTIAL IMPACTS FROM THE PROJECT

This chapter uses the information provided in the Existing Conditions chapter and the Housing Demand Analysis chapter of this report to evaluate the potential impacts that the Project could have on the local and regional housing supply, jobs-housing balance, and displacement pressures. The Project would represent a small increase the amount of employment in East Palo Alto and would have a minimal impact on employment at the regional level. Based on the analysis presented in this report, the Project is likely to have a negligible impact on the regional housing market, jobs-housing balance, and displacement pressures, despite causing a moderate increase in employment locally in East Palo Alto. However, addressing the incremental housing need generated by the Project and other projects that would bring workers to the region remains critical as part of a long-term strategy to address housing needs in East Palo Alto and throughout the region.

It should be noted that many of the findings presented below are based on the total estimated direct, indirect, and induced employment associated with the Project, and therefore may overlap with future analyses of projects that would be proposed to accommodate the jobs supported by the economic multiplier effects from the Project. Some of the impacts associated with these multiplier effects might be addressed in the future through policies and programs that would apply to any projects that will be proposed to accommodate this new employment, such as commercial linkage fees. For example, if employment at the Project supports additional growth in office-based employment, which in turn creates market demand for new office space in East Palo Alto, the City of East Palo may conduct a separate analysis of office projects that are proposed to satisfy this demand. In addition, the City would assess a commercial linkage fee on those projects as well as the City's parcel tax that was approved in 2018, which would address at least part of the affordable housing need associated with those projects.

Potential Impacts to Housing Supply

Although the housing demand from the Project would constitute a minimal share of the current and future regional housing supply and is within the range of growth that could be accommodated in East Palo Alto and Menlo Park, a continued expansion of the housing supply to accommodate the incremental increase in new housing demand in the region remains critical to addressing the region's housing challenges. As discussed in the previous chapter, the Project would generate 1,425 jobs (720 direct jobs and an additional 705 indirect and induced jobs). As shown in Table 15, this direct, indirect, and induced employment would generate demand for a total of 761 housing units; based on the scenario alternatives, demand in East Palo Alto would be for an estimated 57 to 131 housing units, and demand in Menlo Park would be for an estimated 17 to 35 housing units. The total estimated need in East Palo Alto from direct, indirect, and induced impacts is equivalent to:

- **Approximately eight to 19 percent of annual residential unit turnover in East Palo Alto.** As discussed in the Existing Conditions chapter of this report, approximately 530 rental units and 170 owner-occupied units in have turned over in East Palo Alto each year, on average, during recent years. However, these units are likely needed to address existing housing needs rather than new housing need generated by the Project.

- **Approximately four to ten percent of the units in the City of East Palo Alto's current residential development pipeline.** The Existing Conditions chapter of this report showed that there are 1,324 net new units in the City's residential pipeline. However, like the units that become available through typical turnover of existing units, these planned units are likely needed to address existing housing needs rather than new housing need generated by the Project.

- **Approximately five to 12 percent of the long-term projected household growth in East Palo Alto.** The Existing Conditions chapter of this report showed that ABAG and MTC project that East Palo Alto will gain 1,065 households between 2020 and 2040.

The total estimated need in Menlo Park from direct, indirect, and induced impacts is equivalent to:

- **Less than one percent of the units in the City of Menlo Park's current residential development pipeline.** The Existing Conditions chapter of this report showed that there are 3,834 units in the City's residential pipeline. Like the planned units in East Palo Alto, these units might be needed to address existing housing needs rather than new housing needs associated with the Project.

- **Approximately one to two percent of long-term projected household growth in Menlo Park.** The Existing Conditions chapter of this report showed that ABAG and MTC project that Menlo Park will gain 2,290 households between 2020 and 2040. Because the number of housing units in the City's development pipeline already exceeds these household growth projection figures, the projections may underestimate household growth in Menlo Park by 2040. To the extent that household growth in the City exceeds projections, the Project would constitute a smaller share of future household growth.

Overall, the total estimated need for 761 worker housing units is equivalent to:

- **Less than two percent of the housing unit growth in San Mateo and Santa Clara County between 2010 and 2019.** The Existing Conditions chapter of this report showed that the number of housing units in the San Mateo and Santa Clara Counties increased by a total of 47,736 units during this period.

- **Approximately two percent of long-term projected household growth in San Mateo County.** The Existing Conditions chapter of this report showed that ABAG and MTC project that San Mateo County will gain 33,695 households between 2020 and 2040. It should be noted that the total estimated housing need of 761 units includes indirect and induced housing demand from jobs in both San Mateo and Santa Clara Counties, and therefore actual housing need in San Mateo County may be equivalent to a smaller proportion of housing unit growth in San Mateo County.

Potential Impacts to Jobs-Housing Balance

The Project would directly generate 720 jobs, while indirect and induced jobs associated with the Project would total an estimated 705 jobs in San Mato and Santa Clara Counties, totaling 1,425 direct, indirect, and induced jobs. This employment growth is equal to:

- **A 14-percent increase in employment in East Palo Alto due to the employment directly attributable to the Project.** If any of the indirect or induced employment associated with the Project is located in East Palo Alto, the increase in Citywide employment would exceed 14 percent.

- **A 0.09 percent increase in employment in San Mateo and Santa Clara Counties.** The jobs directly attributable to the Project would represent a 0.17-percent increase in employment in San Mateo County.

- **Approximately one percent of the employment growth in San Mateo County between 2010 and 2019.** The Existing Conditions chapter of this report showed that employment in the County increased by 98,423 jobs during this period.

- **Approximately two percent of long-term projected employment growth in San Mateo County.** The Existing Conditions chapter of this report showed that ABAG and MTC project that San Mateo County will gain 72,750 jobs between 2020 and 2040.

As a result of this employment, impacts to the jobs housing balance would be:

- **A small increase in the jobs-housing ratio in East Palo Alto, from 0.64 to 0.74, assuming no new housing production.** These figures are based on the direct employment from the Project only. To the extent that the indirect and induced jobs resulting from the multiplier effects are also located in East Palo Alto, the jobs-housing ratio in East Palo Alto would increase further. The increase in employment in East Palo Alto would bring the jobs-housing ratio in East Palo Alto marginally closer to the regional jobs-housing ratio, though any construction of new housing would at least partially offset the impact of the Project on the City's jobs-housing balance.

- **Virtually no impact on the jobs-housing ratio in San Mateo County overall.** The San Mateo County jobs-housing ratio is currently 1.49 and would remain at 1.49 following the addition of the 720 employees projected for the Project. The countywide jobs-housing ratio would also remain at 1.49 if all of the indirect and induced employment from the Project were also located in San Mateo County.

Potential Displacement Impact Findings

The information provided above on the potential impacts of the Project on the local and regional housing supply and jobs-housing balance, as well as in the preceding chapters of this report, indicate that the Project is not likely to have a perceptible impact on local and regional displacement pressures. However, there is nonetheless a need to address the incremental impacts from new development as well as addressing housing needs more generally. Findings related to the potential displacement impacts from the Project are as follows:

- **The Project would support a small increase in the number of jobs in East Palo Alto.** To the extent that the Project affects the jobs-to-housing unit ratio in East Palo Alto, the change would bring the City marginally closer to the regional jobs-to-housing unit ratio.

- **While existing and planned residential units in East Palo Alto and Menlo Park can potentially accommodate the housing need that the Project would generate in these cities, these existing and planned units may be needed to address existing housing needs.** The estimated direct, indirect, and induced housing that the Project would generate in East Palo Alto could potentially be accommodated through absorption of residential units through the course of typical annual turnover, absorption of vacant units, or absorption of a portion of units in the development pipeline. Similarly, the housing need that the Project would generate in Menlo Park would account for only a small share of the units in the City's current development pipeline. However, due in part to long-term shortages in regional housing production relative to the rate of regional employment growth, these existing and planned housing units are likely needed to address existing housing needs in the region, rather than addressing any net increase in housing need attributable to the Project.

- **Due to the regional nature of the housing market, the Project is unlikely to have any measurable impact on displacement pressures in East Palo Alto.** The Project would generate a need for housing among households across a range of income levels, a portion of which would seek housing in East Palo Alto. A significant share of these households would be higher-income households that may be more able to afford high rents and sale prices than existing East Palo Alto residents, while other households would be lower-income households that would seek out affordable housing options. Although the cumulative impact of increases in employment throughout the region has likely contributed to significant housing cost increases in East Palo Alto and regionally,

the impact on housing costs from any individual project with fewer than 600 workers is unlikely to be significant enough to cause the displacement of existing East Palo Alto residents. As discussed in the Existing Conditions chapter of this report, recent housing cost increases in East Palo Alto have generally tracked housing cost increases in the County overall, which suggests that displacement pressures are largely the result of regional housing market trends and East Palo Alto's position within the regional housing market, rather than individual projects that add employment at the scale anticipated from the Project.

- **The Project is unlikely to have a perceptible impact on the regional housing supply or regional jobs-housing balance.** The Project is estimated to generate 1,425 direct, indirect, and induced jobs in San Mateo and Santa Clara Counties, and a need for 761 housing units. These impacts are well within the range of recent and projected future growth in San Mateo and Santa Clara Counties, and would represent a minimal increase in the number of households in the region. The direct, indirect, and induced employment from the Project would represent a negligible increase in employment in the two Counties and would have virtually no impact on the regional employment-to-housing unit ratio even if no new housing units are built.

- **Because the Project would have a minimal effect on the regional housing supply and jobs-housing balance, it is unlikely to have an impact on displacement on a regional scale.** As stated in the Existing Conditions chapter of this report, recent housing cost increases in the region have coincided with dramatic employment growth and lagging housing production. The cumulative impact of these trends is likely to have been a key contributor to the considerable recent increases in housing costs in the region, rather than individual specific developments at the scale of the Project. The amount of employment growth that the Project would support is minimal in relation to the amount of growth that was necessary to drive recent housing cost increases in the region. To the extent that employment growth from the Project may have a marginal impact on housing demand and resulting displacement pressures in the region, these impacts are likely to be partially counteracted by new housing unit production and local policies and programs that help to address displacement pressures.

- **Though the Project is unlikely to have a noticeable impact on the local or regional housing market, housing affordability and displacement remain a key issue locally and throughout the region, and addressing the incremental impact of the Project and other projects that generate new housing demand will be essential to addressing cumulative housing needs and mitigating displacement pressures over the long term.** The existing conditions analysis indicates that housing costs have increased considerably throughout the region and that many lower- and moderate-income households are unable to afford housing. The data suggest that some households in East Palo Alto and elsewhere in the region are currently at risk of displacement, while others will

likely become vulnerable to displacement if housing costs continue to increase. Confronting these challenges requires a multifaceted approach to addressing housing affordability at the local and regional level, including the production of housing at all affordability levels.

- **The Project would directly generate revenue that would enable the City of East Palo Alto to partially address the affordable housing need attributable to the Project.** As shown in Table 17, the Project would create an estimated need for 57 to 131 housing units in East Palo Alto to accommodate new worker households. If the income mix among the new worker households that live in East Palo Alto mirrors the income mix among new households generated by the Project overall (see Table 15), the new worker households in East Palo Alto would include approximately 19 to 44 extremely low-, very low-, and low-income households, six to 14 moderate-income households, and 32 to 73 above moderate-income households.

  The Project would generate approximately $2.0 million ($11.14 per square foot x 180,000 square feet) in commercial linkage fees, which the City can use to fund future affordable housing developments in East Palo Alto. Due to the constraints on the various funding sources that will be needed to construct these units, units built with these City funds will likely target extremely low-, very low-, and low-income households. Assuming a City funding contribution of $75,000 to $125,000 per unit, these linkage fee funds will support the construction of approximately 16 to 27 affordable units, leaving a remaining need for zero to 28 extremely low-, very low-, and low-income units in East Palo Alto. In addition to the linkage fee revenues, the Project would generate approximately $450,000 per year in parcel tax revenue for affordable housing and to expand job opportunities for residents due to Measure HH. To the extent that the linkage fees leave a remaining need for up to 28 extremely low-, very low-, and low-income units in East Palo Alto, this parcel tax would generate enough revenue to enable the City to fund these units within eight years or less. If the combined revenue from linkage fees and the parcel tax exceed the revenue needed to address the extremely low-, very low-, and low-income housing need in East Palo that arises from the Project, these additional funds can be used to provide additional affordable units in the City to offset the regional increase in affordable housing need that would arise from the Project.

- **There is a continued need for the City of East Palo Alto and cities and counties throughout the region to explore policies to prevent displacement and address housing needs at all income levels.** While the City of East Palo Alto has adopted many policies in support of these objectives, East Palo Alto and other cities and counties throughout the region should continually evaluate options for generating affordable housing funds, facilitating the production of housing for households at all income levels, and preventing displacement.

APPENDIX A: DETAILED DEMOGRAPHIC AND REAL ESTATE TABLES

Table 18: Population and Households, 2010-2020

			2010-2020 Change	
Population	**2010**	**2020**	**Number**	**Percent**
East Palo Alto	28,155	28,561	406	1.4%
San Mateo County	718,451	746,752	28,301	3.9%

			2010-2020 Change	
Households	**2010**	**2020**	**Number**	**Percent**
East Palo Alto	6,940	7,020	80	1.2%
San Mateo County	257,837	267,098	9,261	3.6%

Avg. Household Size	**2010**	**2020**
East Palo Alto	4.03	4.05
San Mateo County	2.75	2.76

Sources: Esri Business Analyst; BAE, 2021.

Table 19: Age Distribution, 2010-2020

	2010		2020		2010-2020 Change	
City of East Palo Alto	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Under 18	8,976	31.9%	8,557	30.0%	-419	-4.7%
18-24	3,487	12.4%	3,176	11.1%	-311	-8.9%
25-34	4,923	17.5%	5,217	18.3%	294	6.0%
35-44	3,974	14.1%	4,023	14.1%	49	1.2%
45-54	3,129	11.1%	3,162	11.1%	33	1.1%
55-64	1,991	7.1%	2,350	8.2%	359	18.0%
65 or older	1,675	5.9%	2,081	7.3%	406	24.2%
Total Population (a)	**28,155**	**100.0%**	**28,566**	**100.0%**	**411**	**1.5%**
Median Age	**28.1**		**29.8**			

	2010		2020		2010-2020 Change	
San Mateo County	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Under 18	159,772	22.2%	162,361	21.7%	2,589	1.6%
18-24	55,127	7.7%	57,732	7.7%	2,605	4.7%
25-34	99,334	13.8%	94,913	12.7%	-4,421	-4.5%
35-44	108,100	15.0%	100,668	13.5%	-7,432	-6.9%
45-54	110,669	15.4%	102,829	13.8%	-7,840	-7.1%
55-64	89,187	12.4%	100,165	13.4%	10,978	12.3%
65 or older	96,262	13.4%	128,084	17.2%	31,822	33.1%
Total population (a)	**718,451**	**100.0%**	**746,752**	**100.0%**	**28,301**	**3.9%**
Median Age	**39.2**		**40.7**			

Note:
(a) Totals may not match totals in other tables due to independent rounding.

Sources: Esri Business Analyst; BAE, 2021.

Table 20: Race and Ethnicity, 2010-2020

	2010		2020		2010-2020 Change	
City of East Palo Alto	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Hispanic/Latino (a)	**18,147**	**64.5%**	**18,538**	**64.9%**	**391**	**2.2%**
Not Hispanic/Latino	**10,008**	**35.5%**	**10,023**	**35.1%**	**15**	**0.1%**
White	1,754	6.2%	1,669	5.8%	-85	-4.8%
Black/African American	4,458	15.8%	3,928	13.8%	-530	-11.9%
Native American	30	0.1%	29	0.1%	-1	-3.3%
Asian	1,025	3.6%	1,456	5.1%	431	42.0%
Native Hawaiian/Pacific Islander	2,083	7.4%	2,085	7.3%	2	0.1%
Other	49	0.2%	51	0.2%	2	4.1%
Two or More Races	609	2.2%	805	2.8%	196	32.2%
Total Population (b)	**28,155**	**100.0%**	**28,561**	**100.0%**	**406**	**1.4%**

	2010		2020		2010-2020 Change	
San Mateo County	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Hispanic/Latino (a)	**182,502**	**25.4%**	**180,585**	**24.2%**	**-1,917**	**-1.1%**
Not Hispanic/Latino	**535,949**	**74.6%**	**566,167**	**75.8%**	**30,218**	**5.6%**
White	303,609	42.3%	282,181	37.8%	-21,428	-7.1%
Black/African American	18,763	2.6%	16,076	2.2%	-2,687	-14.3%
Native American	1,125	0.2%	1,018	0.1%	-107	-9.5%
Asian	175,934	24.5%	224,561	30.1%	48,627	27.6%
Native Hawaiian/Pacific Islander	9,884	1.4%	9,555	1.3%	-329	-3.3%
Other	2,709	0.4%	2,714	0.4%	5	0.2%
Two or More Races	23,925	3.3%	30,062	4.0%	6,137	25.7%
Total Population (b)	**718,451**	**100.0%**	**746,752**	**100.0%**	**28,301**	**3.9%**

Note:
(a) Includes all races for those of Hispanic/Latino background.
(b) Totals may not match totals in other tables due to independent rounding.

Sources: Esri Business Analyst; BAE, 2021.

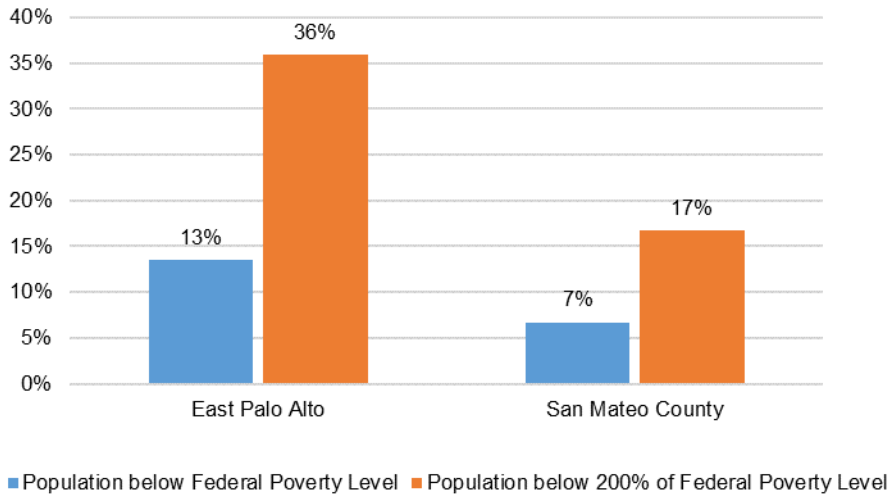
Table 21: Household Income Distribution, 2020

	City of East Palo Alto		San Mateo County	
Income Level	**Number**	**Percent**	**Number**	**Percent**
Less than $15,000	707	10.1%	14,517	5.4%
$15,000-$24,999	466	6.6%	10,283	3.8%
$25,000-$34,999	582	8.3%	11,063	4.1%
$35,000-$49,999	706	10.1%	13,527	5.1%
$50,000-$74,999	1,143	16.3%	26,496	9.9%
$75,000-$99,999	875	12.5%	28,630	10.7%
$100,000-$149,999	1,139	16.2%	45,441	17.0%
$150,000-$199,999	694	9.9%	35,199	13.2%
$200,000 or more	709	10.1%	81,942	30.7%
Total Households (a)	**7,021**	**100.0%**	**267,098**	**100.0%**
Median HH Income	**$72,208**		**$127,547**	
Per Capita Income	**$23,991**		**$62,492**	

Note:
(a) Totals may not match totals in other tables due to independent rounding.

Sources: Esri Business Analyst; BAE, 2021.

Figure 7: Poverty Status, 2013-2017



(a) Total population for which poverty status is determined.

Sources: U.S. Census Bureau, American Community Survey, 2015-2019 Five-Year Sample Data, Table C17002; BAE, 2021.

Table 22: Residents that Moved in the Past Year, 2015-2019

	City of East Palo Alto			San Mateo County		
Geographic Mobility	**Renter**	**Owner**	**Total**	**Renter**	**Owner**	**Total**
Did Not Move in Past Year	**81.2%**	**93.1%**	**88.4%**	**87.6%**	**92.0%**	**89.2%**
Moved in the Past Year	**18.8%**	**6.9%**	**11.6%**	**12.4%**	**8.0%**	**10.8%**
Moved Within Same County	8.3%	3.5%	5.4%	6.6%	5.1%	6.1%
Moved from Different CA County	5.9%	2.3%	3.7%	3.8%	1.7%	3.1%
Moved from Different State	2.5%	0.5%	1.3%	1.6%	0.6%	1.2%
Moved from Abroad	2.2%	0.6%	1.2%	0.4%	0.7%	0.5%
Total Population	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note:
(a) Universe is population one-year-old or older in households. Geographic mobility status and movement date/origin based on householder response at time of survey.

Sources: U.S. Census Bureau, American Community Survey, 2015-2019 Five-Year Sample Data, Table B07013; BAE, 2021.

APPENDIX B: OVERVIEW OF IMPLAN

This appendix provides additional clarification of the workings of the IMPLAN input-output model. It provides a step-by-step account of how IMPLAN estimates economic impacts, using new residential development as an illustrative example. This section begins with an overview of the data that IMPLAN uses internally and moves forward through the process of how the model estimates the impacts of new commercial and housing projects.

What is IMPLAN?

IMPLAN is an input-output model that estimates the total economic implications of new economic activity within a specified geography. The model uses national industry data and county-level economic data to generate a series of multipliers, which in turn estimate the total economic implications of economic activity.

At the heart of the model is a national input-output dollar flow table called the Social Accounting Matrix (SAM). Unlike some other static input-output models, which just measure the purchasing relationships between industry and household sectors, SAM also measures the economic relationships between government, industry, and household sectors, allowing IMPLAN to model transfer payments such as unemployment insurance. Thus, for the specified region, the input-output table accounts for all the dollar flows between the different sectors within the economy.

National Industry Data. The model uses national production functions for 546 sectors to determine how an industry spends its operating receipts to produce its commodities. The model also uses a national matrix to determine the *byproducts*[9] that each industry generates. To analyze the impacts of household spending, the model treats households as an "industry" to determining their expenditure patterns. IMPLAN couples the national production functions with a variety of county-level economic data to determine the impacts for our example.

County-Level Economic Data. In order to estimate the county-level impacts, IMPLAN combines national industry production functions with county-level economic data. IMPLAN collects data from a variety of economic data sources to generate average output, employment, and productivity for each of the industries in a given county. It also collects data on average prices for all of the goods sold in the local economy. In this analysis, IMPLAN uses economic data for a two-county region consisting of Santa Clara and San Mateo Counties. IMPLAN gathers data on the types and amount of output that each industry generates within the region. In addition, the IMPLAN model uses county-level data on the prices of goods and household expenditures to determine the consumption functions of regional households and local government, taking into account the availability of each commodity within the specified geography.

[9] The byproducts refer to any secondary commodities that the industry creates.

Multipliers. IMPLAN combines these data to generate a series of SAM-type multipliers for the local economy. The multiplier measures the amount of total economic activity that results from an industry (or household) spending an additional dollar in the local economy. Based on these multipliers, IMPLAN generates a series of tables to show the economic event's *direct*, *indirect*, and *induced* impacts to gross receipts, or output, within each of the model's 536 sectors. These outputs have been described above, and also are described here:

- Direct Impacts. Direct impacts refer to the dollar value of economic activity available to circulate through the economy. In the case of new residential development, the direct impacts are equal to the new households' discretionary spending. The direct impacts do not include household savings and payments to federal, state, and local taxes, as these payments do not circulate through the economy.

  It should be noted that impacts from retail expenditures differ significantly between the total economic value of retail and the amount available to circulate through the local economy. The nature of retail expenditures accounts for this difference. The model assumes that only the retail markup impacts the local economy, particularly for industries heavily populated with national firms such as gas stations and grocery stores. Since local stores buy goods from wholesalers and manufacturers outside of the area, and corporate profits also leave the local economy, only the retail markup will be available for distribution within the local economy. To the extent that retailers' headquarters are located within the county or region, the model allocates their portions of the impacts to the local economy.

- Indirect Impacts. The indirect impacts refer to the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to income and taxes. For capital projects this would include payments for construction inputs such as wood, steel, office supplies, and any other non-labor payments that a construction firm would purchase in the building process.

- Induced Impacts. The induced impacts refer to the impacts of household spending by the employees generated by the direct and indirect impacts. In other words, induced impacts result from the household spending of employees of business establishments that the new households patronize (direct) and their suppliers (indirect). The model accounts for local commute patterns in the geography. For example, if 20 percent of construction workers who work in the region live outside of the region, the model will allocate 80 percent of labor's disposable income into the model to generate induced impacts. The model excludes payments to federal and state taxes and savings based on the geography's average local tax and savings rates. Thus, only the disposable incomes from local workers are included in the model.

Specifying the "Event" and Running the Model

Once the model is built for the specified geographies, it is time to specify the "event" that the model will analyze and run the model.

Specifying the "Event." The "event" refers to the total economic value of industry output that the analyst is considering. In the case of the ongoing economic impacts of a new institutional development such as a school, the "event" would be the operations of a school, including the resulting new jobs and the worker compensation.

Running the Model. Once the event is specified, IMPLAN runs the event through the model to generate the results. By default, IMPLAN applies the local data on average output per worker and compensation per worker to determine the direct impacts. For the analysis here, worker compensation was derived from earnings as shown in the PUMS analysis of a hypothetical mix of workers and their occupations. The model then applies the value of the event to the national production functions and runs a number of iterations of this value through the production functions for the local economy to determine the indirect and induced impacts. For each iteration, the model removes expenditures to government, savings, and for goods bought outside of the local economy so that the results only include those dollars that impact the local economy.

Summarizing the Impacts

Once the model is run, IMPLAN generates a series of output tables to show the direct, indirect, and induced impacts within each of the model's 546 sectors. IMPLAN generates these tables for three types of impacts: employment, output, and value added. The IMPLAN analysis of this study is focused on the employment impacts.

- *Employment* shows the number of employees needed to support the economic activity in the local economy. It should be noted that for annual impacts of ongoing operations, the employment figure shown represents the amount of employment needed to support that activity for a year. Furthermore, IMPLAN reports the number of jobs based on average output per employee for a given industry within the geography. This is not the same as the number of full-time positions.
- *Output* refers to the total economic value of the project in the local economy.
- *Value Added* shows the total income that the event generates in the local economy. This income includes:
    - *Employee Compensation* – total payroll costs, including benefits
    - *Proprietary Income* – payments received by self-employed individuals as income
    - *Other Property Type Income* – payments for rents, royalties, and dividends
    - *Indirect Business Taxes* – excise taxes, property taxes, fees, and sales taxes paid by businesses. These taxes occur during the normal operation of businesses, but do not include taxes on profits or income.

APPENDIX C: DETAIL ON WORKER HOUSEHOLD RESIDENCE LOCATION

New Worker Households by Place of Residence, Using Current Distributions of Workers (Baseline)

DIRECT WORKERS (a)	Low and High Estimates	
Place of Residence	Number	Percent
East Palo Alto	55	14.4%
Menlo Park	14	3.8%
All Other Places	310	81.8%
Total	379	100.0%

INDIRECT & INDUCED WORKERS	Low Estimate (b)		High Estimate (c)	
Place of Residence	Number	Percent	Number	Percent
East Palo Alto	2	0.6%	55	14.4%
Menlo Park	3	0.8%	15	3.8%
All Other Places	377	98.6%	313	81.8%
Total	382	100.0%	382	100.0%

TOTAL WORKERS	Low Estimate (b)		High Estimate (c)	
Place of Residence	Number	Percent	Number	Percent
East Palo Alto	57	7.5%	109	14.4%
Menlo Park	17	2.3%	29	3.8%
All Other Places	687	90.3%	623	81.8%
Total	761	100.0%	761	100.0%

New Worker Households by Place of Residence, Assuming 20 Percent More Workers Living in East Palo Alto and Menlo Park

DIRECT WORKERS (a)	Low and High Estimates	
Place of Residence	Number	Percent
East Palo Alto	65	17.3%
Menlo Park	17	4.6%
All Other Places	296	78.2%
Total	379	100.0%

INDIRECT & INDUCED WORKERS	Low Estimate (b)		High Estimate (c)	
Place of Residence	Number	Percent	Number	Percent
East Palo Alto	3	0.7%	66	17.3%
Menlo Park	4	0.9%	17	4.6%
All Other Places	376	98.4%	299	78.2%
Total	382	100.0%	382	100.0%

TOTAL WORKERS	Low Estimate (b)		High Estimate (c)	
Place of Residence	Number	Percent	Number	Percent
East Palo Alto	68	8.9%	131	17.3%
Menlo Park	21	2.7%	35	4.6%
All Other Places	672	88.3%	595	78.2%
Total	761	100.0%	761	100.0%

Notes:
Baseline assumes those jobs associated with the Project are likely to be distributed geographically by residence in patterns similar to current workers, with the low estimate based on indirect and induced workers distributed residentially as for the two counties overall, and the high estimate with those workers distributed as for East Palo Alto. Parts may not sum to totals due to independent rounding.

(b) For the indirect and induced jobs, the low estimate estimates the geographic distribution of new workers using the distribution of workers in the two counties by place of residence. Indirect and and induced jobs might be anywhere in the two counties.
(c) For the indirect and induced jobs, the high estimate estimates the geographic distribution of new workers using the distribution of East Palo workers by place of residence, as with the direct jobs. While indirect and and induced jobs might be anywhere in the two counties, they may tend to be closer to East Palo Alto. For example, workers are likely to make daytime expenditures that generate retail jobs near their place of work in East Palo Alto. The businesses in the Project might also be likely to contract for services and supplies with nearby establishments.

Sources: U.S. Census Bureau, Longitudinal Employer-Household Dynamics via OnTheMap; American Community Survey, 2015-2019, including the Public User Microdata Sample; IMPLAN; BAE, 2021.

Appendix H

HEXAGON TRANSPORTATION CONSULTANTS, INC.

University Circle Phase II Development

Transportation Analysis

Prepared for:

David J. Powers & Associates, Inc.

August 9, 2021

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Executive Summary

This report presents the results of the transportation analysis conducted for the proposed office expansion within the University Circle Office Campus in East Palo Alto, California. This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development.

The transportation impacts of the project were evaluated following the standards and methodologies established by the City of East Palo Alto. The transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA). Transportation impacts were assessed based on vehicle miles traveled (VMT). The transportation analysis also included an evaluation of the project effects on nearby intersections based on the LOS analysis according to the standards set forth in the General Plan.

The effects of the project on nearby freeway segments were evaluated in accordance with the methodologies described in the City/County Association of Governments of San Mateo County (C/CAG) *Traffic Impact Analysis Policy* and Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis Guidelines* (2014). C/CAG administers the San Mateo County Congestion Management Program (CMP) and VTA administers the Santa Clara County CMP. The project freeway analysis is presented for informational purposes.

CEQA Transportation Impacts

Project Vehicle Miles Traveled (VMT) Impacts and Mitigation Measures

The existing University Circle Development TDM program and the proposed multimodal improvement which consists of granting an easement for the planned Class I bicycle facility which will tie in with the planned new bicycle/pedestrian overcrossing of US 101 would reduce daily project VMT by 13.2%. In the City of East Palo Alto, the significance threshold is equal to 15% below the existing citywide average home-based work trip VMT per employee for office developments. The existing TDM program and the proposed multimodal improvement would not be sufficient to reduce VMT by 15%. Thus, the project is considered to have a significant impact on VMT.

In order to achieve 15% reduction in daily VMT, an enhanced TDM plan that includes any combination of the following measures is recommended to mitigate VMT impacts.

- Expand University Circle Caltrain shuttle to meet more trains and offer later services.
- Add a University Circle last-mile shuttle connection for Dumbarton East Bay riders.
- Provide transit subsidies
- Provide vanpool subsidies
- Provide commuter cash allowances

Implementation of an enhanced TDM plan and compliance with the existing TSM ordinance, which requires at least 25% of the employees at workplaces with 100 or more employees to commute to work on a regular basis by a mode other than single-occupancy vehicles during the weekday commute peak hours or to use an alternative work hour schedule, is expected to satisfactorily mitigate the project's significant impact on VMT. Furthermore, the City is considering an updated TDM Ordinance that may impose more stringent alternative mode share goals. Such a change could further reduce the project's VMT even further below the significance threshold.

Local Transportation Analysis

Project Trip Generation

The trips generated by the proposed office building were estimated using trip rates for General Office Building (Land Use 710) published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 9th Edition (*2012). The proposed project will be required to develop a comprehensive Transportation Demand Management (TDM plan) to reduce vehicle trips by at least 25 percent. Therefore, a 25 percent trip reduction was assumed. After applying the TDM trip reductions, the proposed project is expected to generate a net increase of 1,315 daily vehicle trips with 157 vehicle trips (135 in and 22 out) during the AM peak hour and 155 vehicle trips (25 in and 130 out) during the PM peak hour.

Existing Plus Project Intersection Levels of Service

The intersection of University Avenue and Bay Road was evaluated under existing plus project conditions both without and with the planned loop road identified in the Ravenswood / 4 Corners TOD Specific Plan. The other study intersections would be unaffected by the loop road. Table ES-1 presents a summary of the intersection levels of service under existing and existing plus project conditions. Both without and with the loop road, the proposed project would cause an adverse effect on traffic operations at eight study intersections. Each of the recommended improvements is presented below. The improvements would be required both without and with the loop road.

3. Euclid and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate one through lane and one right-turn lane.

4. US 101 Northbound On Ramp and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. The new traffic signal shall include appropriate pedestrian and bicycle accommodations. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the US 101 northbound on ramp shall be shifted approximately 30 feet to the east to align with the proposed driveway for the

University Plaza Phase II site on the north side of Donohoe Street. In addition, the westbound Donohoe Street approach to the US 101 northbound on ramp shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and an exclusive through lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

5. University Avenue and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. The changes to the westbound approach will require modifications to the eastbound approach to ensure proper lane alignment. The eastbound approach shall include one left turn lane and one shared through/right-turn lane. The east and west legs would be converted from split phase signal operation to protected left-turn signal phasing. These improvements along with new traffic signals at the US 101 northbound on-ramp/Donohoe intersection and at the Euclid/Donohoe intersection would improve traffic operations at the University Avenue/Donohoe Street intersection and would eliminate the adverse effect of the project at this intersection.

6. US 101 Northbound Off Ramp and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

8. East Bayshore Road and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would eliminate the adverse effect of the project at this intersection.

9. University Avenue and US 101 Southbound Ramps

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at

University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would eliminate the adverse effect of the project at this intersection.

11. University Circle and Woodland Avenue

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

12. Manhattan Avenue and Woodland Avenue

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

Cumulative Plus Project Intersection Levels of Service

Cumulative conditions assume the construction of improvements identified in the Ravenswood / 4 Corners TOD Specific Plan EIR. The intersection of University Avenue and Bay Road was analyzed both without and with the planned loop road. The loop road is not expected to affect the traffic volumes, delay, or LOS at any other study intersections. Another improvement within the project area assumed to be complete under cumulative conditions is the US 101 pedestrian/bicycle overcrossing adjacent to Clark Avenue, which opened in May 2019.

The City of East Palo Alto is also working with Caltrans on a US 101/University Avenue interchange improvement project that would include a second pedestrian/bicycle overcrossing and modifications to the freeway off ramps. However, the funding for these improvements has not yet been secured so they are not assumed to be complete under cumulative conditions.

Under cumulative plus project conditions, eleven study intersections would be adversely affected by the proposed project (See Table ES-2). Each of the proposed improvements is presented below.

3. Euclid and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate one through lane and one right-turn lane.

4. US 101 Northbound On Ramp and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant

curbs, and bicycle detection loops. Furthermore, the US 101 northbound on ramp shall be shifted approximately 30 feet to the east to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street. In addition, the westbound Donohoe Street approach to the US 101 northbound on ramp shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and an exclusive through lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

5. University Avenue and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. The changes to the westbound approach will require modifications to the eastbound approach to ensure proper lane alignment. The eastbound approach shall include one left turn lane and one shared through/right-turn lane. The east and west legs would be converted from split phase signal operation to protected left-turn signal phasing. In addition, the inner left-turn lane on the northbound University Avenue approach shall be extended by an additional 250 feet. Extension of the northbound left-turn lane can be accommodated within the existing right-of-way, by cutting into the raised median on University Avenue. This improvement would not require any additional right-of-way acquisition or reconfiguration of the US -101 overpass. Along with all these improvements, the recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

6. US 101 Northbound Off Ramp and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street. The recommended improvements would fully eliminate the adverse effect of the project at this intersection.

7. Cooley Avenue and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The eastbound Donohoe Street approach to Cooley Avenue shall be restriped to include two through lanes and a full length left-turn lane and the traffic signal shall be coordinated with adjacent traffic signals on Donohoe Street. In addition, the recommended Donohoe Street

improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue and at the US 101 northbound off ramp would improve traffic flow on Donohoe Street and would eliminate the project's adverse effect at the Donohoe/Cooley intersection.

8. East Bayshore Road and Donohoe Street

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

9. University Avenue and US 101 Southbound Ramps

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic progression along northbound University Avenue and fully eliminate the adverse effect of the project at this intersection.

10. University Avenue and Woodland Avenue

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

11. University Circle and Woodland Avenue

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

12. Manhattan Avenue and Woodland Avenue

Improvements: TDM measures alone would not be sufficient to reduce the project's adverse effect on traffic operations at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would fully eliminate the adverse effect of the project at this intersection.

The recommended Donohoe Street improvements at Euclid Avenue and at the US 101 northbound on ramp will be constructed as part of the University Plaza Phase II development with full funding from the Sobrato Organization. The City of East Palo Alto entered into a reimbursement agreement with The Sobrato Organization that sets forth a mechanism and formula for reimbursement of a portion of the costs of these improvements by future developments that would add traffic to these intersections. Hence, the University Circle Phase II project will reimburse The Sobrato Organization a portion of the cost of these improvements based on the number of trips added by the University Circle Phase II project according to the formula in the Sobrato reimbursement agreement.

As for the Donohoe Street improvements at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue, the project would be responsible for reimbursing the City of East Palo Alto for a portion of the cost of these improvements based on a fair share formula based on the number of trips added by the University Circle Phase II project

Other Transportation Issues

The following recommendations were identified to address issues associated with intersection queuing, site access, on-site circulation, and parking:

- Prior to final design, the driveway widths, radii, and throat depth should be measured to confirm that they comply with City of East Palo Alto standards and are adequate to handle truck traffic. In order to ensure there would be sufficient sight distance at the project driveways, any landscaping, parking, and signage location should be consistent with City of East Palo Alto vision triangle standards.
- Transition slopes of one half the differential slope should be provided at each end of the new entry ramp to ensure that vehicles do not “bottom out” due to the abrupt change in slope. The slopes of all garage ramps should be reviewed to ensure they meet appropriate design standards.
- Extra space should be provided at the end of all dead-end aisles to allow vehicles to turn around if necessary and maneuver into and out of the last parking space.
- During the construction period, restripe the eastbound approach on Woodland Avenue at the intersection of University Avenue to consist of two left-turn lanes and a shared left-through-right turn lane.
- During the construction period under the project alternative, the inbound lanes on University Circle should be reconfigured to consist of one left-turn lane and one through lane.

Table ES- 1
Intersection Level of Service Summary under Existing Conditions

#	Intersection	Peak Hour	Existing Avg Delay (sec/veh)	Existing LOS	Existing Plus Project Avg Delay (sec/veh)	Existing Plus Project LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Existing Plus Project (With Improvements) Avg Delay (sec/veh)	Existing Plus Project (With Improvements) LOS
1	University Avenue and Bayfront Expressway [Menlo Park] (CMP)	AM	**>80***	**F**	**>80***	**F**	0.2	n/a		
		PM	**94.1**	**F**	**96.3**	**F**	2.2	n/a		
2	University Avenue and Bay Road [5]	AM	41.7	D	41.5	D	-0.1	0.008		
		PM	48.4	D	48.5	D	0.2	0.007		
3	Euclid Avenue and Donohoe Street/East Bayshore Road [2]	AM	**52.3**	**F**	**93.8**	**F**	n/a	n/a	48.7	D
	(All-way Stop)	PM	32.6	D	30.7	D	n/a	n/a	13.5	B
4	US 101 NB On-Ramp & Donohoe St [2&3]	AM	**64.7**	**F**	**89.7**	**F**	n/a	n/a	33.7	C
	(Uncontrolled)	PM	10.2	B	9.2	A	n/a	n/a	20.6	C
5	University Avenue and Donohoe Street [2]	AM	**107.9**	**F**	**115.2**	**F**	n/a	n/a	**93.1**	**F**
		PM	**74.9**	**E**	**70.7**	**E**	n/a	n/a	39.7	D
6	US 101 NB Off-Ramp/University Plaza Ph I dwy and Donohoe St [2]	AM	49.3	D	**59.0**	**E**	n/a	n/a	37.1	D
		PM	**142.6**	**F**	**138.4**	**F**	n/a	n/a	34.3	C
7	Cooley Avenue and Donohoe Street [2]	AM	31.8	C	51.0	D	n/a	n/a	41.1	D
		PM	36.6	D	33.7	C	n/a	n/a	22.5	C
8	East Bayshore Road and Donohoe Street [2]	AM	32.9	C	**98.1**	**F**	n/a	n/a	23.5	C
		PM	38.2	D	25.4	C	n/a	n/a	15.5	B
9	University Avenue and US101 SB Ramps [2]	AM	**99.2**	**F**	**104.6**	**F**	n/a	n/a	**79.7**	**E**
		PM	**87.4**	**F**	**86.3**	**F**	n/a	n/a	45.9	D
10	University Avenue and Woodland Avenue [2]	AM	**66.1**	**E**	**64.7**	**E**	n/a	n/a	50.6	D
		PM	**248.0**	**F**	**248.6**	**F**	n/a	n/a	**146.6**	**F**
11	University Circle and Woodland Ave [2]	AM	18.7	B	20.9	C	n/a	n/a	13.6	B
		PM	**126.8**	**F**	**256.2**	**F**	n/a	n/a	24.1	C
12	Manhattan Avenue and Woodland Avenue [2]	AM	11.6	B	16.6	B	n/a	n/a	8.6	A
	(All-way Stop)	PM	**92.4**	**F**	**197.7**	**F**	n/a	n/a	7.0	A
13	Euclid Avenue and Woodland Ave [2&4]	AM	6.6	A	8.8	A	n/a	n/a	6.6	A
	(One-way Stop [1])	PM	**317.0**	**F**	**OVFL**	**F**	n/a	n/a	6.0	A

Notes:

* Indicates LOS based on "unserved demand." At this location, upstream & downstream congestion results in delay not captured by the VISTRO analysis.

For intersection 1, the increase in delay column shows the increase of average delay at the intersection.

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits.

1. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach. Changes in critical delay and v/c for the entire intersection cannot be calculated (n/a).

2. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).

3. Delay shown is the average delay for the westbound left-turning vehicles, which have to find gaps in the eastbound traffic flow.

4. Existing traffic volumes both without and with the proposed project are not expected to meet the Peak-Hour Signal Warrant. Therefore, the project is not expected to have an adverse effect at this intersection. LOS results with improvements reflect recommended improvements on Donohoe Street at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp and at Cooley Avenue, which would improve traffic flow on University Avenue, and as a result reduce the queues and delay on Woodland Avenue.

5. The above level of service results reflect intersection operatios without the Loop Road. With planned Loop Road, the intersection of University Avenue and Bay Road would operate at LOS D with average delay of 40.5 seconds per vehicle in the AM peak hour and 46.5 seconds per vehicle in the PM peak hour. The Loop Road will not affect the level of service or delay at the other study intersections.

Table ES- 2
Intersection Level of Service Summary under Cumulative Conditions

#	Intersection	Peak Hour	Cumulative No Project Avg Delay (sec/veh)	LOS	Cumulative Plus Project Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Cumulative Plus Project (With Improvements) Avg Delay (sec/veh)	LOS
1	University Avenue and Bayfront Expressway [Menlo Park] (CMP)	AM	**>80***	**F**	**>80***	**F**	1.4	n/a		
		PM	**243.1**	**F**	**245.6**	**F**	2.5	n/a		
2	University Avenue and Bay Road [7]	AM	**74.9**	**E**	**74.4**	**E**	-7.9	-0.005		
		PM	**93.1**	**F**	**94.8**	**F**	2.8	0.007		
3	Euclid Avenue and Donohoe Street/East Bayshore Road [2, 4]	AM	**340.8**	**F**	**349.2**	**F**			**313.7**	**F**
	(All-way Stop)	PM	**110.1**	**F**	**109.1**	**F**			**101.8**	**F**
4	US 101 NB On-Ramp/University Plaza Ph II dwy & Donohoe St [2, 3, 4]	AM	**OVFL**	**F**	**OVFL**	**F**			27.6	C
	(One-way Stop [1])	PM	**OVFL**	**F**	**OVFL**	**F**			31.2	C
5	University Avenue and Donohoe Street [2, 5]	AM	**170.7**	**F**	**183.7**	**F**			**103.7**	**F**
		PM	**122.8**	**F**	**124.7**	**F**			**97.6**	**F**
6	US 101 NB Off-Ramp/University Plaza Ph I dwy and Donohoe St [2]	AM	**493.3**	**F**	**486.8**	**F**			43.2	D
		PM	**364.0**	**F**	**370.0**	**F**			**172.0**	**F**
7	Cooley Avenue and Donohoe Street [2]	AM	**295.9**	**F**	**304.6**	**F**			36.5	C
		PM	47.4	D	48.2	D			42.3	D
8	East Bayshore Road and Donohoe Street [2]	AM	**OVFL**	**F**	**OVFL**	**F**			**59.8**	**E**
		PM	**427.8**	**F**	**OVFL**	**F**			**186.0**	**F**
9	University Avenue and US101 SB Ramps [2]	AM	**152.4**	**F**	**169.9**	**F**			**85.4**	**F**
		PM	**137.8**	**F**	**139.0**	**F**			**122.3**	**F**
10	University Avenue and Woodland Avenue [2]	AM	**367.7**	**F**	**458.8**	**F**			**129.2**	**F**
		PM	**395.3**	**F**	**394.4**	**F**			**176.5**	**F**
11	University Circle and Woodland Ave [2]	AM	**407.2**	**F**	**498.8**	**F**			**65.5**	**E**
		PM	**309.5**	**F**	**420.1**	**F**			**264.5**	**E**
12	Manhattan Avenue and Woodland Avenue [2]	AM	**OVFL**	**F**	**OVFL**	**F**			**172.8**	**F**
	(All-way Stop)	PM	**463.2**	**F**	**OVFL**	**F**			**447.7**	**F**
13	Euclid Avenue and Woodland Ave [2, 6]	AM	**OVFL**	**F**	**OVFL**	**F**			**226.2**	**F**
	(One-way Stop [1])	PM	**OVFL**	**F**	**OVFL**	**F**			**401.5**	**F**

Notes:

For intersection 1, the increase in delay column shows the increase of average delay at the intersection.

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits

1. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach. Changes in critical delay and v/c for the entire intersection cannot be calculated (n/a).
2. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
3. Under cumulative conditions, delay shown is the average delay for the southbound approach, where vehicles have to find gaps in the eastbound and westbound traffic flow on Donohoe Street.
4. Average delay and LOS under cumulative plus project with loop road and other improvements reflect signalization.
5. Cumulative Baseline conditions reflect the following improvements: University Avenue/Donohoe Street - An exclusive right-turn lane on southbound University.
6. Cumulative traffic volumes both without and with the proposed project are not expected to meet the Peak-Hour Signal Warrant. Therefore, this intersection would not have an adverse cumulative effect. LOS results with improvements reflect the recommended improvements on Donohoe Street at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue, which would improve traffic flow on University Avenue, and as a result reduce the queues and delay on Woodland Avenue.
7. The above level of service results reflect intersection operatios without the Loop Road. With planned Loop Road, the intersection of University Avenue and Bay Road would operate at LOS E with average delay of 68.4 seconds per vehicle in the AM peak hour and 75.7 seconds per vehicle in the PM peak hour. The Loop Road will not affect the level of service or delay at the other study intersections.

1. Introduction

This report presents the results of the transportation analysis conducted for the proposed office expansion within the University Circle Office Campus in East Palo Alto, California (see Figure 1). This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development.

Due to shelter in place orders first issued in March 2020, most businesses and schools closed, and people started working at home to the extent possible. While some businesses have subsequently reopened subject to certain restrictions, traffic volumes continue to be substantially below pre-virus conditions. Even when all restrictions are lifted, many businesses will not reopen, and many people will be unemployed. Furthermore, people with health concerns may be reluctant to venture outside their homes. As a result, traffic volumes are expected to remain reduced for many months. Nevertheless, it is not prudent to make planning decisions based on reduced traffic volumes. Thus, to be conservative, this transportation analysis report is based on pre-virus conditions.

The transportation impacts of the project were evaluated following the standards and methodologies established by the City of East Palo Alto. The transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA). As confirmed by a recent court case, level of service (LOS) can no longer be used to identify significant impacts under CEQA. Thus, transportation impacts were assessed based on vehicle miles traveled (VMT).

Although LOS can no longer be used to identify impacts under CEQA, the City has retained the LOS standard set forth in the General Plan, continues to require an assessment of intersection levels of service, and may condition project approvals on improvements needed to maintain the adopted LOS standard and/or other operational issues related to transportation. Thus, the transportation analysis also includes an evaluation of the project's effects on nearby roadway intersections based on the LOS standards set forth in the General Plan.

The effects of the project on nearby freeway segments were evaluated in accordance with the methodologies described in the City/County Association of Governments of San Mateo County (C/CAG) *Traffic Impact Analysis Policy* and Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis Guidelines* (2014). C/CAG administers the San Mateo County Congestion Management Program (CMP) and VTA administers the Santa Clara County CMP. The project freeway analysis is presented for informational purposes.

Project Description

The University Circle Office Campus is located on the northwest quadrant of the University Avenue and Woodland Avenue intersection and consists of three office buildings totaling 459,996 square feet (s.f.) of office space, 15,000 s.f. of retail space, and a 190-room hotel. The proposed project would add a new office building with 180,000 s.f. (including 2,940 s.f. of community space) and a three-level underground parking garage that will be integrated with the existing parking facilities.

Access to the campus will not change with the proposed expansion. Primary access to the office campus is provided via a full-access signalized driveway approximately 200 feet west of University Avenue on Woodland Avenue. This full-access driveway provides access to the on-site at-grade parking lot as well as the subterranean parking garage. Two full-access driveways are provided along Manhattan Avenue that are gated and restricted to authorized personnel only. The northern driveway on Manhattan Avenue provides access to surface parking and an above-grade parking structure. The southern driveway on Manhattan Avenue is located near O'Connor Street and provides access to the underground parking. The project site plan is shown on Figure 2.

Project Alternative (Above Grade Garage)

The transportation analysis also includes an analysis of a project alternative, referred to as the Above-Grade Garage alternative that would develop a 180,000-square-foot office building in the same location as the proposed project. In contrast to the proposed project, however, parking for this alternative would be provided through a combination of the following:

- Expanding the existing one-level below-grade parking garage beneath the proposed office building, and
- Expanding the existing above-grade parking garage from 4- to 6.5-levels and dedicating the majority of the existing spaces in the newly expanded parking garage for the use of future office tenants.

Access to the campus will not change under the project alternative. Since the size of the office building proposed under the project alternative would not change, the project VMT analysis and traffic operations analysis would be the same for the proposed project and the project alternative. Any VMT impact or adverse effects on traffic operations would be the same for the proposed project and the project alternative. On-site circulation, parking analysis and traffic circulation during construction for the project alternative are discussed in Chapter 4.

Transportation Policies

In adherence with State of California Senate Bill 743 (SB 743), the City of East Palo Alto has adopted a new Transportation Analysis Policy. The policy establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT) instead of intersection level of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. All new projects are required to analyze transportation impacts using the VMT metric. The new Transportation Analysis Policy took effect on July 7, 2020.

The new CEQA guidelines serve to implement two key state goals:

- Ensure that environmental impacts of traffic (e.g. noise, air pollution, safety) are properly addressed and mitigated, and
- Promote public health and the reduction in greenhouse gases.

City of East Palo Alto planning and policy documents that apply to the VMT Policy are described below.

- The VMT Policy is aligned with the following *City Council Strategic Priorities*

  #4: Improve Public Facilities and Infrastructure, and
  #6: Create a Healthy and Safe Community.

- The VMT Policy is also consistent with the following goals and community indicators set forth in the *City of East Palo Alto General Plan 2035:*

  - Maintain an Urban form and land use pattern that enhances the quality of life and meets the community's vision for its future (LU-1)
  - Foster the creation of complete, multimodal streets (T-2)
  - Update the transportation performance measures (T-7.2)
  - Adopt transportation demand management and roadway system efficiency strategies (T-8)
  - 20% Reduction in single occupancy commuting by 2035 (Table 12-12: Indicators)
  - 20% Bicycle/pedestrian mode share to work by 2035 (Table 12-12: Indicators)
  - 15% Bicycle/pedestrian mode share to school by 2035 (Table 12-12: Indicators)
  - Decrease per capita VMT (Table 12-12: Indicators)

- The *City of East Palo Alto's Climate Action Plan,* adopted in 2011, set forth an emissions reduction goal of 15 percent below 2005 levels by 2020. More recently, the California Air Resources Board adopted an updated SB 375 emissions target for the San Francisco Bay Area of 19 percent below 2005 levels by 2035. In East Palo Alto, 14 percent of emissions stem from travel on local roads and 48 percent of emissions stem from state highway travel. The VMT Policy would lead to a reduction in VMT and thereby reduce vehicle emissions.

CEQA Transportation Analysis Scope

The City of East Palo Alto's Transportation Analysis Policy establishes procedures for determining project impacts on Vehicle Miles Traveled (VMT) based on project description and characteristics. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project.

Screening for VMT Analysis

A development project may be "screened out" if the use or size support a presumption that, if analyzed, the project's impact under VMT would be less than significant. Thus, a screened project would not be required to conduct a detailed VMT analysis to quantify the project's VMT and would not need to implement trip reduction measures or multimodal improvements to mitigate a significant impact on VMT. Projects that do not meet the screening criteria are "screened in" and must complete a detailed analysis of VMT produced by the project.

Based on the City's Transportation Analysis Policy, it is assumed that projects generating fewer than 110 daily trips would cause a less-than-significant impact. Based on this screening criterion, office projects that are 10,000 s. f. or less are presumed to have a less-than-significant impact on VMT. The project is proposing to construct a 180,000 s.f. office building and would generate more than 110 daily trips. The project does not meet the screening criteria and therefore would require a detailed CEQA transportation analysis.

Local Transportation Analysis Scope

A Local Transportation Analysis (LTA) was conducted to demonstrate conformance with multimodal transportation system strategies, goals, and policies in the General Plan and address adverse effects to the transportation system. The LTA supplements the VMT analysis by identifying potential adverse operational effects that may arise due to a new development, as well as evaluating the effects of a new development on site access, circulation, and other safety-related elements in the proximate area of the project.

The LTA satisfies the requirements of the City of East Palo Alto, and the City/County Association of Governments of San Mateo County (C/CAG). C/CAG administers the San Mateo County Congestion Management Program (CMP). Potential adverse effects associated with the proposed project were evaluated at key intersections, freeway segments, and freeway ramps in the vicinity of the site. An analysis of AM and PM peak hour traffic conditions during weekdays at the following 13 study intersections in the vicinity of the project site was conducted.

1. University Avenue (SR 109) and Bayfront Expressway (SR 84) [CMP] (Menlo Park)
2. University Avenue and Bay Road
3. Euclid Avenue and East Bayshore Road/Donohoe Street (unsignalized)
4. US 101 NB On-Ramp/ University Plaza Phase II driveway (future) and Donohoe Street (unsignalized)
5. University Avenue and Donohoe Street
6. US 101 NB Off Ramp/University Plaza Phase I driveway and Donohoe Street
7. Cooley Avenue and Donohoe Street
8. East Bayshore Road and Donohoe Street
9. University Avenue and US 101 SB Ramps
10. University Avenue and Woodland Avenue
11. University Circle and Woodland Avenue
12. Manhattan Avenue and Woodland Avenue (unsignalized)
13. Euclid Avenue and Woodland Avenue (unsignalized)

In addition, the following key freeway segments were also evaluated:

US 101, between Whipple Avenue and Embarcadero Road
US 101, between Embarcadero Road and San Antonio Road
US 101, between San Antonio Road and Rengstorff Avenue
SR 84 at Dumbarton Bridge

The study also evaluated on-ramp queues at the US 101/University Avenue interchange.

Traffic conditions at the intersections were analyzed for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is between 7:00 and 9:00 AM, and the PM peak hour is between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day. Traffic conditions were evaluated for the following scenarios:

Scenario 1: *Existing Conditions.* Existing traffic conditions are based on traffic counts conducted in 2019.

Scenario 2: *Existing Plus Project Conditions*. Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the proposed project. Two existing plus project scenarios were evaluated to assess traffic conditions, with

and without the planned loop road identified in the Ravenswood Four Corners TOD Specific Plan.

Scenario 3: *2040 Cumulative Conditions.* Cumulative conditions represent future traffic volumes with all foreseeable development expected to occur by the year 2040 on the future transportation network. Cumulative traffic volumes were estimated by applying a growth factor (1.2 percent per year) for 21 years to existing 2019 traffic volumes to account for regional growth and adding trips associated with the development allowed under the Ravenswood Specific Plan and other approved and pending development projects in the City of East Palo Alto other than the proposed project.

Scenario 4: *2040 Cumulative Plus Project Conditions.* Cumulative plus project conditions reflect the projected traffic volumes with implementation of the project. Projected peak-hour traffic volumes were estimated by adding to cumulative traffic volumes the additional traffic generated by the project. Cumulative plus project conditions were evaluated relative to cumulative no project conditions in order to determine potential effects. The planned loop road was evaluated as a possible roadway improvement along with other improvements.

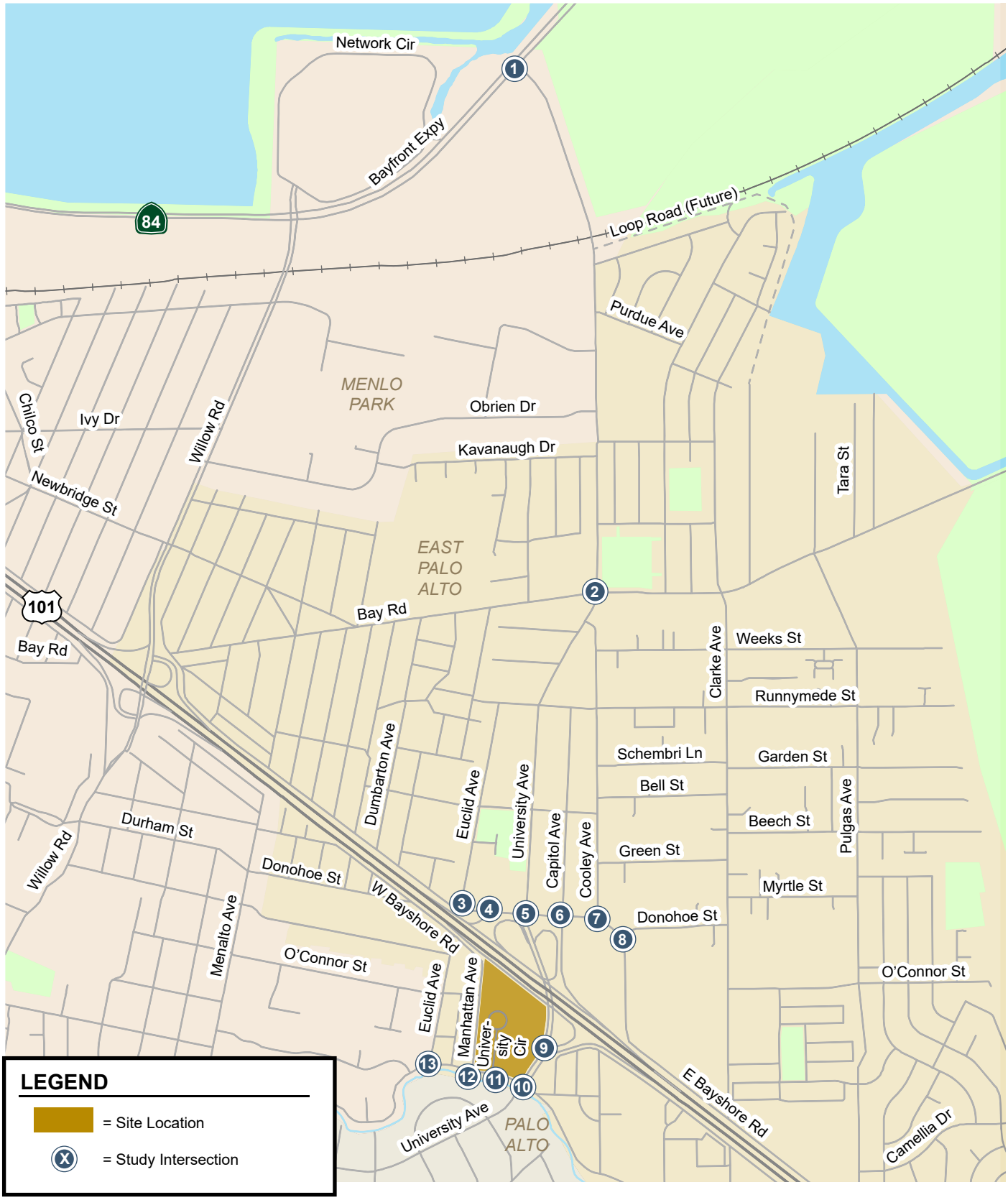


Figure 1
Site Location and Study Intersections

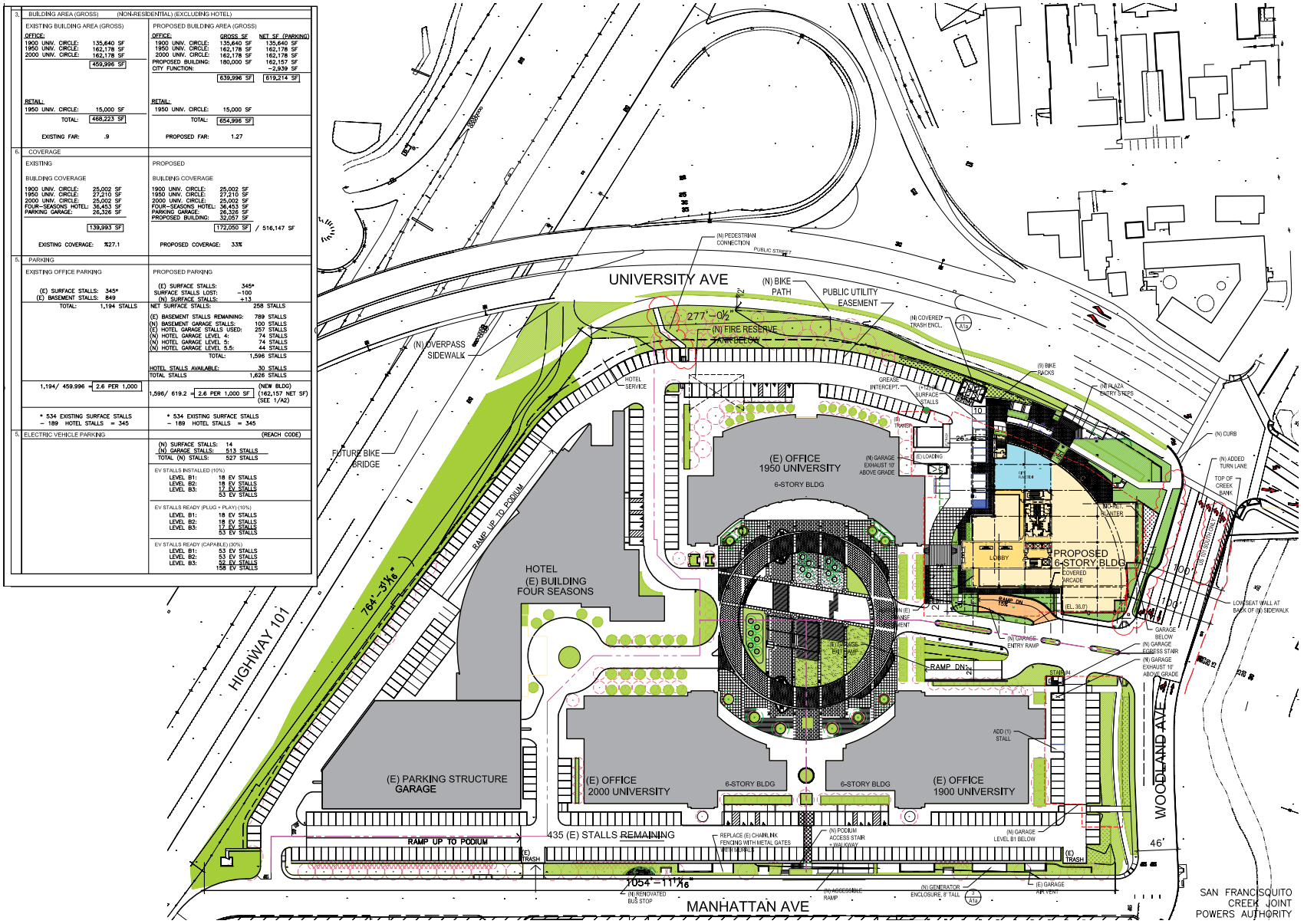


Figure 2
Project Site Plan

NORTH
Not to Scale

VMT Analysis Methodology

Methodology

In the City of East Palo Alto, a project's VMT is compared to the applicable threshold of significance established based on the citywide average VMT. The significance threshold is 15 percent below the existing citywide average home-based work trip VMT per employee for office developments. Due to the City's small size and lack of rail transit service, the project-generated VMT for all office projects is assumed to be equal to the citywide average home-based work trip VMT per employee. Project-generated VMT may be adjusted from the Citywide average as appropriate to account for TDM measures proposed by the project or multi-modal transportation facilities constructed by the project (e.g. a new sidewalk to fill an existing gap or a new trail connection).

Thresholds of Significance

The VMT impact threshold is 15 percent below the existing citywide average home-based work trip VMT per employee for office developments. Using the C/CAG travel demand model, the established citywide average home-based work trip VMT is 21.93 miles per employee for existing employment uses. Thus, the significant impact threshold is 18.64 miles per employee, which is 15 percent below the existing citywide average home-based work trip VMT per employee.

Projects that have a significant impact on VMT must either modify the project description to reduce the impact or implement feasible mitigation measures which will avoid or substantially lessen such significant impacts. Mitigation measures may include multimodal transportation improvements and/or travel demand management (TDM) measures to reduce single-occupant vehicle trips.

Intersection Operations Analysis Methodology

This section presents the methods used to determine the traffic conditions at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, the applicable intersection level of service standards, and the criteria used to determine adverse effects on intersection operations.

Data Requirements

The data required for the analysis were obtained from new traffic counts, the City of East Palo Alto, the City of Menlo Park, and field observations. The following data were collected from these sources:

- Existing traffic, bicycle, and pedestrian volumes
- Existing intersection lane configurations
- Existing signal timing and phasing
- A list of approved and pending projects

Analysis Methodologies and Level of Service Standards

Traffic conditions were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or forced-flow conditions with extreme delays. The City of East Palo Alto level of service standard for all intersections is LOS D or better. The City of Menlo Park has established LOS D as the minimum acceptable level of service for arterial intersections including the study intersection in Menlo Park.

Microscopic Simulation of Study Intersections

Due to the close proximity of selected study intersections, eleven study intersections in the vicinity of the US 101/University Avenue interchange were analyzed using the Synchro/SimTraffic 9 software. Unlike macroscopic models of isolated intersection operations such as the *Highway Capacity Manual* methodology, SimTraffic is a microscopic model that measures the full effect of queuing and blocking. This software also provides a visual animation of the traffic operations. Simulated delay values were correlated to the level of service definitions set forth in the *2000 Highway Capacity Manual* (HCM) methodology.

Macroscopic Analysis of Signalized Intersections

The signalized study intersection at University Avenue and Bay Road in the City of East Palo Alto was evaluated using the TRAFFIX software based on the 2000 HCM methodology. Traffic operations at the University Avenue/Bayfront Expressway intersection in the City of Menlo Park were evaluated using the VISTRO software based on the level-of-service method described in the *HCM 6th Edition*. The *2000 HCM* and *HCM 6th Edition* evaluate signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Table 1 shows the level of service definitions for signalized intersections.

Table 1
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major-contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p10-16.

Unsignalized Intersections

Peak-hour motor vehicle delay at unsignalized study intersections were estimated using the SimTraffic software described above. Per the *2000 Highway Capacity Manual*, intersection operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At side-street controlled intersections (two-way or one-way stop control), the control delay (and LOS) is reported for the approach with the highest delay. For all-way stop- controlled intersections, the average delay (and LOS) for all movements is reported. Table 2 summarizes the relationship between average control delay per vehicle and LOS for unsignalized intersections.

Table 2
Unsignalized Intersection Level of Service Definition Based on Average Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p17-2.

City of East Palo Alto Definition of Adverse Intersection Effects

The City of East Palo Alto assesses motor vehicle delays using a level of service standard of LOS D for intersections. Specifically, an adverse effect on intersection operations would occur at an intersection if for any peak hour the project would result in any of the following:

At a signalized intersection, the project is considered to have an adverse effect if it:

a) Causes operations to degrade from LOS D (or better) to LOS E or F; or
b) Exacerbates LOS E or F conditions by both increasing critical movement delay by four or more seconds and increasing volume-to-capacity ratio (V/C ratio) by 0.01 at an intersection evaluated using the TRAFFIX software; or
c) Exacerbates LOS E or F conditions by increasing the average intersection delay by four or more seconds at an intersection evaluated using the SimTraffic software; or
d) Increases the V/C ratio by > 0.01 at an intersection that exhibits unacceptable operations, even if the calculated LOS is acceptable; or
e) Causes planned future intersections to operate at LOS E or F.

At an unsignalized intersection, the project is considered to have an adverse effect if it:

a) Causes operations to degrade from LOS D or better to LOS E or F; or
b) Exacerbates LOS E or F conditions by increasing control delay by five or more seconds; and
c) Causes volumes under project conditions to exceed the Caltrans Peak-Hour Volume Warrant Criteria.

City of Menlo Park Definition of Adverse Intersection Effects

The City of Menlo Park has established distinct criteria to define adverse effects for signalized intersections based on the category of the intersecting streets.

The study intersection at University Avenue (SR 109) and Bayfront Expressway (SR 84) involves two state routes. For signalized intersection involving two state routes, the project is said to create an adverse effect if for any peak hour:

a) The level of service degrades from an acceptable LOS D or better under existing conditions to an unacceptable LOS E or F under existing plus project conditions, and the average delay per vehicle increases by four seconds or more, or

b) The level of service is an unacceptable LOS E or F under existing conditions and the addition of project trips causes an increase in the average control delay at the intersection by four seconds or more.

Queuing Analysis

The queuing analysis is used to determine the appropriate storage lengths for the high demand turn lanes where the project would add substantial number of trips to these movements. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$\text{Probability } (X=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

Probability (X=n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = Average number of vehicles in queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future storage requirements at intersections.

The 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or a queue length longer than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95th percentile queue length is also known as the "design queue length."

Freeway Ramp Analysis Methodology

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. This analysis consisted of a volume-to-capacity ratio evaluation of selected freeway ramps. The ramp capacities were obtained from the *Highway Capacity Manual 2000* and consider both the free-flow speed and the number of lanes on

the ramp, and in some instances the ramp metering rate. In addition, a queuing analysis was conducted to quantify the effect of project trips on the freeway ramp queue length for metered ramps.

Freeway Segment Analysis Methodology

The Santa Clara /San Mateo County line is located between the Embarcadero Road and University Avenue interchanges on US 101. For this reason, the segments of US 101 between Rengstorff Avenue and Embarcadero Road were analyzed based on the Santa Clara CMP guidelines, and the segments of US 101 between Embarcadero Road and Whipple Avenue were analyzed based on San Mateo County CMP guidelines. The Santa Clara County CMP and San Mateo County CMP guidelines for freeway analysis are described below.

Santa Clara County Freeway CMP Guidelines

As prescribed in the CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N*S)$$

where:

D= density, in vehicles per mile per lane (vpmpl)

V= peak hour volume, in vehicles per hour (vph)

N= number of travel lanes

S= average travel speed, in miles per hour (mph)

The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from high-occupancy vehicle (HOV) lanes (otherwise known as carpool lanes). The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments three lanes or wider in one direction and a capacity of 2,200 vphpl be used for segments two lanes wide in one direction. HOV lanes are specified as having a capacity of 1,650 vphpl. The Santa Clara County CMP defines an acceptable level of service for freeway segments as LOS E or better.

In Santa Clara County, a development is said to create an adverse effect on traffic conditions on a CMP freeway segment if for either peak hour:

1. The level of service on the freeway segment degrades from an acceptable LOS E or better under existing conditions to an unacceptable LOS F under project conditions or,
2. The level of service on the freeway segment is an unacceptable LOS F under project conditions, and the number of project trips on that segment constitutes at least one percent (0.01) of capacity on that segment.

An adverse effect by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore freeway conditions to background conditions or better.

San Mateo County Freeway CMP Guidelines

The City/County Association of Governments of San Mateo County (C/CAG) established LOS E as the minimum acceptable level of service for all segments of US 101 within San Mateo County, unless the segment was operating at LOS F in 1991 (the date when the CMP was first adopted), in which case the LOS standard is LOS F (Final San Mateo County Congestion Management Program, 2011). The LOS F

standard was applied to the freeway segment on US 101 between Whipple Avenue and the Santa Clara County Line as this segment was operating at LOS F in 1991.

Freeway segments currently in compliance with the adopted LOS standard:

> A project is considered to have an adverse effect if the project will cause the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP).

Freeway segments currently not in compliance with the adopted LOS standard:

> A project is considered to have an adverse effect if the project will add traffic demand equal to one percent (0.01) or more of the segment capacity or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one percent (0.01).

Report Organization

This report has a total of five chapters. Chapter 2 describes existing conditions, including the existing roadway network, transit service, bicycle and pedestrian facilities, and intersection operations. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis and mitigation measures to reduce the VMT impact. Chapter 4 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effect on the transportation system, and an analysis of other transportation issues including site access and circulation, freeway ramps, parking, transit services, bicycle and pedestrian facilities, vehicle queueing, traffic operations during construction, and community benefit analysis. Chapter 5 describes the existing and future operations of the freeway segments in the study area.

2. Existing Conditions

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities. Existing conditions reflect traffic conditions in 2019 prior to the COVID-19 pandemic. The effect of project traffic on existing intersection operations is analyzed as part of the Local Transportation Analysis (Chapter 4).

Existing Roadway Network

Regional access to the project study area is provided by US 101 and SR 84. These facilities are described below.

US 101 is a north-south freeway in the vicinity of the site. US 101 extends northward through San Francisco and southward through San Jose. Within East Palo Alto, US 101 has three general-purpose travel lanes, one high-occupancy vehicle (HOV) lane, and one auxiliary lane in each direction. Access to and from the project study area is provided via a full-access interchange at University Avenue.

Bayfront Expressway (SR 84) is a six-lane expressway that extends along the northern edge of East Palo Alto. SR 84 extends eastward across the Dumbarton Bridge into Alameda County and westward through San Mateo County. Bayfront Expressway provides access to the project study area via University Avenue.

Local access to the project site is provided via University Avenue, East Bayshore Road, Donohoe Street, Woodland Avenue, and Manhattan Avenue.

University Avenue is a north-south arterial that extends from Stanford University in Palo Alto to Bayfront Expressway just north of the City of East Palo Alto. Within East Palo Alto, University Avenue is a four-lane divided roadway with no on-street parking. South of Bay Road, University Avenue has continuous sidewalks on both sides of the street. Between Bay Road and Purdue Avenue, University Avenue has a sidewalk on only one side of the street. The posted speed limit on University Avenue is 25 mph.

East Bayshore Road is a two-lane north-south frontage road with two disjointed segments directly east of US 101. East Bayshore Road extends southward from Saratoga Avenue near Willow Road to Euclid Avenue, where it becomes Donohoe Street. East of University Avenue, East Bayshore Road extends southward from Donohoe Street to San Antonio Road. East Bayshore Road has continuous sidewalks on the east side of the street with no on-street parking. The posted speed limit on East Bayshore Road is 25 mph.

Donohoe Street is an east-west street that extends from East Bayshore Road in the west to Clarke Avenue in the east. Its classification varies from a local street to a major thoroughfare, while the cross section varies from a two-lane street with on-street parking to a divided six lane street. Donohoe Street has continuous sidewalks on both sides of the street east of University Avenue. Donohoe Street has a prima facie speed limit of 25 mph.

Woodland Avenue is a two-lane east-west connector street with a small section that widens to four lanes in the vicinity of the project site. Woodland Avenue extends from Middlefield Road in the west to West Bayshore Road in the east. A sidewalk is provided on only the north side of the street. The sidewalk is continuous adjacent to the project site between Manhattan Avenue and University Avenue. West of Manhattan Avenue and east of University Avenue, there are gaps in the sidewalk. Woodland Avenue is a designated bike route with on-street parking allowed on certain segments (e.g. a 125-foot segment on the north side of the street west of Manhattan Avenue). The posted speed limit for Woodland Avenue is 25 mph. It provides direct access to the project site via a signalized intersection at University Circle.

Euclid Avenue is a north-south street with one travel lane and on-street parking in each direction. The segment north of US 101 functions as a collector street and extends from East Bayshore Road in the south to Runnymede Street in the north. The segment south of US 101 functions as a local street and designated bike route and extends from Woodland Avenue in the south to West Bayshore Road in the north.

Manhattan Avenue is a two-lane collector street. Manhattan Avenue extends from Woodland Avenue to West Bayshore Road. Manhattan Avenue is a designated bike route with sidewalks along both sides of the street. On-street parking is allowed along most sections of Manhattan Avenue. Manhattan Avenue provides access to the underground parking garage, the surface parking lot, and the above grade parking garage on the project site. This access is gated and restricted to authorized personnel only.

Existing Bicycle Facilities

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths (Class I facilities) are pathways, separate from roadways that are designated for use by bicycles. Often, these pathways also allow pedestrian access. Bike lanes (Class II facilities) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III) are existing rights-of-way that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated with signs and/or shared lane pavement markings, also known as “sharrows”.

Within the vicinity of the project site, Class II bicycle lanes exist on University Avenue south of Woodland Avenue and north of US 101 between Donohoe Street and the location of the future loop road. Between the future loop road and Bayfront Expressway, there is a bike lane on the west (southbound) side of University Avenue and a separate bikeway on the east side of University Avenue. Bike lanes are present along the entirety of Willow Road with the exception of a short segment between Durham Street and Bay Road where a Class III bike route is provided. Woodland Avenue, Manhattan Avenue, Euclid Avenue, O’Connor Street, W Bayshore Road, Menalto Avenue, and Donohoe Street are all designated as bike routes (see Figure 3).

Hexagon conducted bicycle counts at the study intersections and determined that bicycle volumes at all study intersections are quite low. All bicycle counts are included in Appendix A.

Existing Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks are provided on both sides of Manhattan Avenue and the north side of Woodland Avenue between Manhattan Avenue and University Avenue. Sidewalks are provided on both sides of University Avenue south of Woodland Avenue and north of Donohoe Street. On the US 101 overcrossing, a sidewalk is available only on the west side of University Avenue.

Crosswalks are found on one or more approaches at most of the signalized study intersections. The intersection of University Circle and Woodland Avenue has a crosswalk on only the north approach. The intersection of University Avenue and Woodland Avenue has crosswalks on all approaches but the north approach. The intersection of University Avenue and Donohoe Street has crosswalks on all but the south approach. There are no crosswalks at the intersection of University Avenue and the US 101 SB Ramps.

The all-way stop controlled intersection of Manhattan Avenue and Woodland Avenue has a crosswalk on only the east approach. There are no crosswalks available at the following three unsignalized study intersections:

- Euclid Avenue and Woodland Avenue
- Euclid Avenue and East Bayshore Road/Donohoe Street
- US 101 NB On-Ramp/ University Plaza Phase II driveway (future) and Donohoe Street

Hexagon conducted pedestrian counts at each study intersection. The greatest pedestrian volumes were observed at the intersection of University Avenue and Bay Road, where 138 and 108 pedestrians were counted during the AM and PM peak hours, respectively. The study intersection with the next highest pedestrian volumes is University Avenue and Woodland Avenue, which had 28 pedestrians during the AM peak hour and 51 pedestrians during the PM peak hour. All pedestrian counts are included in Appendix A.

Existing Transit Services

Existing transit services in the study area are provided by the San Mateo County Transit District (Samtrans). The bus stops closest to the project site are at the intersection of Manhattan Avenue and Woodland Avenue and at the intersection of University Avenue and Woodland Avenue. Samtrans bus services and the locations of the nearest bus stops are described below and shown on Figure 4.

Prior to the COVID-19 pandemic, the 81 line operated on Manhattan Avenue, Euclid Avenue, Woodland Avenue, and University Avenue within the study area, looping throughout East Palo Alto and providing service to Menlo-Atherton High School. The line operated twice in the morning and once in the afternoon on school days only and stopped at the Manhattan/Woodland and University/Woodland bus stops. Route 81 service was suspended as of April 26, 2020 due to COVID-19 impacts.

The 280 line operates on Manhattan Avenue, Euclid Avenue, Woodland Avenue, and University Avenue within the study area, providing service between the Stanford Shopping Center and East Palo Alto. The line operates with approximately 60-minute headways during the AM and PM peak periods and stops at the Manhattan/ Woodland and University /Woodland bus stops.

The 281 line operates on University Avenue within the study area, providing service between the Stanford Shopping Center and the Onetta Harris Community Center in the Belle Haven neighborhood of Menlo Park. The line operates with approximately 30-minute headways during the AM peak period and 20-minute headways during the PM peak period. The closest bus stop is located at the intersection of University Avenue and Woodland Avenue.

The 296 line operates limited service on University Avenue within the study area between 8:00 PM and 7:00 AM on weekends and between 10:00 PM and 5:00 AM on weekdays only, providing service between the Redwood City and Palo Alto Caltrain Stations and East Palo Alto. The closest bus stops are at the intersection of University Avenue and Woodland Avenue.

The 397 line operates on University Avenue within the study area, providing service between the Palo Alto Caltrain Station and Downtown San Francisco. The line operates only during late night and early morning hours with 60-minute headways. The bus stops at the intersection of University Avenue and Woodland Avenue.

Existing Lane Configurations

The existing intersection lane configurations were obtained from field observations and are shown on Figure 5.

Observed Traffic Conditions

Traffic conditions were observed in the field in order to identify existing operational deficiencies and to confirm the accuracy of calculated intersection levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect existing traffic conditions.

The field observations were conducted in 2019 prior to the COVID-19 pandemic, which matches the time frame when existing counts were conducted. Many of the signalized intersections on the University Avenue and Donohoe Street corridors in the study area were observed to experience congested traffic conditions during the commute AM and PM peak periods with queues that often extend through upstream intersections. Field visits revealed the following observations at study intersections prior to the COVID-19 pandemic:

University Avenue (SR 109) and Bayfront Expressway (SR 84)

During the AM peak hour, queues on westbound Bayfront Expressway extended on to the Dumbarton Bridge and needed several green cycles to proceed through the intersection.

During the PM peak hour, there was congestion on the northbound University Avenue and eastbound Bayfront Expressway approaches. Northbound right-turn queues consistently extended all the way to the upstream intersections and blocked the left-turn lane. Eastbound queues extended to the upstream intersection at Willow Road and Bayfront Expressway. Vehicles in the northbound and eastbound directions needed several green cycles to proceed through the intersection.

University Avenue and Bay Road

This intersection operated without any significant operational issues during the AM peak hour.

During the PM peak hour, queues on northbound University Avenue extended from Bayfront Expressway through the University/Bay intersection to Bell Street. Spillback from the downstream intersections impeded traffic flow and caused vehicles on the northbound approach at the University/Bay intersection to wait through several signal cycles to clear the intersection.

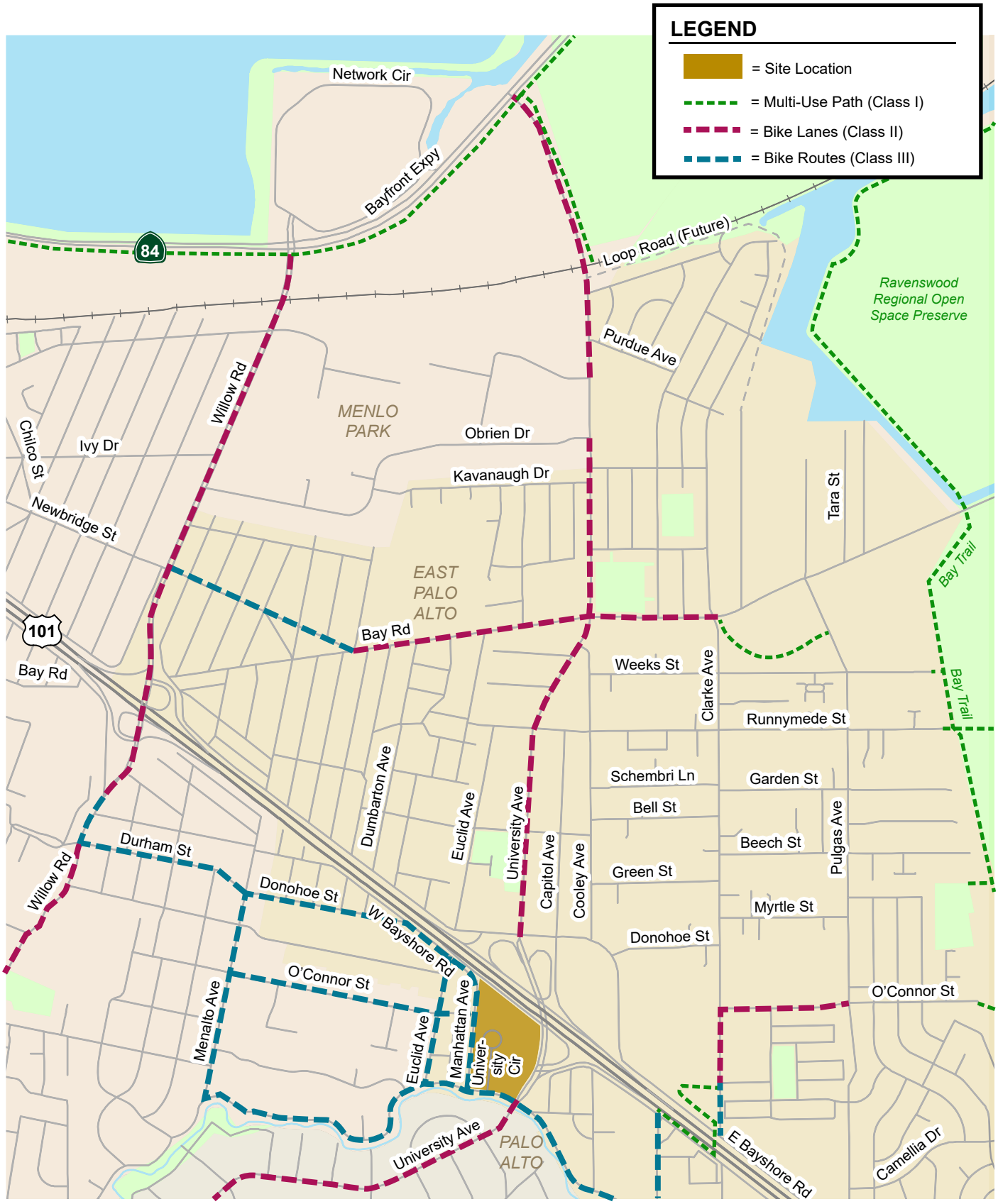
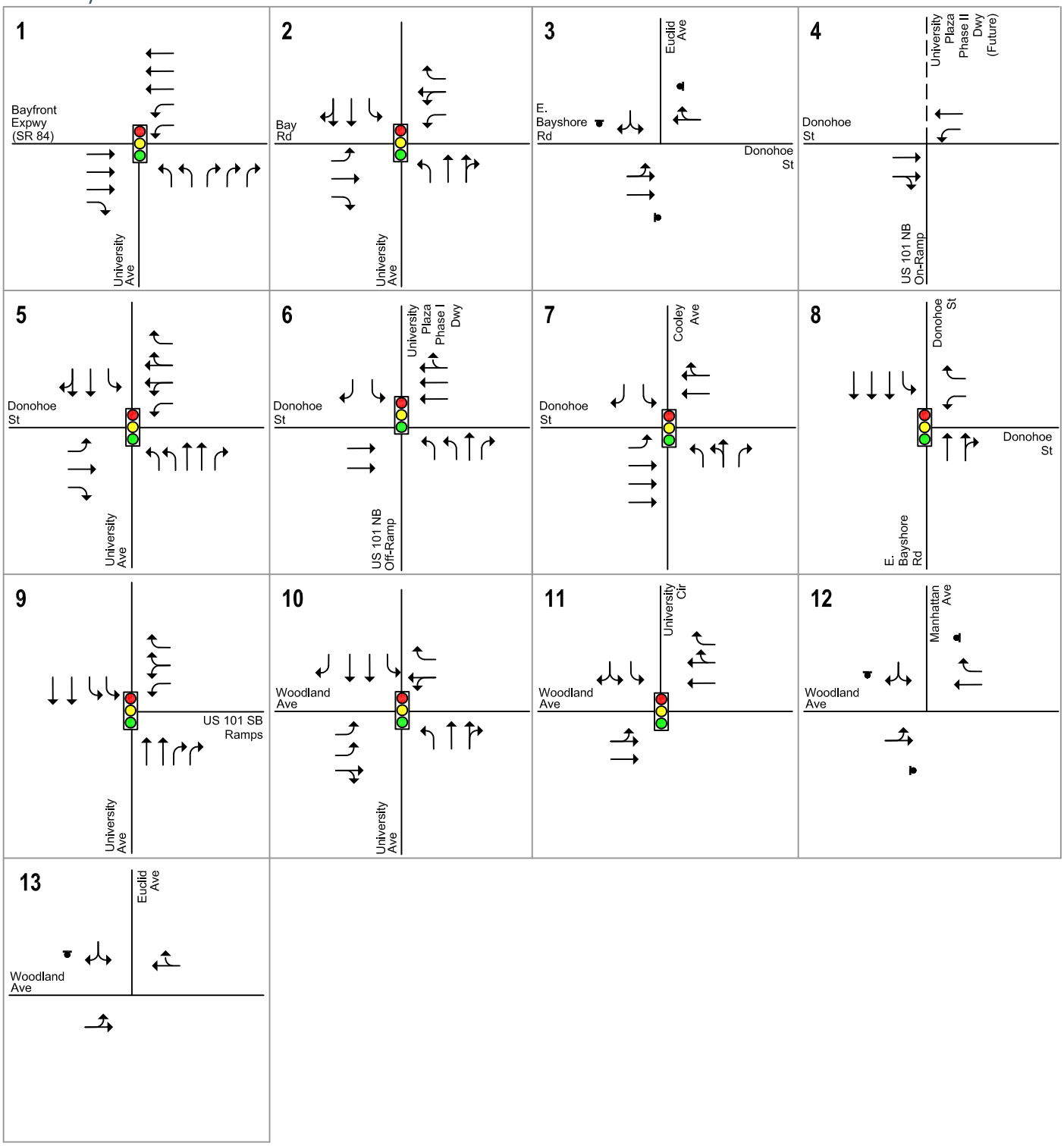


Figure 3
Existing Bicycle Facilities

Figure 4
Existing Transit Services



LEGEND

= Signalized Intersection

= Stop Sign

Figure 5
Existing Lane Configurations

Euclid Avenue and East Bayshore Road/Donohoe Street (unsignalized)

During the AM peak hour, the queue on eastbound Donohoe Street extended from the downstream intersection at University Avenue past the US 101 Northbound On-Ramp intersection and caused congestion for the eastbound through and southbound left-turn movements at the Euclid/East Bayshore/Donohoe intersection. Imbalanced lane utilization was observed for the eastbound through movement. Although eastbound Donohoe Street includes two through lanes, the majority of eastbound traffic uses the outside through lane since close to 90 percent of this traffic turns right onto southbound University Avenue.

During the PM peak hour, queues on the westbound approach of Donohoe Street extended past the US 101 Northbound On-Ramp to the upstream intersection at University Avenue.

US 101 Northbound On-Ramp/University Plaza Phase II driveway (future) and Donohoe Street (unsignalized)

This intersection currently is not controlled on the Donohoe Street approaches. However, westbound vehicles that want to turn left onto the on ramp must wait for an adequate gap in eastbound traffic flow before proceeding. Field observations show that the westbound left-turn queue extended into the upstream intersection of University Avenue/ Donohoe Street during the AM peak hour due to insufficient number and length of gaps in the eastbound traffic flow. Vehicle queues in the right lane on eastbound Donohoe Street constantly extended from University Avenue beyond this intersection to Euclid Avenue. The queue spillback from the University/Donohoe intersection exacerbated the delays for eastbound Donohoe traffic attempting to make right turns onto the northbound US 101 on-ramp.

During the PM peak hour, westbound left-turn traffic on Donohoe Street can easily turn onto the US 101 northbound on ramp because of the relatively low traffic volume on eastbound Donohoe Street. However, the westbound through traffic experienced significant delays due to spillback from the downstream intersection at Euclid Avenue. Queues for the westbound through traffic on Donohoe Street intermittently extended to University Avenue.

University Avenue and Donohoe Street

During the AM peak hour, the southbound through movement on University Avenue failed to clear in one signal cycle. Vehicle queues on the southbound approach constantly extended beyond the upstream intersection at Bell Street. Due to heavy congestion on southbound University Avenue, vehicle queues from the downstream intersection at the US 101 southbound ramps constantly extended to this intersection. As a result, all traffic movements bound for southbound University Avenue (i.e. the eastbound right turn, the westbound left turn, and the southbound through) experienced extended delays of more than one signal cycle.

During the PM peak hour, heavy congestion and excessive delays were observed on the northbound University Avenue and westbound Donohoe Street approaches. Long queues were observed in the northbound through lanes on University Avenue that lead towards the Dumbarton Bridge. Westbound vehicle queues from the Euclid Avenue/Donohoe Street intersection extended through the University Avenue/Donohoe Street intersection and constrained the westbound through and northbound left-turn movements. Queues for these movements frequently do not clear during the respective green phase due to downstream congestion. The northbound left-turn movement experienced imbalanced lane usage. Most of the northbound left-turning traffic was observed to use the outer left-turn lane because the other turn lane becomes a trap lane to the northbound US 101 on ramp.

US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

During the AM peak hour, vehicle queues extended on westbound Donohoe Street from the downstream intersection at University Avenue beyond the US 101 northbound off ramp, intermittently reaching the intersection at Donohoe Street and Cooley Avenue. As a result, it occasionally took more than one signal cycle for the westbound through traffic to clear this intersection. An imbalance in the lane utilization was observed for the three westbound through lanes. The innermost through lane is consistently more congested than the other lanes. Because of the high demand for westbound left turns and through traffic at University Avenue, most of the vehicles on westbound Donohoe Street were observed to be in the innermost through lane at the US 101 northbound off ramp intersection.

During the PM peak hour, there were significant queues on westbound Donohoe Street similar to that of the AM peak hour. Congestion for westbound traffic was primarily due to queues spilling back from the downstream intersection at University Avenue and Donohoe Street. The westbound congestion also resulted in long queues for the northbound left-turn movement on the US 101 northbound off ramp, causing vehicles to wait through multiple signal cycles to clear the intersection. Vehicles from the off-ramp making the northbound left-turn movement occasionally blocked the intersection, causing traffic exiting from the University Plaza Phase I site to wait for more than one cycle to clear the intersection. The queues on the US 101 northbound off ramp were also observed to spillover to the mainline US 101 freeway lanes for a considerable amount of time during the PM peak hour. Vehicles making a right turn movement and seeking to immediately turn left at the downstream intersection at Cooley Avenue also intermittently blocked the eastbound through lanes on Donohoe Street.

Cooley Avenue and Donohoe Street

During the AM peak hour, westbound through queues on Donohoe Street occasionally were observed to extend from the downstream intersection at University past Cooley Avenue. However, all turn movements cleared the intersection in one cycle length.

During the PM peak hour, queues on westbound Donohoe Street extended from the downstream intersection at University Avenue past the northbound US 101 off ramp and into the intersection at Cooley Avenue. Due to the close proximity of the traffic signals, queues on westbound Donohoe Street intermittently spilled back into the upstream intersection at East Bayshore Road. However, the westbound queues generally cleared within one signal cycle. Also, the eastbound left-turn movement frequently overflowed the turn pocket and spilled into the adjacent eastbound through lane and through the upstream intersection at the northbound US 101 off ramp. The allocated green time for the eastbound left turn movement was generally adequate in serving the demand but the turn pocket started filling up quickly from the beginning of the red phase.

East Bayshore Road and Donohoe Street

During the AM peak hour, traffic on the northbound East Bayshore approach to Donohoe Street was delayed due to spillback from downstream intersections.

During the PM peak hour, the westbound queues at the downstream intersection of Cooley Avenue and Donohoe Street spilled back through the East Bayshore Road/Donohoe Street intersection, causing delay for northbound traffic on East Bayshore Road. However, the northbound approach cleared in one signal cycle. The left-turn queues on southbound Donohoe Street filled the turn pocket storage, but they did not spillover to the through lane and cleared in one signal cycle.

University Avenue and US 101 Southbound Ramps

During the AM peak hour, the southbound University Avenue through movement experienced considerable delay due to congestion extending from the downstream intersection at University Avenue and Woodland Avenue. The southbound left-turn queue on University Avenue leading to the US 101

southbound on-ramp intermittently spilled over into the through lane but usually cleared in one signal cycle.

During the PM peak hour, vehicular queues on northbound University Avenue extended from the downstream intersection at Donohoe Street past the upstream intersection at Woodland Avenue.

University Avenue and Woodland Avenue

This intersection operates with split phasing for the eastbound and westbound approaches on Woodland Avenue.

During the AM peak hour, long vehicle queues on the westbound approach spilled back into the upstream intersection at Scofield Avenue but the queues generally cleared the intersection in one signal cycle. Due to heavy traffic on southbound University Avenue, vehicle queues constantly extended beyond the upstream intersection at the US 101 southbound ramps and beyond.

During the PM peak hour, queues on northbound University Avenue extended approximately 1,700 feet to Lincoln Avenue. Long queues also were observed on the eastbound approach on Woodland Avenue, extending past the University Circle driveway to Euclid Avenue. Observations show that traffic flow on the eastbound Woodland Avenue approach was impeded by queues on northbound University Avenue that extended from the downstream US 101 southbound ramps intersection to Woodland Avenue. Between 4:00 PM and 5:00 PM, only a small number of vehicles were observed turning from eastbound Woodland Avenue onto northbound University Avenue during each signal cycle. It took one to two cycles for eastbound traffic to clear the intersection and vehicle queues on the eastbound Woodland Avenue extended beyond Euclid Avenue on several occasions. Vehicle queuing on eastbound Woodland Avenue improved gradually after 5:00 PM and the eastbound approach was able to clear within one cycle. The westbound approach (Woodland Avenue/Scofield Avenue) was also observed to have long queues with congestion extending onto Capitol Avenue. Traffic on the westbound approach intermittently took more than one cycle to clear the intersection.

University Circle and Woodland Avenue

Queues on eastbound Woodland Avenue spilled back from the nearby downstream intersection at University Avenue during the AM peak hour. However, queues on the eastbound approach at the Woodland Avenue/University Circle intersection generally cleared within one cycle. All other movements at the intersection operated adequately.

During the PM peak hour, the eastbound queues on Woodland Avenue spilled back from the downstream intersection at University Avenue similar to that of the AM peak hour. The congestion on eastbound Woodland Avenue continued through the upstream intersections of Manhattan Avenue and Euclid Avenue. However, there were generally adequate green times allocated under the current signal timing scheme that allowed the eastbound queues to clear within one cycle.

Manhattan Avenue and Woodland Avenue

During the AM peak hour, eastbound through queues on Woodland Avenue built up to Manhattan Avenue when eastbound Woodland Avenue received a red phase at the downstream traffic signals at University Circle and University Avenue. This vehicular queue generally dissipated in one cycle when eastbound Woodland Avenue at University Avenue is served. During the PM peak hour, long vehicle queues from the downstream intersections of University Circle and University Avenue caused congestion for the eastbound through movement that extended past Manhattan Avenue. This required multiple cycles at the University Avenue and Woodland Avenue intersection for vehicles to clear. Congestion on Woodland Avenue spilled back onto the southbound left-turn movement on Manhattan Avenue.

Euclid Avenue and Woodland Avenue

During the PM peak hour, due to downstream congestion from the Woodland Avenue and University Avenue intersection, vehicular queues on eastbound Woodland Avenue extended past Euclid Avenue, creating long delays for the southbound left-turn movement on Euclid Avenue. No significant queuing issues were observed during the AM peak hour.

3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT threshold of significance, the project-level VMT impact analysis results, mitigation measures to reduce a VMT impact, and the cumulative transportation impact analysis used to determine consistency with the City's General Plan.

Project-Level VMT Impact Analysis

Project VMT

The project-level impact analysis under CEQA uses the VMT metric to evaluate a project's transportation impacts by comparing against the VMT thresholds of significance as established in the Transportation Analysis Policy.

In the City of East Palo Alto, a project's VMT is compared to the applicable threshold of significance established based on the citywide average VMT. The significance threshold is equal to 15 percent below the existing citywide average home-based work trip VMT per employee for office developments. Due to the City's small size and lack of rail transit service, the baseline VMT for all office projects is assumed to be equal to the citywide average home-based work trip VMT (21.93 miles per employee) regardless of location. This baseline VMT applies to all office projects with no TDM program or multimodal improvements proposed as part of the project. For office projects, a significance threshold which is 15 percent below that of existing development, calculates to a daily VMT of 18.64 miles per employee. The University Circle development currently has a TDM program that offers TDM measures to encourage all employees of the University Circle development to use alternative modes of transportation. Therefore, VMT generated by the existing University Circle development is lower than the citywide average VMT. The current TDM program implemented by University Circle Campus is discussed below.

The following TDM measures have been implemented at the project site (see Appendix D):

- Free shuttle service to Palo Alto Caltrain Station during commute hours (30-minute headways)
- Free trial Caltrain tickets for new riders
- Free trial SamTrans tickets for new riders
- Bicycle amenities (on-site secure bicycle lockers and on-site bike bicycle repair stations with tools and air pumps)
- Preferential parking for carpools and vanpools
- Emergency ride home program (pending)
- Carpool ride matching services
- Carpool financial incentives for Scoop users
- Commute coordinator

- Commute.org carpool and vanpool incentives
- Commute.org Guaranteed Ride Home
- 511.org carpool rewards
- 511.org vanpool program

The TDM program's primary purpose is to reduce VMT generated by the existing University Circle development. Based on AM and PM peak hour driveway counts conducted on May 19, 2019, the existing office uses were found to generate trips approximately 43% lower during the AM peak hour and 56% lower during the PM peak hour compared to Institute of Transportation Engineers (ITE) trip generation rates. The reduction in peak-hour trips is likely due to a combination of factors including use of alternative travel modes, alternative/flexible employee work schedules resulting in a shift of vehicle trips outside of the peak hours, and a lower than average employee density compared to typical offices. Because alternative/flexible employee work schedules could reduce peak-hour trips but not necessarily reduce total daily VMT, the peak-hour driveway counts are not sufficient alone to estimate the reduction in daily VMT resulting from the TDM program.

University Circle also conducted an employee commute survey for the existing three office buildings to quantify alternative mode share for all office employees of the University Circle Campus. The University Circle commute survey was conducted on Tuesday, June 11, 2019 and the purpose of the survey was to understand the travel behavior of the employees and the modes of travel used to commute to work. University Circle had a total of 985 employees (not including the hotel) on the survey date. The survey had a response rate of 35.9%. All non-respondents of the survey were assumed to use single occupant vehicles (SOV) to commute to work. Based on this conservative assumption, the survey showed an alternative mode use of 14.2% as summarized below:

- Transit – 3.4%
- Carpool – 4.4%
- Telecommute – 2.1%
- Uber/Lyft – 0.8%
- Bike – 1.0%
- Walk – 0.8%
- Motorcycle/Scooter – 0.5%
- Vanpool – 0%
- Sick/Vacation – 1.2%

Since alternative modes like carpool, vanpool and Uber/Lyft would still result in vehicular trips to the existing University Circle development, alternative modes that generate vehicular trips were excluded from the estimated VMT reduction percentage (14.2% - 0.8% by Uber/Lyft – 4.4%/2 by carpool), In total, it is concluded that the current University Circle TDM program reduces daily VMT by a minimum of 11.2% below the existing citywide average home-based work trip VMT per employee. This is a conservative estimate; the actual VMT reduction could be greater if some of the non-respondents use alternative modes.

Since the existing TDM program will be extended to all employees of the proposed new office building, it is expected that the VMT generated by the new office building would be approximately 11.2% below the citywide average home-based work trip VMT per employee. The existing TDM program alone would not be sufficient to reduce VMT by 15%. The project will grant an easement for the planned Class 1 facility along University Avenue frontage, which will tie in with the planned new bicycle/pedestrian overcrossing of US 101. Based on the Bay Area Air Quality Management District (BAAQMD) tool, pedestrian accommodations within the project and connecting off-site facilities are estimated to reduce VMT by 2.0%. Even with this multimodal improvement, the project VMT would still exceed the VMT threshold. Therefore, the project would have a significant impact on VMT as currently proposed.

In order to achieve a 15% reduction in VMT, an enhanced TDM plan that includes a combination of any of the following measures is recommended to mitigate VMT impacts.

- Expand University Circle Caltrain shuttle to meet more trains and offer later services.
- Add a University Circle last-mile shuttle connection for Dumbarton East Bay riders.
- Provide transit subsidies
- Provide vanpool subsidies
- Provide commuter cash allowances

With enhanced TDM measures and the proposed multimodal improvement the project could reduce the daily VMT below the significance threshold (15% below the Citywide average). The project should submit an enhanced TDM plan to document additional measures that will be implemented to mitigate the project impact on VMT to less than significant levels.

The current City Transportation System Management (TSM) ordinance requires at least 25% of the employees at workplaces with 100 or more employees to commute to work on a regular basis by a mode other than single-occupancy vehicle during the weekday commute peak hours or to use an alternative work hour schedule. Based on the mode split achieved at University Circle, it can be concluded that compliance with the existing TSM ordinance would indicate that the project has successfully achieved at least a 15% reduction in daily VMT. Furthermore, the City is considering an updated TDM Ordinance that may impose more stringent alternative mode share goals. Such a change could reduce the project's VMT even further below the significance threshold.

A key strategy of all TDM programs is to monitor their effectiveness with an annual survey. The goal of the survey is to collect data on modes of travel used, opinions on the most effective and ineffective TDM measures, reasons for not using an alternative mode, and suggestions for improvements. As required by the City's TSM ordinance, the commute survey for this project shall be prepared and administered by the employer in coordination with the City's TSM administrator annually. Based on the annual survey findings, if the 25% alternative mode use goal among the employees has not been achieved, the project should outline additional measures that will be adopted in the coming year to achieve the goal along with an implementation schedule.

Cumulative Impact Analysis

Metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency, cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. Since the proposed office project is consistent with the City's General Plan and would have a less-than significant impact with the enhanced TDM program, the project would have a less than significant cumulative impact. To account for the cumulative impact of lots of small developments, traffic operational analysis (Chapter 4) was conducted to assess the combined effects of all projects (past, current, and probable future projects of all sizes) on intersection levels of service

4.
Local Transportation Analysis

This chapter describes the local transportation analysis including the method by which project traffic is estimated, any adverse effects to intersection level of service caused by the project under existing and cumulative conditions, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, parking and community benefit analysis.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of East Palo Alto and City of Menlo Park intersections and to identify potential negative effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment is presented in this section. The study intersections are located in the City of East Palo Alto and City of Menlo Park and are evaluated based on the City of East Palo Alto and City of Menlo Park intersection analysis methodology and standards in determining potential adverse operational effects due to the project, as described in Chapter 1.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: 1) trip generation, 2) trip distribution, and 3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by common land uses. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. For the proposed project, the trip generation rates published in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation Manual, 10th Edition (*2017) for General Office Building (Land Use 710) were used.

The existing University Circle development has implemented a Transportation Demand Management (TDM) plan to reduce vehicle trips. The following TDM measures have been implemented at the project site (see Appendix D):

- Free shuttle service to Palo Alto Caltrain Station during commute hours (30-minute headways)
- Free trial Caltrain tickets for new riders
- Free trial SamTrans tickets for new riders
- Bicycle amenities (on-site secure bicycle lockers and on-site bike bicycle repair stations with tools and air pumps)
- Preferential parking for carpools and vanpools
- Emergency ride home program (pending)
- Carpool ride matching services
- Carpool financial incentives for Scoop users
- Commute coordinator
- Commute.org carpool and vanpool incentives
- Commute.org Guaranteed Ride Home
- 511.org carpool rewards
- 511.org vanpool program

The City of East Palo Alto is currently considering an updated TDM Policy that could require trip reductions that exceed the current 25 percent requirement set forth in the City's code. Based on recent TDM monitoring data and driveway counts collected at University Circle, it appears that the existing TDM Plan is achieving a trip reduction in excess of the current 25 percent requirement. However, to be conservative, this analysis assumes that the proposed new office building will achieve a 25 percent reduction in peak-hour trips.

After applying the TDM trip reductions, the proposed project is expected to generate a net increase of 1,315 daily vehicle trips with 157 vehicle trips (135 in and 22 out) during the AM peak hour and 155 vehicle trips (25 in and 130 out) during the PM peak hour (see Table 3).

Table 3
Project Trip Generation Estimates Based on ITE Rates

		Daily		AM Peak Hour				PM Peak Hour			
					Trip				Trip		
Land Use	Size	Rate	Trip	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Uses											
General Office [1]	180,000 s.f. [2]	9.74	1,753	1.16	180	29	209	1.15	33	174	207
Reductions											
25% TDM Trip Reduction			(438)		(45)	(7)	(52)		(8)	(44)	(52)
Total New Project Trips			**1,315**		**135**	**22**	**157**		**25**	**130**	**155**

Notes:
[1] Trip generation rates for the proposed office space are based on the *ITE's Trip Generation Manual, 10th Edition* rates for Land Use Code 710 "General Office Building".
[2] Project size (180,000 s.f.) includes 2,940 s.f. of community space. The use of the community space is undetermined at this time. The traffic analysis assumes an office-type use in this community space.

These estimates were compared to the driveway counts conducted on May 21, 2019 generated by the existing office buildings and hotel currently present on site. As shown in Table 4, the project site currently generates 385 vehicle trips during the AM peak hour and 329 vehicle trips during the PM peak hour. The AM peak hour counts shown in the table represent the hour between 7:45 AM and 8:45 AM and the PM peak hour counts are for the hour between 4:45 PM and 5:45 PM, which were observed to be the peak congested times in the study area based on adjacent roadway conditions. Table 4 also

shows the trip generation rates calculated for the existing office uses on site derived from the existing driveway counts.

Table 4
Observed Existing Trip Generation Rates

			AM Peak Hour				PM Peak Hour			
				Trips				Trips		
Land Use	Size	Units	Rate	In	Out	Total	Rate	In	Out	Total
Existing Uses										
Office [1]	447,568	s.f.	0.66	224	71	295	0.50	27	196	223
Hotel[2]	195	rooms	0.62	70	51	121	0.73	70	72	142
(25% trip reduction)				(18)	(13)	(31)		(18)	(18)	(36)
		Total		**276**	**109**	**385**		**79**	**250**	**329**

[1] Trip generation for the current office uses on site were estimated by subtracting trips generated by the hotel from the total driveway counts conducted on 05/21/2019. Trip rates displayed are derived based on the total trips and the size of the office buildings currently occupied (not including 12,428 s.f. of vacant space). It was assumed that the retail spaces only serve the office complex and would not generate additional trips.
[2] Trip generation for the hotel was based on average rates per occupied room for Hotel (Land Use Code 310) published in *ITE Trip Generation Manual, 10th Edition (2017).* A 25% reduction was applied to account for the internal trip capture between the office and hotel uses on site. 195 rooms of the 200-room hotel were occupied when driveway counts were conducted on 5/21/19.

The trip generation for the hotel shown in Table 4 was based on ITE trip generation rates published for hotel (Land Use Code 310). A 25% trip reduction was applied to the hotel trip generation to account for internal captured trips between the office and hotel uses. The estimated hotel trips were subtracted from the total driveway volume to estimate the trips generated by the existing office uses. As shown in Table 4, the existing office space is estimated to generate trips at a rate of 0.66 trips per 1,000 square feet during the AM peak hour and 0.50 trips per 1,000 square feet during the PM peak hour.

Table 5 shows the trip generation estimates for the proposed expansion using the trip rates derived from the driveway counts. Based on the trip rate observed at the existing office uses, the proposed project is estimated to generate 119 trips during the AM peak hour and 90 trips during the PM peak hour. No TDM trip reductions were applied in this case since the observed trip rates already reflect the effect of the existing TDM Plan, which achieves trip reductions in excess of the current minimum 25% trip reduction requirement.

The project trip generation estimates derived using the observed office trip rates (shown in Table 5) are approximately one half the trips estimated based on ITE rates (shown in Table 3). Therefore, to represent a conservative analysis, project trip generation estimates were based on ITE trip rates less a 25% TDM trip reduction.

Table 5
Project Trip Generation Estimates Based on Observed Trip Rates

			AM Peak Hour				PM Peak Hour			
				Trips				Trips		
Land Use	Size	Units	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Uses										
Office [1]	180,000	s.f.	0.66	90	29	119	0.50	11	79	90

[1] Trip generation rates for the proposed office space are based on the existing trip rates calculated using driveway counts.

Trip Distribution and Assignment

The trip distribution for the proposed office space was estimated based on the distribution of residences for existing University Circle office employees. The project trip distribution pattern is consistent with that assumed for the recently approved University Plaza Phase II office development. The project trip distribution pattern is shown on Figure 6. The project trips were assigned to the roadway network based on the directions of approach and departure, the roadway network connections, and the location of the project driveways.

The peak-hour trips generated by the project were assigned to the roadway network in accordance with the project trip distribution patterns (see Figure 7).

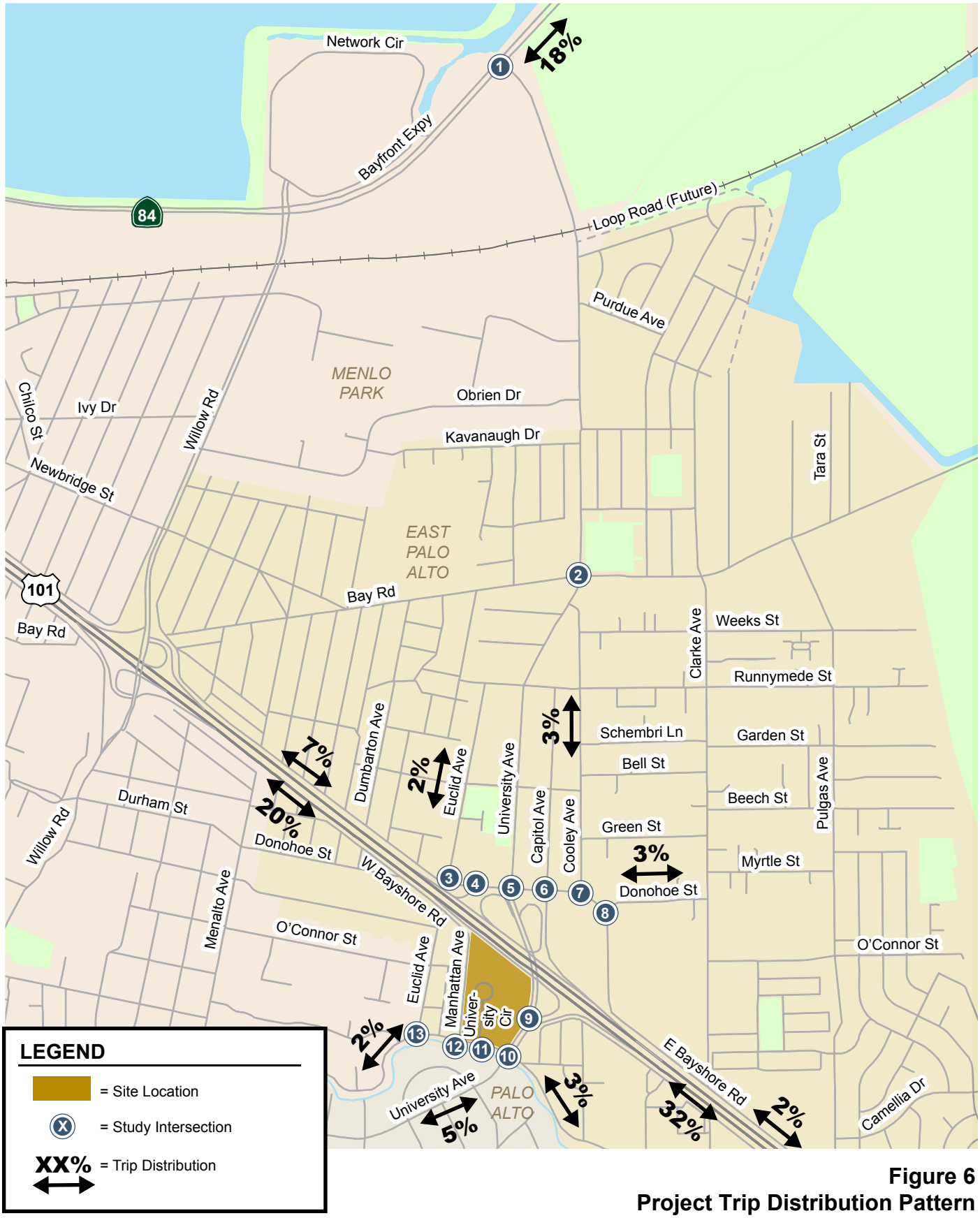
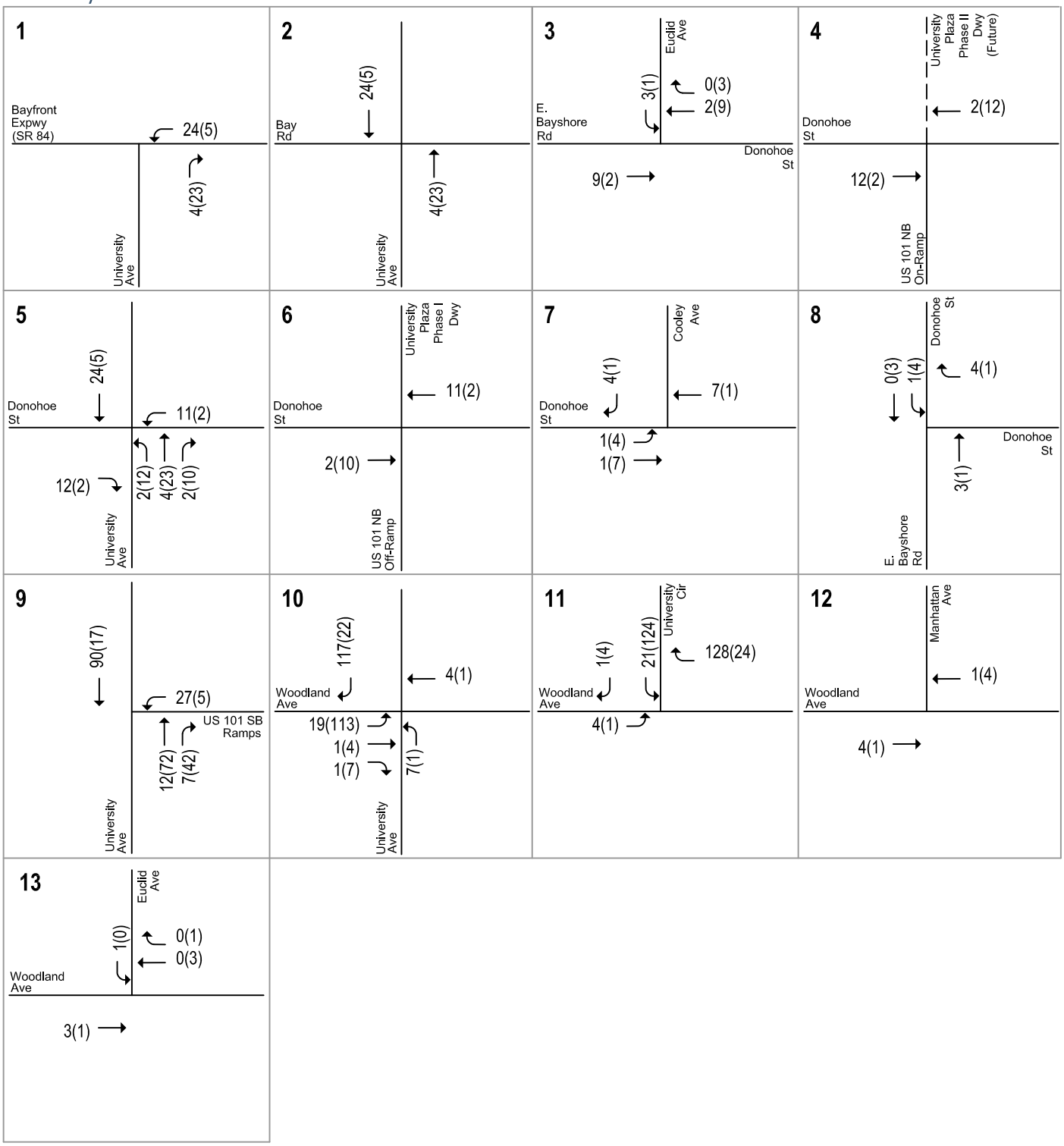


Figure 6
Project Trip Distribution Pattern



LEGEND

XX(XX) = AM(PM) Peak-Hour Trips

Figure 7
Project Trip Assignment

Future Transportation Network

Existing Plus Project Conditions

The Ravenswood Four Corners TOD Specific Plan identifies the construction of a new **"**loop road**"**, which would extend northward from the current terminus of Demeter Street and then turn westward to connect to University Avenue at the northern edge of the Ravenswood Specific Plan area (see Figure 1). Because it is uncertain when the planned Loop Road will be constructed, the analysis of existing plus project conditions was conducted both with and without the loop road.

The transportation network and intersection lane configurations under existing plus project conditions are assumed to be the same as that described under existing conditions. A second scenario was analyzed to evaluate existing plus project conditions with the planned loop road.

Cumulative Conditions

The transportation network under cumulative conditions is assumed to include the following improvements identified in the Ravenswood/4 Corners TOD Specific Plan Environmental Impact Report (February 22, 2013):

> **University Avenue and Bay Road (Mitigation Measure TRA-CUM-4):** add an exclusive northbound right-turn lane and a second northbound left-turn lane on University Avenue, add a second westbound left-turn lane on Bay Road, add a second southbound left-turn lane on University Avenue, and modify signal phasing.
>
> **University Avenue and Donohoe Street (Mitigation Measure TRA-CUM-5**): add an exclusive southbound right-turn lane on University Avenue.

Because it is uncertain when the planned Loop Road will be constructed, the analysis of cumulative plus project conditions was conducted both with and without the loop road.

The City of East Palo Alto is also working with Caltrans on a US 101/University Avenue interchange improvement project that would include a second pedestrian/bicycle overcrossing and modifications to the freeway off ramps. However, the funding for these improvements has not yet been secured so they are not assumed to be complete under cumulative conditions.

Cumulative Plus Project Conditions

The transportation network and intersection lane configurations under cumulative plus project conditions are assumed to be the same as that described under cumulative conditions.

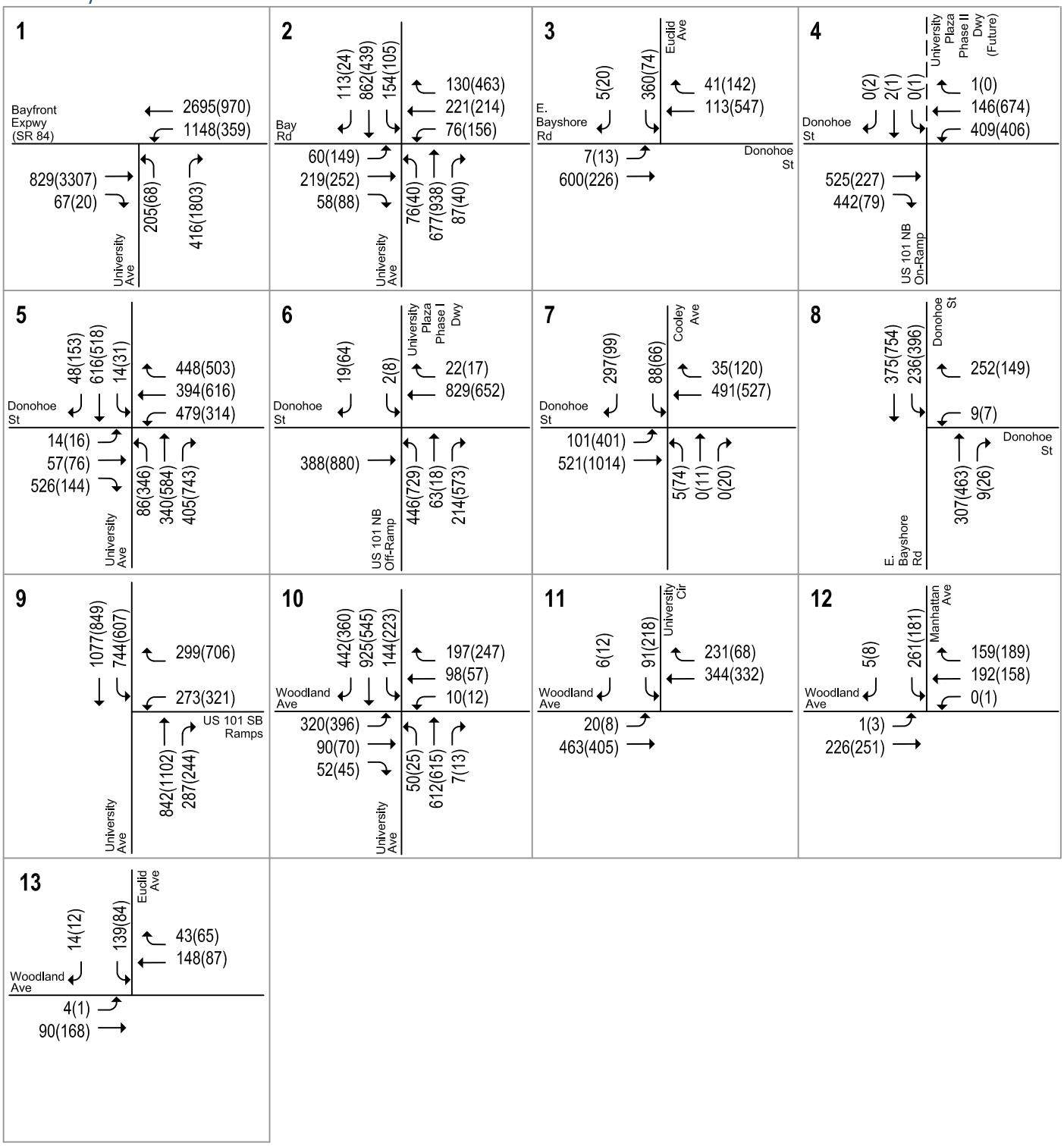
Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing traffic volumes were obtained from new manual peak-hour turning-movement counts conducted in 2019 while nearby schools were in session (see Figure 8). The traffic count data (including pedestrian and bicycle count data) are included in Appendix A.

Diversion of the Existing Traffic Due to the Planned Loop Road

The planned loop road is expected to cause some of the existing westbound right-turn and southbound left-turn traffic at the University/Bay intersection to instead use the Loop Road. Figure 9 shows the existing traffic volumes and the existing traffic estimated to divert as a result of the planned loop road. The loop road is not expected to affect the traffic volumes at any of the other study intersections.



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 8
Existing Traffic Volumes

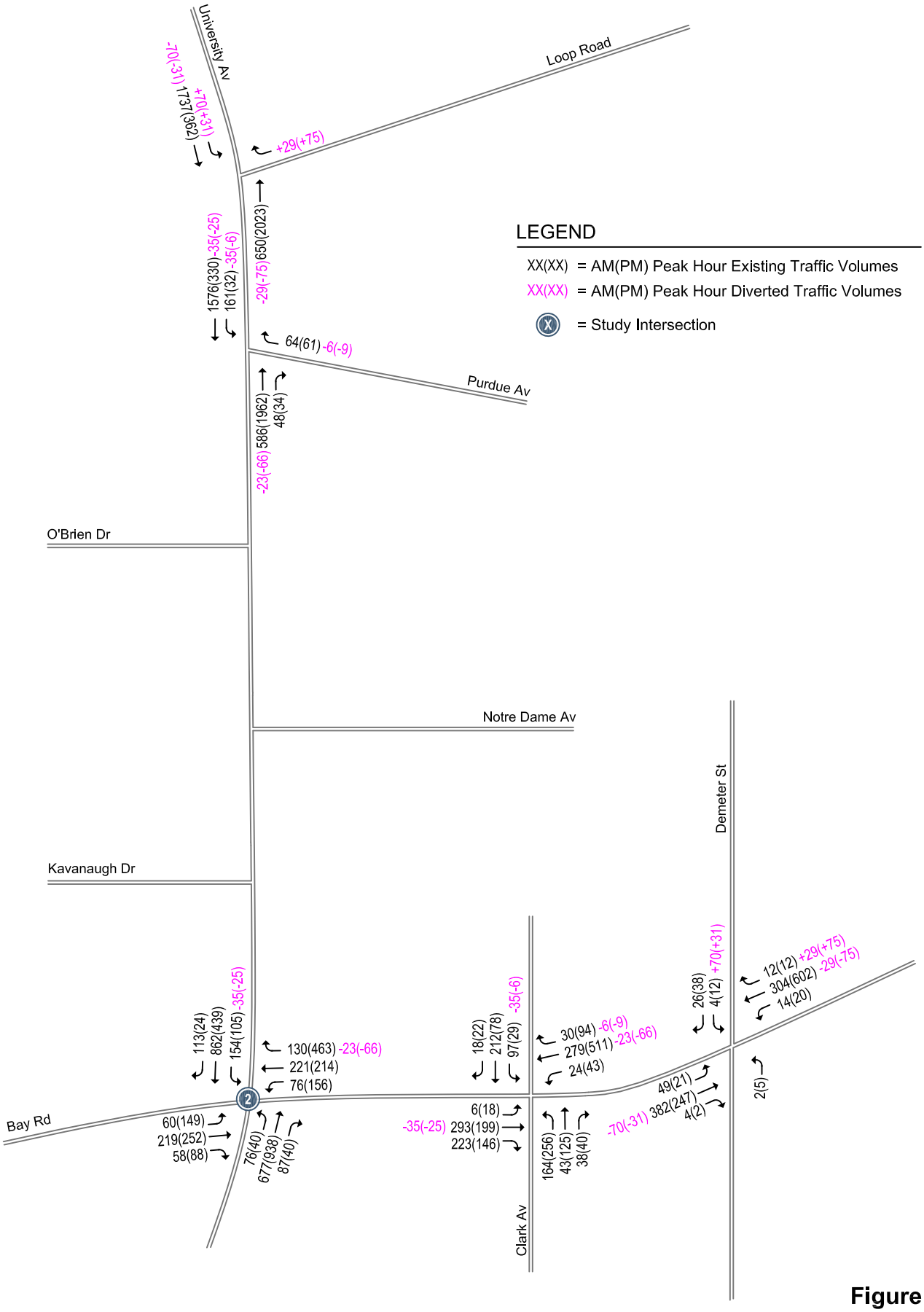


Figure 9
Diverted Existing Traffic Due to the Planned Loop Road

Existing Plus Project Traffic Volumes

Existing plus project conditions were evaluated without and with the planned loop road. For the existing plus project without loop road scenario, the project trips shown on Figure 7 were added to the existing traffic volumes to derive the existing plus project without loop road traffic volumes (see Figure 10). For the existing plus project with loop road scenario, the project trips shown on Figure 7 were added to the adjusted existing traffic volumes due to the loop road to derive the existing plus project with loop road traffic volumes (see Figure 11).

Cumulative Traffic Volumes

Cumulative (year 2040) traffic volumes were estimated by applying an annual growth factor (1.2 percent per year) for 21 years to existing 2019 traffic volumes to account for regional growth and then adding trips associated with the development allowed under the Ravenswood Specific Plan and other approved and pending projects in the City of East Palo Alto other than the proposed project. The regional growth factor of 1.2 percent per year was developed by comparing the existing (Year 2019) traffic volumes and the cumulative with project condition (Year 2040) traffic forecasts presented in the East Palo Alto General Plan Update Traffic Impact Analysis. The following proposed and approved developments are all located within the Ravenswood/4 Corners TOD Specific Plan Area:

- 2020 Bay Road office development (proposed),
- 965 Weeks Street residential development (approved),
- 2398 University Avenue retail project (proposed),
- 1201 Runnymede Street residential development (proposed), and
- 1950 Bay Road East Palo Alto Art Center (approved).

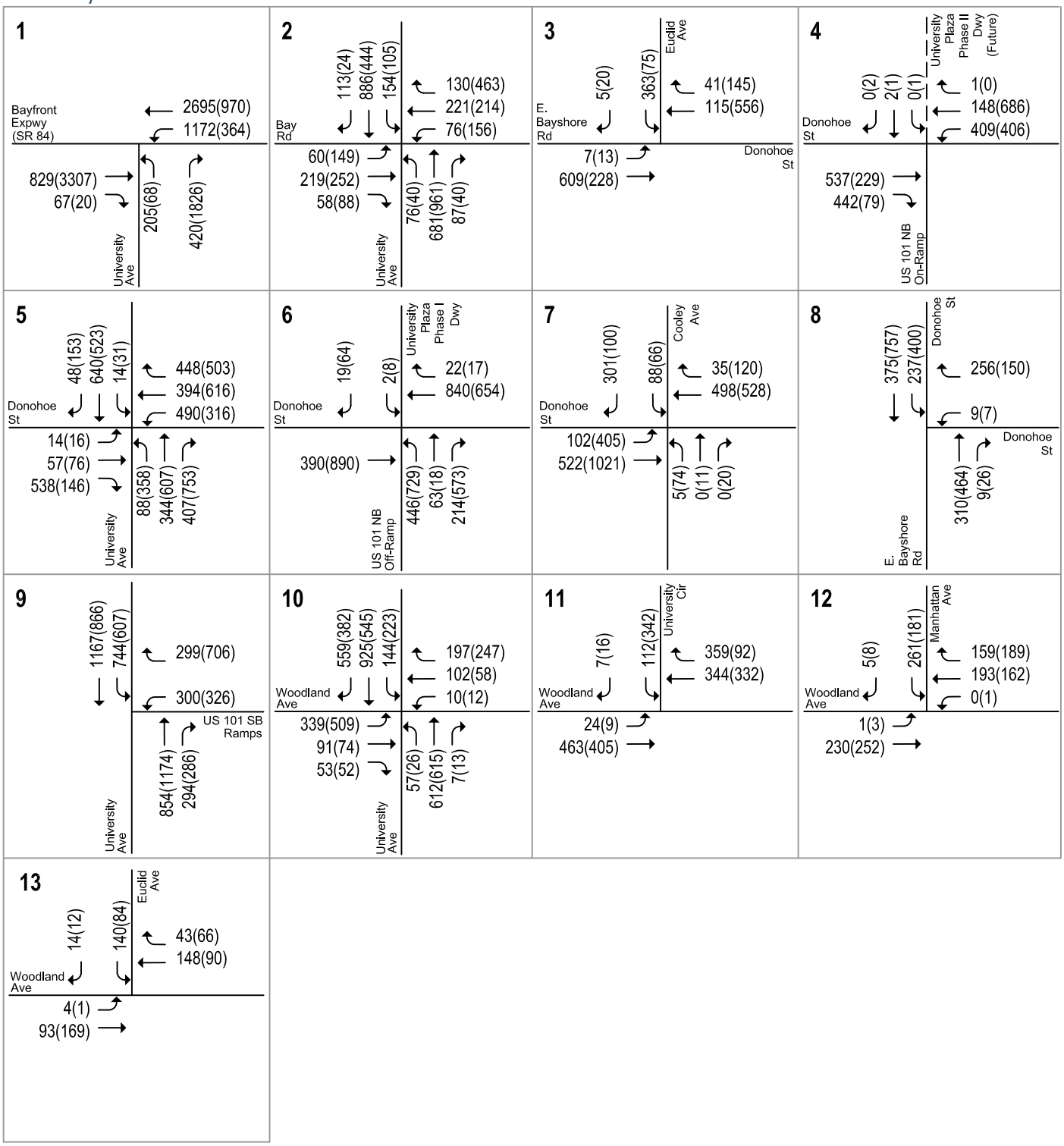
The development assumptions for the Ravenswood Specific Plan includes the trips generated by all of the above-listed projects. The following two projects located within the Ravenswood Specific Plan area are not covered by the development assumed under the Specific Plan:

- 1200 Weeks Street, The Primary School (approved), and
- 2398 University Avenue hotel project (proposed).

Thus, the trips generated by The Primary School and the hotel were added on top of the trips generated by the assumed Specific Plan developments.

Cumulative conditions also include the trips associated with the following notable developments anticipated outside the Ravenswood Specific Plan area:

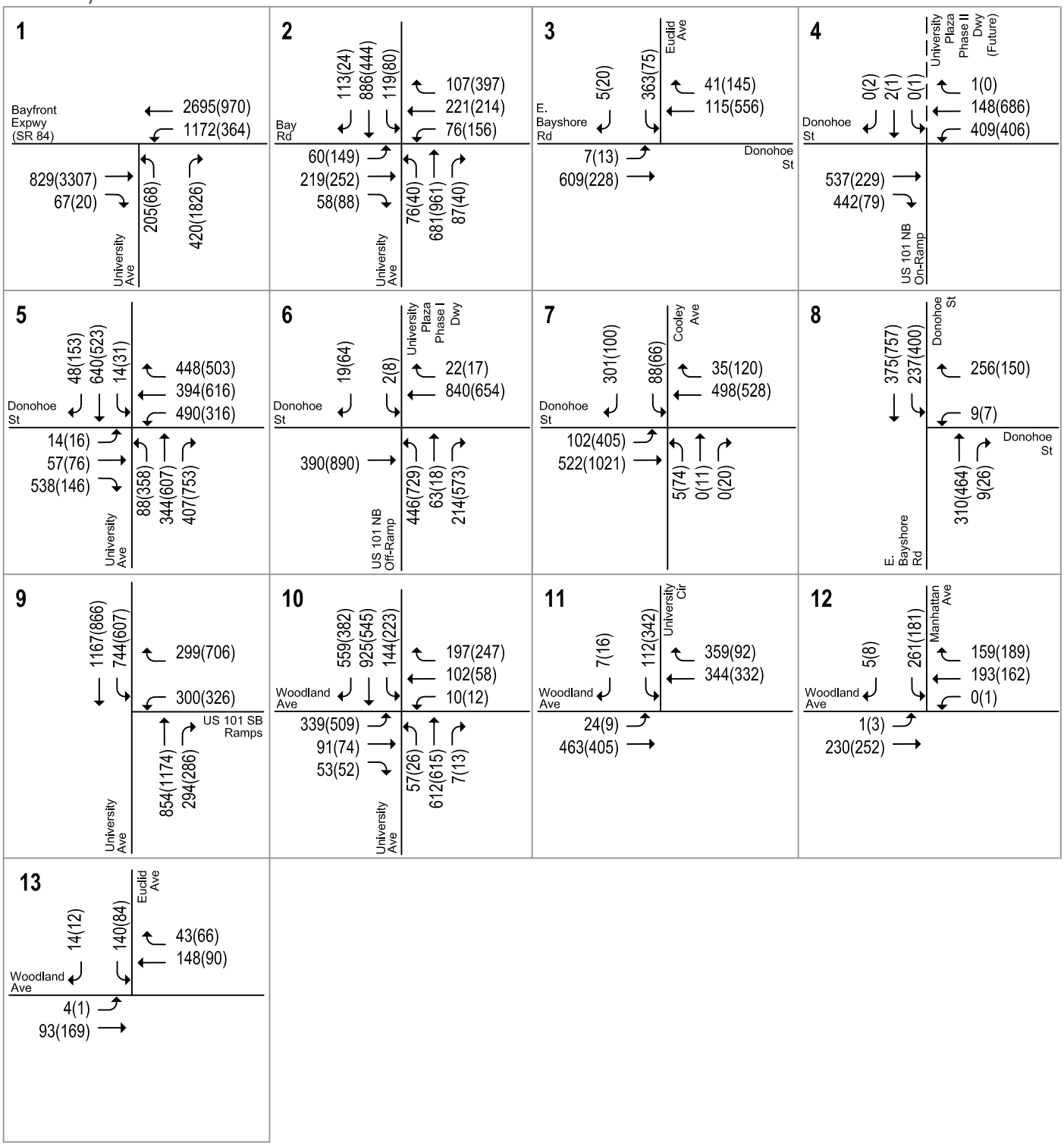
- 2111 University Avenue, University Plaza Phase 2 office development (approved)
- 2031 Euclid Avenue – 2001 Manhattan Avenue, Woodland Park residential development (proposed)
- 1805 East Bayshore Road, Light Tree Apartment Redevelopment (approved)
- 927 Runnymede Street, Maid Residence (proposed)
- 1039 & 1063 Garden Street, KIPP High School (proposed)
- 2289 Runnymede Street, Weeks Street Townhomes (proposed)
- 1062 Runnymede Street, 10 lot subdivision (proposed)
- 990 Garden Street, 7 lot subdivision (proposed)
- 1788 Bayshore Road office development (proposed)
- 2207 Lincoln lot split (proposed)
- 812 Green Street, 5 lot subdivision (proposed)



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 10
Existing Plus Project Without Loop Road Traffic Volumes



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 11
Existing Plus Project With Loop Road Traffic Volumes

The regional growth factor was applied only to intersections along the following major roadways, which are expected to experience regional traffic growth not associated with developments in East Palo Alto:

- University Avenue
- East Bayshore Road
- Bayfront Expressway
- Donohoe Street
- US 101 freeway ramps

The growth factor accounts for the additional traffic that would be generated by approved and proposed developments in Menlo Park, Palo Alto, and other communities.

Cumulative Plus Project Traffic Volumes

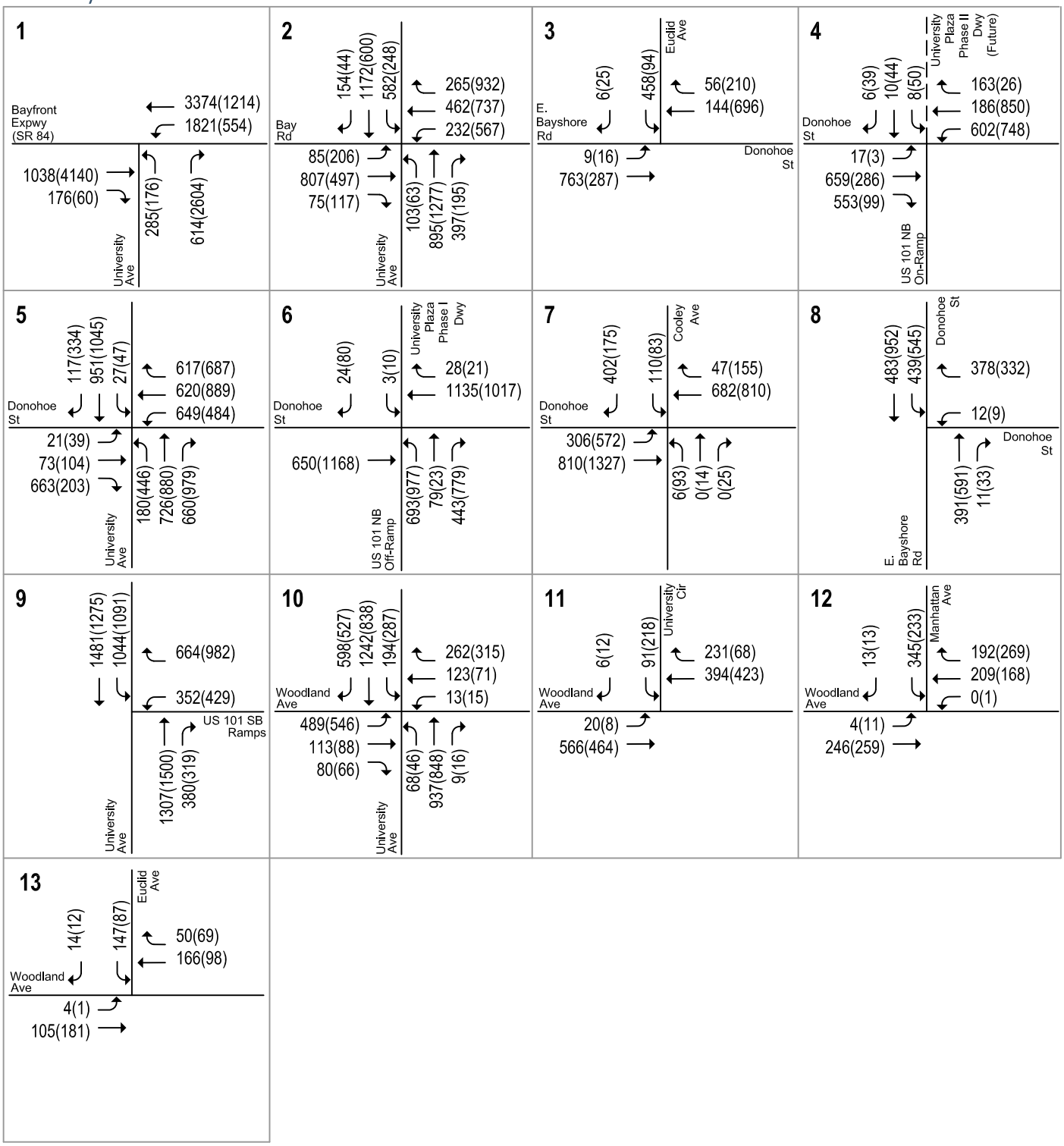
Cumulative plus project peak-hour traffic volumes were estimated by adding to cumulative traffic volumes the additional traffic generated by the project. The cumulative no project traffic volumes at study intersections are shown in Figure 12, and the cumulative plus project traffic volumes are shown in Figure 13. As previously stated, the intersection of University Avenue and Bay Road was evaluated under cumulative conditions both without and with the planned loop road. Cumulative plus project conditions with the loop road reflect the diversion of existing traffic as well as the reassignment of trips generated by developments within the Ravenswood / 4 Corners TOD Specific Plan area. Figure 14 presents cumulative plus project traffic volumes with the loop road. The loop road is not expected to affect the traffic volumes at any of the other study intersections.

Traffic volumes for all scenarios are included in Appendix B.

Existing Intersection Traffic Operations

As noted previously, existing conditions reflect traffic operations prior to the COVID-19 pandemic. The results of the intersection level-of-service analysis under existing conditions show that most of the study intersections currently operate at an unacceptable level (LOS E or F) (see Table 6) during one or both peak hours. As noted in the ConnectMenlo DEIR, the counted traffic volumes at the Menlo Park study intersection do not appropriately reflect the actual traffic demand, and isolated intersection operations limit the ability of the VISTRO program to capture these results. Therefore, instead of calculated level of service, the existing level of service results are reported based on level of service as identified by the City to reflect “unserved demand”. The following study intersections currently operate at an unacceptable level of service during at least one peak hour:

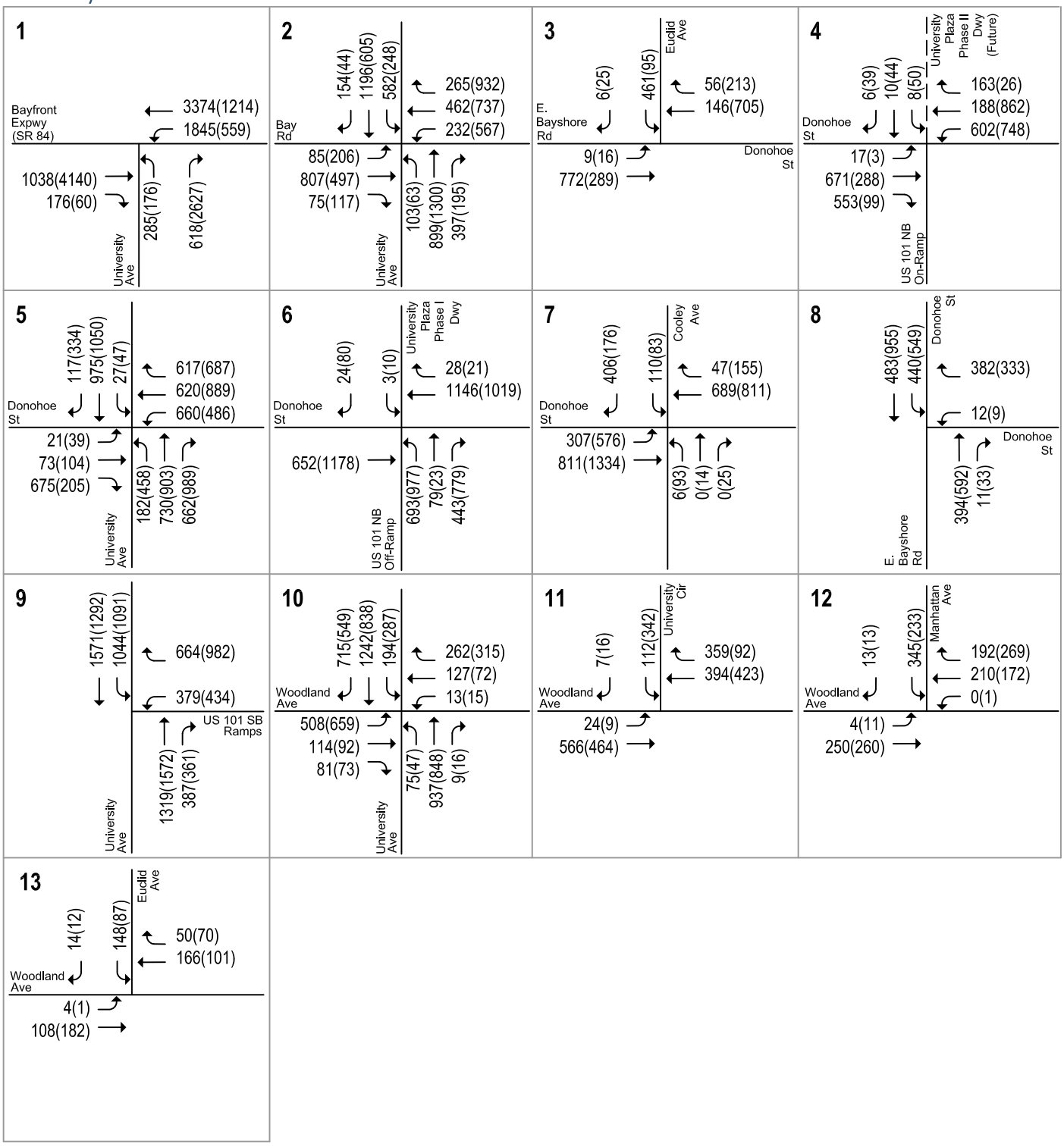
- University Avenue (SR 109) and Bayfront Expressway (SR 84) [CMP] (Menlo Park) – AM and PM peak hours
- Euclid Avenue and Donohoe Street/East Bayshore Road – AM peak hour
- US 101 NB On-Ramp/University Plaza Phase II driveway (future) and Donohoe Street (unsignalized) – AM peak hour
- University Avenue and Donohoe Street – AM and PM peak hours
- US 101 NB Off Ramp/University Plaza Phase I driveway and Donohoe Street – PM peak hour
- University Avenue and US 101 SB Ramps – AM and PM peak hours
- University Avenue and Woodland Avenue – AM and PM peak hours
- University Circle and Woodland Avenue – PM peak hour
- Manhattan Avenue and Woodland Avenue – PM peak hour
- Euclid Avenue and Woodland Avenue – PM peak hour



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

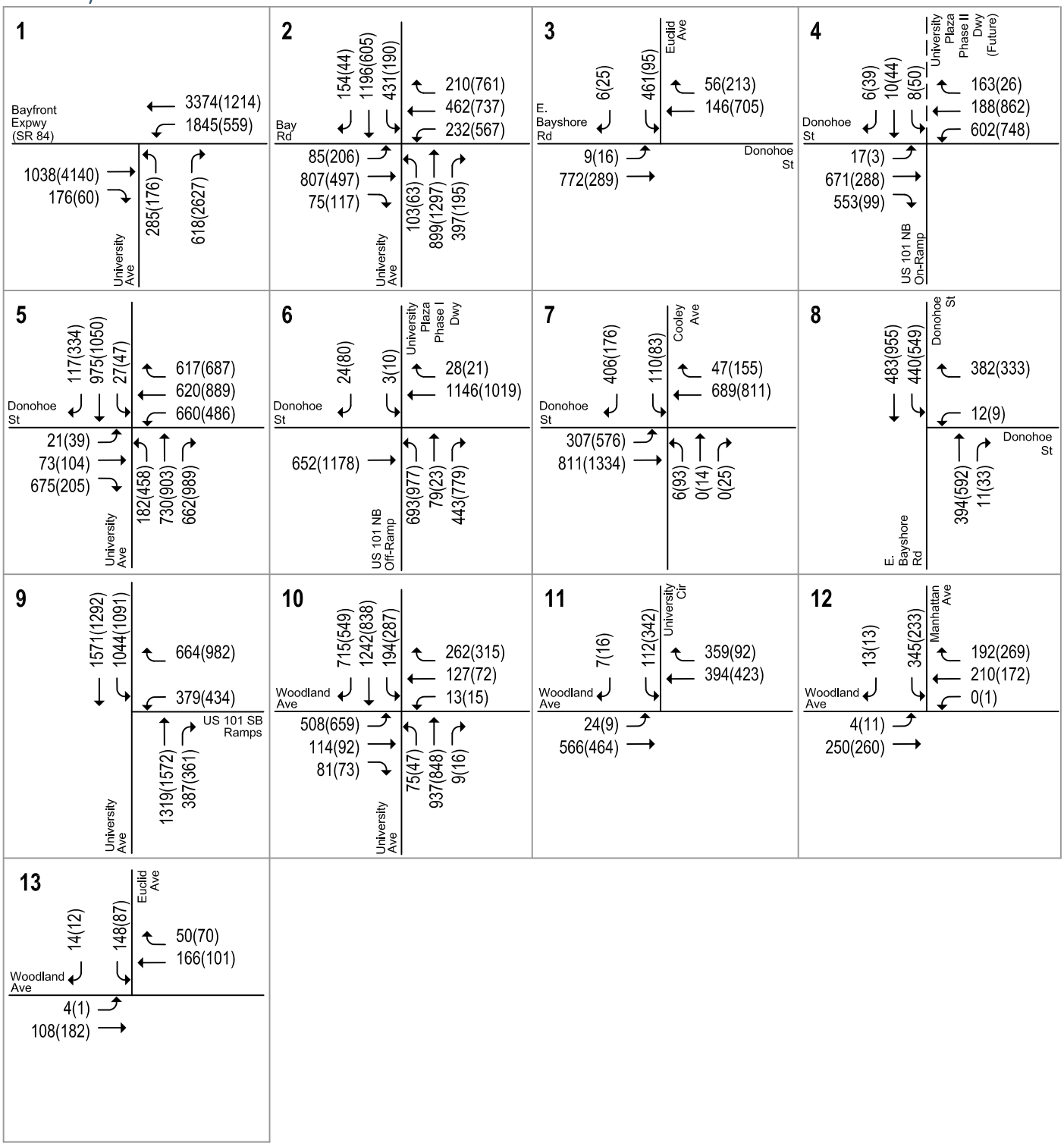
Figure 12
Cumulative No Project Traffic Volumes



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 13
Cumulative Plus Project Traffic Volumes



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 14
Cumulative Plus Project With Loop Road Traffic Volumes

Table 6
Existing Intersection Levels of Service

Study Number	Intersection	Peak Hour	Count Date	Avg Delay (sec/veh)	LOS
1	University Avenue and Bayfront Expressway [Menlo Park] (CMP)	AM	04/25/19	**>80***	**F**
		PM	04/25/19	**94.1**	**F**
2	University Avenue and Bay Road	AM	04/17/19	41.7	D
		PM	04/16/19	48.4	D
3	Euclid Avenue and Donohoe Street/East Bayshore Road [2]	AM	05/21/19	**52.3**	**F**
	(All-way Stop)	PM	05/21/19	32.6	D
4	US 101 NB On-Ramp & Donohoe St [2 & 3]	AM	05/21/19	**64.7**	**F**
	(Uncontrolled)	PM	05/21/19	10.2	B
5	University Avenue and Donohoe Street [2]	AM	04/17/19	**107.9**	**F**
		PM	04/16/19	**74.9**	**E**
6	US 101 NB Off-Ramp/University Plaza Ph I dwy and Donohoe St [2]	AM	05/21/19	49.3	D
		PM	05/21/19	**142.6**	**F**
7	Cooley Avenue and Donohoe Street [2]	AM	05/21/19	31.8	C
		PM	05/21/19	36.6	D
8	East Bayshore Road and Donohoe Street [2]	AM	05/21/19	32.9	C
		PM	05/21/19	38.2	D
9	University Avenue and US101 SB Ramps [2]	AM	05/21/19	**99.2**	**F**
		PM	05/21/19	**87.4**	**F**
10	University Avenue and Woodland Avenue [2]	AM	04/17/19	**66.1**	**E**
		PM	04/16/19	**248.0**	**F**
11	University Circle and Woodland Ave [2]	AM	05/21/19	18.7	B
		PM	05/21/19	**126.8**	**F**
12	Manhattan Avenue and Woodland Avenue [2]	AM	05/21/19	11.6	B
	(All-way Stop)	PM	05/21/19	**92.4**	**F**
13	Euclid Avenue and Woodland Ave [2]	AM	05/21/19	6.6	A
	(One-way Stop [1])	PM	05/21/19	**OVFL**	**F**

Notes:

* Indicates LOS based on "unserved demand." At this location, upstream & downstream congestion results in delay not captured by the VISTRO analysis.

Bold indicates a substandard level of service.

OVFL indicates that the result is out of software calculation limits

1. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach.
2. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections.
3. Delay shown is the average delay for the westbound left-turning vehicles, which have to find gaps in the eastbound traffic flow.

The intersection level of service calculation sheets are included in Appendix C.

Existing Plus Project Conditions Intersection Operations

The results of the intersection level of service analysis under existing plus project conditions are summarized in Table 7. The intersection of University Avenue and Bay Road was evaluated both without and with the loop road. The traffic volume, delay, and level of service at the rest of the study intersections would be unaffected by the loop road.

The results show that, measured against the criteria presented in Chapter 1, the project would have an adverse effect on the following intersections during one or both peak hours under existing plus project conditions both without and with the planned loop road:

- Euclid Avenue and Donohoe Street/East Bayshore Road – AM peak hour
- US 101 NB On Ramp/University Plaza Phase II driveway and Donohoe Street – AM peak hour
- University Avenue and Donohoe Street – AM peak hour
- US 101 NB Off Ramp/University Plaza Phase I driveway and Donohoe Street – AM peak hour
- East Bayshore Road and Donohoe Street – AM peak hour
- University Avenue and US 101 SB Ramps – AM peak hour
- University Circle and Woodland Avenue – PM peak hour
- Manhattan Avenue and Woodland Avenue – PM peak hour

The proposed project will be required to develop a comprehensive Transportation Demand Management (TDM plan) to reduce vehicle trips by at least 25 percent. Therefore, a 25 percent trip reduction was assumed in the trip generation estimates. A sensitivity analysis was conducted subsequently to explore if any adverse effects of the project could be reduced through the use of enhanced TDM measures that would reduce trips by up to 50 percent.

It should be noted that at some intersections the average delay is shown to be decreased with the addition of project traffic. This occurs because the intersection delay is a weighted average of all intersection movements. When traffic is added to movements with delays lower than the average intersection delay, the average delay for the entire intersection can decrease. Furthermore, the congestion and queue spillback at an adjacent intersection can constrain the traffic volume at some intersections resulting in a small decrease in average delay.

Improvements were identified to reduce the adverse effects of the project at each of the above intersections under existing plus project conditions and described in the following section.

Table 7
Existing plus Project Intersection Levels of Service

#	Intersection	Peak Hour	Existing Avg Delay (sec/veh)	Existing LOS	Existing Plus Project Avg Delay (sec/veh)	Existing Plus Project LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Existing Plus Project (With Improvements) Avg Delay (sec/veh)	Existing Plus Project (With Improvements) LOS
1	University Avenue and Bayfront Expressway [Menlo Park] (CMP)	AM	**>80***	**F**	**>80***	**F**	0.2	n/a		
		PM	**94.1**	**F**	**96.3**	**F**	2.2	n/a		
2	University Avenue and Bay Road [5]	AM	41.7	D	41.5	D	-0.1	0.008		
		PM	48.4	D	48.5	D	0.2	0.007		
3	Euclid Avenue and Donohoe Street/East Bayshore Road [2]	AM	**52.3**	**F**	**93.8**	**F**	n/a	n/a	48.7	D
	(All-way Stop)	PM	32.6	D	30.7	D	n/a	n/a	13.5	B
4	US 101 NB On-Ramp & Donohoe St [2&3]	AM	**64.7**	**F**	**89.7**	**F**	n/a	n/a	33.7	C
	(Uncontrolled)	PM	10.2	B	9.2	A	n/a	n/a	20.6	C
5	University Avenue and Donohoe Street [2]	AM	**107.9**	**F**	**115.2**	**F**	n/a	n/a	**93.1**	**F**
		PM	**74.9**	**E**	**70.7**	**E**	n/a	n/a	39.7	D
6	US 101 NB Off-Ramp/University Plaza Ph I dwy and Donohoe St [2]	AM	49.3	D	**59.0**	**E**	n/a	n/a	37.1	D
		PM	**142.6**	**F**	**138.4**	**F**	n/a	n/a	34.3	C
7	Cooley Avenue and Donohoe Street [2]	AM	31.8	C	51.0	D	n/a	n/a	41.1	D
		PM	36.6	D	33.7	C	n/a	n/a	22.5	C
8	East Bayshore Road and Donohoe Street [2]	AM	32.9	C	**98.1**	**F**	n/a	n/a	23.5	C
		PM	38.2	D	25.4	C	n/a	n/a	15.5	B
9	University Avenue and US101 SB Ramps [2]	AM	**99.2**	**F**	**104.6**	**F**	n/a	n/a	**79.7**	**E**
		PM	**87.4**	**F**	**86.3**	**F**	n/a	n/a	45.9	D
10	University Avenue and Woodland Avenue [2]	AM	**66.1**	**E**	**64.7**	**E**	n/a	n/a	50.6	D
		PM	**248.0**	**F**	**248.6**	**F**	n/a	n/a	**146.6**	**F**
11	University Circle and Woodland Ave [2]	AM	18.7	B	20.9	C	n/a	n/a	13.6	B
		PM	**126.8**	**F**	**256.2**	**F**	n/a	n/a	24.1	C
12	Manhattan Avenue and Woodland Avenue [2]	AM	11.6	B	16.6	B	n/a	n/a	8.6	A
	(All-way Stop)	PM	**92.4**	**F**	**197.7**	**F**	n/a	n/a	7.0	A
13	Euclid Avenue and Woodland Ave [2&4]	AM	6.6	A	8.8	A	n/a	n/a	6.6	A
	(One-way Stop [1])	PM	**317.0**	**F**	**OVFL**	**F**	n/a	n/a	6.0	A

Notes:

* Indicates LOS based on "unserved demand." At this location, upstream & downstream congestion results in delay not captured by the VISTRO analysis.

For intersection 1, the increase in delay column shows the increase of average delay at the intersection.

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits.

1. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach. Changes in critical delay and v/c for the entire intersection cannot be calculated (n/a).

2. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).

3. Delay shown is the average delay for the westbound left-turning vehicles, which have to find gaps in the eastbound traffic flow.

4. Existing traffic volumes both without and with the proposed project are not expected to meet the Peak-Hour Signal Warrant. Therefore, the project is not expected to have an adverse effect at this intersection. LOS results with improvements reflect recommended improvements on Donohoe Street at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp and at Cooley Avenue, which would improve traffic flow on University Avenue, and as a result reduce the queues and delay on Woodland Avenue.

5. The above level of service results reflect intersection operatios without the Loop Road. With planned Loop Road, the intersection of University Avenue and Bay Road would operate at LOS D with average delay of 40.5 seconds per vehicle in the AM peak hour and 46.5 seconds per vehicle in the PM peak hour. The Loop Road will not affect the level of service or delay at the other study intersections.

Existing Plus Project Intersection Adverse Effects and Improvements

The adverse effects of the project and recommended improvements at study intersections under existing plus project conditions are described below. The recommended Donohoe Street improvements at Euclid Avenue and at the US 101 northbound on ramp will be constructed as part of the University Plaza Phase II development with full funding from the Sobrato Organization. The City of East Palo Alto entered into a reimbursement agreement with The Sobrato Organization that sets forth a mechanism and formula for reimbursement of a portion of the costs of these improvements by future developments that would add traffic to these intersections. Hence, the University Circle Phase II project will reimburse The Sobrato Organization a portion of the cost of these improvements based on the number of trips added by the University Circle Phase II project according to the formula in the Sobrato reimbursement agreement.

As for the Donohoe Street improvements at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue, the project would be responsible for reimbursing the City of East Palo Alto for a portion of the cost of these improvements based on a fair share formula based on the number of trips added by the University Circle Phase II project. Planning level cost estimates of the recommended improvement measures and a calculation of the project's fair share contribution are presented in Appendix E.

3. Euclid Avenue and Donohoe Street/East Bayshore Road

Adverse Effect:

This intersection, which is currently under all-way stop control, operates at an unacceptable LOS F during the AM peak hour under existing conditions. The proposed project would cause the average delay to increase by more than five seconds per vehicle. The existing traffic volumes at this intersection without and with the proposed project meet the Peak-Hour Volume Warrant during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements:

Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the westbound approach shall be restriped to add an exclusive right-turn lane.

With the implementation of these improvements, the Euclid/Donohoe intersection is expected to operate at an acceptable LOS D or better during both the AM and PM peak hours.

4. US 101 Northbound On Ramp/University Plaza Phase II Driveway and Donohoe Street

Adverse Effect: This intersection, which is currently uncontrolled, operates at an unacceptable LOS F during the AM peak hour under existing conditions. The proposed project would cause the average delay to increase by more than five seconds per vehicle. The existing traffic volumes at this intersection without and with the proposed project meet the Peak-Hour Volume Warrant during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

With the recommended improvements, the US 101 Northbound On Ramp/University Plaza Phase II Driveway/Donohoe intersection is expected to operate at an acceptable LOS C or better during both the AM and PM peak hours.

5. University Avenue and Donohoe Street

Adverse Effect: The intersection is currently operating at LOS F during the AM peak hour. The addition of project generated traffic is expected to cause the average delay to increase by more than four seconds during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes,

one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. The changes to the westbound approach will require modifications to the eastbound approach to ensure proper lane alignment. The eastbound approach shall include one left turn lane and one shared through/right-turn lane. The east and west legs would be converted from split phase signal operation to protected left-turn signal phasing.

With the recommended improvement, the intersection is expected to continue to operate at LOS F during the AM peak hour, however, the average delay would be less than under existing conditions. Thus, the improvements would eliminate the adverse effect of the project.

6. US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

Adverse Effect: The intersection currently operates at an acceptable LOS D during the AM peak hour. With the proposed project, the intersection would degrade to an unacceptable level (LOS E). This constitutes an adverse effect based on the thresholds established by the City of East Palo Alto.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

With these proposed improvements, the intersection of US 101 northbound off ramp and Donohoe Street is expected to operate at an acceptable level (LOS D or better) during the AM and PM peak hours.

8. East Bayshore Road and Donohoe Street

Adverse Effect: This intersection currently operates at an acceptable LOS C during the AM peak hour. The additional trips generated by the proposed project would cause the intersection to degrade to an unacceptable LOS F during the AM peak hour. This constitutes an adverse effect based on the thresholds established by the City of East Palo Alto.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection

operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on Donohoe Street and cause the East Bayshore/Donohoe intersection to operate at LOS C during the AM peak hour under existing plus project conditions. No additional improvements are required at this intersection.

9. University Avenue and US 101 Southbound Ramps

Adverse Effect: The intersection is currently operating at LOS F during the AM peak hour and the addition of project trips would cause the average intersection delay to increase by more than four seconds. This constitutes an adverse effect according to thresholds established by City of East Palo Alto.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp and at Cooley Avenue would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe Street past the US 101 southbound ramps. With the Donohoe Street improvements, the University/US 101 southbound ramps intersection would operate at an unacceptable level (LOS E) during the AM peak hour, however the average delay would be less than under existing conditions. Thus, the improvements would satisfactorily eliminate the adverse effects of the project. No additional improvements are required at this intersection.

11. University Circle and Woodland Avenue

Adverse Effect: The intersection is currently operating at LOS F during the PM peak hour and the addition of project trips would cause the average intersection delay to increase by more than four seconds during the same time period. This constitutes an adverse effect according to thresholds established by City of East Palo Alto.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at

University Avenue, at the US 101 northbound off ramp and at Cooley Avenue would improve traffic flow on University Avenue, and as a result reduce the queues on Woodland Avenue. These improvements would improve the intersection operations to LOS C during the PM peak hour. Thus, the improvements would eliminate the adverse effect of the project at this intersection. No additional improvements are required at this intersection.

12. Manhattan Avenue and Woodland Avenue

Adverse Effect: The intersection is currently operating at LOS F during the PM peak hour and the addition of project trips would cause the control delay to increase by more than five seconds per vehicle. The existing intersection traffic volumes both without and with the proposed project traffic satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp and at Cooley Avenue would improve traffic flow on University Avenue, and as a result reduce the queues on Woodland Avenue.

These improvements would improve the intersection operations to LOS A during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the adverse effect of the project. No additional improvements are required at this intersection.

Cumulative Conditions Intersection Operations

Cumulative plus project conditions were evaluated relative to cumulative no-project conditions in order to determine potential adverse effects of the project. Cumulative level of service results are shown in Table 8. Under cumulative plus project conditions, all the study intersections are expected to operate at an unacceptable level, LOS E or F, during one or both peak hours.

Measured against the criteria presented in Chapter 1, the following nine intersections were found to be adversely affected as a result of the project:

Euclid Avenue and East Bayshore Road/Donohoe Street – AM peak hour
US 101 Northbound On Ramp and Donohoe Street – AM and PM peak hours
University Avenue and Donohoe Street – AM peak hour
US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street – AM and PM peak hours
Cooley Avenue and Donohoe Street – AM peak hour
East Bayshore Road and Donohoe Street – AM and PM peak hours
University Avenue and US 101 Southbound Ramps – AM peak hour
University Avenue and Woodland Avenue – AM and PM peak hour
University Circle and Woodland Avenue – AM and PM peak hours

Table 8
Cumulative Intersection Levels of Service

#	Intersection	Peak Hour	Cumulative No Project Avg Delay (sec/veh)	LOS	Cumulative Plus Project Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Cumulative Plus Project (With Improvements) Avg Delay (sec/veh)	LOS
1	University Avenue and Bayfront Expressway [Menlo Park] (CMP)	AM	**>80***	**F**	**>80***	**F**	1.4	n/a		
		PM	**243.1**	**F**	**245.6**	**F**	2.5	n/a		
2	University Avenue and Bay Road [7]	AM	**74.9**	**E**	**74.4**	**E**	-7.9	-0.005		
		PM	**93.1**	**F**	**94.8**	**F**	2.8	0.007		
3	Euclid Avenue and Donohoe Street/East Bayshore Road [2, 4]	AM	**340.8**	**F**	**349.2**	**F**			**313.7**	**F**
	(All-way Stop)	PM	**110.1**	**F**	**109.1**	**F**			**101.8**	**F**
4	US 101 NB On-Ramp/University Plaza Ph II dwy & Donohoe St [2, 3, 4]	AM	**OVFL**	**F**	**OVFL**	**F**			27.6	C
	(One-way Stop [1])	PM	**OVFL**	**F**	**OVFL**	**F**			31.2	C
5	University Avenue and Donohoe Street [2, 5]	AM	**170.7**	**F**	**183.7**	**F**			**103.7**	**F**
		PM	**122.8**	**F**	**124.7**	**F**			**97.6**	**F**
6	US 101 NB Off-Ramp/University Plaza Ph I dwy and Donohoe St [2]	AM	**493.3**	**F**	**486.8**	**F**			43.2	D
		PM	**364.0**	**F**	**370.0**	**F**			**172.0**	**F**
7	Cooley Avenue and Donohoe Street [2]	AM	**295.9**	**F**	**304.6**	**F**			36.5	C
		PM	47.4	D	48.2	D			42.3	D
8	East Bayshore Road and Donohoe Street [2]	AM	**OVFL**	**F**	**OVFL**	**F**			**59.8**	**E**
		PM	**427.8**	**F**	**OVFL**	**F**			**186.0**	**F**
9	University Avenue and US101 SB Ramps [2]	AM	**152.4**	**F**	**169.9**	**F**			**85.4**	**F**
		PM	**137.8**	**F**	**139.0**	**F**			**122.3**	**F**
10	University Avenue and Woodland Avenue [2]	AM	**367.7**	**F**	**458.8**	**F**			**129.2**	**F**
		PM	**395.3**	**F**	**394.4**	**F**			**176.5**	**F**
11	University Circle and Woodland Ave [2]	AM	**407.2**	**F**	**498.8**	**F**			**65.5**	**E**
		PM	**309.5**	**F**	**420.1**	**F**			**264.5**	**E**
12	Manhattan Avenue and Woodland Avenue [2]	AM	**OVFL**	**F**	**OVFL**	**F**			**172.8**	**F**
	(All-way Stop)	PM	**463.2**	**F**	**OVFL**	**F**			**447.7**	**F**
13	Euclid Avenue and Woodland Ave [2, 6]	AM	**OVFL**	**F**	**OVFL**	**F**			**226.2**	**F**
	(One-way Stop [1])	PM	**OVFL**	**F**	**OVFL**	**F**			**401.5**	**F**

Notes:

For intersection 1, the increase in delay column shows the increase of average delay at the intersection.

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits

1. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach. Changes in critical delay and v/c for the entire intersection cannot be calculated (n/a).
2. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
3. Under cumulative conditions, delay shown is the average delay for the southbound approach, where vehicles have to find gaps in the eastbound and westbound traffic flow on Donohoe Street.
4. Average delay and LOS under cumulative plus project with loop road and other improvements reflect signalization.
5. Cumulative Baseline conditions reflect the following improvements: University Avenue/Donohoe Street - An exclusive right-turn lane on southbound University.
6. Cumulative traffic volumes both without and with the proposed project are not expected to meet the Peak-Hour Signal Warrant. Therefore, this intersection would not have an adverse cumulative effect. LOS results with improvements reflect the recommended improvements on Donohoe Street at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue, which would improve traffic flow on University Avenue, and as a result reduce the queues and delay on Woodland Avenue.
7. The above level of service results reflect intersection operatios without the Loop Road. With planned Loop Road, the intersection of University Avenue and Bay Road would operate at LOS E with average delay of 68.4 seconds per vehicle in the AM peak hour and 75.7 seconds per vehicle in the PM peak hour. The Loop Road will not affect the level of service or delay at the other study intersections.

Manhattan Avenue and Woodland Avenue – AM and PM peak hours
Euclid Avenue and Woodland Avenue – AM and PM peak hours

The proposed project will be required to develop a comprehensive Transportation Demand Management (TDM plan) to reduce vehicle trips by at least 25 percent. Therefore, a 25 percent trip reduction was assumed in the trip generation estimates. A sensitivity analysis was conducted subsequently to explore if any adverse effects from the project could be reduced through the use of enhanced TDM measures that would reduce trips by up to 50 percent.

Improvements were identified to reduce the adverse effects of the project at each of the above intersections under cumulative plus project conditions and described in the following section.

Cumulative Intersection Adverse Effects and Improvements

The adverse effects of the project on traffic operations at study intersections and recommended improvements under cumulative conditions are described below. Planning level cost estimates of the recommended improvements and a calculation of the project's fair share contribution are presented in Appendix E.

3. Euclid Avenue and Donohoe Street/East Bayshore Road

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than five seconds per vehicle during the AM peak hour. The cumulative traffic volumes at this intersection without and with the proposed project meet the Peak-Hour Volume Warrant during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the westbound approach shall be restriped to add an exclusive right-turn lane.

In addition, eliminating the project's cumulative adverse effect at the Euclid/Donohoe intersection also would require improvements at the intersection of Donohoe Street and the US 101 northbound on ramp. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the

westbound approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

With the implementation of these improvements, the Euclid Avenue/Donohoe Street intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's cumulative adverse effect on traffic operations at this intersection.

4. US 101 Northbound On Ramp/University Plaza Phase II Driveway and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than five seconds per vehicle during the PM peak hour. The cumulative traffic volumes at this intersection without and with the proposed project meet the Peak-Hour Volume Warrant during the PM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

With the recommended improvements, the US 101 Northbound On Ramp/University Plaza Phase II Driveway/Donohoe intersection is expected to operate at an acceptable LOS C or better during both the AM and PM peak hours.

5. University Avenue and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. The changes to the westbound approach will require modifications to the eastbound approach to ensure proper lane alignment. The eastbound approach shall include one left turn lane and one shared through/right-turn lane. The east and west legs would be converted from split phase signal operation to protected left-turn signal phasing. In addition, the inner left-turn lane on the northbound University Avenue approach shall be extended by an additional 250 feet. The northbound approach on University Avenue consists of dual left-turn lanes, with the inner left-turn lane measuring 175 feet and the outer left-turn lane measuring 125 feet. With the extension of the inner left-turn lane by an additional 250 feet, the two northbound left-turn lanes would provide for a total of 550 feet of queue storage capacity, or 22 vehicles. This additional storage would prevent left-turn queues from spilling over into the adjacent through lane and impeding the through traffic on University Avenue. Extension of the northbound left-turn lane can be accommodated within the existing right-of-way, by cutting into the raised median on University Avenue. This improvement would not require any additional right-of-way acquisition or reconfiguration of the US 101 overpass.

With the implementation of these improvements, the University Avenue/Donohoe Street intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

6. US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the PM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations

somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

With all these proposed improvements, the intersection of US 101 northbound off ramp and Donohoe Street is expected to operate at an acceptable level (LOS D) during the AM peak hour. During the PM peak hour, the intersection would continue to operate at an unacceptable LOS F. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

7. Cooley Avenue and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The eastbound Donohoe Street approach to Cooley Avenue shall be restriped to include two through lanes and a full length left-turn lane and the traffic signal shall be coordinated with adjacent traffic signals on Donohoe Street.

With the recommended modifications at the University/Cooley intersection described above, along with the recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, and at the US 101 northbound off ramp, the intersection of Cooley Avenue and Donohoe Street is expected to operate at an acceptable (LOS D or better) during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

8. East Bayshore Road and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the same time periods. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on Donohoe Street and reduce delay at the East Bayshore/Donohoe intersection. The intersection would continue to operate at an unacceptable LOS E or worse during the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection. No additional improvements are required to eliminate the adverse effects of the project at this intersection.

9. University Avenue and US 101 Southbound Ramps

Adverse Effect: The intersection is expected to continue to operate at unacceptable LOS F during the AM and PM peak hours and the addition of project trips would cause the average intersection delay to increase by more than four seconds during the AM peak hour. This constitutes an adverse effect according to thresholds established by City of East Palo Alto.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe Street past the US 101 southbound ramps and would reduce the delay at the University Avenue and US 101 southbound ramps intersection. The intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions. No additional improvements are required to eliminate the cumulative adverse effect of the project at this intersection.

10. University Avenue and Woodland Avenue

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the

proposed project, the intersection average delay would increase by more than four seconds per vehicle during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue, and as a result reduce the queues on Woodland Avenue.

The intersection would continue to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

11. University Circle and Woodland Avenue

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue and as a result reduce the queues on Woodland Avenue.

These improvements would improve the intersection operations to LOS E during AM peak hour and the intersection would continue to operate at LOS F during the PM peak hour. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

12. Manhattan Avenue and Woodland Avenue

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the

proposed project, the intersection control delay would increase by more than five seconds per vehicle, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Enhanced TDM measures that would reduce project trip generation by greater than 25 percent could reduce delays and improve intersection operations somewhat. However, the project would still have an adverse effect even with a 50 percent reduction in trips due to TDM measures.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue, and as a result reduce the queues on Woodland Avenue.

The intersection would continue to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

Potential Impacts on Pedestrians, Bicycles and Transit

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks are provided on both sides of Manhattan Avenue and the north side of Woodland Avenue between Manhattan Avenue and University Avenue. Sidewalks are provided on both sides of University Avenue south of Woodland Avenue and north of Donohoe Street. On the University Avenue overcrossing at US 101, a sidewalk is available only on the west side of the street. In addition, there are crosswalks on the east leg of the Manhattan/Woodland intersection and the south and west legs of the University/Woodland intersection that provide access to nearby bus stops. The project site plan shows that the project would provide a new sidewalk along the east side of University Circle that would extend from Woodland Avenue to the pedestrian plaza and lobby entrance on the north side of the proposed new office building. In addition, the project would construct a new walkway on the east side of the proposed new office building that would extend from the University/Woodland intersection to the main entrance lobby on the north side of the building. Also, the project would construct a staircase and an ADA-ramp along the western edge of the project site that would provide pedestrian access from Manhattan Avenue to various locations inside the University Circle campus. Furthermore, the project would provide a continuous pedestrian path connection from the new stairs/ramp on Manhattan Avenue, through the podium parking and between 1900 and 2000 University Avenue to the center quad, continuing along the north side of 1950 University Avenue and crossing the surface parking to a new ADA-compliant connection to University Avenue near the foot of the new pedestrian/bicycle overcrossing at US 101. Lastly, the sidewalk along the north side of Woodland Avenue between University Avenue and Manhattan Avenue will be set back behind a planter strip with trees to add a landscape buffer between pedestrians and motor vehicle traffic.

Designated bicycle facilities in the immediate vicinity of the project site include bike lanes on University Avenue, south of Woodland Avenue and north of Donohoe Street. Woodland Avenue, Manhattan Avenue, Euclid Avenue, O'Connor Street, W Bayshore Road, Menalto Avenue and Donohoe Street are all designated as bike routes.

The City of East Palo Alto is working with Caltrans on a US 101/University Avenue interchange improvement project that would include a second pedestrian/bicycle overcrossing. The project site plan shows that the project would provide a new 12-foot wide bike path on the east edge of the site that would provide a connection to the planned new pedestrian/bicycle overcrossing. These additions to the existing transportation network would greatly improve pedestrian and bike access to the site by facilitating travel across US 101. The proposed office building also will include bicycle amenities such as bike parking, showers, and lockers that encourage and support workers who bike to and from work.

Excluding the school-day only and nighttime only bus routes, the study area is served by two SamTrans bus routes with a total of three to four buses that stop within walking distance of the project site each hour during the peak commute periods. In addition, University Circle provides private shuttle service to and from the Palo Alto Caltrain Station with 30-minute headways as well as free lunchtime shuttle service to Downtown Palo Alto that further promotes the use of alternative modes during the peak commute periods by eliminating the need for a vehicle midday. The site plans indicate that the proposed project would renovate the bus stop pavilion adjacent the project site on Manhattan Avenue. The existing public and private transit services provide sufficient capacity to allow the project to achieve the required minimum 25 percent trip reduction through travel demand management measures.

Turn Pocket Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis for intersection turning movements where the project would add a substantial number of trips. This analysis provides a basis for estimating future storage requirements at the intersections. The following turn movements were selected for evaluation:

- University Avenue and Bayfront Expressway – westbound left turn and northbound right turn
- University Avenue and US 101 Southbound Ramps – westbound left turn and northbound right turn
- University Avenue and Woodland Avenue – eastbound left turn and southbound right turn
- University Circle and Woodland Avenue – southbound left turn and westbound right turn

Vehicle queues at the University/Bayfront intersection were estimated using a Poisson probability distribution, described in Chapter 1. The queue lengths at other locations listed below were evaluated based on the SimTraffic simulation results. The analysis findings are described below and presented in Table 9.

Table 9
Turn Pocket Queuing Analysis

	University Ave & Bayfront Expway			
Movement:	**WBL**	**WBL**	**NBR**	**NBR**
Peak Hour Period:	**AM**	**PM**	**AM**	**PM**
Existing				
Cycle (sec)	180	200	180	200
Volume (vphpl)	574	180	139	601
Avg. Queue (veh/ln.)	28.7	10.0	6.9	33.4
Avg. Queue[1] (ft./ln)	718	249	173	835
95th %. Queue (veh/ln.)	38	15	12	43
95th %. Queue (ft./ln)	950	375	300	1075
Storage (ft./ ln.)	850	850	1325	1325
Adequate (Y/N)	**N**	Y	Y	Y
Existing Plus Project				
Cycle (sec)	180	200	180	200
Volume (vphpl)	586	182	140	609
Avg. Queue (veh/ln.)	29.3	10.1	7.0	33.8
Avg. Queue[1] (ft./ln)	733	253	175	845
95th %. Queue (veh/ln.)	38	16	12	44
95th %. Queue (ft./ln)	950	400	300	1100
Storage (ft./ ln.)	850	850	1325	1325
Adequate (Y/N)	**N**	Y	Y	Y

Notes:
[12] Assumes 25 feet per vehicle queued.

University Avenue and Bayfront Expressway

Under all scenarios, the left-turn queue on westbound Bayfront Expressway is expected to exceed the available storage during the AM peak hour. Extending the westbound left-turn pocket would require median modifications. Any potential improvement would require coordination with and approval by Caltrans and the City of Menlo Park. The northbound right-turn pocket has sufficient storage to accommodate the projected 95th percentile queue length.

Table 9 (cont.)
Turn Pocket Queuing Analysis

Intersection	Movement	Storage Length (feet)	95th Percentile Queue Lengths (feet)					
			Existing		Existing+Project		Existing+Project (with Improvements)	
			AM	PM	AM	PM	AM	PM
University&US 101 SB Ramps	WBL	450	275	300	275	300	275	300
	WBLR	1900	650	1675	950	1600	1175	825
	WBR	1900	575	1650	900	1600	1050	775
	NBR1	320	150	150	125	200	150	300
	NBR2	180	125	75	125	100	150	125
University&Woodland Avenue	EBL1	160	**200**	**175**	**200**	**175**	**175**	**225**
	EBL2	160	**175**	**175**	**175**	**175**	**175**	**200**
	SBR	300	225	125	**325**	175	250	175
University Cir&Woodland Ave	WBTR	160	100	125	100	125	75	125
	WBR	100	75	50	100	75	50	75
	SBL	120	50	**250**	50	**750**	75	**175**
	SBLR	120	100	**350**	125	**825**	125	**250**

Notes:
Bold indicates the 95th percentile queue exceeds the available storage length.
Source: SimTraffic simulation results.

University Avenue and US 101 Southbound Ramps

Under existing and existing plus project conditions, the westbound left-turn and westbound right-turn pockets have sufficient storage to accommodate the projected 95th percentile queue length. Currently, the right-turn pockets on northbound University Avenue are about 320 feet for the most-right lane and 180 feet long for the second right-turn lane, which are adequate for the existing traffic volumes and existing plus project traffic volumes.

University Avenue and Woodland Avenue

Eastbound Left Turn

Under existing conditions, the 95th percentile queues for the left-turn movement from eastbound Woodland Avenue to the northbound University Avenue exceeds the available storage capacity during the AM and PM peak hours. This is because the vehicular queues fill the entire block back to University Circle. With the addition of project traffic, the queues would continue to extend back to University Circle during both the AM and PM peak hours. Even with the recommended Donohoe Street improvements at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue, which would improve traffic flow on northbound University Avenue, the analysis shows that the queues would continue to extend back to University Circle during both the AM and PM peak hours. This is due to the short segment length (approximately 160 feet) and a high volume of left-turning traffic.

Southbound Right Turn

The existing storage length for the southbound right-turn traffic is adequate for the existing traffic volumes during the AM and PM peak hours. Under existing plus project conditions, the proposed project is expected to extend the 95th percentile queue by five vehicles during the AM peak hour and would cause the queue to exceed the available storage by approximately one vehicle. During the PM peak hour, the storage length would be adequate to accommodate the 95th percentile queue. The right-turn lane cannot be extended any further due to the proximity of upstream signal at US 101 SB ramps.

The analysis shows that the proposed improvements along Donohoe Street would allow implementation of a shorter cycle length at the University/Woodland Avenue intersection during the AM peak hour, which would decrease the 95th percentile queue length for this right-turn movement and would be accommodated within the available storage.

University Circle and Woodland Avenue

Westbound Right Turn

Under existing and existing plus project conditions, the westbound right-turn pocket has sufficient storage to accommodate the projected 95th percentile queue length. The storage of the westbound through/right lane is adequate for the existing traffic volumes. The proposed project is expected to extend the 95th percentile of the westbound through/right traffic by one vehicle during the AM, which would not exceed the available storage.

Southbound Left Turn

During the AM peak hour, the left-turn lane storage on southbound University Circle is adequate under both existing and existing plus project conditions. During the PM peak hour, the estimated 95th percentile queue exceeds the existing vehicle storage capacity by seven vehicles under existing conditions. Under existing plus project conditions, the project is expected to increase this queue by 24 vehicles during the PM peak hour.

The other southbound lane is a shared left/right-turn lane. Thus, the queuing analysis reflects the combined storage and queue length for both movements. The southbound left/right turn queue is projected to be less than the available storage capacity during the AM hour under both existing and existing plus project conditions. During the PM peak hour, the estimated 95th percentile queue exceeds the existing vehicle storage capacity by eleven vehicles under existing conditions. The project is expected to increase this queue by 24 vehicles and would cause vehicles to queue on site and within the subterranean parking garage. Traffic exiting the site during the PM peak hour would experience significant delays. With the proposed Donohoe Street improvements, which would improve traffic flow on northbound University Avenue and Woodland Avenue, the analysis shows that the 95th percentile queues for the southbound left-turn lane and the shared left-right lane would decrease significantly during the PM peak hour and would be shorter than compared to existing conditions. The 95th percentile vehicular queue in the southbound left-turn lane would exceed the available storage by three vehicles and in the shared left-right lane by five vehicles during the PM peak hour. These vehicular queues are not likely to cause any significant on-site queueing within the subterranean parking garage. Also, improvements proposed by the project as community benefits could reduce the delay for outbound University Circle traffic as well as have a beneficial effect on existing traffic not associated with the project. Refer to community benefit section.

Freeway Ramp Analysis

An evaluation of the on-ramp queues at the US 101/University Avenue interchange was conducted. Field observations were conducted prior to the COVI-19 pandemic to measure the existing vehicular queues and metering rates at the southbound diagonal on ramp at University Avenue. The SimTraffic simulation model was calibrated to reflect the observed metering rates and ramp queues. The effects of project added traffic on queues at the freeway on ramp were evaluated based on the SimTraffic analysis results (see Table 10). This information is presented for information only as the City of East Palo Alto has not established any policies or criteria related to freeway ramp queues. Nevertheless, the intersection delay values reported in the previous section reflect the additional delay caused by on-ramp queues that in some cases extend beyond the length of the ramp and through the upstream intersection.

Table 10
Freeway Ramp Analysis

	Storage Length (feet)	95th Percentile Queue Lengths (feet)					
		Existing		Existing+Project		Existing+Project (With Mitigations)	
		AM	PM	AM	PM	AM	PM
SB US 101 Diagonal On-Ramp - Lane 1 [1]	800	1,060	260	960	280	1,140	280
SB US 101 Diagonal On-Ramp - Lane 2 [1]	800	1,060	260	980	300	1,140	300

Notes:
[1] The analysis assumes ramp metering rate of 600 vphpl.

During the AM peak hour, the simulation shows that the queue on the southbound US 101 diagonal on ramp exceeds the available storage under existing conditions. The proposed project would add a relatively small number of trips (7 trips) during this time period. The simulation output shows the project would result in a small reduction in the 95th percentile queue length on the southbound US 101 diagonal on ramp. This counterintuitive result is caused by the upstream congestion on University Avenue, which is worse with the project-added traffic and constrains the volume of traffic able to reach the on ramp to a level that is below the existing ramp volume. Improvements proposed to reduce adverse effects of the project at study intersections along Donohoe Street and University Avenue would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe Street past the US 101 southbound ramps allowing slightly more vehicles to reach the on ramp during the AM peak hour than the existing constrained on ramp volume. While the simulation results indicate that the 95th percentile queue length on the southbound US 101 diagonal on ramp would be approximately three to four vehicles greater with the project and the proposed improvements than under existing conditions, the increase in on ramp throughput resulting from the improvements would exceed the few additional trips added to the ramp by the proposed project during the AM peak hour. Increasing the ramp queue storage is not feasible as it would require acquisition of additional right of way to widen the ramp to include three lanes.

During the PM peak hour, the on-ramp queue both without and with the proposed project is expected to be much shorter than the length of the ramp.

Vehicular Site Access and Circulation

A review of the project site plan was performed to determine whether adequate site access and circulation would be provided. This review was based on the site plan prepared by Chang Architecture, Inc. dated December 20, 2019 shown on Figure 2.

Site Access

Vehicular access to the project will not change from the existing access. Primary access to the office development is provided via a full-access signalized driveway, known as University Circle, which intersects with Woodland Avenue approximately 200 feet west of University Avenue. University Circle provides access to the on-site at-grade parking as well as the subterranean parking garage. Two full-access driveways are provided along Manhattan Avenue that are gated and restricted to authorized personnel only. The northern driveway on Manhattan Avenue provides access to surface parking and an above-grade parking structure. The southern driveway on Manhattan Avenue is located near O'Connor Street and provides access to the underground parking.

The project is estimated to generate 135 inbound trips during the AM peak hour and 130 outbound trips during the PM peak hour. It is expected that most of the project trips would access the site via

University Circle since it provides direct access to the subterranean parking garage directly below the proposed new office building.

Including the three office buildings and the hotel on the project site, the total volume estimated to use the University Circle driveway upon the completion of the proposed project is 502 vehicles (383 inbound and 119 outbound) during the AM peak hour, which would be about six vehicles entering and two vehicles exiting every minute. During the PM peak hour, the University Circle driveway is estimated to serve 459 vehicles (101 inbound and 358 outbound), which would be about two vehicles entering and six vehicles exiting every minute. The traffic volume using the Manhattan Avenue driveways would be unchanged.

The most heavily used movements to and from the University Circle driveway are expected to be the westbound right turn into the project site and the southbound left-turn out of the project site. The traffic operation analysis conducted for the intersection of University Circle and Woodland Avenue indicate that the southbound left-turn lane is estimated to have an average delay of 43 seconds per vehicle and result in a 95% queue length of three vehicles during the AM peak hour and an average delay of four minutes per vehicle and result in a 95% queue length of 37 vehicles during the PM peak hour. The southbound shared left/right turn lane is estimated to have an average delay of 30 seconds per vehicle and result in a 95% queue length of six vehicles during the AM peak hour and an average delay of five minutes per vehicle and result in a 95% queue length of 41 vehicles during the PM peak hour. The project would cause significant delays for traffic leaving the University Circle development via University Circle and would cause vehicles to queue on site that would extend into the subterranean parking garage. With the proposed Donohoe Street improvements, which would improve traffic flow on northbound University Avenue and Woodland Avenue, the analysis shows that the 95th percentile queues for the southbound left-turn lane and the shared left-right lane would decrease significantly during the PM peak hour and would be shorter than compared to existing conditions. The 95th percentile vehicular queue in the southbound left-turn lane would exceed the available storage by only three vehicles and in the shared left-right lane by five vehicles during the PM peak hour. These vehicular queues are not likely to cause any significant on-site queueing within the subterranean parking garage. Also, improvements proposed by the project as community benefits could reduce the delay for outbound University Circle traffic as well as have a beneficial effect on existing traffic not associated with the project. Refer to community benefit section.

> **Recommendation:** Prior to final design, the driveway widths, radii, and throat depth should be measured to confirm that they comply with City of East Palo Alto standards and are adequate to handle truck traffic. In order to ensure there would be sufficient sight distance at the project driveways, any landscaping, parking, and signage location should be consistent with City of East Palo Alto vision triangle standards.

On-Site Circulation

The on-site circulation was reviewed in accordance with generally accepted traffic engineering standards. Generally, the proposed plan would provide adequate connectivity through the parking areas for vehicles, bicycles, and pedestrians.

Currently, vehicles may access the underground parking via one inbound ramp and one outbound ramp located to the east and west of University Circle, respectively. The site plan shows that the existing inbound garage ramp located east of University Circle would be redesigned and shifted slightly to make room for the proposed new office building. The new inbound ramp would be 22 feet wide (the same width as the existing ramps) and would allow for dual entry lanes. The site plan shows the new entry ramp would have a maximum slope of 15 percent, which is acceptable. However, the site plan does not indicate if the ramp would have transition slopes at the top and bottom of the ramp. The slope of ramps leading to Garage Levels B2, and B3 are not labeled.

Recommendation: Transition slopes of one half the differential slope should be provided at each end of the new entry ramp to ensure that vehicles do not "bottom out" due to the abrupt change in slope. The slopes of all garage ramps should be reviewed to ensure they meet appropriate design standards.

The existing driveways on Manhattan Avenue and the entry and exit ramps to the underground parking garage are all gate controlled. The site plan indicates that the existing entry gates and controls are to be relocated to the bottom of the proposed new ramps. The proposed location of the the entry gates would not result in queues that extend onto the public roadway network.

The project would provide 90-degree parking throughout the underground garage with standard parking stalls (9 feet wide by 18 feet long) that meet the City's minimum parking stall dimensions. The drive aisles adjacent to parking stalls are shown to be 25 feet wide and are wide enough to provide two-way circulation. The drive aisle width would meet the City's standards and provide sufficient room for vehicles to back out of the 90-degree parking stalls.

The surface parking lot and Garage Level B1 (see Figure 15) provide good circulation without any dead-end aisles. Garage Levels B2 and B3 each would have three dead-end parking aisles. Long dead-end aisles should be avoided whenever possible since it is difficult for drivers to determine if there is a parking space available before committing to drive down the aisle. The dead-end aisle at the west edge of the parking garage is relatively long (approximately 100 feet), but it allows sufficient space for vehicles to turn around at the end of the aisle if they do not find an available parking space. The dead-end aisle at the northeast corner of the garage is relatively short (approximately 50 feet) so drivers should be able to view if any parking stalls are open. Furthermore, this dead-end aisle has extra space beside the last parking stall on each side of the aisle to facilitate vehicles backing out of the end space. The dead-end aisle near the center of the garage that ends at the new garage ramp would be problematic as currently designed since drivers who park in a space at the end of aisle would have a difficult time exiting the space since there is no room for them to turn while backing up.

Recommendation: Extra space should be provided at the end of all dead-end aisles to allow vehicles to turn around if necessary and maneuver into and out of the last parking space.

The proposed new office building would be directly across from an existing loading space and trash enclosure located along the south side of the existing office building at 1950 University Avenue. The site plan shows that a new trash enclosure would be provided nearby at the northeast corner of the proposed new office building. A new surface drive aisle would be provided to the north of the proposed office building to provide vehicular circulation through the surface parking areas. Thus, trash trucks and other service vehicles would use this internal street.

Project Alternative

The surface parking and the garage plan for the project alternative is shown on Figure 16. Traffic circulation in the below-grade parking garage and the above-grade parking garage is discussed below.

Below-Grade Parking Garage

The project would expand the below-grade parking to provide 100 parking spaces for the new office building in one level below grade. The project would provide 90-degree parking throughout the underground garage with standard parking stalls (9 feet wide by 18 feet long) that meet the City's minimum parking stall dimensions. The drive aisles adjacent to parking stalls are shown to be 25 feet wide and are wide enough to provide two-way circulation. The drive aisle width would meet the City's standards and provide sufficient room for vehicles to back out of the 90-degree parking stalls.

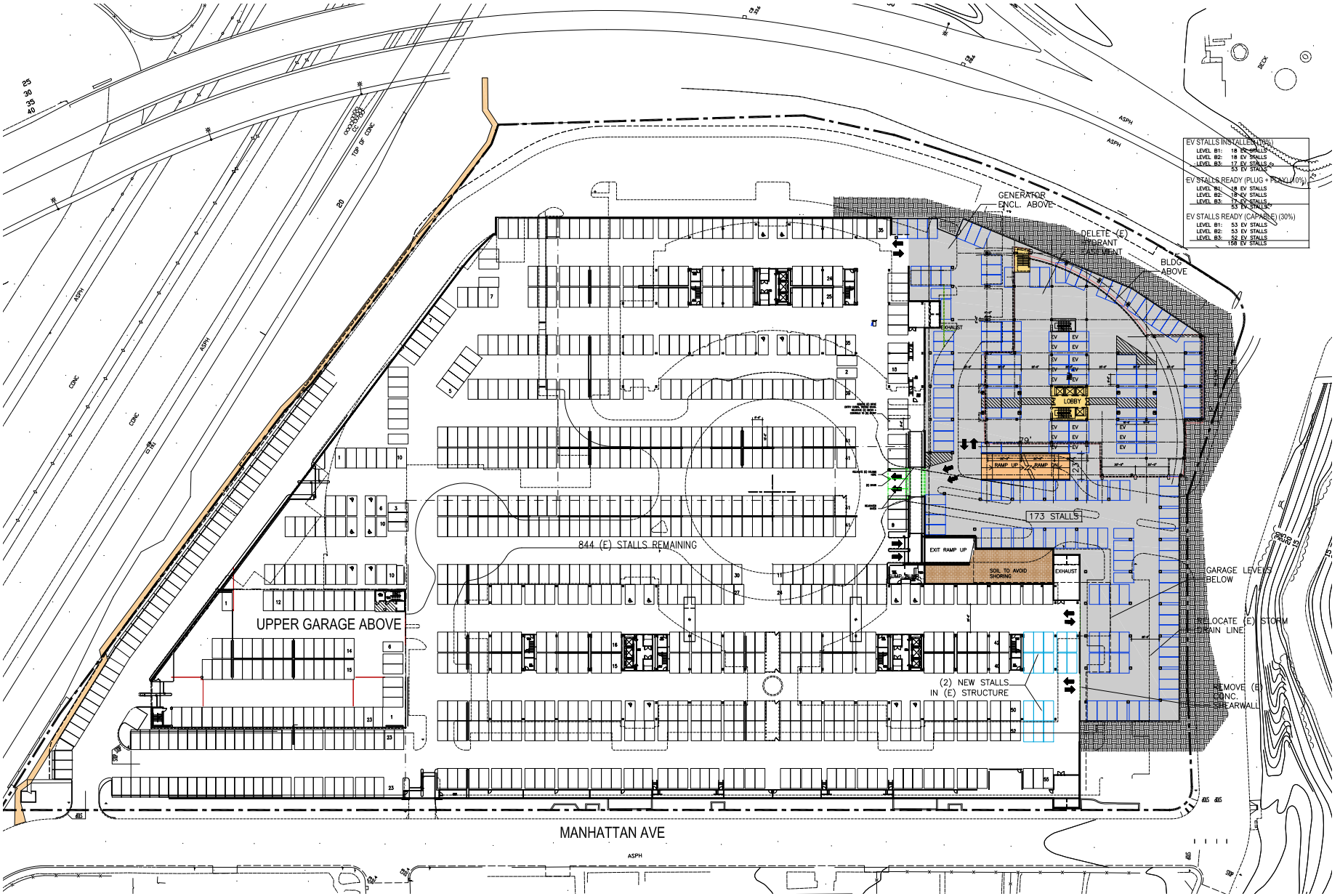


Figure 15
Garage Plan

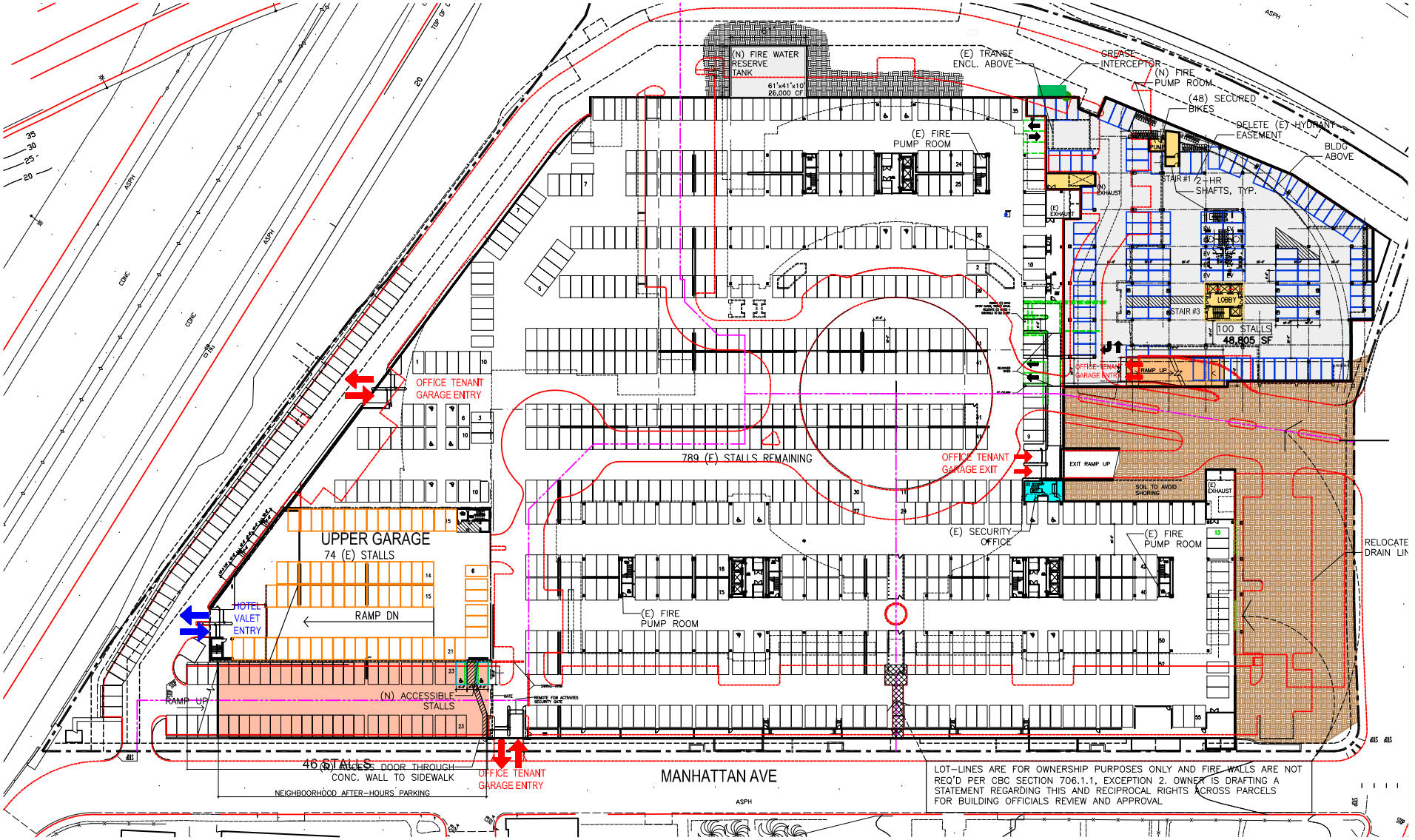


Figure 16
Garage Plan (Project Alternative)

Above-Grade Parking Garage

The existing above-grade parking garage consists of four levels of parking and is located to the west of the Four Seasons hotel and is used for parking by visitors staying in the hotel. Access to the garage is provided on the south side via one inbound and one outbound lane. Access is also provided on the north side, which is used for valet parking. Both inbound and outbound lanes that provide access on the north and south sides are gated. The parking garage would be expanded by another 2.5 levels upwards to provide additional parking for the office buildings on the University Circle Campus.

The podium provides access to the first level of the parking garage. There are 74 parking spaces on the first floor, of which 30 spaces will be dedicated for the hotel and the remaining 44 spaces will be shared between the hotel and the office tenants. Parking provided in the basement, and other above-grade levels will be dedicated for use by office tenants.

Ninety-degree parking is provided in all levels with standard parking stalls (9 feet wide by 18 feet long) that meet the City's minimum parking stall dimensions. The drive aisles adjacent to the parking stalls are shown to be 25 feet wide and are wide enough to provide two-way circulation. The drive aisle width would meet the City's standards and provide sufficient room for vehicles to back out of the 90-degree parking stalls. The new parking levels will be similar to the existing levels.

City of East Palo Alto Parking Code Requirements

Vehicular Parking

The required parking supply was determined using the parking rates specified in the East Palo Alto Municipal Code Section 18.30.050 (A). For office developments, the City Code requires 1 parking space per 300 square feet. The proposed office building would contain 180,000 square feet. Therefore, the project would require 600 parking spaces. Excluding hotel parking, the project proposes to increase the total parking on the University Circle site by 440 spaces (from 1,194 to 1,634 parking spaces), which falls short of the City's standard parking requirement. However, the City's code states that large office projects may be allowed to reduce parking with approval of a CUP and a TDM plan to reduce impacts at the discretion of the City Council. Hexagon conducted a parking demand analysis for the existing office buildings to justify the proposed reduction in parking demand.

Parking Demand Analysis

Because of the ongoing stay-at-home order due to the COVID19 pandemic, the current parking demand is not reflective of the typical parking conditions (pre-COVID levels). Therefore, no new parking occupancy counts were conducted. Hexagon used historical parking count data provided by the applicant to analyze the parking demand for the existing office buildings. The three existing office buildings are provided with a total of 1,194 parking stalls (345 surface stalls and 849 garage stalls). The surface parking stalls can be accessed via the main University Circle driveway on Woodland Avenue and the garage parking stalls can be accessed via the main University Circle driveway on Woodland Avenue and also via an entrance/exit on Manhattan Avenue. The garage spaces are accessible only to employees of the office building tenants and requires a parking card (with a unique parking identification number) to enter the garage. A time stamp for each vehicle accessing the office parking garage (using the parking ID) was provided for each day over a span of 18 months between September 2018 and February 2020. The total number of entries in each of the 18 months was divided by the total number of days in the respective month to calculate the number of entries per day for each month. The data showed that the total number of garage vehicle entries per day varied between 335 and 489 (including weekends and holidays) over the span of 18 months with an average of 381 entries per day.

A simple regression analysis was conducted for the 18 months, with the number of parking entries per day as the dependent variable and the percentage of working days (excluding holidays, Saturdays and

Sundays) as the independent variable to identify the month that best captures the existing parking demand. The regression analysis showed that October 2019 had the least deviation from the underlying linear relationship between the dependent and the independent variables. The total number of entries per day for October 2019 was calculated to be 400 which is 5% higher than the 381-average number of entries per day for the 18-month period. It is also noted that the month of October has the highest number of working days (22 working days, 4 Saturdays, 4 Sundays and 1 holiday). Parking demand was analyzed for Wednesday, October 2nd which was a typical working day that occurred during the middle of the week and showed a relatively high number of parking entries compared to other weekdays in October. The data showed a total of 531 garage vehicle entries for October 2nd, 2019. After removing duplicate vehicle entries that are attributed to employees leaving the garage for a meeting and returning to the office, and vehicles entering after 6 PM, there were a total of 449 unique vehicle entries that occurred before 6 PM, which is assumed to be the peak parking demand for the garage spaces.

Since the surface parking spaces can be accessed without a parking card, historical data of the surface parking usage was not available. To represent a conservative analysis, it was assumed that all 345 surface parking spaces were occupied, resulting in a total parking demand for 794 parking spaces (449 garage spaces and 345 surface parking spaces) for the three existing office buildings. The three office buildings consist of a total of 459,996 s.f. of gross floor area out of which 452,197 s.f. is the rentable area (98.3%). Based on information provided by the applicant, on October 2nd, 2019, 89.34% of the total rentable square footage was occupied, which calculates to 404,014 s.f. At 89.34% occupancy, the peak parking demand for existing office uses was estimated to be 1.97 parking spaces per 1,000 square feet of occupied space (794/404.014). At 100% occupancy, the peak parking demand for the three existing office buildings is expected to be 891 spaces (1.97 x 452.197). Compared to the 1,194 parking spaces that are provided, the peak parking demand for the existing office buildings calculates to be 25.4% lower. This is attributed to an array of TDM measures that have been implemented by the existing University Circle development (see Appendix D). University Circle development will continue to implement these measures with the proposed new office building.

The project consists of adding a fourth office building with a total of 180,000 s.f. gross floor area of which 176,940 s.f. would be the rentable area. Applying the ratio of 1.97 parking spaces per 1,000 rentable square feet, the parking demand for the proposed office building is estimated to be 349 spaces at full occupancy. The total peak parking demand for the four office buildings is estimated to be 1,240 parking spaces (891 spaces + 349 spaces). With the project, there would be a total of 1,634 parking spaces (259 surface parking and 1,375 garage parking) on site, 395 spaces in excess of the estimated peak parking demand for the four office buildings. Thus, the proposed parking supply with the project would be adequate to accommodate the peak parking demand that would be generated by all four office buildings.

As a public benefit, a section of the parking lot (46 parking spaces) along Manhattan Avenue would be accessible for neighborhood use after hours.

Project Alternative Parking Analysis

Office

The parking supply under the project alternative is summarized in Table 11. The existing above-grade parking garage adjacent to the hotel will be expanded from four to six and a half levels over and the majority of the spaces in the newly expanded parking garage would be dedicated for the use of office tenants. A total of 479 parking spaces would be provided in the expanded above grade parking garage of which 405 spaces would be dedicated for the use of office tenants, 30 spaces would be dedicated for hotel guests and the remaining 44 spaces would be shared between the office and hotel uses. In addition to expanding the above grade parking garage, the existing below-grade parking garage will be

expanded beneath the proposed office building. The proposed new office building will replace the 87 net surface parking spaces that would be lost with 100 parking spaces within the expanded below-grade parking garage resulting in a net gain of 13 spaces. Based on the parking demand analysis conducted for the existing office buildings under pre-pandemic conditions, the peak parking demand for existing office uses was estimated to be 1.97 parking spaces per 1,000 square feet of occupied rentable space. At 100 percent occupancy, the peak parking demand for the three existing office buildings was estimated as 891 spaces. The project consists of adding a fourth office building with a total of 180,000 s.f. gross floor area of which approximately 176,940 s.f. would be the rentable area. Applying the ratio of 1.97 parking spaces per 1,000 rentable square feet, the parking demand for the proposed office building is estimated to be 349 spaces at full occupancy. The total peak parking demand for the four office buildings is estimated to be 1,240 parking spaces (891 spaces for existing office building + 349 spaces for the proposed new building). With the project, there would be a total of 1,552 parking spaces (258 surface parking and 1,294 garage parking) on site for exclusive use by office tenants, 312 spaces in excess of the estimated peak parking demand for the four office buildings. Thus, the proposed parking supply with the project would be adequate to accommodate the peak parking demand that would be generated by all four office buildings. In addition, 44 additional spaces on the ground floor of the above-grade garage would be shared between the hotel and office tenants under this alternative, resulting in a total of 1,596 parking spaces for office use. This calculates to 356 spaces in excess of the estimated peak parking demand for the four office buildings.

Table 11
Project Alternative Parking Supply

	Existing Office Parking	Proposed Office Parking
Surface Spaces (Existing)	345	345
Lost Spaces		-100
New Spaces		13
Basement Stalls (Existing)	849	849
Lost Spaces		-60
New Spaces		100
Hotel Garage (Existing)		287
Hotel Spaces		-30
Shared office/hotel spaces		-44
New Spaces		192
Total	**1,194**	**1,552**
Total (including shared office/hotel spaces)		**1,596**

Hotel

A total of 189 surface parking spaces and an above-grade parking garage (with 287 parking spaces) adjacent to the Four Seasons Hotel are provided on site to meet the parking demand generated by hotel employees and guests. The surface parking is divided between the employees (118 spaces) and guest self-parking (71 spaces). The hotel has approximately 170 employees per day with 3 shifts (approximately 57 employees per shift). Based on the average number of employees per day, and a conservative assumption that every employee drives alone to work, the 118 surface parking spaces would be adequate for employee parking even if the consecutive shifts are to overlap. Since the number of surface parking stalls would not change under the project alternative, there will be no impact to employee parking and guest self-parking.

Valet parking for the hotel guests is provided within the existing above-grade parking structure adjacent to the hotel. With the Four Seasons Hotel giving approval for University Circle office tenants to use the majority of the existing parking spaces within the above-grade garage, only 30 parking spaces will be dedicated for hotel guests and 44 parking spaces would be shared between the hotel and office uses within the above-grade parking garage. Shared parking is a type of parking management that facilitates efficient utilization of the parking spaces by complimentary land uses. The peak parking demand for the two uses occur during different times of the day; the peak parking demand for the hotel occurs from late evening through early morning and the peak parking demand for the office occurs between late morning (after 10 AM) and early evening (3 to 4 PM) during weekdays. During weekends, the office would generate very low parking demand.

The hotel does not have a tracking system in place to identify how many parking spaces in the garage are being utilized. The parking spaces in the above-grade garage are used for guest valet parking. It is noted that virtually all of the hotel's occupancy is business travel, which averaged 3% occupancy in March 2021 as most people continue to work at home because of the ongoing pandemic. Based on information provided by the Four Seasons Hotel administrator, prior to the pandemic, for 2019, there were a total of 8,039 cars parked in the garage, which calculates to 22 guest cars parked at the hotel per night. This estimate is based on the charges for overnight parking and does not include hotel packages that included overnight parking or group concessions that included overnight parking. There are a total of 200 guest rooms and the average occupancy for 2018-2019 was around 133 rooms per day, which calculates to an occupancy rate of 66.5%. At 100% occupancy, it is estimated that the demand for guest valet parking would be 33 spaces (22 spaces x (100/66.5)).

A total of 30 parking spaces would be dedicated for the hotel valet parking (which is 36 percent above the average number of hotel guest cars that utilize valet parking per night) and an additional 44 spaces on the first floor of the garage will be shared between the hotel and office. Thus, it is expected that the valet parking demand generated by the hotel guests would be adequately accommodated on site under the project alternative.

Bicycle Parking

As specified in the East Palo Alto Municipal Code Section 18.30.120, designated, safe, and secure bicycle parking facilities shall be provided for all applicable uses in compliance with the Santa Clara County Valley Transportation Authority, Bicycle Technical Guidelines (December 13, 2017). Based on the VTA Bicycle Guidelines, the office development should provide 1 space per 6,000 square feet with 75% Class I and 25% Class II. Therefore, the proposed office development would be required to provide 30 bicycle parking spaces (1 parking space per 6,000 square feet) with 23 Class I spaces and 7 Class II spaces. The site plan shows a total of 18 Class II bicycle parking spaces (9 bike racks) provided near the northeast corner of the proposed new office building at ground level and 48 bike parking spaces in a secure bicycle room in garage level B1. Thus, the proposed bike parking satisfies the requirements set forth in the East Palo Alto Municipal Code.

Construction Traffic Analysis

To allow for construction of the expanded underground parking garage, the proposed project would temporarily close all access to and from University Circle for a period of approximately 18 months. During that period, a temporary driveway would be provided on Woodland Avenue just east of Manhattan Avenue. This temporary driveway would be restricted to inbound right-turns only from Woodland Avenue and would provide direct access to the surface parking lot. Access to the existing underground parking would be available via the two existing driveways on Manhattan Avenue. All outbound traffic from the existing University Circle development would use the driveways on Manhattan Avenue (see Figure 17).

Existing University Circle traffic was reassigned (see Figure 18) to access the temporary driveway on Woodland Avenue and the existing driveways on Manhattan Avenue. The existing simulation model was used to evaluate and identify any negative effects due to the project's construction on existing traffic operations during the AM and PM peak hours. Based on information provided by the applicant, construction truck traffic would operate only during the off-peak hours to specifically avoid the peak hour traffic. During the excavation, truck trips would operate after 9:00 AM and before 4:00 PM. For deliveries of construction material, 75% of the truck traffic would operate between 9:00 AM and 4:00 PM and 25% would operate between 6:00 PM and 11:00 PM (at the discretion of the City). Therefore, no trucks were assumed to occur during the peak commute hours. With respect to on-site construction workers, it is assumed that 90% of the on-site construction workers will arrive before 7:00 AM and leave before 4:00 PM. The remaining 10% would be spread evenly between 7:00 – 9:00 AM and 4:00 – 6:00 PM. Based on the estimated number of construction workers per day (for the months with highest number of on-site constructions workers), a total of 7 trips (arriving at the site) during the AM peak hour and 7 trips (leaving the site) during the PM peak hour were added to the traffic volumes shown on Figure 18.

It is our understanding that the construction of the proposed project would require a lane closure on westbound Woodland Avenue to provide a staging area for the construction trucks. The lane closure would be in effect only outside of the peak hours, beginning after 9:00 AM and ending before 4:00 PM. The lane closure along Woodland Avenue will be identified as part of the Traffic Management Plan that will be developed and submitted to the City for review in advance of the construction work. Since there would not be any lane closures along Woodland Avenue during the peak commute hours, the construction simulation analysis does not assume any lane closures. Traffic operations along Woodland Avenue during the AM and PM peak hours during construction are shown in Table 12.

The analysis shows that compared to existing conditions, the intersection of University Avenue and Woodland Avenue would continue to operate at LOS E during the AM peak hour and LOS F during the PM peak hour during construction. Since all outbound traffic from the existing University Circle development would use Manhattan Avenue with the temporary closure of University Circle, the analysis assumes that a temporary signal would be installed at the intersection of Woodland Avenue and Manhattan Avenue to avoid long back-ups on Manhattan Avenue. The analysis shows that this intersection would continue to operate at LOS B during the AM peak hour and LOS F during the PM peak hour with the traffic signal during construction. Under existing conditions, traffic at the intersection of Woodland Avenue and Manhattan Drive is controlled by an all-way stop, where every vehicle approaching the intersection must come to a complete stop before crossing the intersection. During the PM peak hour, congestion at the University Avenue/Woodland Avenue intersection causes the eastbound vehicular queue on Woodland Avenue to extend frequently beyond Euclid Avenue. During construction, the signal at University Circle/Woodland Avenue will be temporarily shut down and the all-way stop control at Manhattan/Woodland Avenue would be replaced with a traffic signal. The analysis shows that with the removal of traffic control at University Circle and replacement of the all-way stop control at Manhattan Avenue with a traffic signal, vehicular queues on eastbound Woodland Avenue and southbound Euclid Avenue would decrease during the PM peak hour due to better traffic progression along eastbound Woodland Avenue. However, with all outbound University Circle development traffic using Manhattan Avenue, the analysis shows that the vehicular queue on southbound Manhattan Avenue would increase during the PM peak hour. The entrance to the University Circle Development garage entrance on Manhattan Avenue is located approximately 670 feet from Woodland Avenue. The analysis shows that the 95th percentile queue on southbound

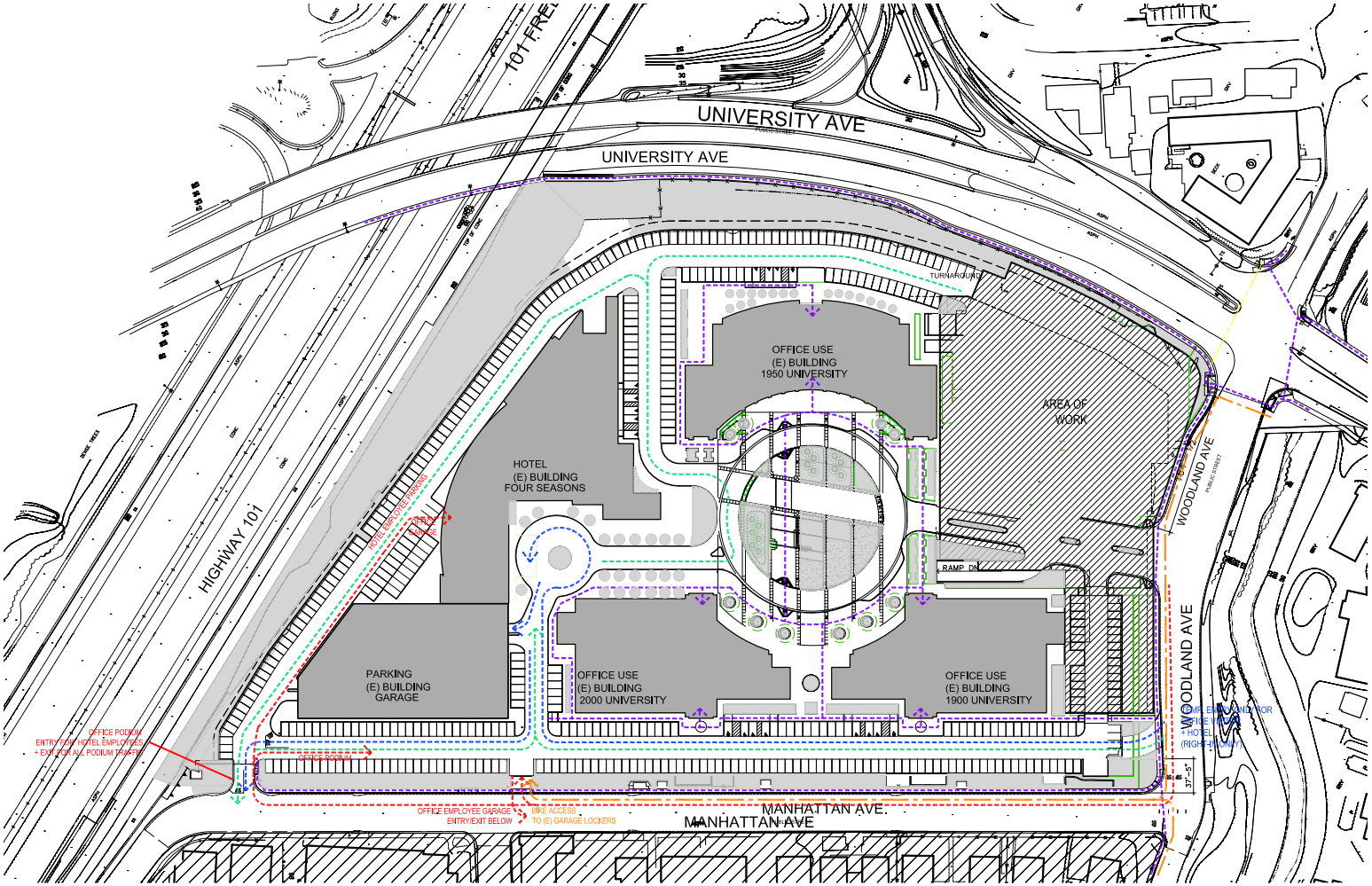


Figure 17
Traffic Circulation During Construction

NORTH
Not to Scale

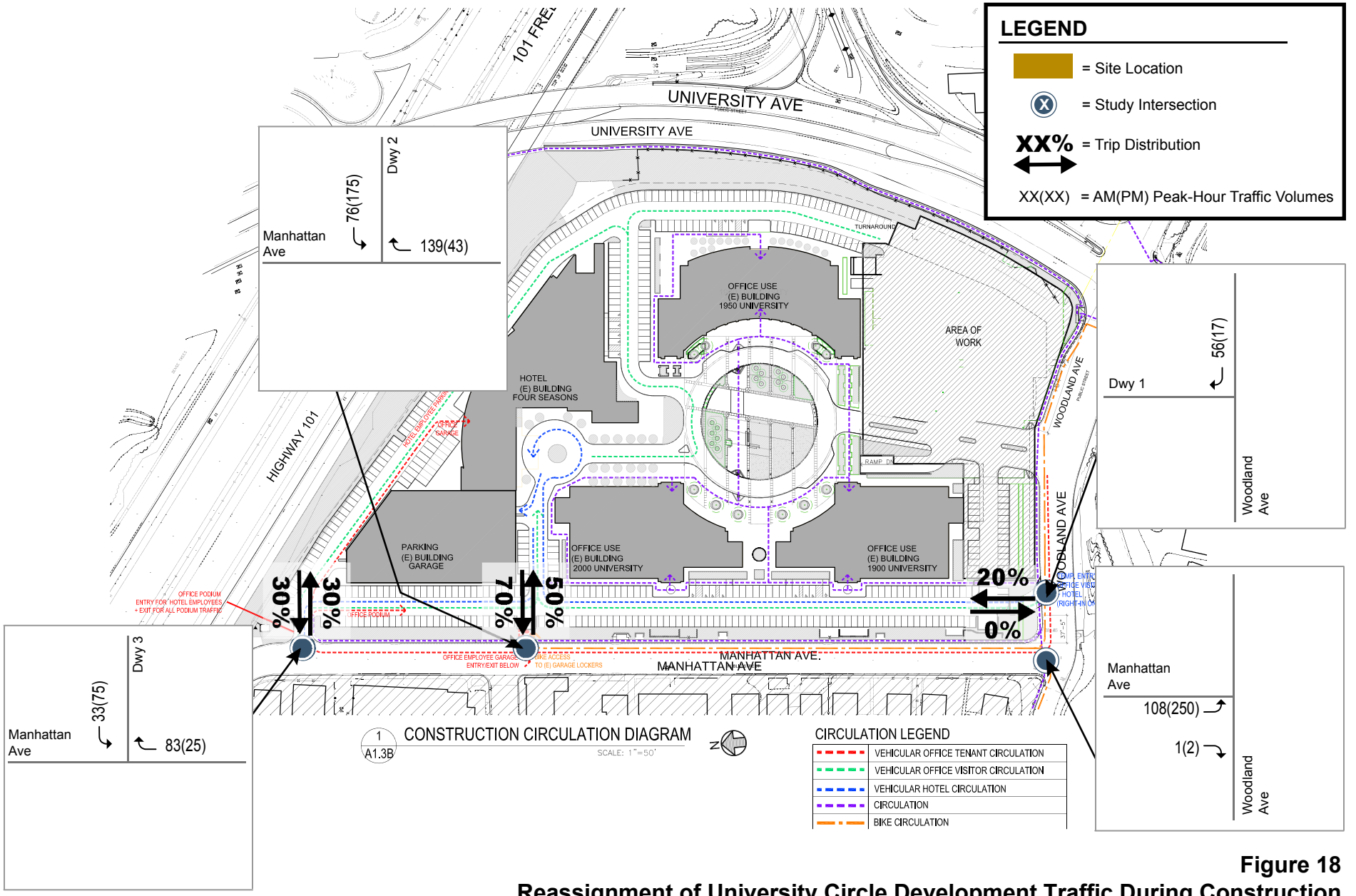


Figure 18
Reassignment of University Circle Development Traffic During Construction

Manhattan Avenue would extend beyond the garage entrance on Manhattan Avenue (see Table 13), which could cause vehicles to queue in the University Circle parking garage during the PM peak hour.

Table 12
Intersection Operations Analysis During Construction

Intersection	Peak Hour	Existing			Construction Circulation			Construction Circulation (with Improvements)	
		Control	Avg. Delay [1]	LOS	Control	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS
University Avenue/Woodland Avenue	AM	Signal	**66.1**	**E**	Signal	**66.4**	**E**	**65.9**	**E**
	PM		**248.0**	**F**		**262.7**	**F**	**255.4**	**F**
Woodland Avenue/University Circle Driveway [2]	AM	Signal	18.7	B	-	-	-	-	-
	PM		**126.8**	**F**		-	-	-	-
Woodland Avenue/Manhattan Avenue [3]	AM	AWSC	11.6	B	Signal	12.1	B	11.9	B
	PM		**92.4**	**F**		**89.5**	**F**	41.5	D
Woodland Avenue/Euclid Avenue	AM	OWSC	6.6	A	OWSC	6.7	A	6.7	A
	PM		**317.0**	**F**		**213.6**	**F**	19.6	C

Notes:
Avg Delay = Average Delay in seconds; LOS = Level of Service; AWSC = All-Way Stop Control
[1] At signalized intersections and all-way stop controlled intersections, delay shown is the weighted average delay for all vehicles entering the intersection calculated using the calibrated SimTraffic model.
[2] During the construction phase,University Circle would be closed and a temporary driveway would be provided further west on Woodland Avenue that would facilitate right-turn only movements from Woodland Avenue into the University Circle campus.
[3] The analysis assumes a temporary signal at the Woodland Avenue/Manhattan Avenue intersection as most of the inbound traffic and all of the outbound traffic from the Universirty Circle campus would access the driveways on Manhattan Avenue.

Table 13
Vehicle Queuing During Construction

	AM		PM		PM (with Improvements) [1]	
	Average (feet)	95th Percentile (feet)	Average (feet)	95th Percentile (feet)	Average (feet)	95th Percentile (feet)
Woodland Avenue west of Euclid Avenue (eastbound)						
Existing	50	75	225	750		
Construction	0	0	75	250	25	75
Manhattan Avenue (southbound)						
Existing	75	150	275	625		
Construction	75	150	**425**	**800**	*250*	*600*
Euclid Avenue (southbound)						
Existing	50	75	225	650		
Construction	50	75	150	550	50	125

Notes:
1 Improvement consists of restriping eastbound Woodland Avenue at University Avenue to consist of two left-turn lanes and a shared left-through-right lane.

Also shown in Table 14 are a comparison of travels times for two paths: one for outbound traffic from University Circle development, and two for eastbound traffic on Woodland Avenue (west of Euclid Avenue) during existing conditions and during construction during the PM peak hour. Under existing conditions, it was observed that most of the traffic from the University Circle development used the traffic signal at University Circle to exit onto eastbound Woodland Avenue. During construction, all outbound traffic would use the two driveways on Manhattan Avenue to exit the University Circle

development. As shown in Table 13, the analysis shows that the travel time for vehicles exiting University Circle development during construction would increase by approximately 100 seconds during the PM peak hour.

Table 14
Travel Times During Construction

#	Path	Travel Time during PM Peak Hour (seconds)		
		Existing	Construction Period	Construction Period (with Improvements) [2]
1	University Circle Development to northbound University Avenue [1]	306	404	289
2	Woodland Avenue (west of Manhattan) to northbound University Avenue	617	550	358

Notes:

[1] Under existing conditions, the travel time reflects most of the University Circle traffic exiting via the traffic signal at University Circle to eastbound Woodland Avenue and during construction period, the travel time reflects all outbound traffic using driveways on Manhattan Avenue to exit University Circle.

[2] Improvement consists of restriping eastbound approach on Woodland Avenue at the intersection of University Avenue to consist of two left-turn lanes and a shared left-through-right lane.

In order to reduce the queueing on southbound Manhattan Avenue, the following improvement was evaluated.

University Avenue/Woodland Avenue – Restripe the eastbound approach to consist of two left-turn lanes and a shared left-through-right lane. This improvement would provide more capacity and queue storage for the left-turning vehicles. During the PM peak hour, more than 80% of the traffic on eastbound Woodland Avenue currently turns left onto northbound University Avenue. Between Manhattan Avenue and University Circle, there two through lanes on eastbound Woodland Avenue. Since only the inner through lane feeds the two left-turn lanes at University Avenue, the analysis shows that during the PM peak hour vehicular queues for the eastbound left-turn at University Avenue extend into the inner through lane and queues back to Manhattan Avenue. Due to the relatively low traffic volumes for the through movement and the right-turn movement at University Avenue, the analysis shows that the outer through lane on eastbound Woodland Avenue would experience very low vehicular delays. By restriping the shared through-right lane to a shared left-through-right lane on eastbound Woodland Avenue, the analysis shows that vehicles leaving University Circle development with destinations towards US 101 southbound would turn from Manhattan Avenue into the outer through lane on Woodland Avenue and use the shared left-through-right lane (that would be a trap lane to US 101 Southbound on-ramp) to turn onto northbound University Avenue. This improvement would improve intersections delays (see Table 12), decrease vehicular queues on southbound Manhattan Avenue, eastbound Woodland Avenue and southbound Euclid Avenue (see Table 13) and improve travel times for traffic exiting University Circle and also for traffic on eastbound Woodland Avenue not associated with University Circle development traffic (see Table 14) during construction.

> **Recommendation:** At the University Avenue/Woodland Avenue intersection, restripe the eastbound approach on Woodland Avenue to consist of two left-turn lanes and a shared left-through-right turn lane prior to construction.

Project Alternative

Construction of the Above Grade Garage alternative would occur over a period of approximately 44 months and would be completed in three phases:

1. Expansion of the above-grade garage,
2. Expansion of the below-grade garage, and
3. Construction of the office building.

Expansion of the above-grade parking garage would be completed in approximately 16 months. Upon completion of this phase, excavation for and expansion of the below-grade parking garage would begin. Expansion of the below-grade parking garage would be completed in approximately 18 months with months 12 through 18 of this phase overlapping with construction of the office building.

During project construction, University Circle will remain open to provide access to the site for office and hotel visitors/employees. The existing below-grade garage entrance ramp located to the east of University Circle driveway would be temporarily closed during construction of the office building and below-grade garage expansion. During this time, the existing double lane exit ramp on the west-side of University Circle would remain open and would be converted to a two-directional in- and out-ramp to provide access to the below-grade parking garage. Similar to the proposed project, a lane closure of westbound Woodland Avenue would be needed to provide a staging area for the construction trucks during off-peak hours, between 9:00 a.m. and 4:00 p.m. The lane closure along Woodland Avenue will be identified as part of the Traffic Management Plan that will be developed and submitted to the City for review in advance of the construction work. Since there would not be any lane closures along Woodland Avenue during the peak commute hours, traffic circulation during the construction of the project alternative would be the same as under existing conditions.

Construction truck traffic would operate only during the off-peak hours to specifically avoid the peak hour traffic. During the excavation, truck trips would operate after 9:00 AM and before 4:00 PM. For deliveries of construction material, 75 percent of the truck traffic would operate between 9:00 AM and 4:00 PM and 25 percent would operate between 6:00 PM and 11:00 PM (at the discretion of the City). With respect to on-site construction workers, most of the on-site construction workers will arrive before 6:00 AM and leave before 4:00 PM. Therefore, there would not be any adverse effect to the existing peak-hour traffic circulation during the construction phase of the project alternative. No off-site improvements would be required during the construction phase.

The University Circle driveway consists of two inbound lanes. The left-lane is striped as a shared left-through lane, which provides access to the surface parking on the left and also provides access to the hotel and the above grade parking structure. The right-lane is striped as a turn-pocket that provides access to the below-grade parking and to the surface parking located to the right of University Circle. Because the below-grade garage entrance ramp will be closed during phase 2 and phase 3, it is recommended that the inbound lanes on University Circle be reconfigured as described below.

> **Recommendation** – The inbound lanes on University Circle should be reconfigured so that the left-lane is striped as a left-turn pocket and the right-lane as a through lane that would provide access to the hotel and the above-grade parking garage. The left-lane would provide access to the surface parking on the left and the below-grade parking (via the conversion of the double lane exit ramp to a two-direction in- and out-ramp).

Community Benefit Analysis

Although not required to reduce the project's adverse effects, the project applicant is proposing transportation improvements that would benefit the community by alleviating existing congestion in the project vicinity. Two alternative improvements were analyzed as described below.

Community Benefit 1

This alternative would restripe the eastbound Woodland Avenue approach at University Avenue to convert the shared through/right turn lane to a shared left/through/right lane. This change would allow three lanes of left turns off Woodland Avenue onto University Avenue.

Community Benefit 2

This alternative would widen Woodland Avenue to add a third left-turn lane on eastbound Woodland Avenue at University Avenue. The improvement would require modifications to the curb and sidewalk on the north side of Woodland Avenue adjacent to the project site and on the northeast corner of the University/Woodland intersection within the existing right-of-way.

Traffic conditions with each alternative improvement in addition to previously identified improvements required to alleviate adverse effects on intersections levels of service were simulated under existing plus project and cumulative plus project conditions. The intersection levels of service, travels time savings through the University/Woodland Avenue intersection and the total network delays with the community benefit alternatives under existing conditions are shown in Table 15, Table 16, and Table 17, respectively. The intersections levels of service, travels time savings and the total network delay under cumulative conditions are shown in Table 18, Table 19, and Table 20, respectively.

As shown in Table 15, the proposed community benefit improvements under both alternatives are expected to have a minimal effect on intersection levels of service along Woodland Avenue. The analysis shows that with the proposed improvements under alternative 1, the intersection delays on Woodland Avenue at University Circle, Manhattan Avenue and Euclid Avenue would increase during the AM peak hour. This is because during the AM peak hour, the combined eastbound through and right-turning vehicles at the University Avenue/ Woodland Avenue intersection consists of 30% of the total approach volume, and the improvements proposed under alternative 1 would decrease the capacity for the eastbound through and right-turning vehicles and would result in longer queues on Woodland Avenue compared to alternative 2 and the no community benefit alternative.

Based on the total travel time savings through the University/Woodland Avenue intersection (Table 16), alternative 1 would not result in any travel time savings and alternative 2 would result in a total travel time savings of 8 minutes during the PM peak hour for traffic through the University/Woodland Avenue intersection. However, it should be noted that under alternative 2, signal timing adjustments were assumed at the University Avenue/US 101 southbound ramps intersection to allocate more green time to the northbound traffic on University Avenue by reducing the green time for other conflicting movements. Since the travel time savings through the University/Woodland Avenue intersection does not account for the potential increase in delays to other movements at the University Avenue/US 101 southbound ramps intersection, the total network delay was used to evaluate the effects of the community benefits in the study area.

A comparison of the total network delay (Table 17) shows that the improvements proposed under alternative 1 would result in an increase in overall network delay during the AM peak hour and a negligible change during the PM peak hour. The improvements proposed under alternative 2 would result in a decrease in the total network delay during both the AM and PM peak hours (13 seconds and

16 seconds per vehicle respectively). This equates to a 6% reduction in delay during the AM peak hour and an 8% reduction in delay during the PM peak hour.

Analysis of the proposed community benefit improvements under cumulative conditions (Table 18) shows that alternative 1 would have a minimal effect on intersection levels of service, while alternative 2 would result in substantial improvements to the intersections on Woodland Avenue west of University Avenue during the AM peak hour. Analysis of travel time savings though the University Avenue /Woodland Avenue intersection (Table 19) shows alternative 1 would not reduce the total travel times during the AM peak hour and would reduce the travel time during the PM peak hour by 3 minutes. Alternative 2 would result in a total travel time savings of 2 minutes during the AM peak hour and 3 minutes during the PM peak hour. Analysis of the total network delay (Table 20) shows an increase in overall network delay during both the AM and PM peak hours under alternative 1, and an increase in overall network delay during the AM peak hour and negligible difference in the overall network delay during the PM peak hour under alternative 2.

The analysis shows better traffic operations under alternative 2 compared to alternative 1. However, the overall benefits from implementing the improvements under alternative 2 would be rather small. Although alternative 2 would increase the intersection capacity at University/Woodland Avenue and theoretically allow a higher number of vehicles to turn onto University Avenue, the actual benefit from the additional turn lane would be attenuated due to the downstream congestion on northbound University Avenue between the US 101 southbound ramps and Woodland Avenue.

Since the adverse effects of the project would be fully offset by the implementation of Donohoe Street improvements, the project would not be required to implement the proposed community benefit improvements under either of the alternatives. City leaders may weigh the potential benefits of the proposed community benefit improvements evaluated in this report versus other community needs to which the project may contribute when choosing the best way for the proposed project to benefit the community.

Table 15
Community Benefit Under Existing Conditions – Intersection Levels of Service

			Existing Conditions									
					Existing Plus Project							
			No Project		No Improvements		with Improvements [2]		with Improvements & Community Benefit 1 [3]		with Improvements & Community Benefit 2 [4]	
Intersection	Control	Peak Hour	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS
University Avenue/US 101 Southbound Ramps	Signal	AM	**99.2**	**F**	**104.6**	**F**	**79.7**	**E**	**109.9**	**F**	**71.4**	**E**
		PM	87.4	F	86.3	F	45.9	D	42.4	D	50.8	D
University Avenue/Woodland Avenue	Signal	AM	**66.1**	**E**	**64.7**	**E**	50.6	D	53.4	D	44.6	D
		PM	**248.0**	**F**	**248.6**	**F**	**146.6**	**F**	**145.2**	**F**	**115.4**	**F**
Woodland Avenue/University Circle Driveway	Signal	AM	18.7	B	20.9	C	13.6	B	26.3	C	10.3	B
		PM	**126.8**	**F**	**256.2**	**F**	24.1	C	21.8	C	21.0	C
Woodland Avenue/Manhattan Avenue	AWSC	AM	11.6	B	16.6	B	8.6	A	32.4	C	7.1	A
		PM	**92.4**	**F**	**197.7**	**F**	7.0	A	6.5	A	6.3	A
Woodland Avenue/Euclid Avenue	OWSC	AM	6.6	A	8.8	A	6.6	A	7.7	A	6.4	A
		PM	**317.0**	**F**	**OVFL**	**F**	6.0	A	6.1	A	5.8	A

Notes:

Avg Delay = Average Delay in seconds; LOS = Level of Service; AWSC = All-Way Stop Control; OVFL indicates that the result is out of software calculation limits.

[1] At signalized intersections and all-way stop controlled intersections, delay shown is the weighted average delay for all vehicles entering the intersection calculated using the calibrated SimTraffic model.

[2] Improvements include new traffic signals on Donohoe at Euclid and US 101 NB on-ramp along with the following improvements:
Donohoe Street/Euclid - 1 through lane and 1 right turn lane in the westbound direction on Donohoe Street from US 101 NB On-Ramp.
Donohoe Street/US 101 northbound on-ramp - 1 left-turn lane, 1 shared left-through lane and 1 shared through-right lane on westbound Donohoe Street.
University Avenue/Donohoe Street - Dual left-turn lanes, one through lane, one shared-through-right lane and an exclusive right-turn lane on westbound Donohoe Street. One left-turn lane and a shared through-right lane was assumed on eastbound Donohoe Street. Protected left-turn phasing was assumed for eastbound and westbound approaches.
Donohoe Street/US 101 northbound off-ramp - Median modification to accommodate four westbound through lanes.
Donohoe Street/Cooley Avenue - Restripe the eastbound approach to accomodate one full left-turn lane from the upstream intersection and two through lanes.

[3] Community benefit includes restriping the eastbound approach on Woodland Avenue to include 2 left-turn lanes and a shared left-through-right lane to increase capacity for the left-turning vehicles at University Avenue.

[4] Community benefit includes adding an additional eastbound left-turn lane on Woodland Avenue to include 3 left-turn lanes and a shared through-right lane to increase capacity for the left-turning vehicles from Woodland Avenue onto University Avenue.

Bold indicates an adverse project effect.

Table 16
Community Benefit Under Existing Conditions – Travel Time Saving

		Existing Conditions - Travel Times (seconds)					
		AM Peak			PM Peak		
#	Travel Path	Without Community Benefit [1]	Community Benefit Alternative 1 [2]	Community Benefit Alternative 2 [3]	Without Community Benefit [1]	Community Benefit Alternative 1 [2]	Community Benefit Alternative 2 [3]
1	EB Woodland to NB University (from west of Euclid Avenue to north of Donohoe)	318	361	307	261	255	254
2	NB University (from south of Woodland to north of Donohoe)	326	324	321	1,279	1,284	850
3	WB Woodland to NB University (from Cooley Avenue to north of Donohoe)	345	345	340	334	322	296
	Total (seconds)	989	1,029	968	1,874	1,861	1,400
	(minutes)	16	17	16	31	31	23

Notes:
[1] Assumes Donohoe Street improvements.
[2] Community benefit includes restriping the eastbound approach on Woodland Avenue to include 2 left-turn lanes and a shared left-through-right lane to increase capacity for the left-turning vehicles at University Avenue.
[3] Community benefit includes adding an additional eastbound left-turn lane on Woodland Avenue to include 3 left-turn lanes and a shared through-right lane to increase capacity for the left-turning vehicles from Woodland Avenue onto University Avenue.

Table 17
Community Benefit Under Existing Conditions – Total Network Delay

			With Project		With Project & Recommended Improvements		With Recommended Improvements Plus Community Benefit 1		With Recommended Improvements Plus Community Benefit 2	
Performance Measure	Peak Hour	Existing		Change from Existing		Change from Project		Change from Recommended Improvements		Change from Recommended Improvements
Avg Delay/Veh (secs)	AM	299	329	31	236	-94	272	36	223	-13
	PM	351	365	14	193	-172	194	1	177	-16

Table 18
Community Benefit Under Cumulative Conditions – Intersection Levels of Service

			Cumulative Conditions									
					Cumulative Plus Project							
			No Project [2]		No Improvements		with Recommended Improvements [3]		with Recommended Improvements & Community Benefit 1 [4]		with Recommended Improvements & Community Benefit 2 [5]	
	Control	Peak	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS	Avg. Delay [1]	LOS	Avg.	LOS
University Avenue/US 101 Southbound Ramps	Signal	AM	**152.4**	**F**	**169.9**	**F**	**85.4**	**F**	**97.7**	**F**	**111.5**	**F**
		PM	**137.8**	**F**	**139.0**	**F**	**122.3**	**F**	**127.6**	**F**	**127.0**	**F**
University Avenue/Woodland Avenue	Signal	AM	**OVFL**	**F**	**OVFL**	**F**	**129.2**	**F**	**123.6**	**F**	**161.5**	**F**
		PM	**OVFL**	**F**	**OVFL**	**F**	**176.5**	**F**	**181.2**	**F**	**184.2**	**F**
Woodland Avenue/University Circle Driveway	Signal	AM	**OVFL**	**F**	**OVFL**	**F**	**65.5**	**E**	**72.1**	**E**	36.6	D
		PM	**OVFL**	**F**	**OVFL**	**F**	**264.5**	**F**	**237.6**	**F**	**241.9**	**F**
Woodland Avenue/Manhattan Avenue	AWSC	AM	**OVFL**	**F**	**OVFL**	**F**	**172.8**	**F**	**211.6**	**F**	**64.5**	**E**
		PM	**OVFL**	**F**	**OVFL**	**F**	**447.7**	**F**	**401.6**	**F**	**400.2**	**F**
Woodland Avenue/Euclid Avenue	OWSC	AM	**OVFL**	**F**	**OVFL**	**F**	**226.2**	**F**	**253.8**	**F**	52.1	D
		PM	**OVFL**	**F**	**OVFL**	**F**	**401.5**	**F**	**258.0**	**F**	**394.1**	**F**

Notes:

Avg Delay = Average Delay in seconds; LOS = Level of Service; AWSC = All-Way Stop Control; OVFL indicates that the result is out of software calculation limits.

[1] At signalized intersections and all-way stop controlled intersections, delay shown is the weighted average delay for all vehicles entering the intersection calculated using the calibrated SimTraffic model.

[2] Cumulative Baseline conditions reflect the following improvements:
University Avenue/Donohoe Street - An exclusive right-turn lane on southbound University.

[3] The analysis assumes new traffic signals on Donohoe at Euclid and US 101 NB on-ramp along with the following improvements:
Donohoe Street/Euclid - 1 through lane and 1 right turn lane in the westbound direction on Donohoe Street from US 101 NB On-Ramp.
Donohoe Street/US 101 northbound on-ramp - 1 left-turn lane, 1 shared left-through lane and 1 shared through-right lane on westbound Donohoe Street.
University Avenue/Donohoe Street - Dual left-turn lanes, one through lane, one shared-through-right lane and an exclusive right-turn lane on westbound Donohoe Street. One left-turn lane and a shared through-right lane was assumed on eastbound Donohoe Street. Protected left-turn phasing was assumed for eastbound and westbound approaches. Extension of the inner left-turn lane on the northbound University Avenue approach by an additional 250 feet.
Donohoe Street/US 101 northbound off-ramp - Median modification to accommodate four westbound through lanes.
Donohoe Street/Cooley Avenue - Restripe the eastbound approach to accomodate one full left-turn lane from the upstream intersection and two through lanes.

[4] Community benefit includes restriping the eastbound approach on Woodland Avenue to include 2 left-turn lanes and a shared left-through-right lane to increase capacity for the left-turning vehicles at University Avenue.

[5] Community benefit includes adding an additional eastbound left-turn lane on Woodland Avenue to include 3 left-turn lanes and a shared through-right lane to increase capacity for the left-turning vehicles from Woodland Avenue onto University Avenue.

Bold indicates an adverse project effect.

Table 19
Community Benefit Under Cumulative Conditions – Travel Time Savings

		Cumulative Conditions - Travel Times (seconds)					
		AM Peak			PM Peak		
#	Travel Path	Without Community Benefit [1]	Community Benefit Alternative 1 [2]	Community Benefit Alternative 2 [3]	Without Community Benefit [1]	Community Benefit Alternative 1 [2]	Community Benefit Alternative 2 [3]
1	EB Woodland to NB University (from west of Euclid Avenue to north of Donohoe)	762	820	525	1,984	1,771	1,770
2	NB University (from south of Woodland to north of Donohoe)	656	643	761	815	858	855
3	WB Woodland to NB University (from Cooley Avenue to north of Donohoe)	568	577	569	840	851	876
	Total (seconds)	1,987	2,040	1,856	3,639	3,479	3,500
	(Minutes)	33	34	31	61	58	58

Notes:
[1] Assumes Donohoe Street improvements.
[2] Community benefit includes restriping the eastbound approach on Woodland Avenue to include 2 left-turn lanes and a shared left-through-right lane to increase capacity for the left-turning vehicles at University Avenue.
[3] Community benefit includes adding an additional eastbound left-turn lane on Woodland Avenue to include 3 left-turn lanes and a shared through-right lane to increase capacity for the left-turning vehicles from Woodland Avenue onto University Avenue.

Table 20
Community Benefit Under Cumulative Conditions – Total Network Delay

			With Project		With Project & Recommended Improvements		With Recommended Improvements Plus Community Benefit 1		With Recommended Improvements Plus Community Benefit 2	
Performance Measure	Peak Hour	Cumulative No Project		Change from No Project		Change from Project		Change from Full Mitigation		Change from Full Mitigation
Avg Delay/Veh (Secs)	AM	874	950	76	348	-603	370	23	373	26
	PM	835	855	20	466	-389	479	13	466	-1

5.
CMP Freeway Analysis

Since the project is expected to add more than 100 net new peak-hour vehicle trips to the roadway network, a Congestion Management Program (CMP) freeway analysis was prepared to be consistent with the methodologies set forth by C/CAG and VTA. This chapter describes the existing and future operations of the freeway segments in the study area. The freeway segment analysis was prepared for informational purposes.

The following key freeway segments were evaluated:

US 101, between Whipple Avenue and Embarcadero Road
US 101, between Embarcadero Road and San Antonio Road
US 101, between San Antonio Road and Rengstorff Avenue
SR 84 at Dumbarton Bridge

The Santa Clara /San Mateo County line is located between the Embarcadero Road and University Avenue interchanges on US 101. For this reason, the segments of US 101 between Rengstorff Avenue and Embarcadero Road were analyzed based on the Santa Clara CMP guidelines, and the segments of US 101 between Embarcadero Road and Whipple Avenue were analyzed based on San Mateo County CMP guidelines.

Existing Freeway Segment Levels of Service

Existing traffic volumes and levels of service on the study freeway segments were obtained from the 2019 C/CAG CMP Monitoring Report and the 2018 Santa Clara Valley Transportation Authority (VTA) CMP Monitoring Study. The 2019 CMP data show that all four study freeway segments in San Mateo County currently operate at an unacceptable LOS F during both AM and PM peak hours (see Table 21). The levels of service reported in Table 21 reflect the lowest LOS for either direction of travel.

Table 21
Existing Freeway Segment Levels of Service – San Mateo County

Freeway	Segment	Peak Hour	Existing [1] # of Lanes	Capacity	LOS
US 101	Santa Clara County Line to Whipple Avenue	AM	4	9,200	**F**
		PM	4	9,200	**F**
US 101	Whipple Avenue to SR 92	AM	4	9,200	**F**
		PM	4	9,200	**F**
US 101	SR 92 to Peninsula Avenue	AM	4	9,200	**F**
		PM	4	9,200	**F**
SR 84	Dumbarton Bridge	AM	3	6,900	**F**
		PM	3	6,900	**F**

Notes:
1. Existing freeway conditions are based on 2019 Congestion Management Program Monitoring Report of San Mateo County.
BOLD indicates a substandard level of service.

The following mixed-flow and HOV freeway segments in Santa Clara County currently operate at an unacceptable LOS F during at least one peak hour of traffic (see Table 22).

Mixed-Flow Freeway Segments

- US 101, northbound from Rengstorff Avenue to San Antonio Road (PM peak hour)
- US 101, northbound from San Antonio Road to Oregon Expressway (AM and PM peak hours)
- US 101, northbound from Oregon Expressway to Embarcadero Road (AM and PM peak hours)
- US 101, southbound from Embarcadero Road to Oregon Expressway (PM peak hour)
- US 101, southbound from Oregon Expressway to San Antonio Road (PM peak hour)
- US 101, southbound from San Antonio Road to Rengstorff Avenue (PM peak hour)

HOV Freeway Segments

- US 101, northbound from San Antonio Road to Oregon Expressway (PM peak hour)
- US 101, northbound from Oregon Expressway to Embarcadero Road (AM and PM peak hours)

Freeway Segment Evaluation under Existing Plus Project Conditions

Traffic volumes on the study freeway segments under existing plus project conditions were estimated by adding project trips to the existing volumes obtained from the 2019 CMP Monitoring Report for San Mateo County and 2018 CMP Monitoring Report for Santa Clara County.

The project's effects at nearby freeway segments were evaluated in accordance with CMP guidelines. The results show that the project would not cause an adverse effect at any of the study freeway segments in San Mateo or Santa Clara County (see Tables 23 and 24).

Table 22
Existing Freeway Segment Levels of Service – Santa Clara County

					Mixed-Flow Lane						HOV Lane					
#	Freeway	Segment	Direction	Peak Hour	Avg. Speed[1]	# of Lanes[1]	Capacity (vph)	Volume[1]	Density	LOS	Avg. Speed[1]	# of Lanes[1]	Capacity (vph)	Volume[1]	Density	LOS
1	US 101	Rengstorff Ave to San Antonio Rd	NB	AM	31.80	3	6,900	5,241	55	E	47.87	2	3,300	3,432	36	D
			NB	PM	19.40	3	6,900	3,999	**69**	**F**	54.16	2	3,300	3,292	30	D
2	US 101	San Antonio Rd to Oregon Expwy	NB	AM	17.80	3	6,900	3,786	**71**	**F**	50.43	2	3,300	3,386	34	D
			NB	PM	14.20	3	6,900	3,249	**76**	**F**	13.77	2	3,300	2,964	**108**	**F**
3	US 101	Oregon Expwy to Embarcadero Rd	NB	AM	20.20	3	6,900	4,101	**68**	**F**	24.73	1	1,650	1,693	**68**	**F**
			NB	PM	18.00	3	6,900	3,813	**71**	**F**	17.84	1	1,650	1,588	**89**	**F**
4	US 101	Embarcadero Rd to Oregon Expwy	SB	AM	48.00	3	6,900	5,967	41	D	72.95	1	1,650	570	8	A
			SB	PM	15.20	3	6,900	3,405	**75**	**F**	55.31	1	1,650	1,627	29	D
5	US 101	Oregon Expwy to San Antonio Rd	SB	AM	49.00	3	6,900	5,976	41	D	70.60	2	3,300	1,838	13	B
			SB	PM	19.40	3	6,900	3,999	**69**	**F**	59.66	2	3,300	3,068	26	C
6	US 101	San Antonio Rd to Rengstorff Ave	SB	AM	38.60	3	6,900	5,670	49	E	71.66	2	3,300	1,560	11	A
			SB	PM	15.00	3	6,900	3,375	**75**	**F**	56.28	2	3,300	3,220	29	D

[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2018.
Bold indicates unacceptable LOS.

Table 23
Existing Plus Project Freeway Level of Service Analysis – San Mateo County

				Existing [1]			Project Conditions		
Freeway	Segment	Dir	Peak Hour	# of Lanes	Capacity	LOS	Project Trips	% Capacity	Adverse Effect
US 101	Santa Clara County Line to Whipple Avenue	NB	AM	4	9,200	**F**	4	0.04%	NO
			PM	4	9,200	**F**	26	0.28%	NO
US 101	Whipple Avenue to Santa Clara County Line	SB	AM	4	9,200	**F**	27	0.29%	NO
			PM	4	9,200	**F**	5	0.05%	NO
SR 84	Dumbarton Bridge	EB	AM	3	6,900	**F**	4	0.06%	NO
			PM	3	6,900	**F**	23	0.33%	NO
SR84	Dumbarton Bridge	WB	AM	3	6,900	**F**	24	0.35%	NO
			PM	3	6,900	**F**	5	0.07%	NO

Notes:
1. Existing freeway conditions are based on 2019 Congestion Management Program Monitoring Report of San Mateo County.
BOLD indicates a substandard level of service.

Table 24
Existing Plus Project Freeway Level of Service Analysis – Santa Clara County

					Existing Plus Project												Project Trips				
					Mixed-Flow Lane						HOV Lane							Mixed-Flow Lane		HOV Lane	
#	Freeway	Segment	Direction	Peak Hour	Avg. Speed[1]	# of Lanes[1]	Capacity (vph)	Volume	Density	LOS	Avg. Speed[1]	# of Lanes[1]	Capacity (vph)	Volume	Density	LOS	Total Volume	Volume	% of Capacity	Volume	% of Capacity
1	US 101	Rengstorff Ave to San Antonio Rd	NB	AM	31.80	3	6,900	5,275	55	E	47.87	2	3,300	3,441	36	D	43	34	0.49	9	0.27
			NB	PM	19.40	3	6,900	4,005	**69**	**F**	54.16	2	3,300	3,294	30	D	8	6	0.09	2	0.06
2	US 101	San Antonio Rd to Oregon Expwy	NB	AM	17.80	3	6,900	3,820	**72**	**F**	50.43	2	3,300	3,395	34	D	43	34	0.49	9	0.27
			NB	PM	14.20	3	6,900	3,255	**76**	**F**	13.77	2	3,300	2,966	**108**	**F**	8	6	0.09	2	0.06
3	US 101	Oregon Expwy to Embarcadero Rd	NB	AM	20.20	3	6,900	4,135	**68**	**F**	24.73	1	1,650	1,702	**69**	**F**	43	34	0.49	9	0.55
			NB	PM	18.00	3	6,900	3,819	**71**	**F**	17.84	1	1,650	1,590	**89**	**F**	8	6	0.09	2	0.12
4	US 101	Embarcadero Rd to Oregon Expwy	SB	AM	48.00	3	6,900	5,973	41	D	72.95	1	1,650	571	8	A	7	6	0.09	1	0.06
			SB	PM	15.20	3	6,900	3,439	**75**	**F**	55.31	1	1,650	1,635	30	D	42	34	0.49	8	0.48
5	US 101	Oregon Expwy to San Antonio Rd	SB	AM	49.00	3	6,900	5,982	41	D	70.60	2	3,300	1,839	13	B	7	6	0.09	1	0.03
			SB	PM	19.40	3	6,900	4,033	**69**	**F**	59.66	2	3,300	3,076	26	C	42	34	0.49	8	0.24
6	US 101	San Antonio Rd to Rengstorff Ave	SB	AM	38.60	3	6,900	5,676	49	E	71.66	2	3,300	1,561	11	A	7	6	0.09	1	0.03
			SB	PM	15.00	3	6,900	3,409	**76**	**F**	56.28	2	3,300	3,228	29	D	42	34	0.49	8	0.24

[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2018.
Bold indicates unacceptable LOS.
Boxed indicates an adverse effect.

Freeway Segment Evaluation under Cumulative Conditions

Traffic conditions on the study freeway segments under Year 2030 cumulative conditions were obtained from the Final Subsequent Environmental Impact Report, North Bayshore Precise Plan (Appendix E), dated November 2017. The trips added by the proposed project are assumed to be the same under cumulative conditions as under existing plus project conditions.

The project's effects at nearby freeway segments were evaluated in accordance with CMP guidelines. The results show that the none of study freeway segments in San Mateo or Santa Clara County would have an adverse effect due to the proposed project (see Tables 25 and 26).

Table 25
Cumulative Freeway Level of Service Analysis – San Mateo County

				Year 2030 Cumulative [1]			Project Conditions		
Freeway	Segment	Dir	Peak Hour	# of Lanes	Capacity	LOS	Project Trips	% Capacity	Adverse Effect
US 101	Santa Clara County Line to Whipple Avenue	NB	AM	4	9,200	**F**	4	0.04%	NO
			PM	4	9,200	**F**	26	0.28%	NO
US 101	Whipple Avenue to Santa Clara County Line	SB	AM	4	9,200	**F**	27	0.29%	NO
			PM	4	9,200	**F**	5	0.05%	NO
SR 84	Dumbarton Bridge [2]	EB	AM	3	6,900	**F**	4	0.06%	NO
			PM	3	6,900	**F**	23	0.33%	NO
SR84	Dumbarton Bridge [2]	WB	AM	3	6,900	**F**	24	0.35%	NO
			PM	3	6,900	**F**	5	0.07%	NO

Notes:
1. Source: Final Subsequent Environmental Impact Report, North Bayshore Precise Plan (November, 2017). Appendix D: Transportation Impact Analysis (Final). July 2017
2. Cumulative traffic forecasts for the Dumbarton Bridge (SR 84) are not available. This freeway segment currently operates at LOS F during both the AM and PM peak hours. There are no planned capacity improvements for this location. Thus, it is expected to continue operating at LOS F under the Year 2030 cumulative scenario.

BOLD indicates a substandard level of service.

Table 26
Cumulative Freeway Level of Service Analysis – Santa Clara County

					Year 2030 Cumulative Conditions							Project Trips				
					Mixed-Flow Lanes			HOV Lanes				Mixed-Flow Lane			HOV Lane	
#	Freeway	Segment	Direction	Peak Hour	# of Lanes[1]	Capacity (vph)	Acceptable LOS?	# of Lanes[1]	Capacity (vph)	Ex. Volume/a/	Acceptable LOS?	Total Volume	Volume	% of Capacity	Volume	% of Capacity
1	US 101	Rengstorff Ave to San Antonio Rd	NB	AM	3	6,900	NO	2	3,300	3,300	YES	43	34	0.49	9	0.27
			NB	PM	3	6,900	NO	2	3,300	3,220	YES	8	6	0.09	2	0.06
2	US 101	San Antonio Rd to Oregon Expwy	NB	AM	3	6,900	NO	2	3,300	3,520	YES	43	34	0.49	9	0.27
			NB	PM	3	6,900	NO	2	3,300	3,600	YES	8	6	0.09	2	0.06
3	US 101	Oregon Expwy to Embarcadero Rd	NB	AM	3	6,900	NO	1	1,650	1,800	NO	43	34	0.49	9	0.55
			NB	PM	3	6,900	NO	1	1,650	1,980	NO	8	6	0.09	2	0.12
4	US 101	Embarcadero Rd to Oregon Expwy	SB	AM	3	6,900	NO	1	1,650	2,200	NO	7	6	0.09	1	0.06
			SB	PM	3	6,900	NO	1	1,650	1,720	NO	42	34	0.49	8	0.48
5	US 101	Oregon Expwy to San Antonio Rd	SB	AM	3	6,900	NO	2	3,300	2,010	YES	7	6	0.09	1	0.03
			SB	PM	3	6,900	NO	2	3,300	3,810	YES	42	34	0.49	8	0.24
6	US 101	San Antonio Rd to Rengstorff Ave	SB	AM	3	6,900	YES	2	3,300	2,510	YES	7	6	0.09	1	0.03
			SB	PM	3	6,900	NO	2	3,300	2,800	YES	42	34	0.49	8	0.24

Source: Final Subsequent Environmental Impact Report, North Bayshore Precise Plan (November, 2017). Appendix D: Transportation Impact Analysis (Final). July 2017

Boxed indicates an adverse effect.

University Circle Phase II Development Transportation Analysis

Technical Appendices

Appendix A

Traffic Counts

File Name: G:\Data 2019\Menlo Park 3-19\38AM FINAL.ppd
Start Date: 4/25/2019
Start Time: 7:00:00 AM
Site Code: 00000038
Comment 1: 0
Comment 2: 0
Comment 3: 0
Comment 4: 0

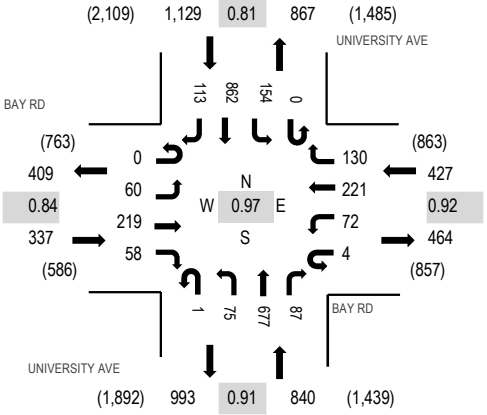
	Southbound				BAYFRONT EXPY Westbound				UNIVERSITY AVE Northbound				BAYFRONT EXPY Eastbound			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
07:00 AM	0	0	0	0	0	724	243	0	88	0	39	2	19	216	0	0
07:15 AM	0	0	0	0	0	699	269	1	108	0	55	6	17	209	0	0
07:30 AM	0	0	0	0	0	636	332	0	112	0	58	4	17	196	0	0
07:45 AM	0	0	0	0	0	636	304	1	108	0	53	1	14	208	0	0
08:00 AM	0	0	0	0	0	494	426	2	93	0	48	4	29	161	0	0
08:15 AM	0	0	0	0	0	462	394	0	107	0	57	5	35	137	0	0
08:30 AM	0	0	0	0	0	536	376	2	127	0	70	7	32	145	0	0
08:45 AM	0	0	0	0	0	520	388	5	106	0	83	3	29	130	0	0
09:00 AM	0	0	0	0	0	576	362	4	118	0	96	5	31	161	0	0
09:15 AM	0	0	0	0	0	581	358	4	107	0	81	2	24	153	0	0
09:30 AM	0	0	0	0	0	635	368	3	113	0	81	3	11	168	0	0
09:45 AM	0	0	0	0	0	589	335	0	86	0	73	2	21	174	0	0

					BAYFRONT EXPY				UNIVERSITY AVE				BAYFRONT EXPY				Vehicle
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Total
7:00-8:00	0	0	0	0	0	2695	1148	2	416	0	205	13	67	829	0	0	**5,360**
7:15-8:15	0	0	0	0	0	2465	1331	4	421	0	214	15	77	774	0	0	5,282
7:30-8:30	0	0	0	0	0	2228	1456	3	420	0	216	14	95	702	0	0	5,117
7:45-8:45	0	0	0	0	0	2128	1500	5	435	0	228	17	110	651	0	0	5,052
8:00-9:00	0	0	0	0	0	2012	1584	9	433	0	258	19	125	573	0	0	4,985
8:00-9:00	0	0	0	0	0	2094	1520	11	458	0	306	20	127	573	0	0	5,078
8:15-9:15	0	0	0	0	0	2213	1484	15	458	0	330	17	116	589	0	0	5,190
8:30-9:30	0	0	0	0	0	2312	1476	16	444	0	341	13	95	612	0	0	5,280
8:45-9:45	0	0	0	0	0	2381	1423	11	424	0	331	12	87	656	0	0	5,302
9:00-10:00	0	0	0	0	0	1805	1061	7	306	0	235	7	56	495	0	0	3,958

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

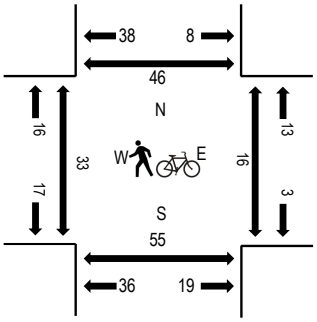
Location: 1 UNIVERSITY AVE & BAY RD AM
Date: Wednesday, April 17, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	10	33	6	1	30	27	26	0	17	96	39	0	30	229	9	553	2,264	4	0	4	5
7:15 AM	0	10	46	8	0	30	45	44	0	18	88	19	0	22	184	8	522	2,404	8	0	9	1
7:30 AM	0	11	39	10	1	26	50	26	0	16	120	17	0	33	194	33	576	2,530	3	0	3	4
7:45 AM	0	15	56	5	1	15	66	48	0	22	124	23	0	33	162	43	613	2,638	4	0	10	3
8:00 AM	0	15	71	8	2	21	67	37	0	26	162	23	0	50	153	58	693	2,733	7	6	14	13
8:15 AM	0	24	66	18	2	14	65	27	0	17	154	28	0	36	168	29	648		6	6	27	14
8:30 AM	0	14	56	14	0	19	52	43	1	15	160	22	0	41	230	17	684		10	1	5	5
8:45 AM	0	7	26	18	0	18	37	23	0	17	201	14	0	27	311	9	708		7	3	7	7

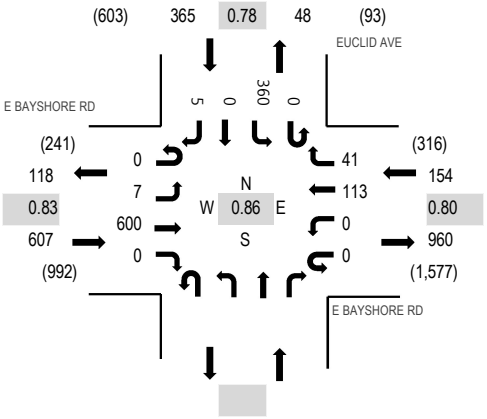
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	3	0	2	0	0	1	1	0	1	2	0	10
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	59	213	56	4	65	215	123	1	72	662	84	0	147	830	110	2,641
Mediums	0	1	6	2	0	4	6	5	0	3	14	2	0	6	30	3	82
Total	0	60	219	58	4	72	221	130	1	75	677	87	0	154	862	113	2,733

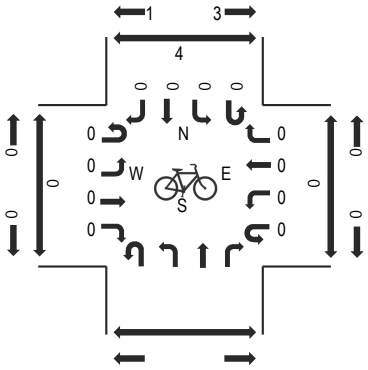
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 5 EUCLID AVE & E BAYSHORE RD AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

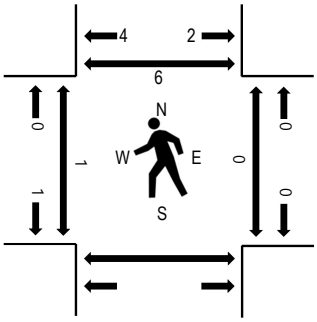
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				Northbound				EUCLID AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	124	0	0	0	29	13					0	90	0	2	259	1,126	1	0		2
7:15 AM	0	5	165	0	0	0	37	4					0	115	0	2	328	1,051	0	0		3
7:30 AM	0	0	183	0	0	0	20	12					0	101	0	0	316	924	0	0		1
7:45 AM	0	1	128	0	0	0	27	12					0	54	0	1	223	802	0	0		0
8:00 AM	0	2	95	0	0	0	34	17					0	35	0	1	184	785	0	0		4
8:15 AM	0	0	103	0	0	0	32	10					0	55	0	1	201		0	0		0
8:30 AM	0	0	95	0	0	0	21	8					0	70	0	0	194		0	0		2
8:45 AM	0	0	90	0	0	0	32	8					0	74	0	2	206		0	0		0

Peak Rolling Hour Flow Rates

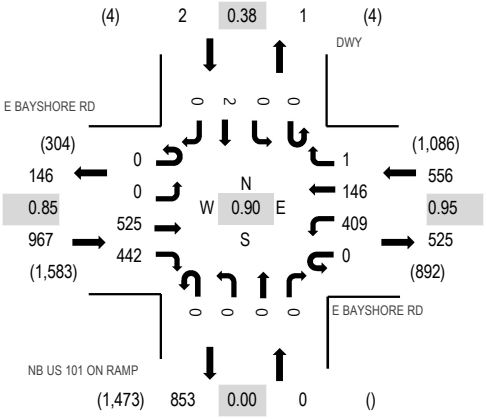
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	1	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	7	589	0	0	0	110	37					0	348	0	5	1,096
Mediums	0	0	11	0	0	0	3	4					0	11	0	0	29
Total	0	7	600	0	0	0	113	41					0	360	0	5	1,126

All Traffic Data Services Inc.

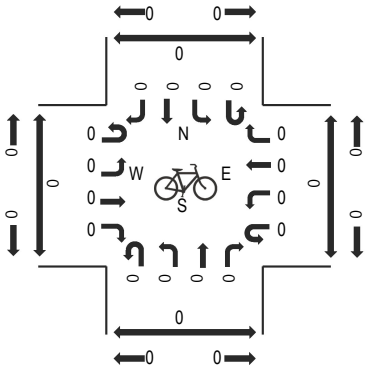
(303) 216-2439
www.alltrafficdata.net

Location: 6 NB US 101 ON RAMP & E BAYSHORE RD AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

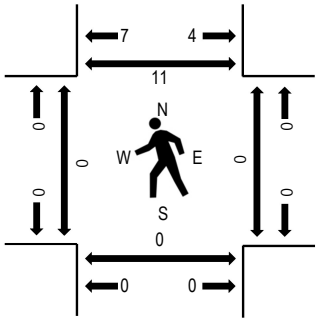
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				NB US 101 ON RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	126	97	0	111	34	1	0	0	0	0	0	0	0	0	369	1,525	0	0	0	3
7:15 AM	0	0	143	127	0	105	38	0	0	0	0	0	0	0	0	0	413	1,401	0	0	0	5
7:30 AM	0	0	152	132	0	107	32	0	0	0	0	0	0	0	0	0	423	1,299	0	0	0	3
7:45 AM	0	0	104	86	0	86	42	0	0	0	0	0	0	0	2	0	320	1,178	0	0	0	0
8:00 AM	0	0	74	50	0	71	49	1	0	0	0	0	0	0	0	0	245	1,148	0	0	0	3
8:15 AM	0	0	102	67	0	100	41	0	0	0	0	0	0	0	1	0	311		0	0	0	3
8:30 AM	0	0	101	64	0	106	29	2	0	0	0	0	0	0	0	0	302		0	0	0	2
8:45 AM	0	0	90	68	0	93	38	0	0	0	0	0	0	0	0	1	290		0	0	0	1

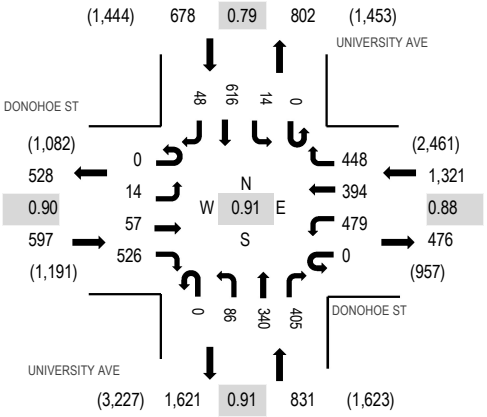
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	509	433	0	400	142	1	0	0	0	0	0	0	2	0	1,487
Mediums	0	0	16	8	0	6	4	0	0	0	0	0	0	0	0	0	34
Total	0	0	525	442	0	409	146	1	0	0	0	0	0	0	2	0	1,525

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

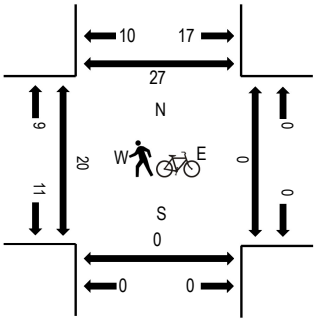
Location: 2 UNIVERSITY AVE & DONOHOE ST AM
Date: Wednesday, April 17, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	25	96	0	91	105	89	0	12	57	87	0	10	223	10	806	3,292	4	0	0	3
7:15 AM	0	1	20	142	0	93	117	81	0	16	64	104	0	3	199	19	859	3,226	7	0	0	2
7:30 AM	0	4	10	149	0	95	105	66	0	13	92	98	0	1	170	8	811	3,205	1	0	0	5
7:45 AM	0	2	10	134	0	105	107	86	0	30	108	111	0	2	109	12	816	3,301	7	0	0	4
8:00 AM	0	1	10	103	0	119	82	99	0	22	92	118	0	0	82	12	740	3,427	4	0	0	8
8:15 AM	0	8	19	133	0	88	95	97	0	32	92	98	0	3	160	13	838		0	0	0	1
8:30 AM	0	3	9	146	0	135	118	111	0	18	64	101	0	6	184	12	907		0	0	0	5
8:45 AM	0	2	19	144	0	137	99	141	0	14	92	88	0	5	190	11	942		2	0	0	2

Peak Rolling Hour Flow Rates

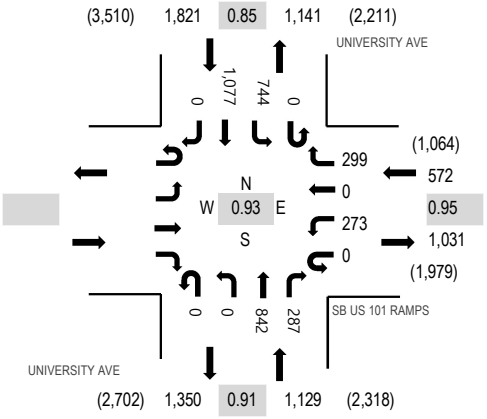
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	2	1	2	0	0	1	1	0	0	4	0	11
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	57	517	0	471	385	435	0	82	331	394	0	14	591	48	3,339
Mediums	0	0	0	9	0	6	8	11	0	4	8	10	0	0	21	0	77
Total	0	14	57	526	0	479	394	448	0	86	340	405	0	14	616	48	3,427

All Traffic Data Services Inc.

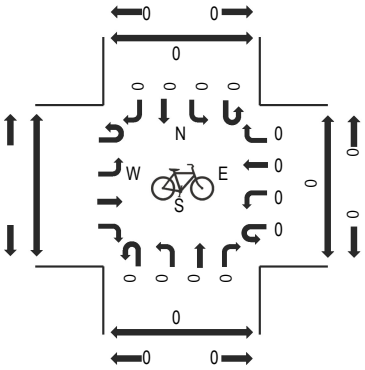
(303) 216-2439
www.alltrafficdata.net

Location: 8 UNIVERSITY AVE & SB US 101 RAMPS AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

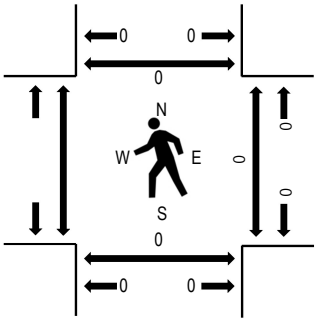
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SB US 101 RAMPS Eastbound				SB US 101 RAMPS Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	64	0	73	0	0	169	58	0	187	259	0	810	3,522		0	0	0
7:15 AM					0	70	0	80	0	0	204	56	0	221	316	0	947	3,481		0	0	0
7:30 AM					0	66	0	76	0	0	199	86	0	201	281	0	909	3,463		0	0	0
7:45 AM					0	73	0	70	0	0	270	87	0	135	221	0	856	3,418		0	0	0
8:00 AM					0	61	0	66	0	0	213	97	0	104	228	0	769	3,370		0	0	0
8:15 AM					0	54	0	64	0	0	230	112	0	152	317	0	929			0	0	0
8:30 AM					0	48	0	83	0	0	177	98	0	161	297	0	864			0	0	0
8:45 AM					0	59	0	57	0	0	180	82	0	142	288	0	808			0	0	0

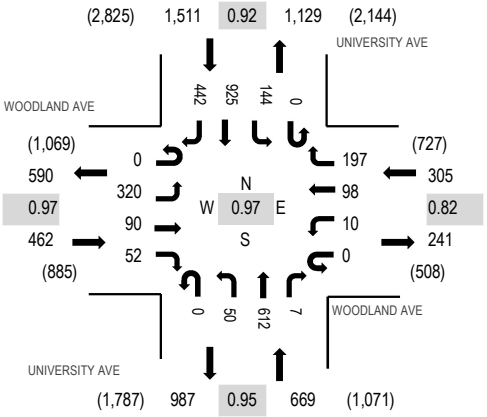
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	1	0	0	3	0	0	4
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	263	0	292	0	0	824	283	0	723	1,040	0	3,425
Mediums					0	10	0	7	0	0	17	4	0	18	37	0	93
Total					0	273	0	299	0	0	842	287	0	744	1,077	0	3,522

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

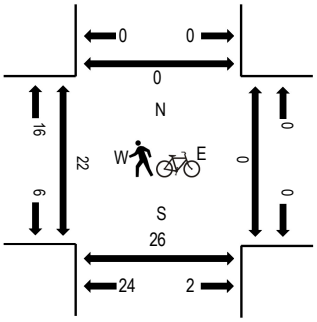
Location: 3 UNIVERSITY AVE & WOODLAND AVE AM
Date: Wednesday, April 17, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	67	10	10	0	5	13	62	0	4	67	5	0	55	185	72	555	2,561	5	0	6	0
7:15 AM	0	82	15	5	0	2	16	111	0	6	75	3	0	45	170	97	627	2,731	8	0	7	0
7:30 AM	0	91	17	13	0	5	20	86	0	10	103	0	0	49	199	94	687	2,863	10	0	18	0
7:45 AM	0	81	19	13	0	7	21	74	0	10	116	3	0	46	186	116	692	2,891	6	0	8	0
8:00 AM	0	86	20	11	0	4	21	56	0	11	154	3	0	33	222	104	725	2,947	3	0	7	0
8:15 AM	0	85	22	15	0	2	32	69	0	13	151	2	0	34	216	118	759		3	0	4	0
8:30 AM	0	78	23	15	0	2	26	40	0	11	148	0	0	40	225	107	715		0	0	3	0
8:45 AM	0	71	25	11	0	2	19	32	0	15	159	2	0	37	262	113	748		4	0	4	0

Peak Rolling Hour Flow Rates

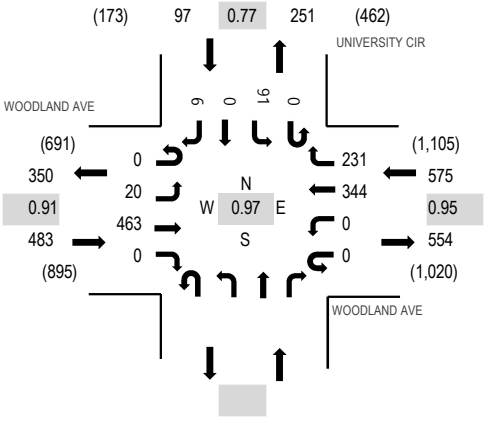
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	315	87	48	0	9	94	192	0	49	596	6	0	139	903	432	2,870
Mediums	0	5	3	4	0	1	4	5	0	1	16	1	0	4	21	10	75
Total	0	320	90	52	0	10	98	197	0	50	612	7	0	144	925	442	2,947

All Traffic Data Services Inc.

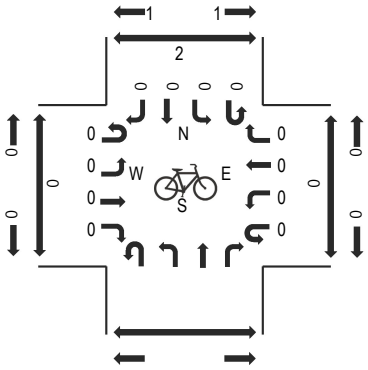
(303) 216-2439
www.alltrafficdata.net

Location: 9 UNIVERSITY CIR & WOODLAND AVE AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

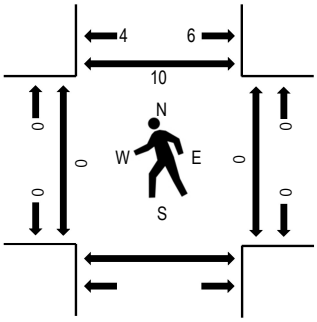
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				UNIVERSITY CIR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	83	0	0	0	60	39					0	15	0	2	200	1,031	0	0		0
7:15 AM	0	5	106	0	0	0	91	45					0	18	0	2	267	1,103	1	0		4
7:30 AM	0	4	108	0	0	0	100	48					0	11	0	1	272	1,133	0	0		1
7:45 AM	0	4	128	0	0	0	84	53					0	22	0	1	292	1,155	0	0		3
8:00 AM	0	4	117	0	0	0	74	61					0	16	0	0	272	1,142	0	0		3
8:15 AM	0	8	110	0	0	0	85	69					0	22	0	3	297		0	0		1
8:30 AM	0	4	108	0	0	0	101	48					0	31	0	2	294		0	0		3
8:45 AM	0	6	99	0	1	0	83	63					0	25	0	2	279		0	0		5

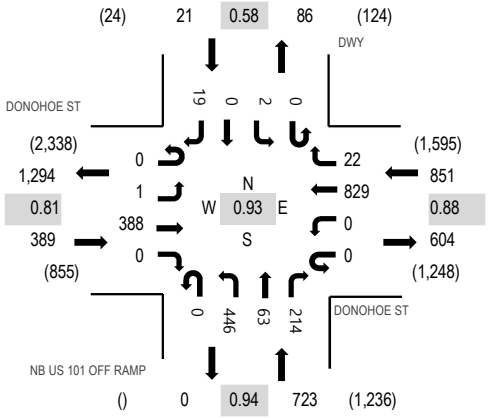
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	1					0	0	0	0	3
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	20	453	0	0	0	332	228					0	90	0	6	1,129
Mediums	0	0	9	0	0	0	11	2					0	1	0	0	23
Total	0	20	463	0	0	0	344	231					0	91	0	6	1,155

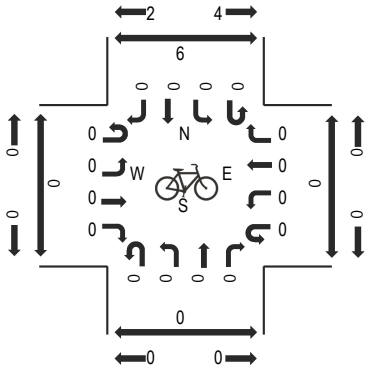
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 3 NB US 101 OFF RAMP & DONOHOE ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

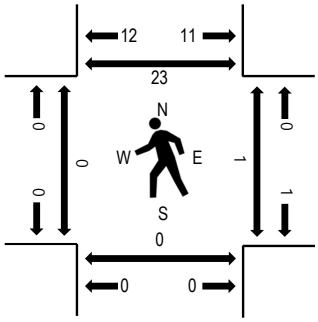
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				NB US 101 OFF RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	109	0	0	0	188	1	0	77	6	37	0	0	0	0	418	1,726	0	0	0	5
7:15 AM	0	0	143	0	0	0	217	2	0	82	2	40	0	0	0	1	487	1,729	0	0	0	5
7:30 AM	0	0	106	0	0	0	180	2	0	80	8	48	0	0	0	0	424	1,755	0	0	0	9
7:45 AM	0	0	108	0	0	0	148	6	0	69	11	53	0	0	0	2	397	1,862	0	0	0	5
8:00 AM	0	0	88	0	0	0	147	1	0	112	11	58	0	0	0	4	421	1,984	0	0	0	5
8:15 AM	0	0	115	0	0	0	219	5	0	93	16	59	0	0	0	6	513		0	0	0	8
8:30 AM	0	1	98	0	0	0	230	8	0	129	16	47	0	0	0	2	531		0	0	0	9
8:45 AM	0	0	87	0	0	0	233	8	0	112	20	50	0	2	0	7	519		0	1	0	1

Peak Rolling Hour Flow Rates

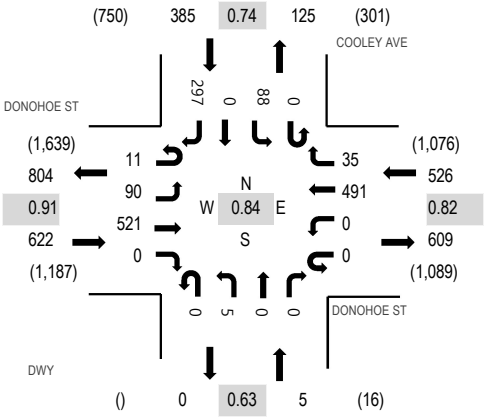
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	4
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	1	376	0	0	0	811	22	0	435	63	213	0	2	0	18	1,941
Mediums	0	0	10	0	0	0	17	0	0	10	0	1	0	0	0	1	39
Total	0	1	388	0	0	0	829	22	0	446	63	214	0	2	0	19	1,984

All Traffic Data Services Inc.

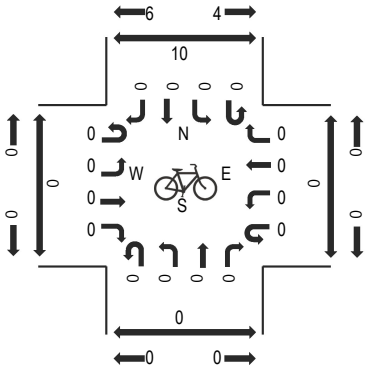
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY & DONOHOE ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

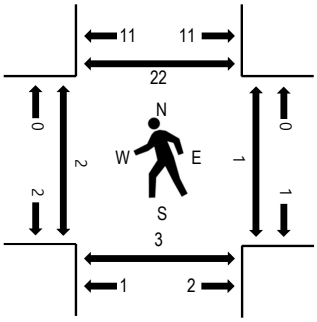
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				DWY Northbound				COOLEY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	17	120	0	0	0	136	14	0	0	0	0	0	30	0	62	380	1,538	0	0	0	4
7:15 AM	2	21	151	0	0	0	146	9	0	0	0	0	0	38	0	92	459	1,475	2	0	2	7
7:30 AM	2	20	133	0	0	0	131	7	0	2	0	0	0	11	0	59	365	1,381	0	0	0	7
7:45 AM	6	32	117	0	0	0	78	5	0	3	0	0	0	9	0	84	334	1,439	0	1	1	4
8:00 AM	3	40	106	0	0	0	102	3	0	4	0	0	0	7	0	52	317	1,491	0	0	0	5
8:15 AM	4	35	113	0	0	0	126	1	0	6	0	0	0	8	0	72	365		0	0	0	8
8:30 AM	6	35	100	0	0	0	157	11	0	0	0	0	0	24	0	90	423		1	0	0	9
8:45 AM	3	37	83	0	0	0	136	14	0	1	0	0	0	39	0	73	386		1	0	0	3

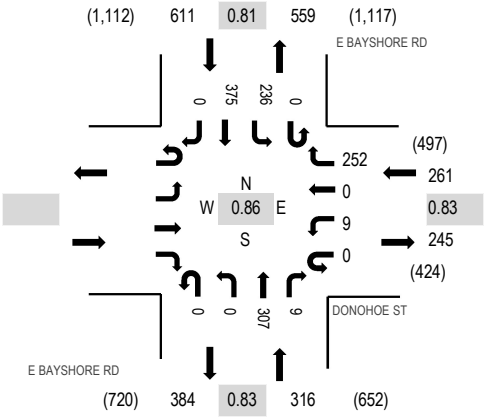
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	11	88	496	0	0	0	478	34	0	5	0	0	0	86	0	297	1,495
Mediums	0	2	25	0	0	0	12	0	0	0	0	0	0	2	0	0	41
Total	11	90	521	0	0	0	491	35	0	5	0	0	0	88	0	297	1,538

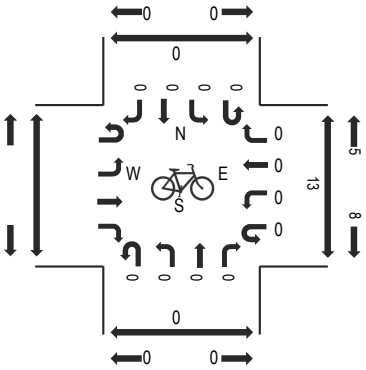
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 7 E BAYSHORE RD & DONOHOE ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

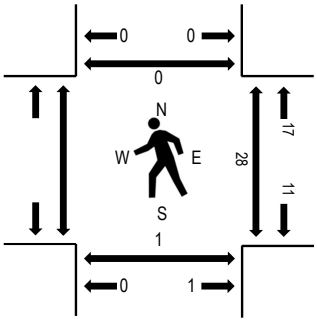
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Eastbound				DONOHOE ST Westbound				E BAYSHORE RD Northbound				E BAYSHORE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	3	0	62	0	0	91	3	0	46	104	0	309	1,188		9	0	0
7:15 AM					0	0	0	79	0	0	76	1	0	82	106	0	344	1,120		7	0	0
7:30 AM					0	4	0	64	0	0	74	1	0	59	87	0	289	1,038		4	0	0
7:45 AM					0	2	0	47	0	0	66	4	0	49	78	0	246	1,040		8	1	0
8:00 AM					0	3	0	44	0	0	67	2	0	47	78	0	241	1,073		4	0	0
8:15 AM					0	4	0	50	0	0	78	1	1	41	87	0	262			4	1	0
8:30 AM					0	0	0	68	0	0	100	1	0	44	78	0	291			2	0	0
8:45 AM					0	1	0	66	0	0	84	3	0	40	85	0	279			1	0	0

Peak Rolling Hour Flow Rates

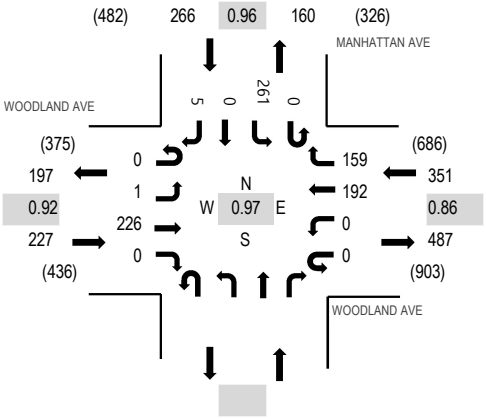
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	5	0	0	1	4	0	10
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	9	0	246	0	0	292	6	0	226	353	0	1,132
Mediums					0	0	0	6	0	0	10	3	0	9	18	0	46
Total					0	9	0	252	0	0	307	9	0	236	375	0	1,188

All Traffic Data Services Inc.

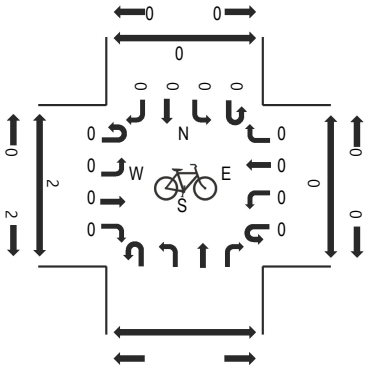
(303) 216-2439
www.alltrafficdata.net

Location: 10 MANHATTAN AVE & WOODLAND AVE AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

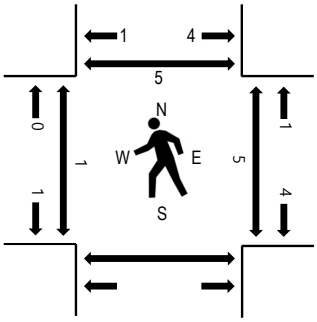
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				MANHATTAN AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	31	0	0	0	28	33					0	54	0	2	148	781	0	2		2
7:15 AM	0	0	49	0	0	0	52	36					0	67	0	1	205	844	1	0		0
7:30 AM	0	1	47	0	0	0	53	47					0	63	0	0	211	841	0	3		3
7:45 AM	0	0	62	0	0	0	43	43					0	67	0	2	217	844	0	1		2
8:00 AM	0	0	68	0	0	0	44	33					0	64	0	2	211	823	0	1		0
8:15 AM	0	3	57	0	0	0	49	39					0	54	0	0	202		0	1		0
8:30 AM	0	0	61	0	0	0	52	51					0	47	0	3	214		0	1		4
8:45 AM	0	0	57	0	0	0	43	40					0	55	0	1	196		0	0		2

Peak Rolling Hour Flow Rates

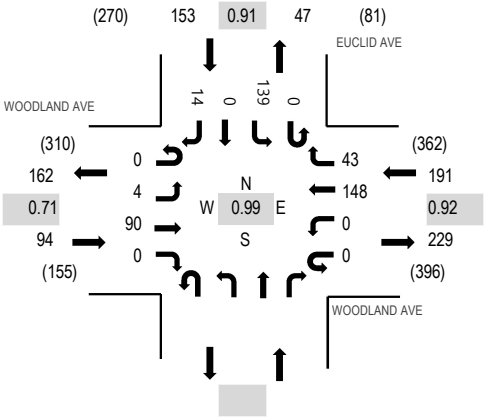
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	1	219	0	0	0	188	152					0	256	0	5	821
Mediums	0	0	7	0	0	0	4	7					0	5	0	0	23
Total	0	1	226	0	0	0	192	159					0	261	0	5	844

All Traffic Data Services Inc.

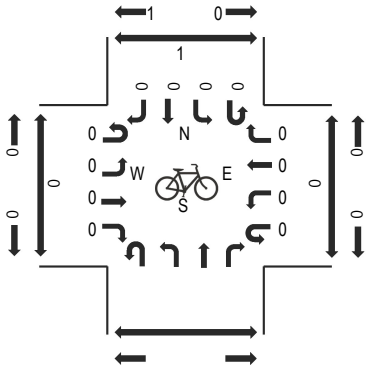
(303) 216-2439
www.alltrafficdata.net

Location: 11 EUCLID AVE & WOODLAND AVE AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

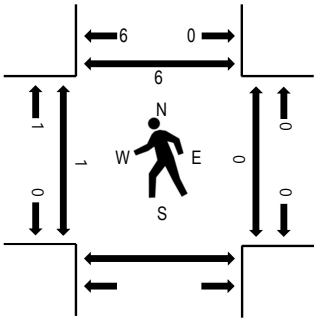
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				EUCLID AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	4	0	0	0	19	8					0	23	0	3	58	357	0	0		1
7:15 AM	0	0	15	0	0	0	44	7					0	27	0	3	96	409	0	0		0
7:30 AM	0	0	14	0	0	0	43	8					0	29	0	2	96	424	0	0		1
7:45 AM	0	1	18	0	0	0	40	6					0	38	0	4	107	438	0	0		1
8:00 AM	0	2	34	0	0	0	33	9					0	30	0	2	110	430	0	0		0
8:15 AM	0	1	22	0	0	0	32	19					0	33	0	4	111		0	0		2
8:30 AM	0	0	16	0	0	0	43	9					0	38	0	4	110		1	0		3
8:45 AM	0	0	27	0	0	0	32	10					0	28	0	2	99		0	0		1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1					0	0	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	4	88	0	0	0	146	41					0	135	0	13	427
Mediums	0	0	2	0	0	0	2	1					0	4	0	1	10
Total	0	4	90	0	0	0	148	43					0	139	0	14	438

File Name: G:\Data 2019\Menlo Park 3-19\38PM FINAL.ppd
Start Date: 4/25/2019
Start Time: 4:00:00 PM
Site Code: 00000038
Comment 1: 0
Comment 2: 0
Comment 3: 0
Comment 4: 0

	Southbound				BAYFRONT EXPY Westbound				UNIVERSITY AVE Northbound				BAYFRONT EXPY Eastbound			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
04:00 PM	0	0	0	0	0	268	102	0	467	0	16	1	2	810	0	0
04:15 PM	0	0	0	0	0	262	74	0	410	0	15	4	9	877	0	0
04:30 PM	0	0	0	0	0	230	95	0	525	0	19	5	6	791	0	0
04:45 PM	0	0	0	0	0	210	88	0	401	0	18	5	3	829	0	0
05:00 PM	0	0	0	0	0	246	109	2	478	0	17	3	12	698	0	0
05:15 PM	0	0	0	0	0	225	82	1	358	0	4	4	4	791	0	0
05:30 PM	0	0	0	0	0	272	129	0	471	0	19	3	4	671	0	0
05:45 PM	0	0	0	0	0	233	104	0	380	0	11	3	8	797	0	0
06:00 PM	0	0	0	0	0	183	104	2	368	0	12	7	8	477	0	0
06:15 PM	0	0	0	0	0	164	71	2	355	0	9	9	5	498	0	0
06:30 PM	0	0	0	0	0	156	99	1	426	0	18	3	5	478	0	0
06:45 PM	0	0	0	0	0	124	63	1	277	0	9	2	5	465	0	0

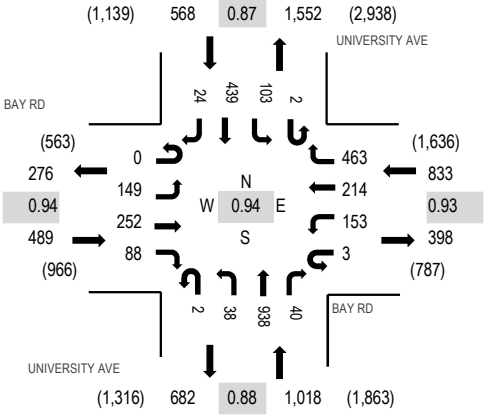
					BAYFRONT EXPY				UNIVERSITY AVE				BAYFRONT EXPY				Vehicle
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Total
4:00-5:00	0	0	0	0	0	970	359	0	1803	0	68	15	20	3307	0	0	**6,527**
4:15-5:15	0	0	0	0	0	948	366	2	1814	0	69	17	30	3195	0	0	6,422
4:30-5:30	0	0	0	0	0	911	374	3	1762	0	58	17	25	3109	0	0	6,239
4:45-5:45	0	0	0	0	0	953	408	3	1708	0	58	15	23	2989	0	0	6,139
5:00-6:00	0	0	0	0	0	976	424	3	1687	0	51	13	28	2957	0	0	6,123
5:00-6:00	0	0	0	0	0	913	419	3	1577	0	46	17	24	2736	0	0	5,715
5:15-6:15	0	0	0	0	0	852	408	4	1574	0	51	22	25	2443	0	0	5,353
5:30-6:30	0	0	0	0	0	736	378	5	1529	0	50	22	26	2250	0	0	4,969
5:45-6:45	0	0	0	0	0	627	337	6	1426	0	48	21	23	1918	0	0	4,379
6:00-7:00	0	0	0	0	0	444	233	4	1058	0	36	14	15	1441	0	0	3,227

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

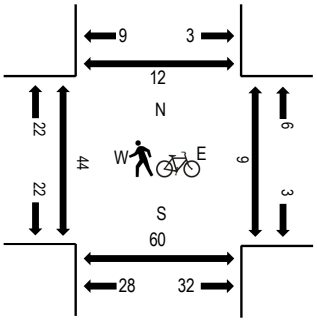
Location: 1 UNIVERSITY AVE & BAY RD PM
Date: Tuesday, April 16, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	51	65	19	1	36	47	123	1	8	213	13	0	30	87	11	705	2,876	11	4	16	11
4:15 PM	0	48	49	15	1	36	52	102	0	9	246	11	1	24	99	7	700	2,908	11	0	20	0
4:30 PM	0	36	62	30	1	36	40	146	0	13	267	12	0	29	96	4	772	2,875	6	2	9	1
4:45 PM	0	39	71	24	1	34	54	103	1	9	210	12	0	31	103	7	699	2,772	12	0	16	2
5:00 PM	0	26	70	19	0	47	68	112	1	7	215	5	1	19	141	6	737	2,728	8	3	10	8
5:15 PM	0	27	69	26	2	33	48	123	0	9	192	5	0	24	101	8	667		3	3	8	7
5:30 PM	0	28	57	19	0	31	50	111	0	4	184	8	1	24	141	11	669		7	2	9	8
5:45 PM	0	35	63	18	1	27	69	101	0	4	197	7	0	20	95	18	655		11	1	17	7

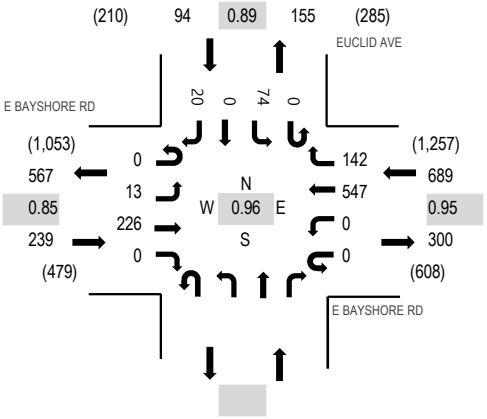
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	146	244	84	3	152	207	455	2	33	918	37	2	98	432	21	2,834
Mediums	0	3	8	4	0	1	7	8	0	5	18	2	0	5	7	3	71
Total	0	149	252	88	3	153	214	463	2	38	938	40	2	103	439	24	2,908

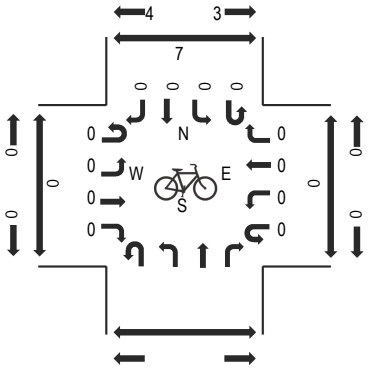
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 5 EUCLID AVE & E BAYSHORE RD PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

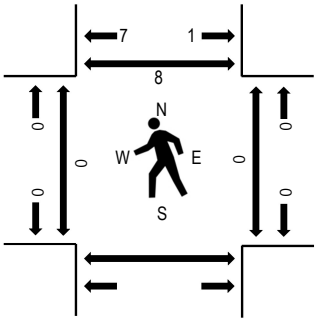
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				Northbound				EUCLID AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	5	52	0	0	0	110	22					0	23	0	4	216	924	0	0		1
4:15 PM	0	5	57	0	0	0	108	31					0	22	0	10	233	963	0	0		1
4:30 PM	0	3	45	0	0	0	118	31					0	25	0	6	228	995	0	0		2
4:45 PM	0	5	58	0	0	0	128	32					0	19	0	5	247	1,022	0	0		2
5:00 PM	0	2	49	0	0	0	138	39					0	17	0	10	255	1,022	0	0		4
5:15 PM	0	5	59	0	0	0	146	35					0	18	0	2	265		0	0		2
5:30 PM	0	1	60	0	0	0	135	36					0	20	0	3	255		0	0		0
5:45 PM	0	9	64	0	0	0	124	24					0	20	0	6	247		0	0		3

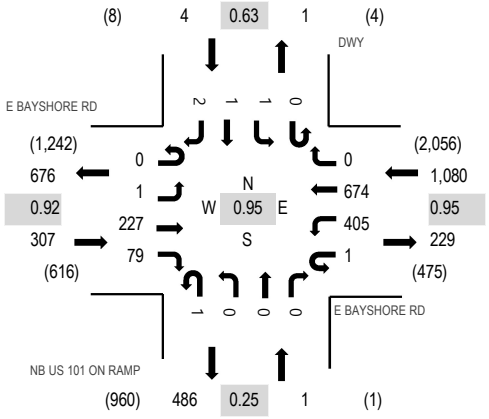
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0					0	0	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	13	224	0	0	0	540	137					0	73	0	20	1,007
Mediums	0	0	2	0	0	0	6	5					0	1	0	0	14
Total	0	13	226	0	0	0	547	142					0	74	0	20	1,022

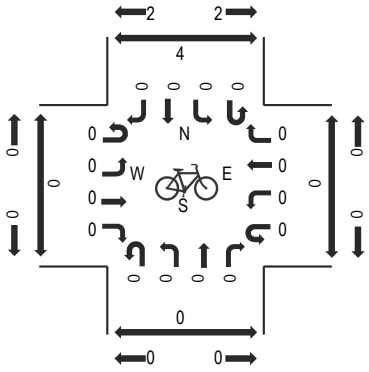
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 6 NB US 101 ON RAMP & E BAYSHORE RD PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

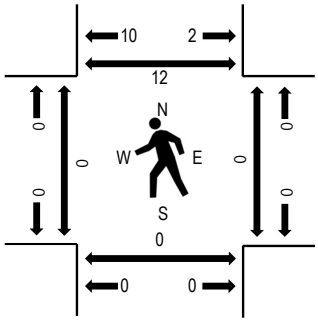
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				NB US 101 ON RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	62	12	0	113	133	0	0	0	0	0	0	0	0	1	321	1,298	0	0	0	5
4:15 PM	0	0	64	15	0	105	140	2	0	0	0	0	0	1	1	0	328	1,311	0	0	0	2
4:30 PM	0	0	51	21	0	86	146	1	0	0	0	0	0	0	0	1	306	1,348	0	0	0	4
4:45 PM	0	0	55	26	0	100	161	0	0	0	0	0	0	1	0	0	343	1,392	0	0	0	1
5:00 PM	0	0	48	21	0	91	173	0	0	0	0	0	0	0	1	0	334	1,383	0	0	0	8
5:15 PM	0	0	63	16	0	114	169	0	1	0	0	0	0	0	0	2	365		0	0	0	2
5:30 PM	0	1	61	16	1	100	171	0	0	0	0	0	0	0	0	0	350		0	0	0	1
5:45 PM	0	0	68	16	0	105	145	0	0	0	0	0	0	0	0	0	334		0	0	0	5

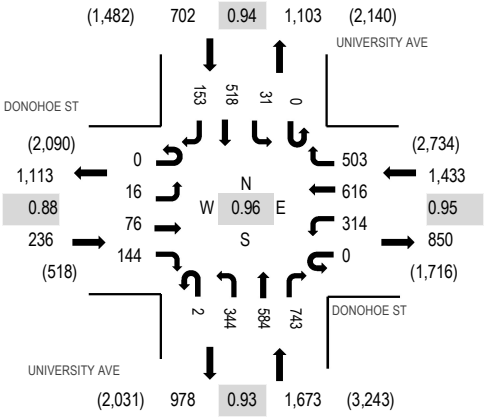
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	1	226	77	1	399	660	0	1	0	0	0	0	1	1	2	1,369
Mediums	0	0	1	2	0	6	14	0	0	0	0	0	0	0	0	0	23
Total	0	1	227	79	1	405	674	0	1	0	0	0	0	1	1	2	1,392

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

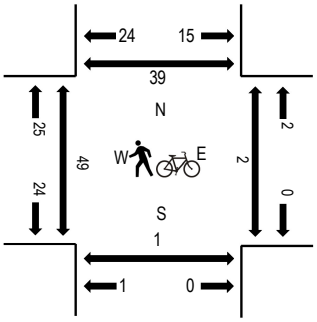
Location: 2 UNIVERSITY AVE & DONOHOE ST PM
Date: Tuesday, April 16, 2019
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	10	16	41	0	73	145	131	0	93	151	187	0	9	109	39	1,004	4,044	9	0	0	4
4:15 PM	0	1	20	40	0	94	160	122	1	82	124	188	0	6	140	36	1,014	3,998	4	0	0	5
4:30 PM	0	1	20	35	0	78	160	132	1	90	151	207	0	11	123	42	1,051	4,015	8	0	1	5
4:45 PM	0	4	20	28	0	69	151	118	0	79	158	161	0	5	146	36	975	3,951	3	0	0	6
5:00 PM	0	4	30	38	0	65	131	113	0	77	136	174	0	17	139	34	958	3,933	5	0	0	4
5:15 PM	0	3	27	50	0	78	162	116	0	60	148	180	0	10	168	29	1,031		9	0	0	8
5:30 PM	0	3	18	46	0	75	142	122	0	78	146	169	0	17	140	31	987		9	1	0	13
5:45 PM	0	1	20	42	0	56	122	119	0	80	126	196	0	8	156	31	957		8	0	0	6

Peak Rolling Hour Flow Rates

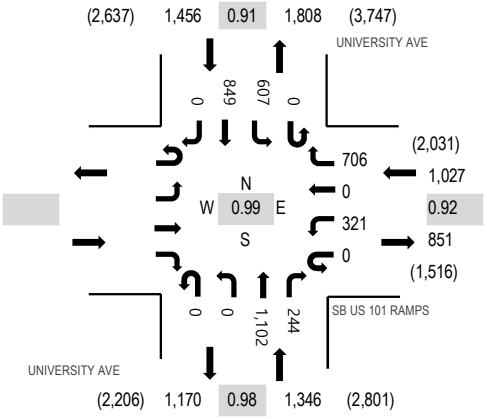
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1	0	0	3	1	0	0	1	0	7
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	16	76	143	0	311	604	488	2	334	572	730	0	30	504	150	3,960
Mediums	0	0	0	1	0	3	11	14	0	10	9	12	0	1	13	3	77
Total	0	16	76	144	0	314	616	503	2	344	584	743	0	31	518	153	4,044

All Traffic Data Services Inc.

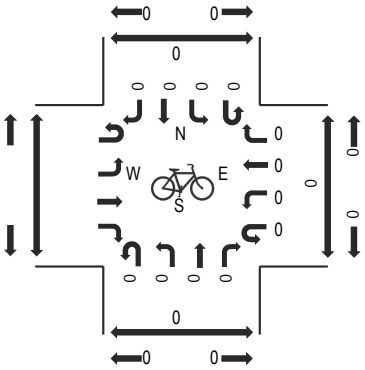
(303) 216-2439
www.alltrafficdata.net

Location: 8 UNIVERSITY AVE & SB US 101 RAMPS PM
Date: Tuesday, May 21, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

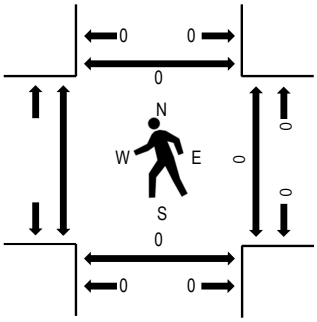
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Eastbound				SB US 101 RAMPS Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM					0	77	0	177	0	0	276	74	0	115	180	0	899	3,640		0	0	0
4:15 PM					0	65	0	168	0	0	319	51	0	97	190	0	890	3,677		0	0	0
4:30 PM					0	75	0	183	0	0	316	50	0	109	179	0	912	3,753		0	0	0
4:45 PM					0	73	0	186	0	0	314	55	0	114	197	0	939	3,800		0	0	0
5:00 PM					0	74	0	206	0	0	268	72	0	131	185	0	936	3,829		0	0	0
5:15 PM					0	70	0	167	0	0	307	63	0	148	211	0	966			0	0	0
5:30 PM					0	79	0	158	0	0	281	59	0	169	213	0	959			0	0	0
5:45 PM					0	98	0	175	0	0	246	50	0	159	240	0	968			0	0	0

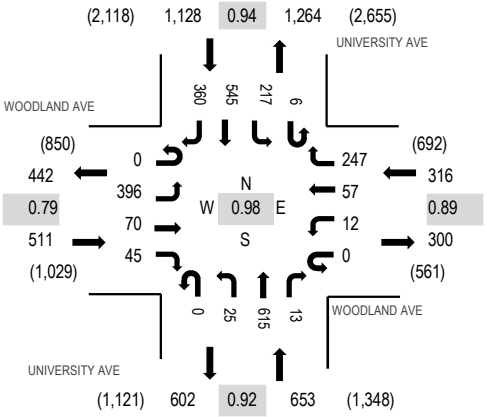
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	1	0	0	1	0	0	2
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	317	0	697	0	0	1,078	242	0	598	838	0	3,770
Mediums					0	4	0	9	0	0	23	2	0	8	11	0	57
Total					0	321	0	706	0	0	1,102	244	0	607	849	0	3,829

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

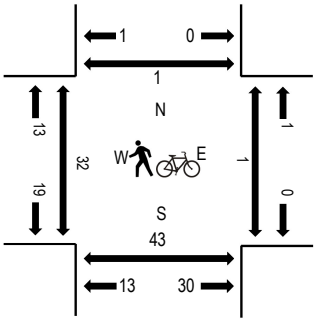
Location: 3 UNIVERSITY AVE & WOODLAND AVE PM
Date: Tuesday, April 16, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	118	28	11	0	6	16	81	0	8	161	4	3	44	110	82	672	2,579	11	0	15	0
4:15 PM	0	105	9	10	0	4	10	73	0	5	161	2	2	58	121	91	651	2,533	4	0	7	0
4:30 PM	0	92	18	9	0	10	7	89	0	5	182	1	5	38	113	84	653	2,543	7	0	8	0
4:45 PM	0	94	14	10	0	2	16	62	0	3	162	1	1	44	113	81	603	2,549	2	0	8	0
5:00 PM	0	132	20	14	0	2	10	54	0	10	135	2	0	41	113	93	626	2,608	6	0	10	0
5:15 PM	0	87	11	11	0	4	17	60	0	4	164	2	2	65	136	98	661		4	0	7	0
5:30 PM	0	88	20	10	0	2	13	65	0	4	165	3	2	59	131	97	659		7	0	10	0
5:45 PM	0	89	19	10	0	4	17	68	0	7	151	6	2	52	165	72	662		2	0	5	0

Peak Rolling Hour Flow Rates

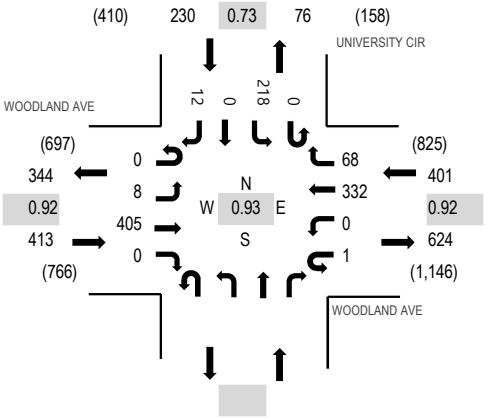
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	389	68	43	0	12	55	243	0	21	608	13	6	216	541	356	2,571
Mediums	0	7	2	2	0	0	2	4	0	4	7	0	0	1	4	4	37
Total	0	396	70	45	0	12	57	247	0	25	615	13	6	217	545	360	2,608

All Traffic Data Services Inc.

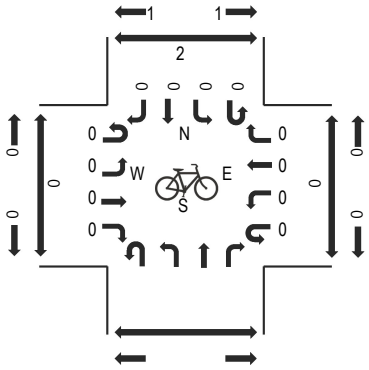
(303) 216-2439
www.alltrafficdata.net

Location: 9 UNIVERSITY CIR & WOODLAND AVE PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

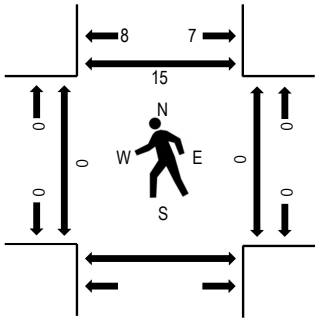
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				UNIVERSITY CIR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	111	0	1	0	84	13					0	40	0	1	252	1,016	0	0		3
4:15 PM	0	2	115	0	0	0	81	15					0	48	0	3	264	1,044	0	0		2
4:30 PM	0	1	95	0	0	0	69	15					0	48	0	3	231	1,025	0	0		5
4:45 PM	0	4	100	0	0	0	96	22					0	45	0	2	269	1,027	0	0		5
5:00 PM	0	1	95	0	1	0	86	16					0	77	0	4	280	985	0	0		3
5:15 PM	0	1	85	0	0	0	85	18					0	54	0	2	245		0	0		7
5:30 PM	0	1	80	0	0	0	91	19					0	42	0	0	233		0	0		7
5:45 PM	0	5	68	0	1	0	89	23					0	40	0	1	227		1	0		2

Peak Rolling Hour Flow Rates

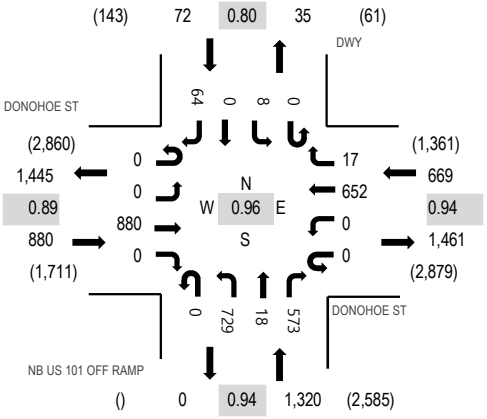
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1					0	0	0	0	2
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	7	396	0	1	0	326	64					0	216	0	12	1,022
Mediums	0	1	9	0	0	0	5	3					0	2	0	0	20
Total	0	8	405	0	1	0	332	68					0	218	0	12	1,044

All Traffic Data Services Inc.

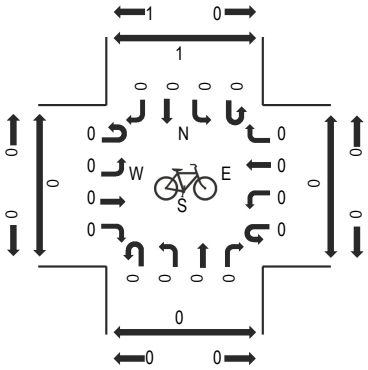
(303) 216-2439
www.alltrafficdata.net

Location: 3 NB US 101 OFF RAMP & DONOHOE ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

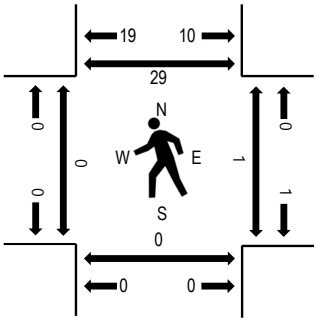
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				NB US 101 OFF RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	211	0	0	0	162	2	0	193	6	154	0	0	0	13	741	2,935	0	0	0	10
4:15 PM	0	0	214	0	0	0	179	2	0	178	3	144	0	0	0	6	726	2,898	0	0	0	5
4:30 PM	0	0	191	0	0	0	167	2	0	179	5	162	0	0	0	13	719	2,941	0	0	0	11
4:45 PM	0	0	249	0	0	0	181	4	0	182	3	118	0	1	0	11	749	2,900	0	1	0	13
5:00 PM	0	0	216	0	0	0	146	5	0	183	5	127	0	2	0	20	704	2,865	0	0	0	0
5:15 PM	0	0	224	0	0	0	158	6	0	185	5	166	0	5	0	20	769		0	0	0	5
5:30 PM	0	0	194	0	0	0	173	7	0	148	0	135	0	1	0	20	678		0	0	0	15
5:45 PM	0	0	212	0	0	0	164	3	0	148	3	153	0	0	0	31	714		0	0	0	8

Peak Rolling Hour Flow Rates

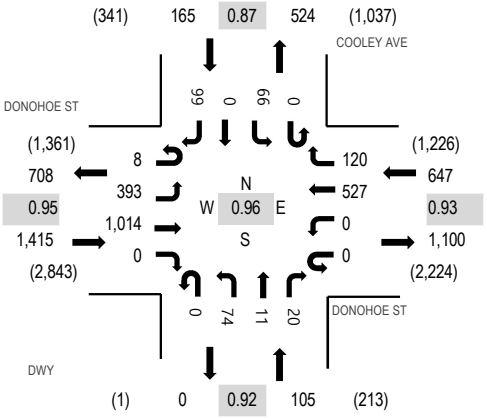
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	865	0	0	0	642	17	0	716	18	564	0	8	0	64	2,894
Mediums	0	0	15	0	0	0	10	0	0	13	0	9	0	0	0	0	47
Total	0	0	880	0	0	0	652	17	0	729	18	573	0	8	0	64	2,941

All Traffic Data Services Inc.

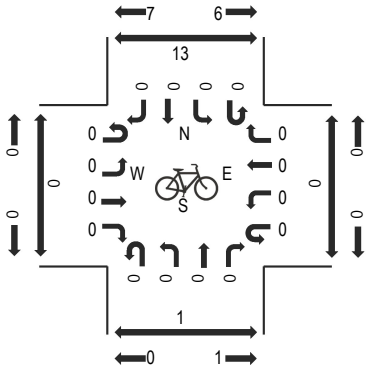
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY & DONOHOE ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

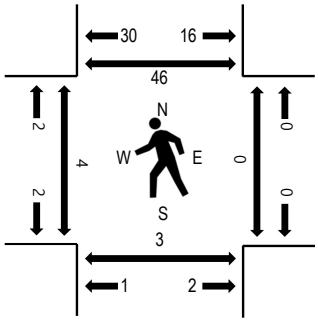
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				DWY Northbound				COOLEY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	3	110	252	1	0	0	134	31	0	15	3	5	0	16	0	19	589	2,315	0	0	1	10
4:15 PM	3	96	238	0	0	0	149	28	0	23	6	3	0	17	0	16	579	2,332	1	0	0	10
4:30 PM	1	114	241	0	0	0	130	28	0	20	1	6	0	14	0	25	580	2,314	0	0	1	10
4:45 PM	2	89	253	0	0	0	127	29	0	13	2	6	0	16	0	30	567	2,321	1	0	2	18
5:00 PM	2	94	282	0	0	0	121	35	0	18	2	5	0	19	0	28	606	2,308	2	0	0	8
5:15 PM	4	92	265	0	0	0	115	17	0	20	1	7	0	19	0	21	561		1	0	0	14
5:30 PM	5	94	243	0	0	0	137	31	0	21	1	8	0	22	0	25	587		1	0	0	14
5:45 PM	2	108	249	0	0	0	92	22	0	15	3	9	0	29	0	25	554		0	0	0	9

Peak Rolling Hour Flow Rates

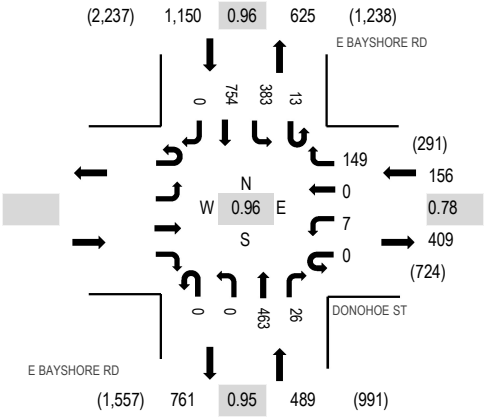
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	8	388	1,000	0	0	0	518	119	0	74	11	20	0	66	0	98	2,302
Mediums	0	5	14	0	0	0	9	1	0	0	0	0	0	0	0	1	30
Total	8	393	1,014	0	0	0	527	120	0	74	11	20	0	66	0	99	2,332

All Traffic Data Services Inc.

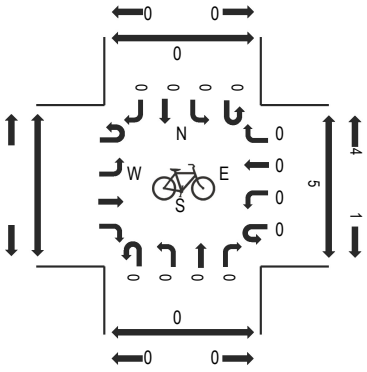
(303) 216-2439
www.alltrafficdata.net

Location: 7 E BAYSHORE RD & DONOHOE ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

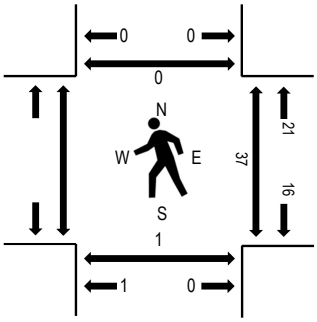
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				E BAYSHORE RD Northbound				E BAYSHORE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM					0	2	0	29	0	0	134	8	3	71	198	0	445	1,742		7	0	0
4:15 PM					0	3	0	35	0	0	136	5	0	70	188	0	437	1,765		8	1	0
4:30 PM					0	0	0	35	0	0	120	7	1	73	187	0	423	1,768		17	0	0
4:45 PM					0	0	0	35	0	0	120	7	3	107	165	0	437	1,795		9	0	0
5:00 PM					0	1	0	38	0	0	118	5	3	95	208	0	468	1,777		11	0	0
5:15 PM					0	3	0	29	0	0	104	9	2	105	188	0	440			10	0	0
5:30 PM					0	3	0	47	0	0	121	5	5	76	193	0	450			7	1	0
5:45 PM					1	1	0	29	0	0	89	3	2	77	217	0	419			17	0	0

Peak Rolling Hour Flow Rates

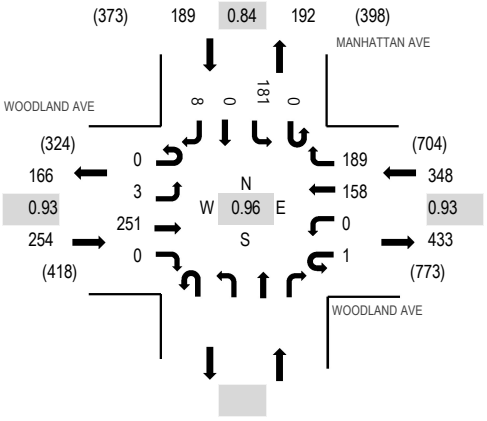
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	7	0	147	0	0	461	23	12	379	753	0	1,782
Mediums					0	0	0	2	0	0	2	3	1	4	1	0	13
Total					0	7	0	149	0	0	463	26	13	383	754	0	1,795

All Traffic Data Services Inc.

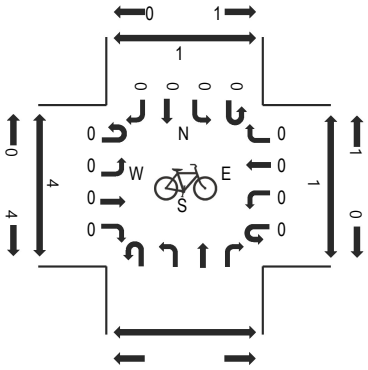
(303) 216-2439
www.alltrafficdata.net

Location: 10 MANHATTAN AVE & WOODLAND AVE PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

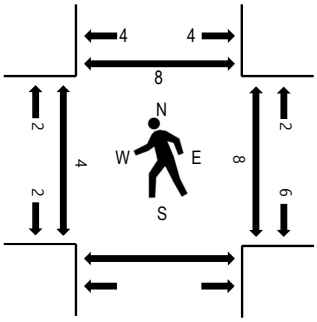
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				MANHATTAN AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	1	50	0	0	0	38	48					0	60	0	1	198	784	3	0		0
4:15 PM	0	0	67	0	0	0	36	47					0	53	0	3	206	791	1	1		3
4:30 PM	0	1	50	0	1	0	35	39					0	46	0	3	175	751	1	4		2
4:45 PM	0	1	67	0	0	0	48	51					0	37	0	1	205	747	2	3		0
5:00 PM	0	1	67	0	0	0	39	52					0	45	0	1	205	711	0	0		3
5:15 PM	0	0	39	0	0	0	39	50					0	37	0	1	166		0	3		1
5:30 PM	0	1	31	0	0	0	40	49					0	48	0	2	171		1	0		2
5:45 PM	0	0	42	0	0	0	35	57					0	33	0	2	169		1	5		8

Peak Rolling Hour Flow Rates

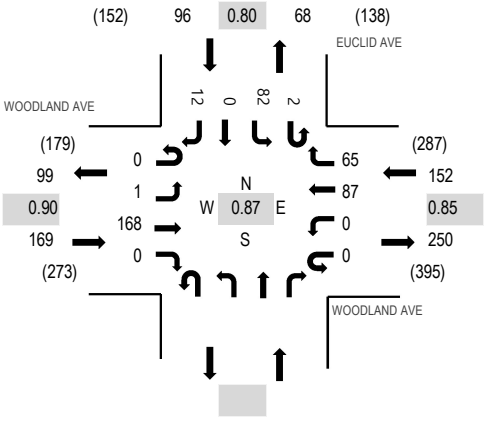
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	3	247	0	1	0	157	186					0	176	0	8	778
Mediums	0	0	4	0	0	0	1	3					0	5	0	0	13
Total	0	3	251	0	1	0	158	189					0	181	0	8	791

All Traffic Data Services Inc.

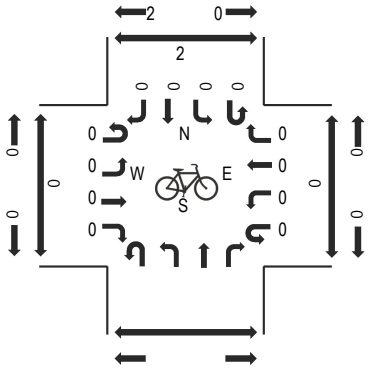
(303) 216-2439
www.alltrafficdata.net

Location: 11 EUCLID AVE & WOODLAND AVE PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

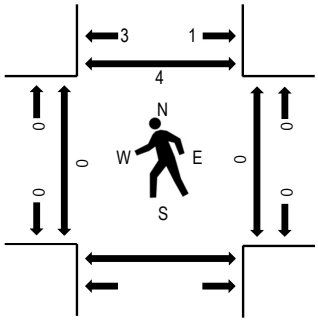
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				EUCLID AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	5	36	0	0	0	15	17					0	12	0	0	85	393	0	0		1
4:15 PM	0	0	47	0	0	0	20	16					0	17	0	4	104	417	0	0		1
4:30 PM	0	0	32	0	0	0	14	18					1	17	0	2	84	384	0	0		1
4:45 PM	0	1	43	0	0	0	26	20					1	23	0	6	120	369	0	0		0
5:00 PM	0	0	46	0	0	0	27	11					0	25	0	0	109	319	0	0		2
5:15 PM	0	0	19	0	0	0	22	17					0	13	0	0	71		0	0		3
5:30 PM	0	1	18	0	0	0	18	16					1	11	0	4	69		0	0		1
5:45 PM	0	0	25	0	0	0	17	13					0	11	0	4	70		0	0		2

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	1	167	0	0	0	87	64					2	78	0	10	409
Mediums	0	0	1	0	0	0	0	1					0	4	0	2	8
Total	0	1	168	0	0	0	87	65					2	82	0	12	417

Appendix B

Volume Summary Tables

Intersection Number: 3
Traffix Node Number: 3
Intersection Name: University Avenue & Bayfront Expressway (SR 84)
Peak Hour: AM
Date of Analysis: #REF!
Count Date: 04/25/19
Scenario: #REF!
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	0	0	0	2695	1148	416	0	205	67	829	0	5360
check	0	0	0	0	2695	1148	416	0	205	67	829	0	5360
RVSP Proj Trips without Loop Rd	0	0	0	0	0	309	59	0	28	92	0	0	488
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	0	12	12	0	0	0	0	0	24
The Primary School Proj Trips without Loop Road	0	0	0	0	0	16	14	0	0	0	0	0	30
Regional Growth (2019 to 2040)	0	0	0	0	679	289	105	0	52	17	209	0	1351
Sobrato Office Phase II without Loop Road	0	0	0	0	0	42	5	0	0	0	0	0	47
University Circle Phase II	0	0	0	0	0	24	4	0	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	0	0	0	5	3	0	0	0	0	0	8
Total Cumulative Growth	**0**	**0**	**0**	**0**	**679**	**697**	**202**	**0**	**80**	**109**	**209**	**0**	**1976**
Cumul + Project Conditions without Loop Road	0	0	0	0	3374	1845	618	0	285	176	1038	0	7336
check	0	0	0	0	3374	1845	618	0	285	176	1038	0	
University Circle Phase II	0	0	0	0	0	24	4	0	0	0	0	0	28
Existing + Proj No Loop Road	0	0	0	0	2695	1172	420	0	205	67	829	0	5388
check	0	0	0	0	2695	1172	420	0	205	67	829	0	
Cumul No Project Conditions without Loop Road	0	0	0	0	3374	1821	614	0	285	176	1038	0	7308
check	0	0	0	0	3374	1821	614	0	285	176	1038	0	

Intersection Number: 5
Traffix Node Number: 5
Intersection Name: Euclid Avenue & East Bayshore Road/Donohoe Street (unsignalized)*
Peak Hour: AM
Date of Analysis: #REF!
Count Date: 05/21/19
Scenario: #REF!
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	5	0	360	41	113	0	0	0	0	0	600	7	1126
check	5	0	360	41	113	0	0	0	0	0	600	7	1126
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	2	0	0	0	0	0	2	0	4
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	1	0	91	10	28	0	0	0	0	0	151	2	284
Sobrato Office Phase II without Loop Road	0	0	7	5	1	0	0	0	0	0	10	0	23
University Circle Phase II	0	0	3	0	2	0	0	0	0	0	9	0	14
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**1**	**0**	**101**	**15**	**33**	**0**	**0**	**0**	**0**	**0**	**172**	**2**	**325**
Cumul + Project Conditions without Loop Road	6	0	461	56	146	0	0	0	0	0	772	9	1451
check	6	0	461	56	146	0	0	0	0	0	772	9	
University Circle Phase II	0	0	3	0	2	0	0	0	0	0	9	0	14
Existing + Proj No Loop Road	5	0	363	41	115	0	0	0	0	0	609	7	1140
check	5	0	363	41	115	0	0	0	0	0	609	7	
Cumul No Project Conditions without Loop Road	6	0	458	56	144	0	0	0	0	0	763	9	1437
check	6	0	458	56	144	0	0	0	0	0	763	9	

City of East Palo Alto
University Circle Phase II

Intersection Number: 6
Traffix Node Number: 6
Intersection Name: US 101 NB On-Ramp/Sob & Donohoe Street (unsignalized)
Peak Hour: AM
Date of Analysis: #REF!
Count Date: 05/21/19
Scenario: #REF!
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	2	0	1	146	409	0	0	0	442	525	0	1525
check	0	2	0	1	146	409	0	0	0	442	525	0	1525
RVSP Proj Trips without Loop Rd	0	0	0	0	0	71	0	0	0	0	0	0	71
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	2	12	0	0	0	0	2	0	16
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	1	0	0	37	103	0	0	0	111	132	0	384
Sobrato Office Phase II without Loop Road	6	7	8	162	1	0	0	0	0	0	0	17	201
University Circle Phase II	0	0	0	0	2	0	0	0	0	0	12	0	14
2398 University Avenue Hotel Only	0	0	0	0	0	7	0	0	0	0	0	0	7
Total Cumulative Growth	**6**	**8**	**8**	**162**	**42**	**193**	**0**	**0**	**0**	**111**	**146**	**17**	**693**
Cumul + Project Conditions without Loop Road	6	10	8	163	188	602	0	0	0	553	671	17	2218
check	6	10	8	163	188	602	0	0	0	553	671	17	
University Circle Phase II	0	0	0	0	2	0	0	0	0	0	12	0	14
Existing + Proj No Loop Road	0	2	0	1	148	409	0	0	0	442	537	0	1539
check	0	2	0	1	148	409	0	0	0	442	537	0	
Cumul No Project Conditions without Loop Road	6	10	8	163	186	602	0	0	0	553	659	17	2204
check	6	10	8	163	186	602	0	0	0	553	659	17	

Intersection Number: 11
Traffix Node Number: 11
Intersection Name: University Avenue & Bay Road
Peak Hour: AM
Date of Analysis: #REF!
Count Date: 04/17/19
Scenario: #REF!
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	113	862	154	130	221	76	87	677	76	58	219	60	2733
check	113	862	154	130	221	76	87	677	76	58	219	60	2733
RVSP Proj Trips without Loop Rd	13	36	364	83	119	110	260	26	4	2	451	10	1478
Approved+Pending Proj Trips in EPA out RVSP	0	11	2	2	25	0	0	13	0	0	30	0	83
The Primary School Proj Trips without Loop Road	0	0	18	14	36	0	0	2	4	0	45	0	119
Regional Growth (2019 to 2040)	28	217	39	33	56	19	22	171	19	15	55	15	689
Sobrato Office Phase II without Loop Road	0	46	0	0	0	2	0	6	0	0	0	0	54
University Circle Phase II	0	24	0	0	0	0	0	4	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	5	3	5	25	28	0	0	0	7	0	73
Total Cumulative Growth	**41**	**334**	**428**	**135**	**241**	**156**	**310**	**222**	**27**	**17**	**588**	**25**	**2524**
Cumul + Project Conditions without Loop Road	154	1196	582	265	462	232	397	899	103	75	807	85	5257
check	154	1196	582	265	462	232	397	899	103	75	807	85	
University Circle Phase II	0	24	0	0	0	0	0	4	0	0	0	0	28
Existing + Proj No Loop Road	113	886	154	130	221	76	87	681	76	58	219	60	2761
check	113	886	154	130	221	76	87	681	76	58	219	60	
Cumul No Project Conditions without Loop Road	154	1172	582	265	462	232	397	895	103	75	807	85	5229
check	154	1172	582	265	462	232	397	895	103	75	807	85	

City of East Palo Alto
University Circle Phase II

Intersection Number:	14		
Traffix Node Number:	14		
Intersection Name:	University Avenue	& Donohoe Street*	
Peak Hour:	AM	Date of Analysis: #REF!	
Count Date:	04/17/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	48	616	14	448	394	479	405	340	86	526	57	14	3427
check	48	616	14	448	394	479	405	340	86	526	57	14	3427
RVSP Proj Trips without Loop Rd	45	123	7	43	26	11	102	242	0	0	0	0	599
Approved+Pending Proj Trips in EPA out RVSP	4	17	2	0	8	34	47	24	2	1	1	0	140
The Primary School Proj Trips without Loop Road	0	18	0	0	0	4	4	20	0	0	0	0	46
Regional Growth (2019 to 2040)	12	155	4	113	99	121	102	86	22	133	14	4	864
Sobrato Office Phase II without Loop Road	1	10	0	0	93	0	0	0	70	3	1	3	181
University Circle Phase II	0	24	0	0	0	11	2	4	2	12	0	0	55
2398 University Avenue Hotel Only	7	12	0	13	0	0	0	14	0	0	0	0	46
Total Cumulative Growth	**69**	**359**	**13**	**169**	**226**	**181**	**257**	**390**	**96**	**149**	**16**	**7**	**1931**
Cumul + Project Conditions without Loop Road	117	975	27	617	620	660	662	730	182	675	73	21	5358
check	117	975	27	617	620	660	662	730	182	675	73	21	
University Circle Phase II	0	24	0	0	0	11	2	4	2	12	0	0	55
Existing + Proj No Loop Road	48	640	14	448	394	490	407	344	88	538	57	14	3482
check	48	640	14	448	394	490	407	344	88	538	57	14	
Cumul No Project Conditions without Loop Road	117	951	27	617	620	649	660	726	180	663	73	21	5303
check	117	951	27	617	620	649	660	726	180	663	73	21	

Intersection Number:	15		
Traffix Node Number:	15		
Intersection Name:	University Avenue	& US 101 SB Off-Ramp*	
Peak Hour:	AM	Date of Analysis: #REF!	
Count Date:	05/21/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	1077	744	299	0	273	287	842	0	0	0	0	3522
check	0	1077	744	299	0	273	287	842	0	0	0	0	3522
RVSP Proj Trips without Loop Rd	0	55	79	224	0	0	0	119	0	0	0	0	477
Approved+Pending Proj Trips in EPA out RVSP	0	52	4	15	0	10	21	86	0	0	0	0	188
The Primary School Proj Trips without Loop Road	0	21	0	0	0	0	0	25	0	0	0	0	46
Regional Growth (2019 to 2040)	0	271	187	75	0	69	72	212	0	0	0	0	888
Sobrato Office Phase II without Loop Road	0	2	11	51	0	0	0	19	0	0	0	0	83
University Circle Phase II	0	90	0	0	0	27	7	12	0	0	0	0	136
2398 University Avenue Hotel Only	0	3	19	0	0	0	0	4	0	0	0	0	26
Total Cumulative Growth	**0**	**494**	**300**	**365**	**0**	**106**	**100**	**477**	**0**	**0**	**0**	**0**	**1844**
Cumul + Project Conditions without Loop Road	0	1571	1044	664	0	379	387	1319	0	0	0	0	5366
check	0	1571	1044	664	0	379	387	1319	0	0	0	0	
University Circle Phase II	0	90	0	0	0	27	7	12	0	0	0	0	136
Existing + Proj No Loop Road	0	1167	744	299	0	300	294	854	0	0	0	0	3658
check	0	1167	744	299	0	300	294	854	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	1481	1044	664	0	352	380	1307	0	0	0	0	5230
check	0	1481	1044	664	0	352	380	1307	0	0	0	0	

Intersection Number:	16		
Traffix Node Number:	16		
Intersection Name:	University Avenue	& Woodland Avenue*	
Peak Hour:	AM	Date of Analysis: #REF!	
Count Date:	04/17/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	442	925	144	197	98	10	7	612	50	52	90	320	2947
check	442	925	144	197	98	10	7	612	50	52	90	320	2947
RVSP Proj Trips without Loop Rd	0	55	0	0	0	0	0	119	0	0	0	0	174
Approved+Pending Proj Trips in EPA out RVSP	45	3	14	15	0	0	0	4	5	15	0	88	189
The Primary School Proj Trips without Loop Road	0	21	0	0	0	0	0	25	0	0	0	0	46
Regional Growth (2019 to 2040)	111	233	36	50	25	3	2	154	13	13	23	81	743
Sobrato Office Phase II without Loop Road	0	2	0	0	0	0	0	19	0	0	0	0	21
University Circle Phase II	117	0	0	0	4	0	0	0	7	1	1	19	149
2398 University Avenue Hotel Only	0	3	0	0	0	0	0	4	0	0	0	0	7
Total Cumulative Growth	**273**	**317**	**50**	**65**	**29**	**3**	**2**	**325**	**25**	**29**	**24**	**188**	**1329**
Cumul + Project Conditions without Loop Road	715	1242	194	262	127	13	9	937	75	81	114	508	4276
check	715	1242	194	262	127	13	9	937	75	81	114	508	
University Circle Phase II	117	0	0	0	4	0	0	0	7	1	1	19	149
Existing + Proj No Loop Road	559	925	144	197	102	10	7	612	57	53	91	339	3096
check	559	925	144	197	102	10	7	612	57	53	91	339	
Cumul No Project Conditions without Loop Road	598	1242	194	262	123	13	9	937	68	80	113	489	4127
check	598	1242	194	262	123	13	9	937	68	80	113	489	

Intersection Number:	17		
Traffix Node Number:	17		
Intersection Name:	University Circle	& Woodland Avenue*	
Peak Hour:	AM	Date of Analysis: #REF!	
Count Date:	05/21/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	6	0	91	231	344	0	0	0	0	0	463	20	1155
check	6	0	91	231	344	0	0	0	0	0	463	20	1155
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	50	0	0	0	0	0	103	0	153
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	1	0	21	128	0	0	0	0	0	0	0	4	154
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**1**	**0**	**21**	**128**	**50**	**0**	**0**	**0**	**0**	**0**	**103**	**4**	**307**
Cumul + Project Conditions without Loop Road	7	0	112	359	394	0	0	0	0	0	566	24	1462
check	7	0	112	359	394	0	0	0	0	0	566	24	
University Circle Phase II	1	0	21	128	0	0	0	0	0	0	0	4	154
Existing + Proj No Loop Road	7	0	112	359	344	0	0	0	0	0	463	24	1309
check	7	0	112	359	344	0	0	0	0	0	463	24	
Cumul No Project Conditions without Loop Road	6	0	91	231	394	0	0	0	0	0	566	20	1308
check	6	0	91	231	394	0	0	0	0	0	566	20	

Intersection Number: 18
Traffix Node Number: 18
Intersection Name: US 101 NB Off Ramp/Univ & Donohoe Street*
Peak Hour: AM
Date of Analysis: #REF!
Count Date: 05/21/19
Scenario: #REF!
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	19	0	2	22	829	0	214	63	446	0	388	0	1983
check	19	0	2	22	829	0	214	63	446	0	388	0	1983
RVSP Proj Trips without Loop Rd	0	0	0	0	41	0	163	0	39	0	109	0	352
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	42	0	12	0	0	0	50	0	104
The Primary School Proj Trips without Loop Road	0	0	0	0	4	0	0	0	0	0	4	0	8
Regional Growth (2019 to 2040)	5	0	1	6	209	0	54	16	112	0	98	0	500
Sobrato Office Phase II without Loop Road	0	0	0	0	10	0	0	0	83	0	1	0	94
University Circle Phase II	0	0	0	0	11	0	0	0	0	0	2	0	13
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	13	0	0	0	13
Total Cumulative Growth	**5**	**0**	**1**	**6**	**317**	**0**	**229**	**16**	**247**	**0**	**264**	**0**	**1084**
Cumul + Project Conditions without Loop Road	24	0	3	28	1146	0	443	79	693	0	652	0	3067
check	24	0	3	28	1146	0	443	79	693	0	652	0	
University Circle Phase II	0	0	0	0	11	0	0	0	0	0	2	0	13
Existing + Proj No Loop Road	19	0	2	22	840	0	214	63	446	0	390	0	1996
check	19	0	2	22	840	0	214	63	446	0	390	0	
Cumul No Project Conditions without Loop Road	24	0	3	28	1135	0	443	79	693	0	650	0	3054
check	24	0	3	28	1135	0	443	79	693	0	650	0	

Intersection Number: 19
Traffix Node Number: 19
Intersection Name: Cooley Avenue & Donohoe Street*
Peak Hour: AM
Date of Analysis: #REF!
Count Date: 05/21/19
Scenario: #REF!
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	297	0	88	35	491	0	0	0	5	0	521	101	1538
check	297	0	88	35	491	0	0	0	5	0	521	101	1538
RVSP Proj Trips without Loop Rd	13	0	0	3	28	0	0	0	0	0	107	165	316
Approved+Pending Proj Trips in EPA out RVSP	15	0	0	0	27	0	0	0	0	0	46	15	103
The Primary School Proj Trips without Loop Road	0	0	0	0	4	0	0	0	0	0	4	0	8
Regional Growth (2019 to 2040)	75	0	22	9	124	0	0	0	1	0	131	25	388
Sobrato Office Phase II without Loop Road	2	0	0	0	8	0	0	0	0	0	1	0	11
University Circle Phase II	4	0	0	0	7	0	0	0	0	0	1	1	13
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**109**	**0**	**22**	**12**	**198**	**0**	**0**	**0**	**1**	**0**	**290**	**206**	**839**
Cumul + Project Conditions without Loop Road	406	0	110	47	689	0	0	0	6	0	811	307	2377
check	406	0	110	47	689	0	0	0	6	0	811	307	
University Circle Phase II	4	0	0	0	7	0	0	0	0	0	1	1	13
Existing + Proj No Loop Road	301	0	88	35	498	0	0	0	5	0	522	102	1551
check	301	0	88	35	498	0	0	0	5	0	522	102	
Cumul No Project Conditions without Loop Road	402	0	110	47	682	0	0	0	6	0	810	306	2364
check	402	0	110	47	682	0	0	0	6	0	810	306	

Intersection Number:	20		
Traffix Node Number:	20		
Intersection Name:	East Bayshore Road	& Donohoe Street*	
Peak Hour:	AM	Date of Analysis: #REF!	
Count Date:	05/21/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	375	236	252	0	9	9	307	0	0	0	0	1188
check	0	375	236	252	0	9	9	307	0	0	0	0	1188
RVSP Proj Trips without Loop Rd	0	2	104	27	0	0	0	3	0	0	0	0	136
Approved+Pending Proj Trips in EPA out RVSP	0	11	35	27	0	1	0	0	0	0	0	0	74
The Primary School Proj Trips without Loop Road	0	0	4	4	0	0	0	0	0	0	0	0	8
Regional Growth (2019 to 2040)	0	95	59	64	0	2	2	77	0	0	0	0	299
Sobrato Office Phase II without Loop Road	0	0	1	4	0	0	0	4	0	0	0	0	9
University Circle Phase II	0	0	1	4	0	0	0	3	0	0	0	0	8
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**108**	**204**	**130**	**0**	**3**	**2**	**87**	**0**	**0**	**0**	**0**	**534**
Cumul + Project Conditions without Loop Road	0	483	440	382	0	12	11	394	0	0	0	0	1722
check	0	483	440	382	0	12	11	394	0	0	0	0	
University Circle Phase II	0	0	1	4	0	0	0	3	0	0	0	0	8
Existing + Proj No Loop Road	0	375	237	256	0	9	9	310	0	0	0	0	1196
check	0	375	237	256	0	9	9	310	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	483	439	378	0	12	11	391	0	0	0	0	1714
check	0	483	439	378	0	12	11	391	0	0	0	0	

Intersection Number:	34		
Traffix Node Number:	34		
Intersection Name:	Manhattan Avenue	& Woodland Avenue	
Peak Hour:	AM	Date of Analysis: #REF!	
Count Date:	05/21/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	5	0	261	159	192	0	0	0	0	0	226	1	844
check	5	0	261	159	192	0	0	0	0	0	226	1	844
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	8	0	84	33	17	0	0	0	0	0	20	3	165
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	1	0	0	0	0	0	4	0	5
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**8**	**0**	**84**	**33**	**18**	**0**	**0**	**0**	**0**	**0**	**24**	**3**	**170**
Cumul + Project Conditions without Loop Road	13	0	345	192	210	0	0	0	0	0	250	4	1014
check	13	0	345	192	210	0	0	0	0	0	250	4	
University Circle Phase II	0	0	0	0	1	0	0	0	0	0	4	0	5
Existing + Proj No Loop Road	5	0	261	159	193	0	0	0	0	0	230	1	849
check	5	0	261	159	193	0	0	0	0	0	230	1	
Cumul No Project Conditions without Loop Road	13	0	345	192	209	0	0	0	0	0	246	4	1009
check	13	0	345	192	209	0	0	0	0	0	246	4	

Intersection Number:	35		
Traffix Node Number:	35		
Intersection Name:	Euclid Avenue	& Woodland Avenue	
Peak Hour:	AM	Date of Analysis:	#REF!
Count Date:	05/21/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	14	0	139	43	148	0	0	0	0	0	90	4	438
check	14	0	139	43	148	0	0	0	0	0	90	4	438
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	8	7	18	0	0	0	0	0	15	0	48
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	1	0	0	0	0	0	0	0	3	0	4
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**0**	**9**	**7**	**18**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**52**
Cumul + Project Conditions without Loop Road	14	0	148	50	166	0	0	0	0	0	108	4	490
check	14	0	148	50	166	0	0	0	0	0	108	4	
University Circle Phase II	0	0	1	0	0	0	0	0	0	0	3	0	4
Existing + Proj No Loop Road	14	0	140	43	148	0	0	0	0	0	93	4	442
check	14	0	140	43	148	0	0	0	0	0	93	4	
Cumul No Project Conditions without Loop Road	14	0	147	50	166	0	0	0	0	0	105	4	486
check	14	0	147	50	166	0	0	0	0	0	105	4	

City of East Palo Alto
University Circle Phase II

Intersection Number:	3		
Traffix Node Number:	3		
Intersection Name:	University Avenue	& Bayfront Expressway (SR 84)	
Peak Hour:	PM	Date of Analysis:	#REF!
Count Date:	04/25/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	0	0	0	970	359	1803	0	68	20	3307	0	6527
check	0	0	0	0	970	359	1803	0	68	20	3307	0	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	80	291	0	90	35	0	0	496
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	0	8	9	0	0	0	0	0	17
The Primary School Proj Trips without Loop Road	0	0	0	0	0	5	7	0	0	0	0	0	12
Regional Growth (2019 to 2040)	0	0	0	0	244	90	454	0	17	5	833	0	1645
Sobrato Office Phase II without Loop Road	0	0	0	0	0	7	35	0	1	0	0	0	43
University Circle Phase II	0	0	0	0	0	5	23	0	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	0	0	0	5	5	0	0	0	0	0	10
Total Cumulative Growth	**0**	**0**	**0**	**0**	**244**	**200**	**824**	**0**	**108**	**40**	**833**	**0**	**2251**
Cumul + Project Conditions without Loop Road	0	0	0	0	1214	559	2627	0	176	60	4140	0	8778
check	0	0	0	0	1214	559	2627	0	176	60	4140	0	
University Circle Phase II	0	0	0	0	0	5	23	0	0	0	0	0	28
Existing + Proj No Loop Road	0	0	0	0	970	364	1826	0	68	20	3307	0	6555
check	0	0	0	0	970	364	1826	0	68	20	3307	0	
Cumul No Project Conditions without Loop Road	0	0	0	0	1214	554	2604	0	176	60	4140	0	8750
check	0	0	0	0	1214	554	2604	0	176	60	4140	0	

Intersection Number:	5		
Traffix Node Number:	5		
Intersection Name:	Euclid Avenue	& East Bayshore Road/Donohoe Street (unsignalized)*	
Peak Hour:	PM	Date of Analysis:	#REF!
Count Date:	05/21/19		
Scenario:	#REF!	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	20	0	74	142	547	0	0	0	0	0	226	13	1022
check	20	0	74	142	547	0	0	0	0	0	226	13	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	2	0	0	0	0	0	2	0	4
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	5	0	19	36	138	0	0	0	0	0	57	3	258
Sobrato Office Phase II without Loop Road	0	0	1	32	9	0	0	0	0	0	2	0	44
University Circle Phase II	0	0	1	3	9	0	0	0	0	0	2	0	15
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**5**	**0**	**21**	**71**	**158**	**0**	**0**	**0**	**0**	**0**	**63**	**3**	**321**
Cumul + Project Conditions without Loop Road	25	0	95	213	705	0	0	0	0	0	289	16	1343
check	25	0	95	213	705	0	0	0	0	0	289	16	
University Circle Phase II Rd	0	0	1	3	9	0	0	0	0	0	2	0	15
Existing + Proj No Loop Road	20	0	75	145	556	0	0	0	0	0	228	13	1037
check	20	0	75	145	556	0	0	0	0	0	228	13	
Cumul No Project Conditions without Loop Road	25	0	94	210	696	0	0	0	0	0	287	16	1328
check	25	0	94	210	696	0	0	0	0	0	287	16	

Intersection Number:	6
Traffix Node Number:	6
Intersection Name:	US 101 NB On-Ramp/S & Donohoe Street (unsignalized)
Peak Hour:	PM
Count Date:	05/21/19
Scenario:	#REF!
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: #REF!
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	2	1	1	0	674	406	0	0	0	79	227	0	1390
check	2	1	1	0	674	406	0	0	0	79	227	0	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	219	0	0	0	0	0	0	219
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	2	10	0	0	0	0	2	0	14
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	1	0	0	0	170	102	0	0	0	20	57	0	350
Sobrato Office Phase II without Loop Road	36	43	49	26	4	0	0	0	0	0	0	3	161
University Circle Phase II	0	0	0	0	12	0	0	0	0	0	2	0	14
2398 University Avenue Hotel Only	0	0	0	0	0	11	0	0	0	0	0	0	11
Total Cumulative Growth	**37**	**43**	**49**	**26**	**188**	**342**	**0**	**0**	**0**	**20**	**61**	**3**	**769**
Cumul + Project Conditions without Loop Road	39	44	50	26	862	748	0	0	0	99	288	3	2159
check	39	44	50	26	862	748	0	0	0	99	288	3	
University Circle Phase II Rd	0	0	0	0	12	0	0	0	0	0	2	0	14
Existing + Proj No Loop Road	2	1	1	0	686	406	0	0	0	79	229	0	1404
check	2	1	1	0	686	406	0	0	0	79	229	0	
Cumul No Project Conditions without Loop Road	39	44	50	26	850	748	0	0	0	99	286	3	2145
check	39	44	50	26	850	748	0	0	0	99	286	3	

Intersection Number:	11
Traffix Node Number:	11
Intersection Name:	University Avenue & Bay Road
Peak Hour:	PM
Count Date:	04/16/19
Scenario:	#REF!
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: #REF!
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	24	439	105	463	214	156	40	938	40	88	252	149	2908
check	24	439	105	463	214	156	40	938	40	88	252	149	
RVSP Proj Trips without Loop Rd	14	33	105	337	428	336	111	55	11	7	148	19	1604
Approved+Pending Proj Trips in EPA out RVSP	0	10	1	3	15	0	0	8	0	0	12	0	49
The Primary School Proj Trips without Loop Road	0	0	6	7	19	0	0	1	2	0	14	0	49
Regional Growth (2019 to 2040)	6	111	26	117	54	39	10	236	10	22	64	38	733
Sobrato Office Phase II without Loop Road	0	7	0	0	0	0	2	39	0	0	0	0	48
University Circle Phase II	0	5	0	0	0	0	0	23	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	5	5	7	36	32	0	0	0	7	0	92
Total Cumulative Growth	**20**	**166**	**143**	**469**	**523**	**411**	**155**	**362**	**23**	**29**	**245**	**57**	**2603**
Cumul + Project Conditions without Loop Road	44	605	248	932	737	567	195	1300	63	117	497	206	5511
check	44	605	248	932	737	567	195	1300	63	117	497	206	
University Circle Phase II Rd	0	5	0	0	0	0	0	23	0	0	0	0	28
Existing + Proj No Loop Road	24	444	105	463	214	156	40	961	40	88	252	149	2936
check	24	444	105	463	214	156	40	961	40	88	252	149	
Cumul No Project Conditions without Loop Road	44	600	248	932	737	567	195	1277	63	117	497	206	5483
check	44	600	248	932	737	567	195	1277	63	117	497	206	

Intersection Number:	14				
Traffix Node Number:	14				
Intersection Name:	University Avenue	& Donohoe Street*			
Peak Hour:	PM		Date of Analysis:	#REF!	
Count Date:	04/16/19				
Scenario:	#REF!		Future Growth % Per Year for minor Roads:	0	
(SJ) Growth Factor:	0.000		Future Growth % Per Year for Major Roads:	0.012	
(SJ) Number of Months:	0.0		Number of Years to Buildout:	21	

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	153	518	31	503	616	314	743	584	346	144	76	16	4044
check	153	518	31	503	616	314	743	584	346	144	76	16	
RVSP Proj Trips without Loop Rd	125	291	8	43	95	67	29	117	0	0	0	0	775
Approved+Pending Proj Trips in EPA out RVSP	2	16	0	0	8	22	19	11	2	2	0	0	82
The Primary School Proj Trips without Loop Road	0	9	0	0	0	2	1	6	0	0	0	0	18
Regional Growth (2019 to 2040)	39	131	8	127	155	79	187	147	87	36	19	4	1019
Sobrato Office Phase II without Loop Road	4	63	0	0	15	0	0	0	11	21	9	19	142
University Circle Phase II	0	5	0	0	0	2	10	23	12	2	0	0	54
2398 University Avenue Hotel Only	11	17	0	14	0	0	0	15	0	0	0	0	57
Total Cumulative Growth	**181**	**532**	**16**	**184**	**273**	**172**	**246**	**319**	**112**	**61**	**28**	**23**	**2147**
Cumul + Project Conditions without Loop Road	334	1050	47	687	889	486	989	903	458	205	104	39	6191
check	334	1050	47	687	889	486	989	903	458	205	104	39	
University Circle Phase II Rd	0	5	0	0	0	2	10	23	12	2	0	0	54
Existing + Proj No Loop Road	153	523	31	503	616	316	753	607	358	146	76	16	4098
check	153	523	31	503	616	316	753	607	358	146	76	16	
Cumul No Project Conditions without Loop Road	334	1045	47	687	889	484	979	880	446	203	104	39	6137
check	334	1045	47	687	889	484	979	880	446	203	104	39	

Intersection Number:	15				
Traffix Node Number:	15				
Intersection Name:	University Avenue	& US 101 SB Off-Ramp*			
Peak Hour:	PM		Date of Analysis:	#REF!	
Count Date:	05/21/19				
Scenario:	#REF!		Future Growth % Per Year for minor Roads:	0	
(SJ) Growth Factor:	0.000		Future Growth % Per Year for Major Roads:	0.012	
(SJ) Number of Months:	0.0		Number of Years to Buildout:	21	

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	849	607	706	0	321	244	1102	0	0	0	0	3829
check	0	849	607	706	0	321	244	1102	0	0	0	0	
RVSP Proj Trips without Loop Rd	0	122	236	85	0	0	0	62	0	0	0	0	505
Approved+Pending Proj Trips in EPA out RVSP	0	59	2	5	0	27	14	43	0	0	0	0	150
The Primary School Proj Trips without Loop Road	0	11	0	0	0	0	0	8	0	0	0	0	19
Regional Growth (2019 to 2040)	0	214	153	178	0	81	61	278	0	0	0	0	965
Sobrato Office Phase II without Loop Road	0	16	69	8	0	0	0	3	0	0	0	0	96
University Circle Phase II	0	17	0	0	0	5	42	72	0	0	0	0	136
2398 University Avenue Hotel Only	0	4	24	0	0	0	0	4	0	0	0	0	32
Total Cumulative Growth	**0**	**443**	**484**	**276**	**0**	**113**	**117**	**470**	**0**	**0**	**0**	**0**	**1903**
Cumul + Project Conditions without Loop Road	0	1292	1091	982	0	434	361	1572	0	0	0	0	5732
check	0	1292	1091	982	0	434	361	1572	0	0	0	0	
University Circle Phase II Rd	0	17	0	0	0	5	42	72	0	0	0	0	136
Existing + Proj No Loop Road	0	866	607	706	0	326	286	1174	0	0	0	0	3965
check	0	866	607	706	0	326	286	1174	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	1275	1091	982	0	429	319	1500	0	0	0	0	5596
check	0	1275	1091	982	0	429	319	1500	0	0	0	0	

City of East Palo Alto
University Circle Phase II

Intersection Number:	16				
Traffix Node Number:	16				
Intersection Name:	University Avenue	&	Woodland Avenue*		
Peak Hour:	PM			Date of Analysis:	#REF!
Count Date:	04/16/19				
Scenario:	#REF!			Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000			Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0			Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	360	545	223	247	57	12	13	615	25	45	70	396	2608
check	360	545	223	247	57	12	13	615	25	45	70	396	
RVSP Proj Trips without Loop Rd	0	122	0	0	0	0	0	62	0	0	0	0	184
Approved+Pending Proj Trips in EPA out RVSP	76	3	8	6	0	0	0	1	15	10	0	50	169
The Primary School Proj Trips without Loop Road	0	11	0	0	0	0	0	8	0	0	0	0	19
Regional Growth (2019 to 2040)	91	137	56	62	14	3	3	155	6	11	18	100	657
Sobrato Office Phase II without Loop Road	0	16	0	0	0	0	0	3	0	0	0	0	19
University Circle Phase II	22	0	0	0	1	0	0	0	1	7	4	113	148
2398 University Avenue Hotel Only	0	4	0	0	0	0	0	4	0	0	0	0	8
Total Cumulative Growth	**189**	**293**	**64**	**68**	**15**	**3**	**3**	**233**	**22**	**28**	**22**	**263**	**1204**
Cumul + Project Conditions without Loop Road	549	838	287	315	72	15	16	848	47	73	92	659	3812
check	549	838	287	315	72	15	16	848	47	73	92	659	
University Circle Phase II Rd	22	0	0	0	1	0	0	0	1	7	4	113	148
Existing + Proj No Loop Road	382	545	223	247	58	12	13	615	26	52	74	509	2756
check	382	545	223	247	58	12	13	615	26	52	74	509	
Cumul No Project Conditions without Loop Road	527	838	287	315	71	15	16	848	46	66	88	546	3664
check	527	838	287	315	71	15	16	848	46	66	88	546	

Intersection Number:	17				
Traffix Node Number:	17				
Intersection Name:	University Circle	&	Woodland Avenue*		
Peak Hour:	PM			Date of Analysis:	#REF!
Count Date:	05/21/19				
Scenario:	#REF!			Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000			Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0			Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	12	0	218	68	332	0	0	0	0	0	405	8	1043
check	12	0	218	68	332	0	0	0	0	0	405	8	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	91	0	0	0	0	0	59	0	150
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	4	0	124	24	0	0	0	0	0	0	0	1	153
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**4**	**0**	**124**	**24**	**91**	**0**	**0**	**0**	**0**	**0**	**59**	**1**	**303**
Cumul + Project Conditions without Loop Road	16	0	342	92	423	0	0	0	0	0	464	9	1346
check	16	0	342	92	423	0	0	0	0	0	464	9	
University Circle Phase II Rd	4	0	124	24	0	0	0	0	0	0	0	1	153
Existing + Proj No Loop Road	16	0	342	92	332	0	0	0	0	0	405	9	1196
check	16	0	342	92	332	0	0	0	0	0	405	9	
Cumul No Project Conditions without Loop Road	12	0	218	68	423	0	0	0	0	0	464	8	1193
check	12	0	218	68	423	0	0	0	0	0	464	8	

Intersection Number: 18
Traffix Node Number: 18
Intersection Name: US 101 NB Off Ramp/I & Donohoe Street*
Peak Hour: PM
Count Date: 05/21/19
Scenario: #REF!
(SJ) Growth Factor: 0.000
(SJ) Number of Months: 0.0

Date of Analysis: #REF!
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

Scenario:	Movements												
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	64	0	8	17	652	0	573	18	729	0	880	0	2941
check	64	0	8	17	652	0	573	18	729	0	880	0	
RVSP Proj Trips without Loop Rd	0	0	0	0	167	0	58	0	37	0	37	0	299
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	30	0	4	0	0	0	19	0	53
The Primary School Proj Trips without Loop Road	0	0	0	0	2	0	0	0	0	0	1	0	3
Regional Growth (2019 to 2040)	16	0	2	4	164	0	144	5	184	0	222	0	741
Sobrato Office Phase II without Loop Road	0	0	0	0	2	0	0	0	13	0	9	0	24
University Circle Phase II	0	0	0	0	2	0	0	0	0	0	10	0	12
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	14	0	0	0	14
Total Cumulative Growth	**16**	**0**	**2**	**4**	**367**	**0**	**206**	**5**	**248**	**0**	**298**	**0**	**1146**
Cumul + Project Conditions without Loop Road	80	0	10	21	1019	0	779	23	977	0	1178	0	4087
check	80	0	10	21	1019	0	779	23	977	0	1178	0	
University Circle Phase II Rd	0	0	0	0	2	0	0	0	0	0	10	0	12
Existing + Proj No Loop Road	64	0	8	17	654	0	573	18	729	0	890	0	2953
check	64	0	8	17	654	0	573	18	729	0	890	0	
Cumul No Project Conditions without Loop Road	80	0	10	21	1017	0	779	23	977	0	1168	0	4075
check	80	0	10	21	1017	0	779	23	977	0	1168	0	

Intersection Number: 19
Traffix Node Number: 19
Intersection Name: Cooley Avenue & Donohoe Street*
Peak Hour: PM
Count Date: 05/21/19
Scenario: #REF!
(SJ) Growth Factor: 0.000
(SJ) Number of Months: 0.0

Date of Analysis: #REF!
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

Scenario:	Movements												
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	99	0	66	120	527	0	20	11	74	0	1014	401	2332
check	99	0	66	120	527	0	20	11	74	0	1014	401	
RVSP Proj Trips without Loop Rd	42	0	0	5	126	0	0	0	0	0	32	62	267
Approved+Pending Proj Trips in EPA out RVSP	9	0	0	0	21	0	0	0	0	0	17	6	53
The Primary School Proj Trips without Loop Road	0	0	0	0	2	0	0	0	0	0	1	0	3
Regional Growth (2019 to 2040)	25	0	17	30	133	0	5	3	19	0	256	101	588
Sobrato Office Phase II without Loop Road	0	0	0	0	1	0	0	0	0	0	7	2	10
University Circle Phase II	1	0	0	0	1	0	0	0	0	0	7	4	13
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**77**	**0**	**17**	**35**	**284**	**0**	**5**	**3**	**19**	**0**	**320**	**175**	**934**
Cumul + Project Conditions without Loop Road	176	0	83	155	811	0	25	14	93	0	1334	576	3266
check	176	0	83	155	811	0	25	14	93	0	1334	576	
University Circle Phase II Rd	1	0	0	0	1	0	0	0	0	0	7	4	13
Existing + Proj No Loop Road	100	0	66	120	528	0	20	11	74	0	1021	405	2345
check	100	0	66	120	528	0	20	11	74	0	1021	405	
Cumul No Project Conditions without Loop Road	175	0	83	155	810	0	25	14	93	0	1327	572	3253
check	175	0	83	155	810	0	25	14	93	0	1327	572	

Intersection Number: 20
Traffix Node Number: 20
Intersection Name: East Bayshore Road & Donohoe Street*
Peak Hour: PM
Count Date: 05/21/19
Scenario: #REF!
(SJ) Growth Factor: 0.000
(SJ) Number of Months: 0.0

Date of Analysis: #REF!
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

Scenario:	Movements												
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	754	396	149	0	7	26	463	0	0	0	0	1795
check	0	754	396	149	0	7	26	463	0	0	0	0	
RVSP Proj Trips without Loop Rd	0	3	29	125	0	0	0	6	0	0	0	0	163
Approved+Pending Proj Trips in EPA out RVSP	0	2	15	17	0	0	0	4	0	0	0	0	38
The Primary School Proj Trips without Loop Road	0	0	1	2	0	0	0	0	0	0	0	0	3
Regional Growth (2019 to 2040)	0	190	100	38	0	2	7	117	0	0	0	0	452
Sobrato Office Phase II without Loop Road	0	3	4	1	0	0	0	1	0	0	0	0	9
University Circle Phase II	0	3	4	1	0	0	0	1	0	0	0	0	9
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**201**	**153**	**184**	**0**	**2**	**7**	**129**	**0**	**0**	**0**	**0**	**674**
Cumul + Project Conditions without Loop Road	0	955	549	333	0	9	33	592	0	0	0	0	2469
check	0	955	549	333	0	9	33	592	0	0	0	0	
University Circle Phase II Rd	0	3	4	1	0	0	0	1	0	0	0	0	9
Existing + Proj No Loop Road	0	757	400	150	0	7	26	464	0	0	0	0	1804
check	0	757	400	150	0	7	26	464	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	952	545	332	0	9	33	591	0	0	0	0	2460
check	0	952	545	332	0	9	33	591	0	0	0	0	

Intersection Number: 34
Traffix Node Number: 34
Intersection Name: Manhattan Avenue & Woodland Avenue
Peak Hour: PM
Count Date: 05/21/19
Scenario: #REF!
(SJ) Growth Factor: 0.000
(SJ) Number of Months: 0.0

Date of Analysis: #REF!
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

Scenario:	Movements												
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	8	0	181	189	158	1	0	0	0	0	251	3	791
check	8	0	181	189	158	1	0	0	0	0	251	3	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	5	0	52	80	10	0	0	0	0	0	8	8	163
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	4	0	0	0	0	0	1	0	5
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**5**	**0**	**52**	**80**	**14**	**0**	**0**	**0**	**0**	**0**	**9**	**8**	**168**
Cumul + Project Conditions without Loop Road	13	0	233	269	172	1	0	0	0	0	260	11	959
check	13	0	233	269	172	1	0	0	0	0	260	11	
University Circle Phase II Rd	0	0	0	0	4	0	0	0	0	0	1	0	5
Existing + Proj No Loop Road	8	0	181	189	162	1	0	0	0	0	252	3	796
check	8	0	181	189	162	1	0	0	0	0	252	3	
Cumul No Project Conditions without Loop Road	13	0	233	269	168	1	0	0	0	0	259	11	954
check	13	0	233	269	168	1	0	0	0	0	259	11	

City of East Palo Alto
University Circle Phase II

Intersection Number:	35				
Traffix Node Number:	35				
Intersection Name:	Euclid Avenue	&	Woodland Avenue		
Peak Hour:	PM			Date of Analysis:	#REF!
Count Date:	05/21/19				
Scenario:	#REF!		Future Growth %	Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000		Future Growth %	Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0			Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	12	0	84	65	87	0	0	0	0	0	168	1	417
check	12	0	84	65	87	0	0	0	0	0	168	1	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	3	4	11	0	0	0	0	0	13	0	31
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	1	3	0	0	0	0	0	1	0	5
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**0**	**3**	**5**	**14**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**36**
Cumul + Project Conditions without Loop Road	12	0	87	70	101	0	0	0	0	0	182	1	453
check	12	0	87	70	101	0	0	0	0	0	182	1	
University Circle Phase II Rd	0	0	0	1	3	0	0	0	0	0	1	0	5
Existing + Proj No Loop Road	12	0	84	66	90	0	0	0	0	0	169	1	422
check	12	0	84	66	90	0	0	0	0	0	169	1	
Cumul No Project Conditions without Loop Road	12	0	87	69	98	0	0	0	0	0	181	1	448
check	12	0	87	69	98	0	0	0	0	0	181	1	

City of East Palo Alto
University Circle Phase II

Intersection Number:	11				
Traffix Node Number:	11				
Intersection Name:	University Avenue	& Bay Road			
Peak Hour:	AM			Date of Analysis:	#REF!
Count Date:	04/17/19				
Scenario:	#REF!		Future Growth % Per Year for minor Roads:		0
(SJ) Growth Factor:	0.000		Future Growth % Per Year for Major Roads:		0.012
(SJ) Number of Months:	0.0		Number of Years to Buildout:		21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	113	862	154	130	221	76	87	677	76	58	219	60	2733
check	113	862	154	130	221	76	87	677	76	58	219	60	2733
Loop Rd Reassign Ex Traffic	0	0	-35	-23	0	0	0	0	0	0	0	0	
RVSP Proj Trips with Loop Rd	13	36	256	58	119	110	260	26	4	2	451	10	1345
Approved+Pending Proj Trips in EPA out RVSP	0	11	2	2	25	0	0	13	0	0	30	0	83
The Primary School Proj Trips with Loop Rd	0	0	10	7	36	0	0	2	4	0	45	0	104
Regional Growth (2019 to 2040)	28	217	39	33	56	19	22	171	19	15	55	15	689
Sobrato Office Phase II with Loop Rd	0	46	0	0	0	2	0	6	0	0	0	0	54
University Circle Phase II	0	24	0	0	0	0	0	4	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	5	3	5	25	28	0	0	0	7	0	73
Total Cumulative Growth	**41**	**334**	**312**	**103**	**241**	**156**	**310**	**222**	**27**	**17**	**588**	**25**	**2376**
Cumul + Project Conditions with Loop Rd	154	1196	431	210	462	232	397	899	103	75	807	85	5051
check	154	1196	431	210	462	232	397	899	103	75	807	85	
University Circle Phase II	0	24	0	0	0	0	0	4	0	0	0	0	28
Existing + Proj with Loop Road	113	886	119	107	221	76	87	681	76	58	219	60	2703
check	113	886	119	107	221	76	87	681	76	58	219	60	
Cumul No Project Conditions with Loop Rd	154	1172	431	210	462	232	397	895	103	75	807	85	5023

Intersection Number:	11		
Traffix Node Number:	11		
Intersection Name:	University Avenue	& Bay Road	
Peak Hour:	PM		Date of Analysis: #REF!
Count Date:	04/16/19		
Scenario:	#REF!		Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor:	0.000		Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months:	0.0		Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	24	439	105	463	214	156	40	938	40	88	252	149	2908
check	24	439	105	463	214	156	40	938	40	88	252	149	
Loop Rd Reassign Ex Traffic	0	0	-25	-66	0	0	0	0	0	0	0	0	
RVSP Proj Trips with Loop Rd	14	33	75	235	428	336	111	52	11	7	148	19	1469
Approved+Pending Proj Trips in EPA out RVSP	0	10	1	3	15	0	0	8	0	0	12	0	49
The Primary School Proj Trips with Loop Rd	0	0	3	4	19	0	0	1	2	0	14	0	43
Regional Growth (2019 to 2040)	6	111	26	117	54	39	10	236	10	22	64	38	733
Sobrato Office Phase II with Loop Rd	0	7	0	0	0	0	2	39	0	0	0	0	48
University Circle Phase II	0	5	0	0	0	0	0	23	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	5	5	7	36	32	0	0	0	7	0	92
Total Cumulative Growth	**20**	**166**	**110**	**364**	**523**	**411**	**155**	**359**	**23**	**29**	**245**	**57**	**2462**
Cumul + Project Conditions with Loop Rd	44	605	190	761	737	567	195	1297	63	117	497	206	5370
check	44	605	190	761	737	567	195	1297	63	117	497	206	
University Circle Phase II	0	5	0	0	0	0	0	23	0	0	0	0	28
Existing + Proj with Loop Road	24	444	80	397	214	156	40	961	40	88	252	149	2845
check	24	444	80	397	214	156	40	961	40	88	252	149	
Cumul No Project Conditions with Loop Rd	44	600	190	761	737	567	195	1274	63	117	497	206	5251

Appendix C

Intersection Level of Service Calculations

Vistro File: P:\...\Existing Conditions_AM.vistro
Report File: P:\...\Existing AM.pdf

Scenario 16 Existing AM (2019 vols)
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Left	0.727	11.4	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.727

Intersection Setup

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	829	67	1148	2695	205	416
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.40	3.50	1.60	3.10	2.20	3.60
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	829	67	1148	2695	205	416
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	214	17	296	695	53	107
Total Analysis Volume [veh/h]	855	69	1184	2778	211	429
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	6		0		7	
v_ci, Inbound Pedestrian Volume crossing mi	7		0		6	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		1		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	35	110	75	110	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	3.9	1.5	3.9	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	63	63	63	63	63	63
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	5.90	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	3.90	2.00	0.00
g_i, Effective Green Time [s]	18	18	25	46	7	36
g / C, Green / Cycle	0.29	0.29	0.39	0.74	0.11	0.56
(v / s)_i Volume / Saturation Flow Rate	0.17	0.04	0.34	0.55	0.06	0.10
s, saturation flow rate [veh/h]	4955	1549	3470	5049	3453	4166
c, Capacity [veh/h]	1415	442	1365	3716	370	2349
d1, Uniform Delay [s]	19.46	16.85	17.62	4.89	26.79	6.69
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.51	0.20	0.68	0.37	0.52	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.16	0.87	0.75	0.57	0.18
d, Delay for Lane Group [s/veh]	19.97	17.04	18.30	5.26	27.31	6.70
Lane Group LOS	B	B	B	A	C	A
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.99	0.64	6.06	1.37	1.43	0.72
50th-Percentile Queue Length [ft/ln]	74.72	15.91	151.47	34.24	35.83	18.10
95th-Percentile Queue Length [veh/ln]	5.38	1.15	10.10	2.47	2.58	1.30
95th-Percentile Queue Length [ft/ln]	134.50	28.64	252.38	61.64	64.49	32.58

Movement, Approach, & Intersection Results

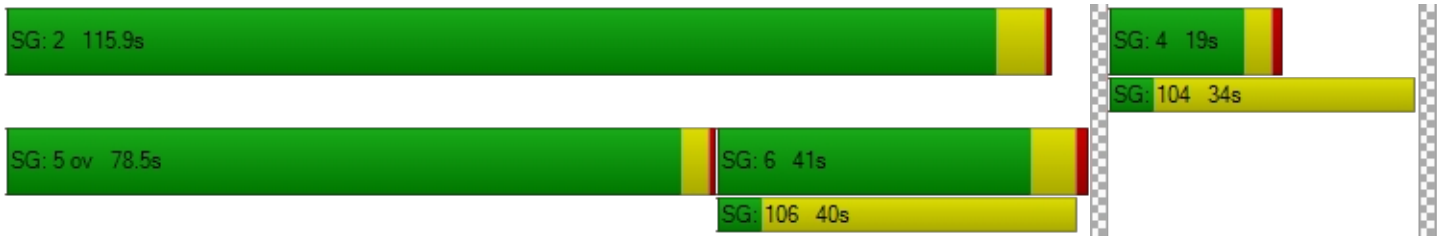
d_M, Delay for Movement [s/veh]	19.97	17.04	18.30	5.26	27.31	6.70
Movement LOS	B	B	B	A	C	A
d_A, Approach Delay [s/veh]	19.75		9.16		13.49	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	11.43					
Intersection LOS	B					
Intersection V/C	0.727					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	3.561	0.000	2.870
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1458	583	625
d_b, Bicycle Delay [s]	1.76	12.05	11.34
l_b,int, Bicycle LOS Score for Intersection	2.068	3.739	1.670
Bicycle LOS	B	D	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Vistro File: P:\...\Existing Conditions_PM.vistro
Report File: P:\...\Existing PM.pdf

Scenario 16 Existing PM (2019 vols)
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Right	1.043	94.1	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	94.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.043

Intersection Setup

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	3307	20	359	970	68	1803
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	16.10	4.90	3.80	9.00	1.50
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3307	20	359	970	68	1803
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	844	5	92	247	17	460
Total Analysis Volume [veh/h]	3374	20	366	990	69	1840
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	7		0		8	
v_ci, Inbound Pedestrian Volume crossing mi	8		0		7	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		1		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	90	140	50	140	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	5.8	1.5	5.8	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	152	152	152	152	152	152
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	7.80	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	5.80	2.00	0.00
g_i, Effective Green Time [s]	90	90	34	125	15	53
g / C, Green / Cycle	0.59	0.59	0.22	0.82	0.10	0.35
(v / s)_i Volume / Saturation Flow Rate	0.66	0.01	0.11	0.20	0.02	0.43
s, saturation flow rate [veh/h]	5077	1399	3378	5020	3264	4237
c, Capacity [veh/h]	2999	826	751	4137	321	1470
d1, Uniform Delay [s]	31.18	12.94	51.69	2.94	63.25	49.75
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	57.57	0.01	0.18	0.04	0.12	113.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.12	0.02	0.49	0.24	0.21	1.25
d, Delay for Lane Group [s/veh]	88.74	12.96	51.87	2.97	63.37	163.57
Lane Group LOS	F	B	D	A	E	F
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	48.44	0.27	5.95	1.42	1.24	33.89
50th-Percentile Queue Length [ft/ln]	1211.03	6.82	148.74	35.53	31.00	847.26
95th-Percentile Queue Length [veh/ln]	65.94	0.49	9.95	2.56	2.23	49.83
95th-Percentile Queue Length [ft/ln]	1648.39	12.27	248.75	63.95	55.80	1245.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	88.74	12.96	51.87	2.97	63.37	163.57
Movement LOS	F	B	D	A	E	F
d_A, Approach Delay [s/veh]	88.29		16.17		159.95	
Approach LOS	F		B		F	
d_I, Intersection Delay [s/veh]	94.15					
Intersection LOS	F					
Intersection V/C	1.043					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	3.699	0.000	2.935
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1750	1833	625
d_b, Bicycle Delay [s]	0.38	0.17	11.34
l_b,int, Bicycle LOS Score for Intersection	3.426	2.305	1.670
Bicycle LOS	C	B	A

Sequence

Ring 1	5	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Vistro File: P:\...\Existing Conditions_AM-EPA.vistro
Report File: P:\...\Ex+Proj AM.pdf

Scenario 20 Ex+Proj AM - Univ Circle(2019 vols)
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Left	0.724	11.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	829	67	1172	2695	205	420
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.40	3.50	1.60	3.10	2.20	3.60
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	829	67	1172	2695	205	420
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	214	17	302	695	53	108
Total Analysis Volume [veh/h]	855	69	1208	2778	211	433
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	6		0		7	
v_ci, Inbound Pedestrian Volume crossing mi	7		0		6	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		1		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	35	110	75	110	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	3.9	1.5	3.9	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	5.90	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	3.90	2.00	0.00
g_i, Effective Green Time [s]	18	18	26	47	7	36
g / C, Green / Cycle	0.28	0.28	0.40	0.74	0.11	0.57
(v / s)_i Volume / Saturation Flow Rate	0.17	0.04	0.35	0.55	0.06	0.10
s, saturation flow rate [veh/h]	4955	1549	3470	5049	3453	4166
c, Capacity [veh/h]	1406	439	1387	3734	367	2367
d1, Uniform Delay [s]	19.91	17.23	17.75	4.85	27.31	6.68
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	0.20	0.70	0.36	0.53	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.61	0.16	0.87	0.74	0.57	0.18
d, Delay for Lane Group [s/veh]	20.42	17.43	18.45	5.21	27.84	6.69
Lane Group LOS	C	B	B	A	C	A
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.08	0.65	6.32	1.41	1.47	0.74
50th-Percentile Queue Length [ft/ln]	76.93	16.37	158.02	35.24	36.66	18.52
95th-Percentile Queue Length [veh/ln]	5.54	1.18	10.44	2.54	2.64	1.33
95th-Percentile Queue Length [ft/ln]	138.48	29.47	261.10	63.43	65.98	33.34

Movement, Approach, & Intersection Results

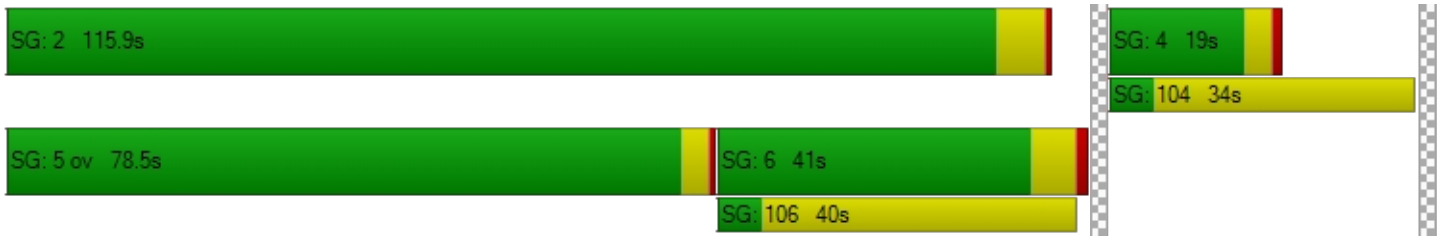
d_M, Delay for Movement [s/veh]	20.42	17.43	18.45	5.21	27.84	6.69
Movement LOS	C	B	B	A	C	A
d_A, Approach Delay [s/veh]	20.20		9.22		13.62	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	11.56					
Intersection LOS	B					
Intersection V/C	0.724					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	3.561	0.000	2.874
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1458	583	625
d_b, Bicycle Delay [s]	1.76	12.05	11.34
l_b,int, Bicycle LOS Score for Intersection	2.068	3.752	1.670
Bicycle LOS	B	D	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Scenario 20 Ex+Proj PM-Univ Circle (2019 vols)
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Right	1.049	96.3	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	96.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.049

Intersection Setup

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	3307	20	364	970	68	1826
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	16.10	4.90	3.80	9.00	1.50
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3307	20	364	970	68	1826
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	844	5	93	247	17	466
Total Analysis Volume [veh/h]	3374	20	371	990	69	1863
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	7		0		8	
v_ci, Inbound Pedestrian Volume crossing mi	8		0		7	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		1		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	90	140	50	140	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	5.8	1.5	5.8	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	153	153	153	153	153	153
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	7.80	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	5.80	2.00	0.00
g_i, Effective Green Time [s]	90	90	35	126	15	54
g / C, Green / Cycle	0.59	0.59	0.23	0.83	0.10	0.35
(v / s)_i Volume / Saturation Flow Rate	0.66	0.01	0.11	0.20	0.02	0.44
s, saturation flow rate [veh/h]	5077	1399	3378	5020	3264	4237
c, Capacity [veh/h]	2981	821	767	4143	319	1487
d1, Uniform Delay [s]	31.66	13.26	51.45	2.92	63.74	49.75
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	60.71	0.01	0.18	0.04	0.12	114.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.13	0.02	0.48	0.24	0.22	1.25
d, Delay for Lane Group [s/veh]	92.37	13.28	51.62	2.95	63.86	163.93
Lane Group LOS	F	B	D	A	E	F
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	49.33	0.28	6.04	1.42	1.25	34.46
50th-Percentile Queue Length [ft/ln]	1233.19	6.95	151.01	35.52	31.23	861.49
95th-Percentile Queue Length [veh/ln]	67.33	0.50	10.07	2.56	2.25	50.62
95th-Percentile Queue Length [ft/ln]	1683.32	12.51	251.77	63.94	56.21	1265.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	92.37	13.28	51.62	2.95	63.86	163.93
Movement LOS	F	B	D	A	E	F
d_A, Approach Delay [s/veh]	91.90		16.22		160.36	
Approach LOS	F		B		F	
d_I, Intersection Delay [s/veh]	96.28					
Intersection LOS	F					
Intersection V/C	1.049					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	3.699	0.000	2.939
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1750	1833	625
d_b, Bicycle Delay [s]	0.38	0.17	11.34
l_b,int, Bicycle LOS Score for Intersection	3.426	2.308	1.670
Bicycle LOS	C	B	A

Sequence

Ring 1	5	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Scenario 19 Cum No Proj AM - Univ.Circle
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Left	0.928	25.7	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	25.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.928

Intersection Setup

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	1038	176	1821	3374	285	614
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.40	3.50	1.60	3.10	2.20	3.60
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	11	59	-22	-7	34
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1050	187	1880	3352	278	648
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	271	48	485	864	72	167
Total Analysis Volume [veh/h]	1082	193	1938	3456	287	668
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	6		0		7	
v_ci, Inbound Pedestrian Volume crossing mi	7		0		6	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		1		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	35	110	75	110	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	3.9	1.5	3.9	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	6.0	6.0	20.0	20.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	137	137	137	137	137	137
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	5.90	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	3.90	2.00	0.00
g_i, Effective Green Time [s]	35	35	75	113	14	93
g / C, Green / Cycle	0.25	0.25	0.55	0.83	0.10	0.68
(v / s)_i Volume / Saturation Flow Rate	0.22	0.12	0.56	0.68	0.08	0.16
s, saturation flow rate [veh/h]	4955	1546	3470	5049	3453	4166
c, Capacity [veh/h]	1253	391	1898	4172	350	2823
d1, Uniform Delay [s]	48.93	43.61	31.03	6.55	60.36	8.48
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	1.16	12.24	0.54	1.83	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.49	1.02	0.83	0.82	0.24
d, Delay for Lane Group [s/veh]	51.22	44.77	43.28	7.09	62.19	8.49
Lane Group LOS	D	D	F	A	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	11.52	5.50	30.87	9.59	4.96	2.43
50th-Percentile Queue Length [ft/ln]	288.12	137.40	771.80	239.75	123.88	60.74
95th-Percentile Queue Length [veh/ln]	17.09	9.34	40.68	14.67	8.61	4.37
95th-Percentile Queue Length [ft/ln]	427.31	233.52	1017.03	366.71	215.14	109.33

Movement, Approach, & Intersection Results

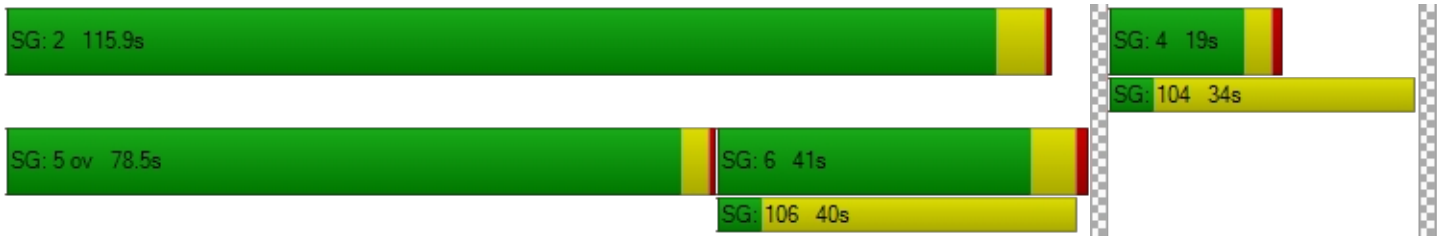
d_M, Delay for Movement [s/veh]	51.22	44.77	43.28	7.09	62.19	8.49
Movement LOS	D	D	F	A	E	A
d_A, Approach Delay [s/veh]	50.24		20.09		24.63	
Approach LOS	D		C		C	
d_I, Intersection Delay [s/veh]	25.70					
Intersection LOS	C					
Intersection V/C	0.928					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	3.843	0.000	3.063
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1458	583	625
d_b, Bicycle Delay [s]	1.76	12.05	11.34
l_b,int, Bicycle LOS Score for Intersection	2.261	4.526	1.560
Bicycle LOS	B	E	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Scenario 19 Cumul No Proj PM - Univ.Circle
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Right	1.437	243.1	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	243.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.437

Intersection Setup

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	4140	60	554	1214	176	2604
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	16.10	4.90	3.80	9.00	1.50
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-33	-20	43	9	10	66
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4107	40	597	1223	186	2670
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1048	10	152	312	47	681
Total Analysis Volume [veh/h]	4191	41	609	1248	190	2724
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	4		0		4	
v_ci, Inbound Pedestrian Volume crossing mi	4		0		4	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	1		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	90	140	50	140	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	5.8	1.5	5.8	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	6.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	147	147	147	147	147	147
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	7.80	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	5.80	2.00	0.00
g_i, Effective Green Time [s]	90	90	28	120	15	47
g / C, Green / Cycle	0.61	0.61	0.19	0.82	0.10	0.32
(v / s)_i Volume / Saturation Flow Rate	0.83	0.03	0.18	0.25	0.06	0.64
s, saturation flow rate [veh/h]	5077	1387	3378	5020	3264	4237
c, Capacity [veh/h]	3116	851	649	4103	334	1363
d1, Uniform Delay [s]	28.34	11.28	58.40	3.26	62.76	49.75
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	155.91	0.03	3.06	0.05	0.57	450.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.35	0.05	0.94	0.30	0.57	2.00
d, Delay for Lane Group [s/veh]	184.25	11.30	61.46	3.31	63.33	500.03
Lane Group LOS	F	B	E	A	E	F
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	76.44	0.50	11.01	1.91	3.40	73.24
50th-Percentile Queue Length [ft/ln]	1911.03	12.52	275.25	47.86	85.01	1830.97
95th-Percentile Queue Length [veh/ln]	112.70	0.90	16.45	3.45	6.12	116.68
95th-Percentile Queue Length [ft/ln]	2817.50	22.54	411.29	86.15	153.02	2917.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	184.25	11.30	61.46	3.31	63.33	500.03
Movement LOS	F	B	E	A	E	F
d_A, Approach Delay [s/veh]	182.57		22.38		471.56	
Approach LOS	F		C		F	
d_I, Intersection Delay [s/veh]	243.07					
Intersection LOS	F					
Intersection V/C	1.437					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	4.010	0.000	3.141
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1750	1833	625
d_b, Bicycle Delay [s]	0.38	0.17	11.34
l_b,int, Bicycle LOS Score for Intersection	3.887	2.581	1.560
Bicycle LOS	D	B	A

Sequence

Ring 1	5	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Scenario 18 Cum+Proj AM - EPA
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Left	0.936	27.1	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	27.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.936

Intersection Setup

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expy (SR84)		Bayfront Expy (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	1038	176	1845	3374	285	618
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.40	3.50	1.60	3.10	2.20	3.60
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	11	59	-22	-7	34
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1050	187	1904	3352	278	652
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	271	48	491	864	72	168
Total Analysis Volume [veh/h]	1082	193	1963	3456	287	672
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	6		0		7	
v_ci, Inbound Pedestrian Volume crossing mi	7		0		6	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		1		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	35	110	75	110	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	3.9	1.5	3.9	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	6.0	6.0	20.0	20.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	137	137	137	137	137	137
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	5.90	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	3.90	2.00	0.00
g_i, Effective Green Time [s]	35	35	75	113	14	93
g / C, Green / Cycle	0.25	0.25	0.55	0.83	0.10	0.68
(v / s)_i Volume / Saturation Flow Rate	0.22	0.12	0.57	0.68	0.08	0.16
s, saturation flow rate [veh/h]	4955	1546	3470	5049	3453	4166
c, Capacity [veh/h]	1253	391	1898	4172	350	2823
d1, Uniform Delay [s]	48.94	43.61	31.04	6.55	60.36	8.49
k, delay calibration	0.13	0.13	0.05	0.13	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	1.16	17.62	0.54	1.83	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.49	1.03	0.83	0.82	0.24
d, Delay for Lane Group [s/veh]	51.22	44.77	48.66	7.09	62.19	8.50
Lane Group LOS	D	D	F	A	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	11.53	5.50	32.29	9.59	4.96	2.45
50th-Percentile Queue Length [ft/ln]	288.13	137.41	807.27	239.82	123.88	61.17
95th-Percentile Queue Length [veh/ln]	17.09	9.34	42.79	14.67	8.61	4.40
95th-Percentile Queue Length [ft/ln]	427.32	233.53	1069.65	366.80	215.14	110.11

Movement, Approach, & Intersection Results

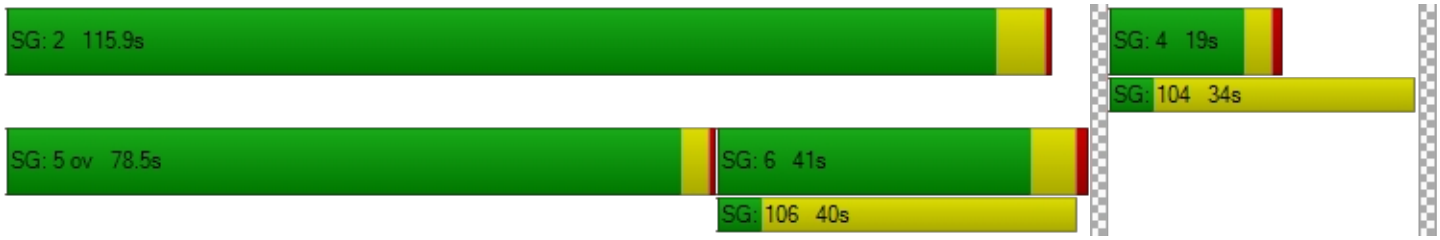
d_M, Delay for Movement [s/veh]	51.22	44.77	48.66	7.09	62.19	8.50
Movement LOS	D	D	F	A	E	A
d_A, Approach Delay [s/veh]	50.24		22.15		24.57	
Approach LOS	D		C		C	
d_I, Intersection Delay [s/veh]	27.13					
Intersection LOS	C					
Intersection V/C	0.936					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	3.843	0.000	3.068
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1458	583	625
d_b, Bicycle Delay [s]	1.76	12.05	11.34
l_b,int, Bicycle LOS Score for Intersection	2.261	4.540	1.560
Bicycle LOS	B	E	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Scenario 18 Cumul+Proj PM - EPA
10/7/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
15	Bayfront Expy (SR 84) /University Ave (SR 109)	Signalized	HCM 6th Edition	NWB Right	1.443	245.6	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 15: Bayfront Expy (SR 84)/University Ave (SR 109)

Control Type:	Signalized	Delay (sec / veh):	245.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.443

Intersection Setup

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Approach	Northeastbound		Southwestbound		Northwestbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	2	0	0	1
Entry Pocket Length [ft]	100.00	100.00	830.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	55.00		55.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	Bayfront Expressway (SR84)		Bayfront Expressway (SR84)		University Avenue (SR109)	
Base Volume Input [veh/h]	4140	60	559	1214	176	2627
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	16.10	4.90	3.80	9.00	1.50
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-33	-20	43	9	10	66
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4107	40	602	1223	186	2693
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1048	10	154	312	47	687
Total Analysis Volume [veh/h]	4191	41	614	1248	190	2748
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	4		0		4	
v_ci, Inbound Pedestrian Volume crossing mi	4		0		4	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	1		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	48
Coordination Type	Free Running
Actuation Type	Fully actuated
Offset [s]	8.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	10.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal Group	6	2	5	2	4	4
Auxiliary Signal Groups						4,5
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	10	4	10	4	4
Maximum Green [s]	90	140	50	140	15	15
Amber [s]	5.0	5.4	3.0	5.4	3.0	3.0
All red [s]	1.0	0.5	0.5	0.5	1.0	1.0
Split [s]	30	0	0	0	30	30
Vehicle Extension [s]	3.5	3.5	2.0	3.5	2.0	2.0
Walk [s]	5	0	0	0	5	5
Pedestrian Clearance [s]	35	0	0	0	29	29
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	4.0	5.8	1.5	5.8	2.0	2.0
Minimum Recall	Yes		No	Yes	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	6.0	20.0	20.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	147	147	147	147	147	147
L, Total Lost Time per Cycle [s]	6.00	6.00	3.50	7.80	4.00	3.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	1.50	5.80	2.00	0.00
g_i, Effective Green Time [s]	90	90	28	120	15	47
g / C, Green / Cycle	0.61	0.61	0.19	0.82	0.10	0.32
(v / s)_i Volume / Saturation Flow Rate	0.83	0.03	0.18	0.25	0.06	0.65
s, saturation flow rate [veh/h]	5077	1387	3378	5020	3264	4237
c, Capacity [veh/h]	3110	849	654	4105	333	1368
d1, Uniform Delay [s]	28.47	11.36	58.40	3.25	62.89	49.75
k, delay calibration	0.13	0.13	0.04	0.13	0.04	0.15
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	156.98	0.03	3.07	0.05	0.57	454.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.35	0.05	0.94	0.30	0.57	2.01
d, Delay for Lane Group [s/veh]	185.45	11.39	61.47	3.30	63.47	504.62
Lane Group LOS	F	B	E	A	E	F
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	76.72	0.50	11.12	1.91	3.41	74.12
50th-Percentile Queue Length [ft/ln]	1917.99	12.60	278.02	47.86	85.20	1853.03
95th-Percentile Queue Length [veh/ln]	113.18	0.91	16.59	3.45	6.13	118.13
95th-Percentile Queue Length [ft/ln]	2829.42	22.68	414.74	86.15	153.36	2953.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	185.45	11.39	61.47	3.30	63.47	504.62
Movement LOS	F	B	E	A	E	F
d_A, Approach Delay [s/veh]	183.76		22.48		476.09	
Approach LOS	F		C		F	
d_I, Intersection Delay [s/veh]	245.60					
Intersection LOS	F					
Intersection V/C	1.443					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.84	0.00	15.84
l_p,int, Pedestrian LOS Score for Intersection	4.010	0.000	3.146
Crosswalk LOS	D	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1750	1833	625
d_b, Bicycle Delay [s]	0.38	0.17	11.34
l_b,int, Bicycle LOS Score for Intersection	3.887	2.584	1.560
Bicycle LOS	D	B	A

Sequence

Ring 1	5	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.7	0.5	0.0	0.0	0.3	0.3	0.4
Total Del/Veh (s)	51.2	74.9	11.4	6.4	37.5	32.8	51.3
Vehicles Entered	2	481	117	42	356	6	1004
Vehicles Exited	2	464	117	41	351	6	981
Hourly Exit Rate	2	464	117	41	351	6	981
Input Volume	2	485	122	41	360	5	1015
% of Volume	100	96	96	101	98	114	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	All
Denied Del/Veh (s)	0.6	1.0	1.7	0.4	0.0	0.1	0.1	0.9
Total Del/Veh (s)	7.5	8.0	64.7	6.0	5.6	635.2	385.8	23.8
Vehicles Entered	607	240	368	166	2	1	2	1386
Vehicles Exited	604	240	369	166	2	1	2	1384
Hourly Exit Rate	604	240	369	166	2	1	2	1384
Input Volume	628	249	403	170	3	1	1	1456
% of Volume	96	96	92	98	67	80	160	95
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	1.9	7.2	0.0	0.0	0.0	0.0	0.0	0.0	161.7	124.6	111.1
Total Del/Veh (s)	77.8	86.0	46.9	76.9	70.0	18.4	68.9	14.3	4.3	332.9	309.7	294.1
Vehicles Entered	12	72	506	454	397	437	83	374	403	14	721	53
Vehicles Exited	12	71	502	452	394	437	82	374	402	15	721	52
Hourly Exit Rate	12	71	502	452	394	437	82	374	402	15	721	52
Input Volume	14	75	526	479	397	448	86	366	405	24	1115	83
% of Volume	87	95	95	94	99	98	95	102	99	63	65	63
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	0	0	1	37	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	30.0
Total Del/Veh (s)	106.5
Vehicles Entered	3526
Vehicles Exited	3514
Hourly Exit Rate	3514
Input Volume	4016
% of Volume	87
Denied Entry Before	0
Denied Entry After	42

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.3	0.0	0.3	0.3	0.1	0.1	0.1	0.2
Total Del/Veh (s)	9.3	34.9	7.3	131.4	49.2	9.0	108.2	68.9	47.9
Vehicles Entered	495	834	22	458	76	216	2	18	2121
Vehicles Exited	494	827	22	447	75	215	2	18	2100
Hourly Exit Rate	494	827	22	447	75	215	2	18	2100
Input Volume	510	848	22	460	75	214	2	19	2150
% of Volume	97	98	101	97	100	100	100	95	98
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.6	0.0	0.1	0.2	0.3	0.3
Total Del/Veh (s)	49.9	51.1	9.8	39.2	18.9	88.8	45.6	43.8	31.8
Vehicles Entered	16	148	546	544	28	10	72	300	1664
Vehicles Exited	17	148	546	536	28	10	73	292	1650
Hourly Exit Rate	17	148	546	536	28	10	73	292	1650
Input Volume	16	155	553	556	29	11	78	287	1684
% of Volume	106	96	99	96	97	91	94	102	98
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.1	0.0	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)		51.6	5.3	54.1	31.0	45.0	24.5	32.5
Vehicles Entered	0	218	382	362	7	7	226	1202
Vehicles Exited	0	217	380	352	7	7	225	1188
Hourly Exit Rate	0	217	380	352	7	7	225	1188
Input Volume	1	233	378	358	7	8	232	1217
% of Volume	0	93	100	98	97	85	97	98
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.4	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	176.9	20.3	40.1	27.6	9.8	135.8	135.2	89.8
Vehicles Entered	217	7	268	923	428	729	1117	3689
Vehicles Exited	216	7	268	926	428	721	1105	3671
Hourly Exit Rate	216	7	268	926	428	721	1105	3671
Input Volume	222	6	270	924	425	900	1363	4110
% of Volume	97	117	99	100	101	80	81	89
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.6	0.4	0.7	0.3	0.3	0.3	0.0	0.0	0.0	0.3	1.1	0.4
Total Del/Veh (s)	55.9	55.0	44.9	81.1	87.8	46.3	109.7	42.9	40.1	123.1	96.8	10.6
Vehicles Entered	388	120	61	11	100	328	48	610	8	124	841	367
Vehicles Exited	389	120	61	10	100	328	47	611	8	122	840	364
Hourly Exit Rate	389	120	61	10	100	328	47	611	8	122	840	364
Input Volume	380	122	59	10	98	333	50	612	7	144	1011	442
% of Volume	102	98	103	98	102	98	94	100	110	85	83	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	62.9
Vehicles Entered	3006
Vehicles Exited	3000
Hourly Exit Rate	3000
Input Volume	3268
% of Volume	92
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	16.7	22.4	5.1	2.3	45.3	20.9	15.3
Vehicles Entered	20	472	322	216	88	8	1126
Vehicles Exited	20	474	322	216	88	8	1128
Hourly Exit Rate	20	474	322	216	88	8	1128
Input Volume	20	463	372	245	91	6	1198
% of Volume	99	102	86	88	96	128	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.3	0.3	0.1
Total Del/Veh (s)	24.9	15.0	8.5	5.0	13.7	14.0	11.6
Vehicles Entered	3	253	168	140	244	6	814
Vehicles Exited	3	253	169	140	245	6	816
Hourly Exit Rate	3	253	169	140	245	6	816
Input Volume	3	250	189	163	240	6	850
% of Volume	100	101	89	86	102	104	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	2.0	0.9	2.5	2.3	6.8	4.8	3.7
Vehicles Entered	4	93	145	39	156	13	450
Vehicles Exited	4	94	145	39	156	13	451
Hourly Exit Rate	4	94	145	39	156	13	451
Input Volume	4	95	162	43	151	14	468
% of Volume	107	99	90	90	103	95	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	55.1	44.1	17.9		14.7	7.8	5.9	1.3	1.3	7.9
Vehicles Entered	3	8	64	0	662	2	41	861	3	1644
Vehicles Exited	4	8	64	0	663	2	41	861	3	1646
Hourly Exit Rate	4	8	64	0	663	2	41	861	3	1646
Input Volume	4	8	65	1	665	3	47	1020	4	1817
% of Volume	100	103	98	0	100	67	87	84	75	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.6	3.3	8.0	13.2
Vehicles Entered	488	4	1148	1640
Vehicles Exited	487	4	1151	1642
Hourly Exit Rate	487	4	1151	1642
Input Volume	492	4	1325	1822
% of Volume	99	89	87	90
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.6	0.3
Total Del/Veh (s)	48.6	5.7	6.8	7.3	9.4
Vehicles Entered	198	857	326	1724	3105
Vehicles Exited	195	858	326	1721	3100
Hourly Exit Rate	195	858	326	1721	3100
Input Volume	198	855	327	2142	3523
% of Volume	98	100	100	80	88
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	2	2

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	16.6	16.6
Vehicles Entered	626	626
Vehicles Exited	623	623
Hourly Exit Rate	623	623
Input Volume	670	670
% of Volume	93	93
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	0.4	0.5
Total Del/Veh (s)	4.2	25.6	16.8
Vehicles Entered	667	906	1573
Vehicles Exited	665	906	1571
Hourly Exit Rate	665	906	1571
Input Volume	669	1064	1732
% of Volume	99	85	91
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	10.9	10.9
Vehicles Entered	606	606
Vehicles Exited	606	606
Hourly Exit Rate	606	606
Input Volume	653	653
% of Volume	93	93
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	82.2	82.2
Total Del/Veh (s)	112.2	112.2
Vehicles Entered	1204	1204
Vehicles Exited	1200	1200
Hourly Exit Rate	1200	1200
Input Volume	1401	1401
% of Volume	86	86
Denied Entry Before	0	0
Denied Entry After	27	27

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	485.7	411.8	418.4	1986.3	2026.2	1868.7	0.1	0.0	0.0	64.8	49.5	50.8
Total Del/Veh (s)	609.5	664.0	681.5	1925.5	2092.2	2019.9	60.0	15.8	15.8	536.4	506.2	437.5
Vehicles Entered	6	52	35	10	7	2	20	770	34	14	881	9
Vehicles Exited	6	46	31	12	7	1	20	771	35	11	732	7
Hourly Exit Rate	6	46	31	12	7	1	20	771	35	11	732	7
Input Volume	11	67	48	166	106	14	20	775	34	15	953	9
% of Volume	55	68	64	7	7	7	100	99	102	73	77	78
Denied Entry Before	0	0	0	30	21	3	0	0	0	0	0	0
Denied Entry After	3	20	14	185	114	16	0	0	0	1	77	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	339.0
Total Del/Veh (s)	338.1
Vehicles Entered	1840
Vehicles Exited	1679
Hourly Exit Rate	1679
Input Volume	2219
% of Volume	76
Denied Entry Before	54
Denied Entry After	430

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.3	0.2	0.2
Total Del/Veh (s)	3.8	3.9	3.8
Vehicles Entered	199	738	937
Vehicles Exited	199	735	934
Hourly Exit Rate	199	735	934
Input Volume	198	737	935
% of Volume	100	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	1.4	0.8	1.1
Vehicles Entered	357	390	747
Vehicles Exited	356	390	746
Hourly Exit Rate	356	390	746
Input Volume	353	390	744
% of Volume	101	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	139.2
Total Del/Veh (s)	298.5
Vehicles Entered	6575
Vehicles Exited	6292
Hourly Exit Rate	6292
Input Volume	47269
% of Volume	13
Denied Entry Before	54
Denied Entry After	501

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.1	7.0	5.0	0.2	0.2	4.3
Total Del/Veh (s)	18.2	18.0	26.2	22.1	16.2	11.2	22.5
Vehicles Entered	14	248	572	130	93	22	1079
Vehicles Exited	14	246	572	130	91	21	1074
Hourly Exit Rate	14	246	572	130	91	21	1074
Input Volume	13	250	644	142	90	20	1160
% of Volume	106	98	89	92	101	104	93
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	3	0	0	0	3

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	21.2	2.2	10.2	15.3	229.6	65.6	187.7	14.8
Vehicles Entered	264	80	386	711	1	2	2	1446
Vehicles Exited	262	80	384	710	1	2	2	1441
Hourly Exit Rate	262	80	384	710	1	2	2	1441
Input Volume	268	79	406	793	1	1	2	1550
% of Volume	98	101	95	90	100	200	100	93
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	13.1	7.3	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.0	0.0
Total Del/Veh (s)	120.1	282.0	6.6	54.7	61.5	21.4	83.5	26.6	23.5	117.6	48.4	37.6
Vehicles Entered	11	97	151	278	654	487	288	580	625	55	666	134
Vehicles Exited	10	92	151	278	653	487	288	580	625	54	669	134
Hourly Exit Rate	10	92	151	278	653	487	288	580	625	54	669	134
Input Volume	11	100	156	274	700	508	350	706	753	55	675	125
% of Volume	91	92	97	102	93	96	82	82	83	99	99	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	48.3
Vehicles Entered	4026
Vehicles Exited	4021
Hourly Exit Rate	4021
Input Volume	4412
% of Volume	91
Denied Entry Before	0
Denied Entry After	1

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	4.5	0.0	5.8	0.1	0.1	2.2
Total Del/Veh (s)	33.8	37.1	5.8	172.0	67.4	154.0	117.1	78.5	91.8
Vehicles Entered	767	697	16	670	26	505	8	64	2753
Vehicles Exited	770	698	16	657	26	497	8	65	2737
Hourly Exit Rate	770	698	16	657	26	497	8	65	2737
Input Volume	904	690	17	729	25	573	8	64	3010
% of Volume	85	101	93	90	104	87	100	102	91
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	1	0	0	2

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.0
Total Del/Veh (s)	60.5	53.7	17.0	50.8	37.5	75.0	73.3	12.4	75.1	23.2	36.6
Vehicles Entered	11	334	931	525	108	77	7	31	87	98	2209
Vehicles Exited	11	334	930	525	108	77	7	31	87	98	2208
Hourly Exit Rate	11	334	930	525	108	77	7	31	87	98	2208
Input Volume	13	388	1083	520	105	74	7	29	89	99	2409
% of Volume	83	86	86	101	103	104	100	106	97	99	92
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1
Total Del/Veh (s)	48.8	48.8	7.4	68.8	71.3	41.5	55.9	37.8
Vehicles Entered	11	297	741	481	27	8	152	1717
Vehicles Exited	11	297	738	473	26	8	151	1704
Hourly Exit Rate	11	297	738	473	26	8	151	1704
Input Volume	13	350	839	466	26	7	149	1850
% of Volume	83	85	88	102	99	114	101	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.5	0.0	1.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	100.2	38.8	78.4	54.9	10.9	38.7	7.0	46.9
Vehicles Entered	294	2	653	1047	208	587	831	3622
Vehicles Exited	292	2	653	1043	209	586	832	3617
Hourly Exit Rate	292	2	653	1043	209	586	832	3617
Input Volume	321	3	706	1336	270	607	853	4095
% of Volume	91	73	92	78	77	97	98	88
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Del/Veh (s)	0.8	0.3	0.3	0.2	0.3	0.3	0.3	1.6	0.3	0.0	0.0	0.0
Total Del/Veh (s)	77.2	49.6	30.7	402.4	421.1	431.9	106.0	71.3	95.0	80.8	79.2	32.9
Vehicles Entered	466	78	40	12	56	304	16	539	10	6	217	548
Vehicles Exited	464	79	40	11	46	254	16	536	10	7	217	547
Hourly Exit Rate	464	79	40	11	46	254	16	536	10	7	217	547
Input Volume	520	88	45	12	57	300	25	787	13	6	225	577
% of Volume	89	90	88	92	80	85	63	68	77	117	97	95
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	1	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	SBR	All
Denied Del/Veh (s)	0.0	0.5
Total Del/Veh (s)	6.8	109.8
Vehicles Entered	348	2640
Vehicles Exited	348	2575
Hourly Exit Rate	348	2575
Input Volume	365	3020
% of Volume	95	85
Denied Entry Before	0	0
Denied Entry After	0	1

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.6	0.0	0.0	0.1	0.2	0.2
Total Del/Veh (s)	64.0	92.2	7.8	2.6	115.6	133.5	62.9
Vehicles Entered	6	376	343	74	219	7	1025
Vehicles Exited	6	367	344	74	214	7	1012
Hourly Exit Rate	6	367	344	74	214	7	1012
Input Volume	8	428	378	76	220	7	1117
% of Volume	73	86	91	97	97	97	91
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	14.1	0.0	0.0	0.2	0.3	4.2
Total Del/Veh (s)	47.2	164.9	8.3	6.8	161.1	183.1	92.4
Vehicles Entered	1	224	153	194	185	6	763
Vehicles Exited	1	211	153	193	176	6	740
Hourly Exit Rate	1	211	153	193	176	6	740
Input Volume	2	258	166	215	181	6	828
% of Volume	50	82	92	90	97	100	89
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	3	0	0	0	0	3

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.2	0.0	0.0	0.3	0.2	0.1
Total Del/Veh (s)		169.9	2.6	2.4	325.3	239.5	139.6
Vehicles Entered	0	168	106	52	84	9	419
Vehicles Exited	0	157	106	52	65	7	387
Hourly Exit Rate	0	157	106	52	65	7	387
Input Volume	1	168	114	60	85	8	436
% of Volume	0	93	93	87	76	85	89
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		144.8	228.0	0.0	0.1	0.0	73.8
Total Del/Veh (s)	2262.3	1889.8	2272.5		577.1	525.6	92.3	1.9	1.2	451.8
Vehicles Entered	3	8	64	0	632	3	7	593	3	1313
Vehicles Exited	1	1	2	0	550	3	7	593	3	1160
Hourly Exit Rate	1	1	2	0	550	3	7	593	3	1160
Input Volume	4	8	65	1	744	3	10	626	4	1465
% of Volume	25	13	3	0	74	100	68	95	75	79
Denied Entry Before	0	0	0	0	2	0	0	0	0	2
Denied Entry After	0	0	0	0	64	0	0	0	0	64

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	145.4	1.4	2.7	82.9
Vehicles Entered	993	2	795	1790
Vehicles Exited	946	2	795	1743
Hourly Exit Rate	946	2	795	1743
Input Volume	1027	2	877	1906
% of Volume	92	89	91	91
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.7	0.2	0.0	0.4
Total Del/Veh (s)	1.9	71.7	76.6	1.4	40.6
Vehicles Entered	389	1496	201	1032	3118
Vehicles Exited	388	1489	199	1032	3108
Hourly Exit Rate	388	1489	199	1032	3108
Input Volume	423	1805	238	1038	3504
% of Volume	92	82	84	99	89
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	17.4	17.4
Vehicles Entered	476	476
Vehicles Exited	477	477
Hourly Exit Rate	477	477
Input Volume	496	496
% of Volume	96	96
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	4.5	3.4	3.9
Total Del/Veh (s)	38.6	19.1	26.6
Vehicles Entered	648	1011	1659
Vehicles Exited	622	1014	1636
Hourly Exit Rate	622	1014	1636
Input Volume	669	1056	1725
% of Volume	93	96	95
Denied Entry Before	0	2	2
Denied Entry After	10	2	12

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.7	9.7
Vehicles Entered	467	467
Vehicles Exited	467	467
Hourly Exit Rate	467	467
Input Volume	486	486
% of Volume	96	96
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	20.1	20.1
Vehicles Entered	846	846
Vehicles Exited	846	846
Hourly Exit Rate	846	846
Input Volume	927	927
% of Volume	91	91
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	0.4	0.4	0.4	569.9	547.5	554.9	0.2	0.0	0.0
Total Del/Veh (s)	29.4	49.7	28.0	79.5	81.5	75.3	141.9	82.5	82.1	75.8	18.0	14.2
Vehicles Entered	4	81	16	107	124	33	110	1435	79	43	729	28
Vehicles Exited	4	80	16	109	124	33	108	1436	80	43	730	28
Hourly Exit Rate	4	80	16	109	124	33	108	1436	80	43	730	28
Input Volume	5	84	16	112	126	34	155	1985	113	44	727	25
% of Volume	80	96	100	98	98	96	70	72	71	97	100	111
Denied Entry Before	0	0	0	0	0	0	7	82	4	0	0	0
Denied Entry After	0	0	0	0	0	0	39	504	29	0	0	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	359.0
Total Del/Veh (s)	65.8
Vehicles Entered	2789
Vehicles Exited	2791
Hourly Exit Rate	2791
Input Volume	3426
% of Volume	81
Denied Entry Before	93
Denied Entry After	572

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	52.2	49.4	50.1
Total Del/Veh (s)	88.0	111.4	105.7
Vehicles Entered	399	1256	1655
Vehicles Exited	389	1206	1595
Hourly Exit Rate	389	1206	1595
Input Volume	423	1320	1743
% of Volume	92	91	92
Denied Entry Before	0	1	1
Denied Entry After	18	61	79

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	1.5	1.5	1.5
Vehicles Entered	506	749	1255
Vehicles Exited	507	751	1258
Hourly Exit Rate	507	751	1258
Input Volume	489	849	1338
% of Volume	104	88	94
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: University Avenue Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.5	0.2
Total Del/Veh (s)	138.4	22.2	99.9
Vehicles Entered	1473	760	2233
Vehicles Exited	1473	760	2233
Hourly Exit Rate	1473	760	2233
Input Volume	2024	762	2786
% of Volume	73	100	80
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	15.1	289.3	211.7
Vehicles Entered	235	578	813
Vehicles Exited	236	527	763
Hourly Exit Rate	236	527	763
Input Volume	239	649	888
% of Volume	99	81	86
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	159.2
Total Del/Veh (s)	351.0
Vehicles Entered	8206
Vehicles Exited	7663
Hourly Exit Rate	7663
Input Volume	58128
% of Volume	13
Denied Entry Before	98
Denied Entry After	737

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.8	3.2	0.0	0.0	7.0	0.4	4.1
Total Del/Veh (s)	27.5	134.3	11.8	7.7	65.2	91.7	91.6
Vehicles Entered	1	495	110	36	360	6	1008
Vehicles Exited	1	459	111	36	357	6	970
Hourly Exit Rate	1	459	111	36	357	6	970
Input Volume	2	494	124	41	363	5	1029
% of Volume	50	93	89	88	98	114	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	8	0	0	9	0	17

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	All
Denied Del/Veh (s)	1.0	1.6	2.2	0.8	0.0		0.1	1.4
Total Del/Veh (s)	11.6	10.5	89.7	14.2	6.5		322.1	33.0
Vehicles Entered	607	240	347	153	3	0	3	1353
Vehicles Exited	605	239	346	152	3	0	2	1347
Hourly Exit Rate	605	239	346	152	3	0	2	1347
Input Volume	641	249	403	172	3	1	1	1470
% of Volume	94	96	86	89	100	0	160	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	2	1	0	0	0	0	0	3

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	1.9	6.6	0.1	0.1	0.0	0.0	0.0	0.0	25.5	130.7	122.2
Total Del/Veh (s)	72.2	75.4	51.9	82.8	87.8	20.1	98.7	12.5	3.6	328.2	326.9	315.7
Vehicles Entered	13	72	505	415	370	414	83	368	402	16	688	49
Vehicles Exited	13	72	505	412	364	416	80	367	401	16	689	48
Hourly Exit Rate	13	72	505	412	364	416	80	367	401	16	689	48
Input Volume	14	75	538	490	396	448	88	370	407	24	1140	83
% of Volume	95	96	94	84	92	93	91	99	99	67	60	58
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	39	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	30.6
Total Del/Veh (s)	113.6
Vehicles Entered	3395
Vehicles Exited	3383
Hourly Exit Rate	3383
Input Volume	4072
% of Volume	83
Denied Entry Before	0
Denied Entry After	42

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.5	0.0	0.3	0.0	0.1	0.1	0.1	0.3
Total Del/Veh (s)	9.5	46.4	7.9	154.0	52.7	9.2	111.8	83.2	57.8
Vehicles Entered	498	763	17	455	78	219	2	19	2051
Vehicles Exited	498	758	17	429	77	219	2	18	2018
Hourly Exit Rate	498	758	17	429	77	219	2	18	2018
Input Volume	512	859	22	460	75	214	2	19	2163
% of Volume	97	88	78	93	103	102	100	95	93
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.3	0.0	0.1	0.7	0.5	0.2
Total Del/Veh (s)	48.6	50.2	11.1	68.4	42.1	142.6	46.4	95.5	51.0
Vehicles Entered	18	152	548	490	25	11	71	289	1604
Vehicles Exited	18	153	548	479	25	10	71	273	1577
Hourly Exit Rate	18	153	548	479	25	10	71	273	1577
Input Volume	16	156	554	563	29	11	78	291	1697
% of Volume	112	98	99	85	87	91	91	94	93
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	1	1	2

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.3	0.0	0.2	0.1	0.1
Total Del/Veh (s)	81.4	53.4	8.9	158.1	88.8	47.4	137.7	86.6
Vehicles Entered	1	225	376	334	7	8	246	1197
Vehicles Exited	0	222	371	299	7	8	220	1127
Hourly Exit Rate	0	222	371	299	7	8	220	1127
Input Volume	1	234	378	360	7	8	236	1225
% of Volume	0	95	98	83	97	97	93	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.8	0.0	0.6	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	184.1	32.0	45.2	27.5	9.9	127.0	130.4	88.0
Vehicles Entered	249	5	263	932	425	683	1142	3699
Vehicles Exited	244	5	262	933	426	680	1135	3685
Hourly Exit Rate	244	5	262	933	426	680	1135	3685
Input Volume	249	5	270	937	432	900	1453	4247
% of Volume	98	95	97	100	99	76	78	87
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.5	0.7	0.5	0.3	0.3	0.3	0.0	0.0	0.0	0.5	0.9	0.2
Total Del/Veh (s)	57.1	53.8	43.8	93.5	84.6	47.0	107.7	43.1	39.6	120.1	96.3	15.3
Vehicles Entered	396	128	58	10	102	329	51	604	8	115	821	455
Vehicles Exited	397	128	58	10	104	331	51	604	8	115	826	460
Hourly Exit Rate	397	128	58	10	104	331	51	604	8	115	826	460
Input Volume	399	122	60	10	102	333	57	613	7	144	1011	559
% of Volume	99	104	97	98	102	99	90	99	110	80	82	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	61.6
Vehicles Entered	3077
Vehicles Exited	3092
Hourly Exit Rate	3092
Input Volume	3417
% of Volume	90
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	17.3	26.5	5.6	2.5	43.1	30.1	16.3
Vehicles Entered	23	463	334	319	112	8	1259
Vehicles Exited	23	463	334	320	113	8	1261
Hourly Exit Rate	23	463	334	320	113	8	1261
Input Volume	24	464	378	373	112	7	1358
% of Volume	97	100	88	86	101	110	93
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.5	0.0	0.0	0.2	0.3	0.2
Total Del/Veh (s)	10.2	22.1	8.7	5.2	23.2	22.9	16.6
Vehicles Entered	3	254	165	153	233	6	814
Vehicles Exited	3	256	165	153	235	5	817
Hourly Exit Rate	3	256	165	153	235	5	817
Input Volume	3	254	190	163	240	6	856
% of Volume	100	101	87	94	98	87	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)	3.3	1.4	2.5	2.2	9.2	4.5	4.5
Vehicles Entered	3	101	144	38	149	13	448
Vehicles Exited	3	101	144	39	149	13	449
Hourly Exit Rate	3	101	144	39	149	13	449
Input Volume	4	99	162	43	151	14	473
% of Volume	80	102	89	90	99	95	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	53.1	27.6	15.3	30.9	14.3	15.9	5.8	1.4	1.7	7.7
Vehicles Entered	3	8	65	1	658	3	36	850	4	1628
Vehicles Exited	3	8	66	1	658	3	36	851	4	1630
Hourly Exit Rate	3	8	66	1	658	3	36	851	4	1630
Input Volume	4	8	65	1	672	3	47	1021	4	1825
% of Volume	75	103	101	100	98	100	76	83	100	89
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	68.5	2.4	5.6	25.8
Vehicles Entered	521	5	1106	1632
Vehicles Exited	513	5	1105	1623
Hourly Exit Rate	513	5	1105	1623
Input Volume	519	5	1332	1856
% of Volume	99	105	83	87
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.5	0.3
Total Del/Veh (s)	56.7	6.3	6.6	7.5	10.9
Vehicles Entered	236	852	331	1665	3084
Vehicles Exited	234	852	331	1664	3081
Hourly Exit Rate	234	852	331	1664	3081
Input Volume	241	864	331	2191	3626
% of Volume	97	99	100	76	85
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	1	1

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.7	0.7
Total Del/Veh (s)	18.5	18.5
Vehicles Entered	604	604
Vehicles Exited	602	602
Hourly Exit Rate	602	602
Input Volume	670	670
% of Volume	90	90
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	0.5	0.5
Total Del/Veh (s)	4.1	25.6	16.8
Vehicles Entered	658	901	1559
Vehicles Exited	661	906	1567
Hourly Exit Rate	661	906	1567
Input Volume	676	1064	1740
% of Volume	98	85	90
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	11.0	11.0
Vehicles Entered	584	584
Vehicles Exited	584	584
Hourly Exit Rate	584	584
Input Volume	653	653
% of Volume	89	89
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	54.4	54.4
Total Del/Veh (s)	99.7	99.7
Vehicles Entered	1176	1176
Vehicles Exited	1183	1183
Hourly Exit Rate	1183	1183
Input Volume	1408	1408
% of Volume	84	84
Denied Entry Before	0	0
Denied Entry After	6	6

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	258.4	283.5	272.3	1990.1	2022.5	2056.7	0.1	0.0	0.0	134.2	116.6	119.3
Total Del/Veh (s)	705.3	622.5	653.4	1852.3	1919.9	1896.3	62.6	15.9	14.0	668.1	610.6	585.7
Vehicles Entered	7	48	39	12	9	1	20	745	34	12	841	8
Vehicles Exited	6	43	34	12	9	0	21	747	34	10	696	7
Hourly Exit Rate	6	43	34	12	9	0	21	747	34	10	696	7
Input Volume	11	67	48	166	106	14	20	779	34	15	977	9
% of Volume	55	64	70	7	9	0	105	96	99	67	71	78
Denied Entry Before	0	0	0	33	25	2	0	0	0	0	0	0
Denied Entry After	2	18	11	190	122	18	0	0	0	3	148	2

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	375.2
Total Del/Veh (s)	388.9
Vehicles Entered	1776
Vehicles Exited	1619
Hourly Exit Rate	1619
Input Volume	2246
% of Volume	72
Denied Entry Before	60
Denied Entry After	514

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.3	0.2	0.3
Total Del/Veh (s)	3.4	3.2	3.3
Vehicles Entered	238	742	980
Vehicles Exited	237	740	977
Hourly Exit Rate	237	740	977
Input Volume	241	737	978
% of Volume	98	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	39.8	1.1	19.6
Vehicles Entered	347	380	727
Vehicles Exited	328	381	709
Hourly Exit Rate	328	381	709
Input Volume	356	390	746
% of Volume	92	98	95
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	143.4
Total Del/Veh (s)	329.4
Vehicles Entered	6672
Vehicles Exited	6336
Hourly Exit Rate	6336
Input Volume	48311
% of Volume	13
Denied Entry Before	60
Denied Entry After	585

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.4	0.1	3.2	6.3	0.2	0.2	2.5
Total Del/Veh (s)	32.7	21.2	24.8	21.1	11.2	7.1	22.1
Vehicles Entered	13	252	570	131	92	19	1077
Vehicles Exited	13	252	569	132	92	19	1077
Hourly Exit Rate	13	252	569	132	92	19	1077
Input Volume	13	251	654	145	91	20	1175
% of Volume	98	100	87	91	101	94	92
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	1

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1		0.1	0.1	0.1
Total Del/Veh (s)	17.5	2.0	9.5	13.1		23.2	69.1	12.5
Vehicles Entered	271	79	374	710	0	1	2	1437
Vehicles Exited	270	78	377	706	0	1	2	1434
Hourly Exit Rate	270	78	377	706	0	1	2	1434
Input Volume	270	79	406	804	1	1	2	1564
% of Volume	100	98	93	88	0	100	100	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	13.2	5.4	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0
Total Del/Veh (s)	118.3	294.9	6.9	54.7	61.5	21.5	79.1	27.3	22.1	126.6	53.9	41.5
Vehicles Entered	11	97	160	275	650	489	290	607	628	53	683	124
Vehicles Exited	11	95	160	275	649	488	290	605	632	53	685	126
Hourly Exit Rate	11	95	160	275	649	488	290	605	632	53	685	126
Input Volume	11	100	158	276	700	508	362	729	763	55	680	125
% of Volume	100	95	101	100	93	96	80	83	83	97	101	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	1	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	49.2
Vehicles Entered	4067
Vehicles Exited	4069
Hourly Exit Rate	4069
Input Volume	4466
% of Volume	91
Denied Entry Before	0
Denied Entry After	1

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	4.2	0.0	6.3	0.1	0.1	2.2
Total Del/Veh (s)	34.8	31.8	5.3	144.6	72.9	155.8	85.3	59.7	84.3
Vehicles Entered	776	686	17	673	26	510	7	66	2761
Vehicles Exited	777	685	17	666	26	507	8	65	2751
Hourly Exit Rate	777	685	17	666	26	507	8	65	2751
Input Volume	913	692	17	729	25	573	8	64	3022
% of Volume	85	99	99	91	104	88	100	102	91
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	1	0	0	2

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.0
Total Del/Veh (s)	59.1	52.1	16.7	45.0	37.2	64.2	67.7	12.7	70.9	11.4	33.7
Vehicles Entered	12	338	942	518	102	74	7	31	88	96	2208
Vehicles Exited	12	338	943	519	103	76	7	31	89	96	2214
Hourly Exit Rate	12	338	943	519	103	76	7	31	89	96	2214
Input Volume	13	391	1090	521	105	74	7	29	89	100	2421
% of Volume	91	86	87	100	98	103	100	106	100	96	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0
Total Del/Veh (s)	54.8	47.2	6.4	36.9	38.9	45.5	29.7	25.3
Vehicles Entered	11	315	737	459	27	7	151	1707
Vehicles Exited	11	315	737	462	27	7	151	1710
Hourly Exit Rate	11	315	737	462	27	7	151	1710
Input Volume	13	354	842	466	26	7	150	1858
% of Volume	83	89	88	99	103	100	101	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.0	0.3	0.2	0.0	0.0	0.0	0.1
Total Del/Veh (s)	101.4	64.1	79.4	50.9	11.5	37.3	7.2	45.7
Vehicles Entered	296	2	653	1094	235	612	829	3721
Vehicles Exited	294	2	652	1092	235	611	829	3715
Hourly Exit Rate	294	2	652	1092	235	611	829	3715
Input Volume	326	3	706	1407	311	607	870	4231
% of Volume	90	73	92	78	76	101	95	88
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Del/Veh (s)	1.7	0.5	0.1	0.3	0.3	0.3	0.2	1.2	0.4	0.0	0.0	0.0
Total Del/Veh (s)	74.0	45.7	32.2	429.0	456.7	468.7	116.2	69.4	79.4	73.1	77.7	31.3
Vehicles Entered	512	76	40	12	61	304	20	555	8	5	214	531
Vehicles Exited	512	76	40	10	50	260	20	557	8	5	214	530
Hourly Exit Rate	512	76	40	10	50	260	20	557	8	5	214	530
Input Volume	633	93	52	12	58	300	26	787	13	6	225	578
% of Volume	81	82	77	83	86	87	76	71	62	83	95	92
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	1	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	SBR	All
Denied Del/Veh (s)	0.0	0.6
Total Del/Veh (s)	8.3	114.0
Vehicles Entered	371	2709
Vehicles Exited	371	2653
Hourly Exit Rate	371	2653
Input Volume	387	3171
% of Volume	96	84
Denied Entry Before	0	0
Denied Entry After	0	1

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	1.4	0.0	0.0	0.3	0.4	0.5
Total Del/Veh (s)	101.0	146.9	9.3	3.0	244.2	284.6	124.1
Vehicles Entered	6	294	351	95	343	12	1101
Vehicles Exited	6	291	351	95	328	11	1082
Hourly Exit Rate	6	291	351	95	328	11	1082
Input Volume	9	427	378	100	344	11	1269
% of Volume	65	68	93	95	95	98	85
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	38.7	0.0	0.0	24.0	28.6	15.5
Total Del/Veh (s)	169.7	314.9	8.2	6.6	459.3	451.8	197.7
Vehicles Entered	1	166	160	199	176	7	709
Vehicles Exited	1	157	159	200	145	5	667
Hourly Exit Rate	1	157	159	200	145	5	667
Input Volume	2	258	170	215	181	6	833
% of Volume	50	61	93	93	80	83	80
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	5	0	0	3	0	8

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.4	0.2	0.0	0.0	43.3	48.7	9.5
Total Del/Veh (s)	627.8	561.1	2.7	2.4	946.0	878.0	422.2
Vehicles Entered	1	166	110	56	78	8	419
Vehicles Exited	1	120	109	56	45	4	335
Hourly Exit Rate	1	120	109	56	45	4	335
Input Volume	1	169	117	61	85	8	442
% of Volume	100	71	93	92	53	48	76
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	5	0	5

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.1	24.1	134.7	239.9	0.1	0.1	0.0	70.6
Total Del/Veh (s)	1945.2	1944.2	2233.1	840.5	552.4	472.7	80.2	1.7	2.3	446.5
Vehicles Entered	4	8	68	1	660	2	8	572	3	1326
Vehicles Exited	0	2	2	1	569	2	8	573	3	1160
Hourly Exit Rate	0	2	2	1	569	2	8	573	3	1160
Input Volume	4	8	65	1	745	3	10	633	4	1473
% of Volume	0	26	3	100	76	67	78	91	75	79
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	64	0	0	0	0	64

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	146.6	1.3	2.8	81.8
Vehicles Entered	1015	3	845	1863
Vehicles Exited	949	3	844	1796
Hourly Exit Rate	949	3	844	1796
Input Volume	1032	2	918	1952
% of Volume	92	133	92	92
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.2	0.5	0.0	0.1
Total Del/Veh (s)	2.0	57.3	63.2	1.5	32.9
Vehicles Entered	391	1523	223	1051	3188
Vehicles Exited	391	1518	224	1052	3185
Hourly Exit Rate	391	1518	224	1052	3185
Input Volume	431	1850	265	1048	3593
% of Volume	91	82	85	100	89
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	17.1	17.1
Vehicles Entered	465	465
Vehicles Exited	468	468
Hourly Exit Rate	468	468
Input Volume	496	496
% of Volume	94	94
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	3.5	2.3
Total Del/Veh (s)	37.9	18.9	26.4
Vehicles Entered	674	1006	1680
Vehicles Exited	644	1011	1655
Hourly Exit Rate	644	1011	1655
Input Volume	669	1063	1732
% of Volume	96	95	96
Denied Entry Before	0	1	1
Denied Entry After	0	2	2

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.9	9.8
Vehicles Entered	457	457
Vehicles Exited	458	458
Hourly Exit Rate	458	458
Input Volume	486	486
% of Volume	94	94
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	22.3	22.3
Vehicles Entered	896	896
Vehicles Exited	901	901
Hourly Exit Rate	901	901
Input Volume	971	971
% of Volume	93	93
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	1.3	1.8	0.7	594.9	579.0	558.6	0.3	0.0	0.0
Total Del/Veh (s)	67.9	47.5	35.2	84.9	86.9	73.8	139.6	82.0	82.8	73.7	18.7	11.7
Vehicles Entered	4	88	18	109	118	37	113	1453	74	41	734	25
Vehicles Exited	4	88	18	109	117	36	113	1453	74	42	733	25
Hourly Exit Rate	4	88	18	109	117	36	113	1453	74	42	733	25
Input Volume	5	84	16	112	126	34	155	2008	113	44	732	25
% of Volume	80	105	112	98	93	105	73	72	66	95	100	99
Denied Entry Before	0	0	0	0	0	0	7	94	4	0	0	0
Denied Entry After	0	0	0	0	0	0	42	529	30	0	0	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	380.2
Total Del/Veh (s)	66.1
Vehicles Entered	2814
Vehicles Exited	2812
Hourly Exit Rate	2812
Input Volume	3454
% of Volume	81
Denied Entry Before	105
Denied Entry After	601

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	72.8	73.0	73.0
Total Del/Veh (s)	90.7	117.7	111.1
Vehicles Entered	408	1268	1676
Vehicles Exited	391	1214	1605
Hourly Exit Rate	391	1214	1605
Input Volume	431	1320	1751
% of Volume	91	92	92
Denied Entry Before	0	0	0
Denied Entry After	23	72	95

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.4	1.5	1.1
Vehicles Entered	484	748	1232
Vehicles Exited	484	747	1231
Hourly Exit Rate	484	747	1231
Input Volume	489	852	1342
% of Volume	99	88	92
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: University Avenue Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.7	0.2
Total Del/Veh (s)	135.6	22.3	98.4
Vehicles Entered	1493	761	2254
Vehicles Exited	1493	760	2253
Hourly Exit Rate	1493	760	2253
Input Volume	2047	762	2809
% of Volume	73	100	80
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	15.2	283.8	206.9
Vehicles Entered	239	573	812
Vehicles Exited	239	532	771
Hourly Exit Rate	239	532	771
Input Volume	239	658	897
% of Volume	100	81	86
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	170.1
Total Del/Veh (s)	365.4
Vehicles Entered	8396
Vehicles Exited	7793
Hourly Exit Rate	7793
Input Volume	59098
% of Volume	13
Denied Entry Before	106
Denied Entry After	780

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	1.5	0.4	0.0	0.0	0.3	0.3	0.3
Total Del/Veh (s)	40.4	56.9	2.4	1.2	31.8	22.7	39.5
Vehicles Entered	1	492	119	37	358	5	1012
Vehicles Exited	1	488	119	36	360	5	1009
Hourly Exit Rate	1	488	119	36	360	5	1009
Input Volume	2	494	124	41	363	5	1029
% of Volume	50	99	96	88	99	95	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	All
Denied Del/Veh (s)	0.6	1.3	0.1	0.0	0.0	0.1	0.1	0.5
Total Del/Veh (s)	29.0	32.6	27.8	18.9	10.9	32.7	47.9	28.2
Vehicles Entered	637	243	384	161	2	1	2	1430
Vehicles Exited	634	242	389	162	2	1	2	1432
Hourly Exit Rate	634	242	389	162	2	1	2	1432
Input Volume	641	249	403	172	3	1	1	1470
% of Volume	99	97	96	94	67	80	160	97
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	117.7	97.9	132.2
Total Del/Veh (s)	71.5	68.5	66.6	40.9	35.1	9.3	42.4	19.3	6.3	241.7	242.4	233.7
Vehicles Entered	13	71	538	476	392	457	84	359	414	18	873	66
Vehicles Exited	13	71	542	461	384	459	86	365	416	18	889	68
Hourly Exit Rate	13	71	542	461	384	459	86	365	416	18	889	68
Input Volume	14	75	538	490	396	448	88	370	407	24	1140	83
% of Volume	95	95	101	94	97	103	98	99	102	76	78	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	1	31	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	26.6
Total Del/Veh (s)	88.5
Vehicles Entered	3761
Vehicles Exited	3772
Hourly Exit Rate	3772
Input Volume	4072
% of Volume	93
Denied Entry Before	0
Denied Entry After	35

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	8.1	8.4	3.5	21.7	16.4	7.3	69.4	4.6	11.3
Vehicles Entered	512	850	22	462	71	216	1	18	2152
Vehicles Exited	515	852	22	459	70	217	1	18	2154
Hourly Exit Rate	515	852	22	459	70	217	1	18	2154
Input Volume	512	859	22	460	75	214	2	19	2163
% of Volume	101	99	101	100	94	101	50	95	100
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.2	0.0	0.0	0.0	0.1	0.2	0.2	0.1
Total Del/Veh (s)	54.0	55.6	4.5	14.3	7.1	66.2	51.2	13.6	17.2
Vehicles Entered	16	158	558	553	30	11	79	292	1697
Vehicles Exited	16	159	559	555	30	11	78	291	1699
Hourly Exit Rate	16	159	559	555	30	11	78	291	1699
Input Volume	16	156	554	563	29	11	78	291	1697
% of Volume	100	102	101	99	104	100	100	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	25.2	26.5	2.3	12.3	3.0	32.2	13.5	12.2
Vehicles Entered	1	234	379	350	8	6	238	1216
Vehicles Exited	1	233	379	351	8	6	237	1215
Hourly Exit Rate	1	233	379	351	8	6	237	1215
Input Volume	1	234	378	360	7	8	236	1225
% of Volume	100	100	100	97	110	73	100	99
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	2.6	0.0	5.9	0.1	0.0	0.0	0.0	0.6
Total Del/Veh (s)	127.7	7.4	28.9	29.6	17.5	104.0	22.2	46.9
Vehicles Entered	237	5	264	937	437	793	1293	3966
Vehicles Exited	232	5	261	944	437	787	1300	3966
Hourly Exit Rate	232	5	261	944	437	787	1300	3966
Input Volume	249	5	270	937	432	900	1453	4247
% of Volume	93	95	97	101	101	87	89	93
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.3	0.3	0.0	0.0	0.0	0.1	0.4	0.2
Total Del/Veh (s)	53.4	53.4	46.6	69.0	63.8	33.3	63.6	26.4	23.4	72.2	64.6	10.4
Vehicles Entered	410	130	60	10	106	337	54	608	8	125	908	508
Vehicles Exited	407	129	61	9	103	331	54	612	8	126	924	511
Hourly Exit Rate	407	129	61	9	103	331	54	612	8	126	924	511
Input Volume	399	122	60	10	102	333	57	613	7	144	1011	559
% of Volume	102	105	102	88	101	99	95	100	110	88	91	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	44.0
Vehicles Entered	3264
Vehicles Exited	3275
Hourly Exit Rate	3275
Input Volume	3417
% of Volume	96
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	9.8	15.3	2.0	1.5	53.6	32.8	11.6
Vehicles Entered	23	475	351	350	117	8	1324
Vehicles Exited	24	475	351	349	119	8	1326
Hourly Exit Rate	24	475	351	349	119	8	1326
Input Volume	24	464	378	373	112	7	1358
% of Volume	101	102	93	94	106	110	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.3	0.2	0.1
Total Del/Veh (s)	5.1	11.9	7.0	4.1	12.4	8.3	9.6
Vehicles Entered	2	262	177	155	242	5	843
Vehicles Exited	2	262	177	154	243	5	843
Hourly Exit Rate	2	262	177	154	243	5	843
Input Volume	3	254	190	163	240	6	856
% of Volume	67	103	93	95	101	87	99
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)	4.0	0.8	2.4	2.2	6.9	4.1	3.5
Vehicles Entered	3	104	152	40	151	14	464
Vehicles Exited	3	105	152	40	151	14	465
Hourly Exit Rate	3	105	152	40	151	14	465
Input Volume	4	99	162	43	151	14	473
% of Volume	80	106	94	92	100	102	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		0.0	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	35.7	30.1	9.1		12.6	11.5	4.7	1.6	1.1	6.5
Vehicles Entered	3	6	62	0	669	4	40	941	4	1729
Vehicles Exited	3	6	63	0	668	4	40	936	4	1724
Hourly Exit Rate	3	6	63	0	668	4	40	936	4	1724
Input Volume	4	8	65	1	672	3	47	1021	4	1825
% of Volume	75	77	97	0	99	133	85	92	100	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1
Total Del/Veh (s)	70.2	12.4	28.7	41.0
Vehicles Entered	514	6	1223	1743
Vehicles Exited	500	6	1215	1721
Hourly Exit Rate	500	6	1215	1721
Input Volume	519	5	1332	1856
% of Volume	96	126	91	93
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	11.1	7.8	8.2	2.6	5.1
Vehicles Entered	232	867	324	1932	3355
Vehicles Exited	231	854	321	1927	3333
Hourly Exit Rate	231	854	321	1927	3333
Input Volume	241	864	331	2191	3626
% of Volume	96	99	97	88	92
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	1	1

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	0.3	0.4
Total Del/Veh (s)	4.1	25.0	16.7
Vehicles Entered	673	978	1651
Vehicles Exited	673	987	1660
Hourly Exit Rate	673	987	1660
Input Volume	676	1064	1740
% of Volume	100	93	95
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	13.2	13.2
Vehicles Entered	640	640
Vehicles Exited	640	640
Hourly Exit Rate	640	640
Input Volume	658	658
% of Volume	97	97
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	126.6	126.6
Total Del/Veh (s)	144.9	144.8
Vehicles Entered	1227	1227
Vehicles Exited	1216	1216
Hourly Exit Rate	1216	1216
Input Volume	1408	1408
% of Volume	86	86
Denied Entry Before	0	0
Denied Entry After	68	68

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.0	0.0	71.0	81.4	82.3
Total Del/Veh (s)	20.3	20.6	28.8	81.0	76.1	65.9	34.9	11.1	9.4	602.8	530.8	464.0
Vehicles Entered	8	64	50	162	112	14	21	782	36	14	883	9
Vehicles Exited	9	65	50	159	111	13	21	780	36	11	726	8
Hourly Exit Rate	9	65	50	159	111	13	21	780	36	11	726	8
Input Volume	11	67	48	166	106	14	20	779	34	15	977	9
% of Volume	82	97	104	96	105	93	105	100	105	73	74	89
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	1	106	1

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	36.4
Total Del/Veh (s)	246.4
Vehicles Entered	2155
Vehicles Exited	1989
Hourly Exit Rate	1989
Input Volume	2246
% of Volume	89
Denied Entry Before	0
Denied Entry After	108

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.2	0.2	0.2
Total Del/Veh (s)	6.1	3.1	3.8
Vehicles Entered	234	739	973
Vehicles Exited	233	737	970
Hourly Exit Rate	233	737	970
Input Volume	241	737	978
% of Volume	97	100	99
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.5	0.5
Vehicles Entered	346	390	736
Vehicles Exited	346	388	734
Hourly Exit Rate	346	388	734
Input Volume	356	390	746
% of Volume	97	99	98
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	2.7	2.7
Total Del/Veh (s)	20.5	20.5
Vehicles Entered	653	653
Vehicles Exited	654	654
Hourly Exit Rate	654	654
Input Volume	674	674
% of Volume	97	97
Denied Entry Before	1	1
Denied Entry After	2	2

Total Network Performance

Denied Del/Veh (s)	49.4
Total Del/Veh (s)	232.9
Vehicles Entered	6974
Vehicles Exited	6787
Hourly Exit Rate	6787
Input Volume	48237
% of Volume	14
Denied Entry Before	1
Denied Entry After	214

1: Donohoe St & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.1	0.1	0.2	0.2	0.2
Total Del/Veh (s)	22.5	5.2	9.1	4.7	45.1	27.1	10.9
Vehicles Entered	12	256	619	145	86	20	1138
Vehicles Exited	12	258	620	145	86	19	1140
Hourly Exit Rate	12	258	620	145	86	19	1140
Input Volume	13	251	654	145	91	20	1175
% of Volume	91	103	95	100	94	94	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.4	0.1		0.1	0.1	0.2
Total Del/Veh (s)	17.0	10.9	30.6	25.6		76.7	6.4	24.7
Vehicles Entered	267	83	402	767	0	1	2	1522
Vehicles Exited	268	83	402	769	0	1	2	1525
Hourly Exit Rate	268	83	402	769	0	1	2	1525
Input Volume	270	79	406	804	1	1	2	1564
% of Volume	99	105	99	96	0	100	100	98
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0
Total Del/Veh (s)	111.7	70.7	6.4	33.6	60.8	28.5	33.7	23.4	15.2	46.6	45.5	45.0
Vehicles Entered	11	99	157	271	711	509	318	661	672	59	675	122
Vehicles Exited	12	97	156	271	707	507	318	661	673	59	672	122
Hourly Exit Rate	12	97	156	271	707	507	318	661	673	59	672	122
Input Volume	11	100	158	276	700	508	362	740	763	55	681	125
% of Volume	109	97	99	98	101	100	88	89	88	108	99	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	35.6
Vehicles Entered	4265
Vehicles Exited	4255
Hourly Exit Rate	4255
Input Volume	4478
% of Volume	95
Denied Entry Before	0
Denied Entry After	0

4: US 101 NB Off Ramp/Capitol Ave & Donohoe St Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Del/Veh (s)	33.5	26.1	9.0	28.2	14.4	39.0	50.1	7.0	30.7
Vehicles Entered	824	699	16	733	33	594	8	62	2969
Vehicles Exited	823	697	17	733	33	592	8	62	2965
Hourly Exit Rate	823	697	17	733	33	592	8	62	2965
Input Volume	913	692	17	729	34	573	8	64	3030
% of Volume	90	101	99	101	97	103	100	97	98
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe St & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	1.1	1.0	0.7	0.2	0.2	0.1
Total Del/Veh (s)	32.7	35.0	15.2	30.3	17.4	45.6	49.0	10.1	43.2	7.7	23.7
Vehicles Entered	14	378	1033	522	104	77	7	28	88	103	2354
Vehicles Exited	14	379	1032	520	103	77	7	28	88	104	2352
Hourly Exit Rate	14	379	1032	520	103	77	7	28	88	104	2352
Input Volume	13	391	1090	521	105	74	7	29	89	100	2421
% of Volume	106	97	95	100	98	104	100	96	99	104	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

6: E. Bayshore & Donohoe Street Performance by movement

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	44.1	12.0	15.1	8.4	36.7	35.5	2.8	13.3
Vehicles Entered	7	148	471	27	13	330	805	1801
Vehicles Exited	7	148	470	27	13	331	805	1801
Hourly Exit Rate	7	148	470	27	13	331	805	1801
Input Volume	7	150	469	26	13	354	842	1861
% of Volume	100	99	100	103	98	94	96	97
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.3	0.0	0.1	0.1	0.0	0.2	0.0	0.1
Total Del/Veh (s)	67.4	16.0	43.8	53.6	13.1	42.6	9.5	38.7
Vehicles Entered	327	3	709	1127	242	597	894	3899
Vehicles Exited	323	3	702	1141	239	596	896	3900
Hourly Exit Rate	323	3	702	1141	239	596	896	3900
Input Volume	326	3	706	1407	311	607	894	4254
% of Volume	99	109	99	81	77	98	100	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Del/Veh (s)	0.3	0.1	0.0	0.3	0.3	0.3	16.8	11.3	22.2	0.0	0.1	0.0
Total Del/Veh (s)	34.5	30.6	20.4	111.7	111.4	117.9	123.3	105.2	101.4	111.8	109.8	37.6
Vehicles Entered	647	92	56	10	60	295	15	452	7	5	229	577
Vehicles Exited	650	93	56	10	59	292	15	443	7	6	227	567
Hourly Exit Rate	650	93	56	10	59	292	15	443	7	6	227	567
Input Volume	633	93	52	12	58	300	26	818	13	6	225	578
% of Volume	103	100	107	83	101	97	57	54	54	100	101	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	4	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	SBR	All
Denied Del/Veh (s)	0.0	2.1
Total Del/Veh (s)	9.7	60.8
Vehicles Entered	380	2825
Vehicles Exited	381	2806
Hourly Exit Rate	381	2806
Input Volume	387	3202
% of Volume	99	88
Denied Entry Before	0	0
Denied Entry After	0	4

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	18.4	17.9	9.5	3.4	50.8	41.6	23.6
Vehicles Entered	8	442	367	95	341	12	1265
Vehicles Exited	8	441	366	95	345	12	1267
Hourly Exit Rate	8	441	366	95	345	12	1267
Input Volume	9	427	378	100	344	11	1269
% of Volume	86	103	97	95	100	107	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Woodland Avenue & Manhattan Dr Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	5.8	8.8	8.2	6.4	5.1	4.7	7.2
Vehicles Entered	2	274	164	210	180	6	836
Vehicles Exited	2	274	162	208	180	6	832
Hourly Exit Rate	2	274	162	208	180	6	832
Input Volume	2	258	170	215	181	6	833
% of Volume	100	106	95	97	100	100	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.2	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)		1.7	2.0	1.8	6.5	3.4	2.8
Vehicles Entered	0	180	114	57	89	8	448
Vehicles Exited	0	180	114	57	88	8	447
Hourly Exit Rate	0	180	114	57	88	8	447
Input Volume	1	169	117	61	85	8	442
% of Volume	0	106	97	93	103	97	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: Woodland Ave & Crescent Dr Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		303.1	305.1	0.2	0.2	0.0	123.0
Total Del/Veh (s)	255.1	97.8	55.7		578.6	742.8	13.8	1.8	1.8	229.3
Vehicles Entered	4	8	65	0	421	2	8	642	5	1155
Vehicles Exited	4	8	63	0	374	2	8	647	5	1111
Hourly Exit Rate	4	8	63	0	374	2	8	647	5	1111
Input Volume	4	8	65	1	745	3	10	644	4	1484
% of Volume	107	103	97	0	50	62	78	100	118	75
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	76	0	0	0	0	76

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	17.7	1.8	3.1	11.2
Vehicles Entered	1039	2	835	1876
Vehicles Exited	1035	2	828	1865
Hourly Exit Rate	1035	2	828	1865
Input Volume	1032	2	918	1952
% of Volume	100	89	90	96
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.8	1.7	0.0	0.5
Total Del/Veh (s)	2.7	13.9	21.5	2.2	9.3
Vehicles Entered	432	1667	212	1039	3350
Vehicles Exited	432	1665	209	1039	3345
Hourly Exit Rate	432	1665	209	1039	3345
Input Volume	431	1885	265	1054	3635
% of Volume	100	88	79	99	92
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: Woodland Ave Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	214.9	3.2	85.0
Total Del/Veh (s)	506.6	8.8	174.6
Vehicles Entered	527	1065	1592
Vehicles Exited	421	1063	1484
Hourly Exit Rate	421	1063	1484
Input Volume	669	1063	1732
% of Volume	63	100	86
Denied Entry Before	0	0	0
Denied Entry After	144	1	145

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	10.3	10.3
Vehicles Entered	493	493
Vehicles Exited	492	492
Hourly Exit Rate	492	492
Input Volume	494	494
% of Volume	100	100
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	22.2	22.2
Vehicles Entered	877	877
Vehicles Exited	894	894
Hourly Exit Rate	894	894
Input Volume	971	971
% of Volume	92	92
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.1	0.3	0.3	0.3	689.0	680.2	718.4	0.1	0.1	0.1
Total Del/Veh (s)	40.2	34.9	22.8	48.2	46.7	40.9	495.7	83.4	71.7	76.7	19.8	14.3
Vehicles Entered	3	82	14	106	128	36	93	1189	66	38	734	21
Vehicles Exited	3	83	14	108	130	36	83	1183	65	39	734	21
Hourly Exit Rate	3	83	14	108	130	36	83	1183	65	39	734	21
Input Volume	5	84	16	112	126	34	155	2008	113	44	732	25
% of Volume	60	99	86	96	103	106	53	59	57	88	100	85
Denied Entry Before	0	0	0	0	0	0	1	10	0	0	0	0
Denied Entry After	0	0	0	0	0	0	61	752	46	0	0	0

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	447.3
Total Del/Veh (s)	73.7
Vehicles Entered	2510
Vehicles Exited	2499
Hourly Exit Rate	2499
Input Volume	3456
% of Volume	72
Denied Entry Before	11
Denied Entry After	859

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.4	0.4	0.4
Total Del/Veh (s)	16.7	12.4	13.4
Vehicles Entered	432	1343	1775
Vehicles Exited	430	1342	1772
Hourly Exit Rate	430	1342	1772
Input Volume	431	1320	1752
% of Volume	100	102	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: O Connor St & E. Bayshore Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.7	0.9	0.8
Vehicles Entered	492	822	1314
Vehicles Exited	493	822	1315
Hourly Exit Rate	493	822	1315
Input Volume	489	858	1347
% of Volume	101	96	98
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

58: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	1.7	1.7
Total Del/Veh (s)	27.8	27.9
Vehicles Entered	498	498
Vehicles Exited	497	497
Hourly Exit Rate	497	497
Input Volume	497	497
% of Volume	100	100
Denied Entry Before	0	0
Denied Entry After	0	0

Total Network Performance

Denied Del/Veh (s)	197.0
Total Del/Veh (s)	193.4
Vehicles Entered	8143
Vehicles Exited	7966
Hourly Exit Rate	7966
Input Volume	55345
% of Volume	14
Denied Entry Before	11
Denied Entry After	1084

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	772.5	788.6	0.1	0.0	227.3	250.2	558.0
Total Del/Veh (s)	420.1	470.8	12.9	8.3	210.0	221.3	339.0
Vehicles Entered	6	587	68	28	422	6	1117
Vehicles Exited	7	588	69	28	417	6	1115
Hourly Exit Rate	7	588	69	28	417	6	1115
Input Volume	9	861	150	56	458	6	1540
% of Volume	80	68	46	50	91	96	72
Denied Entry Before	0	54	0	0	4	0	58
Denied Entry After	4	321	0	0	50	0	375

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.1	122.1	49.3	97.0	782.3	742.4	719.4	41.3
Total Del/Veh (s)	2.8	2.1	2.4	192.1	20.1	16.7	3293.3	3034.2	3060.6	80.2
Vehicles Entered	13	612	427	250	98	76	4	5	3	1488
Vehicles Exited	13	612	427	254	99	77	0	0	0	1482
Hourly Exit Rate	13	612	427	254	99	77	0	0	0	1482
Input Volume	17	799	553	603	214	163	8	10	6	2373
% of Volume	78	77	77	42	46	47	0	0	0	62
Denied Entry Before	0	0	0	4	1	1	0	0	0	6
Denied Entry After	0	0	0	13	2	2	5	4	3	29

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.6	7.3	0.8	0.0	22.5	10.7	11.1	90.0	88.5	102.6
Total Del/Veh (s)	63.0	60.1	24.9	125.9	314.8	21.9	431.9	33.3	14.7	241.8	199.9	181.3
Vehicles Entered	16	70	508	7	218	195	100	479	429	20	1002	100
Vehicles Exited	16	69	504	6	217	198	97	483	429	20	1021	103
Hourly Exit Rate	16	69	504	6	217	198	97	483	429	20	1021	103
Input Volume	21	92	663	649	667	617	180	752	660	27	1223	117
% of Volume	76	75	76	1	33	32	54	64	65	74	83	88
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	1	0	1	29	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	36.6
Total Del/Veh (s)	125.0
Vehicles Entered	3144
Vehicles Exited	3163
Hourly Exit Rate	3163
Input Volume	5668
% of Volume	56
Denied Entry Before	0
Denied Entry After	34

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	1.2	528.7		46.5	29.4	45.8	120.9	105.2	33.3
Total Del/Veh (s)	28.6	2173.8		452.0	76.3	40.8	37.5	2296.6	264.8
Vehicles Entered	546	10	0	411	52	221	1	20	1261
Vehicles Exited	550	9	0	404	50	218	1	3	1235
Hourly Exit Rate	550	9	0	404	50	218	1	3	1235
Input Volume	798	1142	28	770	100	443	3	24	3308
% of Volume	69	1	0	52	50	49	33	12	37
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	5	0	8	1	4	0	4	22

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.4	0.1	581.7	229.2	0.1	2225.2	2241.1	1026.4
Total Del/Veh (s)	46.8	15.0	2601.1	1702.5	2143.3	1425.4	3398.2	295.9
Vehicles Entered	195	592	6	1	6	0	2	802
Vehicles Exited	190	591	6	1	1	0	2	791
Hourly Exit Rate	190	591	6	1	1	0	2	791
Input Volume	307	932	745	47	6	110	418	2566
% of Volume	62	63	1	2	16	0	0	31
Denied Entry Before	0	0	0	0	0	29	126	155
Denied Entry After	0	0	4	0	0	136	538	678

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	1872.0		1318.4	1602.9	669.5
Total Del/Veh (s)	11.8	2.0	3361.0	2534.4	3193.5	3554.8	969.5
Vehicles Entered	254	318	3	0	1	23	599
Vehicles Exited	249	318	4	0	0	2	573
Hourly Exit Rate	249	318	4	0	0	2	573
Input Volume	439	575	422	11	12	378	1837
% of Volume	57	55	1	0	0	1	31
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	14	0	11	357	382

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	5.5	0.0	5.1	5.6	4.6	0.0	0.0	2.8
Total Del/Veh (s)	160.4	46.3	89.1	103.4	41.7	22.5	8.0	59.1
Vehicles Entered	271	5	520	782	216	633	1021	3448
Vehicles Exited	265	5	511	783	211	630	1016	3421
Hourly Exit Rate	265	5	511	783	211	630	1016	3421
Input Volume	352	10	665	1338	382	1047	1682	5476
% of Volume	75	48	77	59	55	60	60	62
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	4	1	0	0	5

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	27.3	41.9	17.7	14.0	10.3	8.7	0.6	0.2	0.5	0.0	0.0	0.0
Total Del/Veh (s)	313.1	47.2	30.4	1045.3	1016.8	1067.5	89.5	64.8	53.9	68.8	18.6	6.6
Vehicles Entered	114	26	18	14	114	258	50	717	7	122	795	376
Vehicles Exited	117	26	19	8	64	141	50	717	7	120	790	375
Hourly Exit Rate	117	26	19	8	64	141	50	717	7	120	790	375
Input Volume	489	122	80	13	123	262	68	942	9	194	1254	598
% of Volume	24	21	24	60	52	54	74	76	76	62	63	63
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	1	0	0	1	4	7	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	3.2
Total Del/Veh (s)	215.3
Vehicles Entered	2611
Vehicles Exited	2434
Hourly Exit Rate	2434
Input Volume	4155
% of Volume	59
Denied Entry Before	0
Denied Entry After	13

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	2.7	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	62.8	447.7	5.2	1.2	276.2	310.5	93.6
Vehicles Entered	2	74	370	156	89	6	697
Vehicles Exited	2	73	369	156	80	5	685
Hourly Exit Rate	2	73	369	156	80	5	685
Input Volume	20	592	581	245	91	6	1536
% of Volume	10	12	64	64	88	80	45
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		329.0	0.1	0.0	1789.8	1739.9	903.0
Total Del/Veh (s)	701.4	1077.7	11.7	10.9	1901.1	1922.5	460.4
Vehicles Entered	0	39	236	124	40	2	441
Vehicles Exited	1	38	236	124	38	3	440
Hourly Exit Rate	1	38	236	124	38	3	440
Input Volume	4	275	360	192	345	13	1189
% of Volume	25	14	66	65	11	23	37
Denied Entry Before	0	0	0	0	41	2	43
Denied Entry After	0	10	0	0	343	14	367

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	59.0	56.0	0.0	0.0	1211.2	1257.6	373.1
Total Del/Veh (s)	1439.4	1562.1	2.4	2.2	2875.6	2726.8	852.2
Vehicles Entered	3	113	223	34	29	3	405
Vehicles Exited	1	31	224	34	8	1	299
Hourly Exit Rate	1	31	224	34	8	1	299
Input Volume	4	123	341	50	147	14	679
% of Volume	27	25	66	68	5	7	44
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	12	0	0	118	12	142

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		9.1	0.0	0.1	0.0	4.5
Total Del/Veh (s)	2320.0	1985.0	2292.0		470.5	430.6	1.9	1.1	353.1
Vehicles Entered	5	7	59	0	846	2	823	3	1745
Vehicles Exited	0	0	2	0	771	2	827	3	1605
Hourly Exit Rate	0	0	2	0	771	2	827	3	1605
Input Volume	4	8	65	1	951	3	1335	4	2371
% of Volume	0	0	3	0	81	67	62	75	68
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	3	0	0	0	3

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	391.8	1.4	1.8	202.2
Vehicles Entered	811	2	843	1656
Vehicles Exited	784	2	844	1630
Hourly Exit Rate	784	2	844	1630
Input Volume	1017	4	1429	2450
% of Volume	77	50	59	67
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	3.3	2.1	0.0	1.3
Total Del/Veh (s)	13.2	140.1	96.5	1.4	58.3
Vehicles Entered	136	1026	266	1580	3008
Vehicles Exited	134	1001	262	1577	2974
Hourly Exit Rate	134	1001	262	1577	2974
Input Volume	255	1587	406	2564	4811
% of Volume	53	63	65	62	62
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	2	0	0	2

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	10.6	10.6
Total Del/Veh (s)	39.9	39.9
Vehicles Entered	712	712
Vehicles Exited	715	715
Hourly Exit Rate	715	715
Input Volume	1198	1198
% of Volume	60	60
Denied Entry Before	2	2
Denied Entry After	3	3

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	36.9	0.2	19.7
Total Del/Veh (s)	114.3	25.1	70.6
Vehicles Entered	910	845	1755
Vehicles Exited	846	844	1690
Hourly Exit Rate	846	844	1690
Input Volume	950	1358	2309
% of Volume	89	62	73
Denied Entry Before	0	0	0
Denied Entry After	43	0	43

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	11.2	11.2
Vehicles Entered	694	694
Vehicles Exited	694	694
Hourly Exit Rate	694	694
Input Volume	1166	1166
% of Volume	60	60
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	17.3	17.3
Vehicles Entered	927	927
Vehicles Exited	927	927
Hourly Exit Rate	927	927
Input Volume	1511	1511
% of Volume	61	61
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	2.9	1.6	2.6	709.8	741.4	716.2	0.1	0.0	0.0	6.7	6.7	5.1
Total Del/Veh (s)	115.8	118.9	118.0	393.8	412.8	454.8	82.6	13.6	12.0	424.8	344.5	320.2
Vehicles Entered	10	64	54	105	69	10	9	688	16	13	1060	9
Vehicles Exited	10	64	54	102	66	10	9	685	16	12	937	8
Hourly Exit Rate	10	64	54	102	66	10	9	685	16	12	937	8
Input Volume	11	67	48	166	106	14	20	1335	34	15	1092	9
% of Volume	91	95	112	61	62	71	45	51	47	80	86	89
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	63	40	5	0	0	0	0	19	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	97.8
Total Del/Veh (s)	229.1
Vehicles Entered	2107
Vehicles Exited	1973
Hourly Exit Rate	1973
Input Volume	2918
% of Volume	68
Denied Entry Before	0
Denied Entry After	127

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	934.9	951.0	948.3
Total Del/Veh (s)	308.0	420.1	401.6
Vehicles Entered	137	686	823
Vehicles Exited	137	674	811
Hourly Exit Rate	137	674	811
Input Volume	255	1292	1546
% of Volume	54	52	52
Denied Entry Before	5	22	27
Denied Entry After	127	635	762

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	3383.2	0.8	520.5
Vehicles Entered	3	326	329
Vehicles Exited	3	321	324
Hourly Exit Rate	3	321	324
Input Volume	419	593	1012
% of Volume	1	54	32
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	631.5
Total Del/Veh (s)	874.2
Vehicles Entered	6690
Vehicles Exited	5663
Hourly Exit Rate	5663
Input Volume	66524
% of Volume	9
Denied Entry Before	291
Denied Entry After	3330

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	55.9	70.4	1.3	2.5	3.9	5.2	22.2
Total Del/Veh (s)	362.7	255.0	20.0	16.1	170.3	145.8	106.3
Vehicles Entered	14	292	503	130	102	26	1067
Vehicles Exited	12	267	503	130	97	25	1034
Hourly Exit Rate	12	267	503	130	97	25	1034
Input Volume	16	314	793	210	94	25	1453
% of Volume	74	85	63	62	103	99	71
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	1	16	0	0	0	0	17

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	3.0	0.5	0.3	0.1	0.1	1210.4	1348.9	1219.3	107.4
Total Del/Veh (s)	172.5	82.3	2.8	23.4	6.5	4.2	1576.5	1366.5	1374.9	70.8
Vehicles Entered	3	282	87	483	627	18	14	11	11	1536
Vehicles Exited	3	277	87	482	626	19	9	10	9	1522
Hourly Exit Rate	3	277	87	482	626	19	9	10	9	1522
Input Volume	3	314	99	748	980	26	50	44	39	2303
% of Volume	100	88	88	64	64	72	18	23	23	66
Denied Entry Before	0	0	0	0	0	0	2	1	2	5
Denied Entry After	0	0	0	0	0	0	35	34	34	103

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	20.5	65.8	33.9	0.0	0.0	0.0	0.7	0.4	0.9	20.7	10.3	4.2
Total Del/Veh (s)	196.0	498.3	9.4	63.4	63.9	19.0	76.6	27.2	34.5	349.1	204.3	96.7
Vehicles Entered	32	87	163	358	581	439	282	570	634	42	701	229
Vehicles Exited	31	84	163	359	581	439	283	570	632	42	700	229
Hourly Exit Rate	31	84	163	359	581	439	283	570	632	42	700	229
Input Volume	39	122	203	484	940	704	446	892	989	65	1053	334
% of Volume	80	69	80	74	62	62	63	64	64	65	66	69
Denied Entry Before	0	1	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	2	3	0	0	0	0	0	0	0	2	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	5.4
Total Del/Veh (s)	89.6
Vehicles Entered	4118
Vehicles Exited	4113
Hourly Exit Rate	4113
Input Volume	6270
% of Volume	66
Denied Entry Before	1
Denied Entry After	7

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	10.1	0.0	5.4	0.1	0.2	3.0
Total Del/Veh (s)	44.2	47.5	7.9	235.6	85.3	186.0	345.8	136.3	113.5
Vehicles Entered	751	750	18	537	16	427	10	83	2592
Vehicles Exited	750	750	18	545	16	427	10	84	2600
Hourly Exit Rate	750	750	18	545	16	427	10	84	2600
Input Volume	1168	1071	21	977	33	779	10	80	4139
% of Volume	64	70	85	56	48	55	100	105	63
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	1	0	0	2

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.0
Total Del/Veh (s)	56.3	22.6	75.8	48.8	86.6	61.7	12.2	58.6	46.6	47.4
Vehicles Entered	334	854	499	94	91	12	27	81	178	2170
Vehicles Exited	334	854	498	94	90	13	27	81	180	2171
Hourly Exit Rate	334	854	498	94	90	13	27	81	180	2171
Input Volume	573	1384	817	155	93	14	25	88	181	3331
% of Volume	58	62	61	61	97	91	107	92	100	65
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	12.5	9.2	156.1	181.0	39.4
Total Del/Veh (s)	46.9	14.2	354.2	335.7	426.8	1168.8	326.9
Vehicles Entered	353	610	393	22	6	276	1660
Vehicles Exited	353	611	395	22	5	199	1585
Hourly Exit Rate	353	611	395	22	5	199	1585
Input Volume	545	953	636	33	9	339	2515
% of Volume	65	64	62	66	56	59	63
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	1	66	68

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.5	0.0	1.6	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	104.6	44.8	86.2	65.8	11.6	44.9	7.2	52.1
Vehicles Entered	277	4	637	942	215	768	802	3645
Vehicles Exited	277	4	636	941	215	770	804	3647
Hourly Exit Rate	277	4	636	941	215	770	804	3647
Input Volume	429	4	983	1505	336	1092	1282	5631
% of Volume	65	107	65	63	64	71	63	65
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	1

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	1.4	1.1	0.7	0.6	7.0	6.3	0.7	2.1	9.7	0.0	0.0	0.0
Total Del/Veh (s)	92.7	51.2	34.5	937.0	939.9	972.1	123.0	70.7	79.4	79.9	35.4	7.0
Vehicles Entered	406	72	48	13	68	358	29	527	8	178	563	340
Vehicles Exited	406	71	48	8	45	228	29	527	8	179	566	341
Hourly Exit Rate	406	71	48	8	45	228	29	527	8	179	566	341
Input Volume	562	98	66	15	71	362	46	925	16	287	896	527
% of Volume	72	73	72	53	63	63	63	57	50	62	63	65
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	7	0	1	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	1.8
Total Del/Veh (s)	226.7
Vehicles Entered	2610
Vehicles Exited	2456
Hourly Exit Rate	2456
Input Volume	3872
% of Volume	63
Denied Entry Before	0
Denied Entry After	9

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	1.9	0.0	0.0	0.2	0.2	0.6
Total Del/Veh (s)	78.9	128.6	8.7	2.6	188.9	211.1	91.4
Vehicles Entered	5	299	376	46	218	13	957
Vehicles Exited	5	298	376	46	221	13	959
Hourly Exit Rate	5	298	376	46	221	13	959
Input Volume	8	502	585	68	218	12	1394
% of Volume	61	59	64	68	101	106	69
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	193.0	58.6	0.0	0.0	316.8	347.1	111.9
Total Del/Veh (s)	242.2	319.6	10.7	7.9	664.2	638.1	254.0
Vehicles Entered	5	161	208	182	185	11	752
Vehicles Exited	5	155	209	181	152	8	710
Hourly Exit Rate	5	155	209	181	152	8	710
Input Volume	11	281	324	269	233	13	1132
% of Volume	45	55	64	67	65	60	63
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	5	0	0	52	4	61

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	8.1	0.0	0.0	120.5	151.9	26.8
Total Del/Veh (s)	452.9	815.0	2.7	2.4	1206.1	1020.6	528.6
Vehicles Entered	1	193	177	45	77	10	503
Vehicles Exited	0	122	177	45	42	5	391
Hourly Exit Rate	0	122	177	45	42	5	391
Input Volume	1	197	272	69	87	12	638
% of Volume	0	62	65	65	48	43	61
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	4	0	0	10	2	16

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2	0.0	12.8	0.0	0.0	0.2	0.4	5.8
Total Del/Veh (s)	2101.2	1502.3	2300.9	505.5	787.0	773.3	85.5	2.0	1.0	552.5
Vehicles Entered	4	8	63	1	559	3	6	622	2	1268
Vehicles Exited	1	2	2	0	548	3	6	621	2	1185
Hourly Exit Rate	1	2	2	0	548	3	6	621	2	1185
Input Volume	4	8	65	1	910	3	10	972	4	1977
% of Volume	25	26	3	0	60	100	59	64	50	60
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	3	0	0	0	0	3

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	340.0	1.4	3.5	174.0
Vehicles Entered	910	2	987	1899
Vehicles Exited	914	2	987	1903
Hourly Exit Rate	914	2	987	1903
Input Volume	1412	4	1428	2843
% of Volume	65	53	69	67
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	1.4	0.2	0.0	0.6
Total Del/Veh (s)	3.7	92.9	113.0	1.5	49.1
Vehicles Entered	344	1473	107	1229	3153
Vehicles Exited	345	1475	107	1229	3156
Hourly Exit Rate	345	1475	107	1229	3156
Input Volume	636	2322	168	1742	4868
% of Volume	54	64	64	71	65
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.2	0.2
Total Del/Veh (s)	21.4	21.4
Vehicles Entered	595	595
Vehicles Exited	598	598
Hourly Exit Rate	598	598
Input Volume	908	908
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	385.3	0.1	227.6
Total Del/Veh (s)	403.6	23.2	212.2
Vehicles Entered	641	632	1273
Vehicles Exited	562	637	1199
Hourly Exit Rate	562	637	1199
Input Volume	909	980	1889
% of Volume	62	65	63
Denied Entry Before	0	0	0
Denied Entry After	271	0	271

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.1	9.1
Vehicles Entered	584	584
Vehicles Exited	584	584
Hourly Exit Rate	584	584
Input Volume	891	891
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	4.8	4.8
Total Del/Veh (s)	44.3	44.2
Vehicles Entered	1070	1070
Vehicles Exited	1069	1069
Hourly Exit Rate	1069	1069
Input Volume	1510	1510
% of Volume	71	71
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.3	0.2	470.4	470.1	477.9	0.0	0.0	0.0	575.1	567.8	575.5
Total Del/Veh (s)	74.7	70.8	55.6	265.4	266.9	253.2	72.0	9.7	8.5	752.4	613.6	521.6
Vehicles Entered	36	110	19	115	135	29	120	833	92	35	862	29
Vehicles Exited	36	111	20	116	134	29	120	833	92	32	830	28
Hourly Exit Rate	36	111	20	116	134	29	120	833	92	32	830	28
Input Volume	33	112	20	140	167	33	194	1296	141	55	1284	40
% of Volume	108	99	100	83	80	87	62	64	65	58	65	70
Denied Entry Before	0	0	0	8	8	1	0	0	0	0	4	0
Denied Entry After	0	0	0	31	38	6	0	0	0	17	434	12

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	323.8
Total Del/Veh (s)	299.2
Vehicles Entered	2415
Vehicles Exited	2381
Hourly Exit Rate	2381
Input Volume	3516
% of Volume	68
Denied Entry Before	21
Denied Entry After	538

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	887.0	887.0	887.0
Total Del/Veh (s)	641.9	664.0	658.3
Vehicles Entered	342	978	1320
Vehicles Exited	343	974	1317
Hourly Exit Rate	343	974	1317
Input Volume	636	1779	2415
% of Volume	54	55	55
Denied Entry Before	23	63	86
Denied Entry After	306	879	1185

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	397.9	2.1	171.9
Vehicles Entered	421	620	1041
Vehicles Exited	412	620	1032
Hourly Exit Rate	412	620	1032
Input Volume	666	966	1632
% of Volume	62	64	63
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	14.9	20.9	19.0
Vehicles Entered	232	514	746
Vehicles Exited	231	516	747
Hourly Exit Rate	231	516	747
Input Volume	239	799	1038
% of Volume	97	65	72
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	426.0
Total Del/Veh (s)	835.2
Vehicles Entered	7778
Vehicles Exited	6830
Hourly Exit Rate	6830
Input Volume	73338
% of Volume	9
Denied Entry Before	113
Denied Entry After	2690

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	877.0	795.7	0.0	0.0	210.6	185.7	565.0
Total Del/Veh (s)	447.6	479.3	13.3	7.9	214.3	195.4	347.6
Vehicles Entered	6	576	67	22	419	5	1095
Vehicles Exited	6	575	67	22	414	5	1089
Hourly Exit Rate	6	575	67	22	414	5	1089
Input Volume	9	870	152	56	461	6	1554
% of Volume	69	66	44	39	90	80	70
Denied Entry Before	1	47	0	0	6	0	54
Denied Entry After	4	342	0	0	39	1	386

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.2	90.8	55.7	66.4	849.0	714.3	878.9	36.6
Total Del/Veh (s)	2.5	2.2	2.5	185.9	19.8	18.3	2860.5	2887.6	2688.7	80.5
Vehicles Entered	12	615	416	254	91	68	4	6	3	1469
Vehicles Exited	12	614	415	260	92	69	0	0	1	1463
Hourly Exit Rate	12	614	415	260	92	69	0	0	1	1463
Input Volume	17	812	553	603	216	163	8	10	6	2387
% of Volume	72	76	75	43	43	42	0	0	17	61
Denied Entry Before	0	0	0	2	0	0	0	0	0	2
Denied Entry After	0	0	0	10	3	2	4	5	4	28

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.5	0.5	37.4	1.2	3.0	37.3	18.4	21.6	133.9	93.6	81.6
Total Del/Veh (s)	67.7	69.2	25.3	106.1	295.6	22.2	500.2	33.2	16.3	244.0	201.5	187.6
Vehicles Entered	15	65	514	11	238	223	80	389	339	17	995	97
Vehicles Exited	15	64	510	10	235	225	77	392	339	20	1017	96
Hourly Exit Rate	15	64	510	10	235	225	77	392	339	20	1017	96
Input Volume	21	93	675	660	667	617	182	756	662	27	1248	117
% of Volume	71	69	76	2	35	36	42	52	51	74	82	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	1	2	2	1	30	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	41.6
Total Del/Veh (s)	130.3
Vehicles Entered	2983
Vehicles Exited	3000
Hourly Exit Rate	3000
Input Volume	5724
% of Volume	52
Denied Entry Before	0
Denied Entry After	39

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.1	367.4	4.0	47.8	42.8	34.6	25.3	38.0	33.8
Total Del/Veh (s)	34.7	1805.8	1.2	415.3	74.2	45.1	70.1	1974.0	264.5
Vehicles Entered	450	14	1	449	57	260	3	21	1255
Vehicles Exited	455	18	1	444	54	257	2	5	1236
Hourly Exit Rate	455	18	1	444	54	257	2	5	1236
Input Volume	800	1152	28	770	100	443	3	24	3320
% of Volume	57	2	4	58	54	58	67	21	37
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	6	0	9	1	4	0	2	22

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.8	1.0	701.3	166.6	0.1	2215.7	2199.4	1044.2
Total Del/Veh (s)	50.5	14.9	2343.4	1026.5	1889.5	1812.6	3302.4	304.6
Vehicles Entered	179	555	7	1	6	1	4	753
Vehicles Exited	174	554	8	1	2	1	4	744
Hourly Exit Rate	174	554	8	1	2	1	4	744
Input Volume	308	934	752	47	6	110	422	2579
% of Volume	56	59	1	2	32	1	1	29
Denied Entry Before	0	0	0	0	0	32	125	157
Denied Entry After	0	0	6	0	0	137	529	672

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	1956.7		1657.1	1683.8	729.2
Total Del/Veh (s)	13.5	2.2	3473.7	2483.1	3375.0	3513.5	999.7
Vehicles Entered	231	304	2	0	0	17	554
Vehicles Exited	227	303	2	0	0	5	537
Hourly Exit Rate	227	303	2	0	0	5	537
Input Volume	440	574	425	11	12	382	1844
% of Volume	52	53	0	0	0	1	29
Denied Entry Before	0	0	0	0	0	1	1
Denied Entry After	0	0	12	0	10	363	385

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	10.8	0.0	9.9	15.6	9.0	0.0	0.0	5.7
Total Del/Veh (s)	177.1	63.8	106.1	139.1	41.4	21.9	11.8	66.4
Vehicles Entered	238	5	419	619	168	636	1056	3141
Vehicles Exited	231	5	416	621	162	633	1046	3114
Hourly Exit Rate	231	5	416	621	162	633	1046	3114
Input Volume	379	11	665	1350	389	1047	1772	5614
% of Volume	61	44	63	46	42	60	59	55
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	1	0	1	7	1	0	0	10

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	116.4	89.3	128.5	117.3	75.3	74.0	0.0	1.2	0.0	0.0	0.1	0.2
Total Del/Veh (s)	444.2	38.0	23.8	1169.0	1389.4	1419.6	91.3	85.3	95.9	66.1	21.0	7.2
Vehicles Entered	83	16	10	10	107	228	43	588	5	114	759	419
Vehicles Exited	84	16	11	5	46	98	43	586	5	112	748	421
Hourly Exit Rate	84	16	11	5	46	98	43	586	5	112	748	421
Input Volume	508	123	81	13	127	262	75	942	9	194	1255	715
% of Volume	17	13	14	38	36	37	57	62	54	58	60	59
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	3	1	1	2	19	36	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	18.1
Total Del/Veh (s)	277.3
Vehicles Entered	2382
Vehicles Exited	2175
Hourly Exit Rate	2175
Input Volume	4305
% of Volume	51
Denied Entry Before	0
Denied Entry After	62

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	15.7	0.0	0.0	11.3	9.3	2.6
Total Del/Veh (s)	488.7	858.1	5.2	1.7	627.9	880.5	161.8
Vehicles Entered	1	30	337	218	108	7	701
Vehicles Exited	1	30	336	218	75	4	664
Hourly Exit Rate	1	30	336	218	75	4	664
Input Volume	24	592	587	373	112	7	1695
% of Volume	4	5	57	58	67	55	39
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	3	0	3

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	293.5	637.8	0.0	0.0	1905.2	1953.0	1030.3
Total Del/Veh (s)	1497.0	1826.4	7.3	4.4	2689.0	2495.8	549.5
Vehicles Entered	1	16	209	117	16	1	360
Vehicles Exited	0	16	211	118	15	1	361
Hourly Exit Rate	0	16	211	118	15	1	361
Input Volume	4	279	361	192	345	13	1194
% of Volume	0	6	58	61	4	8	30
Denied Entry Before	0	0	0	0	40	2	42
Denied Entry After	0	11	0	0	365	14	390

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	151.5	210.0	0.0	0.0	1346.4	1299.6	470.2
Total Del/Veh (s)	2043.3	2249.8	2.4	2.1	3063.6	3411.9	1086.6
Vehicles Entered	2	92	200	31	23	2	350
Vehicles Exited	0	12	200	31	5	1	249
Hourly Exit Rate	0	12	200	31	5	1	249
Input Volume	4	126	342	50	148	14	684
% of Volume	0	10	58	62	3	7	36
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	38	0	0	128	11	177

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		16.1	0.0	0.1	0.0	7.3
Total Del/Veh (s)	2368.4	1812.9	2314.8		615.9	833.6	3.3	1.2	436.2
Vehicles Entered	5	7	67	0	702	2	766	2	1551
Vehicles Exited	0	1	1	0	633	1	769	2	1407
Hourly Exit Rate	0	1	1	0	633	1	769	2	1407
Input Volume	4	8	65	1	958	3	1336	4	2379
% of Volume	0	13	2	0	66	33	58	50	59
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	5	0	0	0	5

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	476.0	0.8	1.7	233.4
Vehicles Entered	673	3	794	1470
Vehicles Exited	652	3	795	1450
Hourly Exit Rate	652	3	795	1450
Input Volume	1044	4	1436	2484
% of Volume	62	71	55	58
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	6.6	5.5	0.2	2.5
Total Del/Veh (s)	13.7	194.7	113.0	1.6	68.4
Vehicles Entered	171	818	218	1590	2797
Vehicles Exited	166	797	218	1588	2769
Hourly Exit Rate	166	797	218	1588	2769
Input Volume	298	1595	410	2613	4916
% of Volume	56	50	53	61	56
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	4	1	2	7

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	7.0	7.0
Total Del/Veh (s)	33.4	33.4
Vehicles Entered	709	709
Vehicles Exited	710	710
Hourly Exit Rate	710	710
Input Volume	1198	1198
% of Volume	59	59
Denied Entry Before	1	1
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	186.9	0.0	104.2
Total Del/Veh (s)	206.4	24.6	114.7
Vehicles Entered	781	769	1550
Vehicles Exited	704	775	1479
Hourly Exit Rate	704	775	1479
Input Volume	957	1340	2297
% of Volume	74	58	64
Denied Entry Before	0	0	0
Denied Entry After	187	0	187

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	11.0	11.0
Vehicles Entered	687	687
Vehicles Exited	688	688
Hourly Exit Rate	688	688
Input Volume	1166	1166
% of Volume	59	59
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	16.3	16.3
Vehicles Entered	878	878
Vehicles Exited	882	882
Hourly Exit Rate	882	882
Input Volume	1518	1518
% of Volume	58	58
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.3	0.2	0.3	792.7	777.4	736.8	0.1	0.0	0.0	33.1	33.2	36.0
Total Del/Veh (s)	94.9	98.7	105.5	393.8	392.3	366.9	79.9	13.2	12.2	438.1	386.4	370.8
Vehicles Entered	9	70	49	109	70	9	8	627	14	17	1070	8
Vehicles Exited	9	70	48	107	69	9	8	624	14	15	923	6
Hourly Exit Rate	9	70	48	107	69	9	8	624	14	15	923	6
Input Volume	11	67	48	166	106	14	20	1339	34	15	1116	9
% of Volume	82	104	99	64	65	64	40	47	41	100	83	67
Denied Entry Before	0	0	0	1	1	0	0	0	0	0	0	0
Denied Entry After	0	0	0	60	40	6	0	0	0	1	44	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	121.4
Total Del/Veh (s)	256.8
Vehicles Entered	2060
Vehicles Exited	1902
Hourly Exit Rate	1902
Input Volume	2945
% of Volume	65
Denied Entry Before	2
Denied Entry After	151

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	742.8	739.1	739.7
Total Del/Veh (s)	255.3	361.8	342.2
Vehicles Entered	175	771	946
Vehicles Exited	173	756	929
Hourly Exit Rate	173	756	929
Input Volume	298	1292	1590
% of Volume	58	59	58
Denied Entry Before	4	20	24
Denied Entry After	118	541	659

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	3429.2	0.7	538.2
Vehicles Entered	2	311	313
Vehicles Exited	2	307	309
Hourly Exit Rate	2	307	309
Input Volume	422	593	1015
% of Volume	0	52	30
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	641.9
Total Del/Veh (s)	950.1
Vehicles Entered	6476
Vehicles Exited	5376
Hourly Exit Rate	5376
Input Volume	67500
% of Volume	8
Denied Entry Before	283
Denied Entry After	3670

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	48.6	50.6	2.5	1.9	20.0	26.3	19.3
Total Del/Veh (s)	372.5	250.8	20.1	16.4	157.3	157.6	104.9
Vehicles Entered	15	303	505	133	91	29	1076
Vehicles Exited	13	263	506	133	85	28	1028
Hourly Exit Rate	13	263	506	133	85	28	1028
Input Volume	16	315	802	213	95	25	1467
% of Volume	80	83	63	62	89	111	70
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	1	18	0	0	2	1	22

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	6.3	1.5	0.2	0.1	0.0	1119.8	1169.9	1079.0	97.4
Total Del/Veh (s)	176.5	89.4	2.9	21.8	7.2	5.6	1418.4	1392.3	1271.1	68.0
Vehicles Entered	3	267	86	491	633	18	14	12	10	1534
Vehicles Exited	3	260	86	487	634	18	10	9	8	1515
Hourly Exit Rate	3	260	86	487	634	18	10	9	8	1515
Input Volume	3	316	99	748	992	26	50	44	39	2317
% of Volume	100	82	87	65	64	69	20	21	21	65
Denied Entry Before	0	0	0	0	0	0	0	0	1	1
Denied Entry After	0	0	0	0	0	0	36	37	31	104

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	44.4	51.1	47.7	0.0	0.0	0.0	0.7	0.4	0.7	17.3	12.6	6.7
Total Del/Veh (s)	203.5	498.7	8.3	64.4	65.5	20.1	79.7	26.3	33.7	360.3	207.9	102.6
Vehicles Entered	25	86	154	343	592	438	280	560	622	39	699	234
Vehicles Exited	23	82	154	343	594	440	280	560	622	42	698	231
Hourly Exit Rate	23	82	154	343	594	440	280	560	622	42	698	231
Input Volume	39	122	205	486	940	704	458	916	999	65	1058	334
% of Volume	59	67	75	71	63	63	61	61	62	65	66	69
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	1	2	4	0	0	0	0	0	0	0	4	1

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	6.2
Total Del/Veh (s)	91.0
Vehicles Entered	4072
Vehicles Exited	4069
Hourly Exit Rate	4069
Input Volume	6324
% of Volume	64
Denied Entry Before	0
Denied Entry After	12

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	9.0	0.0	11.7	0.1	0.2	3.9
Total Del/Veh (s)	45.2	50.1	9.1	245.1	106.1	193.9	219.4	131.4	118.2
Vehicles Entered	738	743	15	546	16	424	9	83	2574
Vehicles Exited	738	743	14	548	16	420	9	83	2571
Hourly Exit Rate	738	743	14	548	16	420	9	83	2571
Input Volume	1179	1073	21	977	33	779	10	80	4152
% of Volume	63	69	66	56	48	54	90	104	62
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	2	0	2	0	0	4

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.0
Total Del/Veh (s)	54.4	25.0	78.1	51.2	79.6	53.2	16.8	56.7	46.5	48.2
Vehicles Entered	322	845	484	93	90	15	29	90	186	2154
Vehicles Exited	323	844	483	93	90	15	29	90	184	2151
Hourly Exit Rate	323	844	483	93	90	15	29	90	184	2151
Input Volume	576	1391	818	155	93	14	25	88	182	3343
% of Volume	56	61	59	60	97	105	115	102	101	64
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	17.2	51.7	291.0	279.8	61.6
Total Del/Veh (s)	49.0	13.6	375.0	336.5	521.6	1259.2	352.6
Vehicles Entered	355	608	374	21	7	262	1627
Vehicles Exited	353	608	374	20	6	203	1564
Hourly Exit Rate	353	608	374	20	6	203	1564
Input Volume	549	956	636	33	9	340	2523
% of Volume	64	64	59	60	67	60	62
Denied Entry Before	0	0	1	0	0	0	1
Denied Entry After	0	0	2	0	3	77	82

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.8	0.0	1.1	0.3	0.0	0.0	0.0	0.3
Total Del/Veh (s)	105.1	39.7	89.8	64.8	11.1	46.7	7.6	52.7
Vehicles Entered	277	3	621	959	229	744	804	3637
Vehicles Exited	276	2	620	959	228	743	803	3631
Hourly Exit Rate	276	2	620	959	228	743	803	3631
Input Volume	434	4	983	1577	377	1092	1300	5767
% of Volume	64	53	63	61	60	68	62	63
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	1

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	1.6	0.3	0.1	13.3	14.8	16.0	0.1	1.6	3.6	0.1	0.0	0.0
Total Del/Veh (s)	85.2	45.2	32.8	992.6	959.2	964.4	121.9	74.1	62.3	79.7	33.6	6.9
Vehicles Entered	450	69	46	15	75	362	24	507	8	184	550	346
Vehicles Exited	450	70	47	8	49	230	25	507	8	183	552	346
Hourly Exit Rate	450	70	47	8	49	230	25	507	8	183	552	346
Input Volume	675	104	73	15	72	362	47	925	16	287	896	549
% of Volume	67	67	64	53	68	63	53	55	50	64	62	63
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	2	9	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	3.3
Total Del/Veh (s)	227.6
Vehicles Entered	2636
Vehicles Exited	2475
Hourly Exit Rate	2475
Input Volume	4022
% of Volume	62
Denied Entry Before	0
Denied Entry After	11

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	2.3	0.0	0.0	36.4	37.6	13.3
Total Del/Veh (s)	114.2	165.9	9.1	2.3	346.7	467.0	166.8
Vehicles Entered	4	245	372	54	339	16	1030
Vehicles Exited	4	245	373	54	310	14	1000
Hourly Exit Rate	4	245	373	54	310	14	1000
Input Volume	9	502	585	92	342	16	1547
% of Volume	43	49	64	59	91	86	65
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	9	0	9

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	145.1	98.3	0.0	0.0	645.2	670.5	221.4
Total Del/Veh (s)	376.4	388.8	9.2	6.4	885.3	869.9	301.0
Vehicles Entered	4	130	213	176	143	8	674
Vehicles Exited	4	128	214	176	122	6	650
Hourly Exit Rate	4	128	214	176	122	6	650
Input Volume	11	282	328	269	233	13	1137
% of Volume	36	45	65	65	52	45	57
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	7	0	0	88	4	99

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		4.4	0.0	0.0	249.1	247.2	49.1
Total Del/Veh (s)		1073.3	2.7	2.4	1665.9	1624.4	692.0
Vehicles Entered	0	196	178	48	62	9	493
Vehicles Exited	0	104	178	48	28	4	362
Hourly Exit Rate	0	104	178	48	28	4	362
Input Volume	1	198	275	70	87	12	644
% of Volume	0	53	65	68	32	34	56
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	3	0	0	25	4	32

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		18.6	100.7	0.0	0.2	0.0	8.3
Total Del/Veh (s)	2245.4	1875.9	2190.6	335.5	824.9	937.5	84.3	1.9	0.9	566.7
Vehicles Entered	4	8	68	0	533	2	6	614	3	1238
Vehicles Exited	1	1	2	0	525	2	6	614	3	1154
Hourly Exit Rate	1	1	2	0	525	2	6	614	3	1154
Input Volume	4	8	65	1	911	3	10	979	4	1985
% of Volume	25	13	3	0	58	67	59	63	75	58
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	4	0	0	0	0	4

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	346.5	2.3	3.4	177.1
Vehicles Entered	897	1	974	1872
Vehicles Exited	896	1	975	1872
Hourly Exit Rate	896	1	975	1872
Input Volume	1417	4	1469	2890
% of Volume	63	27	66	65
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	1.9	1.1	0.0	0.9
Total Del/Veh (s)	3.4	93.9	113.1	1.5	49.8
Vehicles Entered	350	1463	121	1201	3135
Vehicles Exited	350	1452	120	1200	3122
Hourly Exit Rate	350	1452	120	1200	3122
Input Volume	644	2367	195	1750	4956
% of Volume	54	61	61	69	63
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.5	0.5
Total Del/Veh (s)	22.5	22.5
Vehicles Entered	602	602
Vehicles Exited	604	604
Hourly Exit Rate	604	604
Input Volume	908	908
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	440.6	0.1	261.9
Total Del/Veh (s)	438.1	23.2	226.8
Vehicles Entered	613	621	1234
Vehicles Exited	533	631	1164
Hourly Exit Rate	533	631	1164
Input Volume	910	987	1898
% of Volume	59	64	61
Denied Entry Before	0	0	0
Denied Entry After	297	0	297

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.0	9.0
Vehicles Entered	591	591
Vehicles Exited	592	592
Hourly Exit Rate	592	592
Input Volume	891	891
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	9.0	9.0
Total Del/Veh (s)	49.0	49.0
Vehicles Entered	1059	1059
Vehicles Exited	1057	1057
Hourly Exit Rate	1057	1057
Input Volume	1553	1553
% of Volume	68	68
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	409.9	405.7	421.1	0.0	0.0	0.0	603.8	602.6	626.4
Total Del/Veh (s)	67.0	67.4	57.3	254.5	263.4	242.9	73.2	9.9	8.1	824.8	616.8	501.6
Vehicles Entered	31	112	21	118	141	30	114	825	88	35	851	23
Vehicles Exited	31	112	21	115	142	30	115	828	88	32	832	22
Hourly Exit Rate	31	112	21	115	142	30	115	828	88	32	832	22
Input Volume	33	112	20	140	167	33	194	1320	141	55	1289	40
% of Volume	93	100	105	82	85	90	59	63	62	58	65	55
Denied Entry Before	0	0	0	5	6	2	0	0	0	0	2	0
Denied Entry After	0	0	0	24	31	6	0	0	0	19	448	12

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	334.7
Total Del/Veh (s)	301.6
Vehicles Entered	2389
Vehicles Exited	2368
Hourly Exit Rate	2368
Input Volume	3544
% of Volume	67
Denied Entry Before	15
Denied Entry After	540

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	877.1	863.7	867.3
Total Del/Veh (s)	631.9	660.8	653.2
Vehicles Entered	358	981	1339
Vehicles Exited	351	979	1330
Hourly Exit Rate	351	979	1330
Input Volume	644	1779	2423
% of Volume	54	55	55
Denied Entry Before	18	47	65
Denied Entry After	306	838	1144

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	414.7	1.9	175.2
Vehicles Entered	400	618	1018
Vehicles Exited	392	618	1010
Hourly Exit Rate	392	618	1010
Input Volume	666	969	1634
% of Volume	59	64	62
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	18.8	24.5	22.7
Vehicles Entered	246	521	767
Vehicles Exited	241	523	764
Hourly Exit Rate	241	523	764
Input Volume	239	808	1047
% of Volume	101	65	73
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	431.8
Total Del/Veh (s)	855.1
Vehicles Entered	7841
Vehicles Exited	6811
Hourly Exit Rate	6811
Input Volume	74316
% of Volume	9
Denied Entry Before	83
Denied Entry After	2792

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	478.6	470.7	0.0	0.0	0.3	0.2	269.3
Total Del/Veh (s)	404.3	464.3	4.2	2.7	37.5	34.0	247.1
Vehicles Entered	6	592	135	52	436	6	1227
Vehicles Exited	4	549	133	51	437	6	1180
Hourly Exit Rate	4	549	133	51	437	6	1180
Input Volume	8	829	146	53	438	6	1480
% of Volume	48	66	91	96	100	100	80
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	2	240	0	0	0	0	242

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	1.0	1.6	0.1	0.0	0.0	0.1	0.1	0.1	0.7
Total Del/Veh (s)	8.2	16.6	15.3	30.9	25.5	16.2	43.4	43.7	8.2	21.3
Vehicles Entered	12	600	430	536	192	147	4	6	4	1931
Vehicles Exited	11	596	428	536	194	148	4	6	4	1927
Hourly Exit Rate	11	596	428	536	194	148	4	6	4	1927
Input Volume	16	768	540	588	210	159	5	6	4	2296
% of Volume	68	78	79	91	92	93	80	96	107	84
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	64.3	58.5	47.1	61.5	75.7	22.8	34.4	31.3	13.0	217.2	192.6	166.1
Vehicles Entered	16	72	510	548	615	590	147	616	535	20	1039	97
Vehicles Exited	17	72	504	555	617	592	142	605	533	19	1037	96
Hourly Exit Rate	17	72	504	555	617	592	142	605	533	19	1037	96
Input Volume	20	94	647	644	650	602	178	740	648	26	1187	111
% of Volume	84	77	78	86	95	98	80	82	82	75	87	86
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	79.3
Vehicles Entered	4805
Vehicles Exited	4789
Hourly Exit Rate	4789
Input Volume	5547
% of Volume	86
Denied Entry Before	0
Denied Entry After	0

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	21.0	39.6	15.2	54.7	7.1	15.3	63.8	9.9	34.4
Vehicles Entered	607	984	27	752	96	440	2	24	2932
Vehicles Exited	608	987	27	743	95	443	2	24	2929
Hourly Exit Rate	608	987	27	743	95	443	2	24	2929
Input Volume	743	1118	27	754	98	433	3	24	3200
% of Volume	82	88	99	99	96	102	67	100	92
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.5	0.2	0.3	0.1	0.1	0.2	0.3	0.3
Total Del/Veh (s)	67.5	18.6	45.9	24.4	80.9	40.3	30.9	35.4
Vehicles Entered	268	799	594	39	3	100	408	2211
Vehicles Exited	267	802	597	40	3	100	405	2214
Hourly Exit Rate	267	802	597	40	3	100	405	2214
Input Volume	300	875	732	46	4	106	403	2466
% of Volume	89	92	82	86	80	95	100	90
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

6: E Bayshore Rd & Donohoe Street Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	44.3	96.7	313.8	80.6	34.8	4.7	92.8
Vehicles Entered	12	370	298	9	388	517	1594
Vehicles Exited	12	364	275	8	393	516	1568
Hourly Exit Rate	12	364	275	8	393	516	1568
Input Volume	12	376	410	10	429	556	1792
% of Volume	100	97	67	78	92	93	87
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.1
Total Del/Veh (s)	225.4	31.5	68.1	40.5	12.6	58.5	43.4	55.1
Vehicles Entered	239	6	429	1171	338	893	1539	4615
Vehicles Exited	229	6	432	1177	339	866	1511	4560
Hourly Exit Rate	229	6	432	1177	339	866	1511	4560
Input Volume	373	11	654	1298	383	1042	1763	5524
% of Volume	61	53	66	91	89	83	86	83
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	76.6	79.5	77.4	135.7	122.3	97.7	88.3	38.2	32.4	83.4	72.9	13.2
Vehicles Entered	414	103	65	13	124	253	68	812	9	160	1006	574
Vehicles Exited	421	105	66	13	125	249	67	810	9	155	992	576
Hourly Exit Rate	421	105	66	13	125	249	67	810	9	155	992	576
Input Volume	476	116	76	13	124	255	74	922	9	192	1239	705
% of Volume	88	91	87	100	101	98	91	88	100	81	80	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	60.9
Vehicles Entered	3601
Vehicles Exited	3588
Hourly Exit Rate	3588
Input Volume	4200
% of Volume	85
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	31.7	61.1	4.4	2.2	63.2	29.9	28.9
Vehicles Entered	20	478	464	304	110	8	1384
Vehicles Exited	20	471	462	304	111	8	1376
Hourly Exit Rate	20	471	462	304	111	8	1376
Input Volume	22	561	553	350	107	7	1600
% of Volume	89	84	84	87	104	114	86
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	75.8	28.9	0.0	0.0	109.0	129.7	42.6
Total Del/Veh (s)	172.7	154.2	10.6	4.9	367.0	368.1	155.9
Vehicles Entered	3	250	291	154	292	12	1002
Vehicles Exited	3	239	293	155	258	11	959
Hourly Exit Rate	3	239	293	155	258	11	959
Input Volume	4	262	338	181	321	12	1118
% of Volume	75	91	87	86	80	90	86
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	5	0	0	27	1	33

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	20.0	19.1	2.6	2.4	98.4	87.0	31.4
Vehicles Entered	3	111	280	44	147	13	598
Vehicles Exited	3	108	280	44	140	13	588
Hourly Exit Rate	3	108	280	44	140	13	588
Input Volume	3	114	320	50	143	13	644
% of Volume	92	95	87	88	98	98	91
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	1565.3	756.2	1440.0		188.4	185.1	1.9	1.3	132.7
Vehicles Entered	2	6	56	0	963	4	1072	3	2106
Vehicles Exited	1	4	10	0	884	4	1076	3	1982
Hourly Exit Rate	1	4	10	0	884	4	1076	3	1982
Input Volume	3	6	58	1	948	3	1311	4	2334
% of Volume	31	62	17	0	93	133	82	75	85
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	295.3	3.8	117.1
Vehicles Entered	763	1209	1972
Vehicles Exited	675	1213	1888
Hourly Exit Rate	675	1213	1888
Input Volume	1039	1428	2467
% of Volume	65	85	77
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	23.2	13.6	19.0	2.1	8.7
Vehicles Entered	298	1298	331	2137	4064
Vehicles Exited	297	1298	331	2136	4062
Hourly Exit Rate	297	1298	331	2136	4062
Input Volume	296	1566	408	2508	4778
% of Volume	100	83	81	85	85
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	1.0	0.2	0.6
Total Del/Veh (s)	9.1	26.6	18.5
Vehicles Entered	967	1095	2062
Vehicles Exited	967	1078	2045
Hourly Exit Rate	967	1078	2045
Input Volume	952	1333	2285
% of Volume	102	81	89
Denied Entry Before	1	0	1
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	1.2	1.2
Vehicles Entered	985	985
Vehicles Exited	985	985
Hourly Exit Rate	985	985
Input Volume	1160	1160
% of Volume	85	85
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	1.1	1.1
Vehicles Entered	1213	1213
Vehicles Exited	1228	1228
Hourly Exit Rate	1228	1228
Input Volume	1428	1428
% of Volume	86	86
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.2	0.2	306.0	318.8	354.8	0.1	0.0	0.0	0.8	0.3	0.2
Total Del/Veh (s)	71.3	76.0	83.2	578.9	563.7	585.6	58.2	11.1	11.0	188.5	160.1	159.3
Vehicles Entered	12	68	46	119	80	10	18	1175	29	16	1100	10
Vehicles Exited	12	68	46	103	68	9	18	1189	29	14	1007	9
Hourly Exit Rate	12	68	46	103	68	9	18	1189	29	14	1007	9
Input Volume	11	67	48	165	105	14	20	1307	34	15	1110	9
% of Volume	109	101	96	62	65	64	90	91	85	93	91	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	44	29	4	0	0	0	0	0	0

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	32.6
Total Del/Veh (s)	122.6
Vehicles Entered	2683
Vehicles Exited	2572
Hourly Exit Rate	2572
Input Volume	2906
% of Volume	89
Denied Entry Before	0
Denied Entry After	77

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.4	0.4	0.4
Total Del/Veh (s)	11.0	6.9	7.6
Vehicles Entered	300	1288	1588
Vehicles Exited	300	1288	1588
Hourly Exit Rate	300	1288	1588
Input Volume	296	1285	1582
% of Volume	101	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	272.1	0.8	106.2
Vehicles Entered	340	537	877
Vehicles Exited	306	538	844
Hourly Exit Rate	306	538	844
Input Volume	420	579	999
% of Volume	73	93	84
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.3	0.3
Total Del/Veh (s)	5.5	5.5
Vehicles Entered	994	994
Vehicles Exited	992	992
Hourly Exit Rate	992	992
Input Volume	1166	1166
% of Volume	85	85
Denied Entry Before	0	0
Denied Entry After	0	0

Total Network Performance

Denied Del/Veh (s)	63.9
Total Del/Veh (s)	329.8
Vehicles Entered	8888
Vehicles Exited	8059
Hourly Exit Rate	8059
Input Volume	65699
% of Volume	12
Denied Entry Before	1
Denied Entry After	472

1: Donohoe St & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.4	0.1	0.0	0.2	0.2	0.2
Total Del/Veh (s)	33.6	12.2	7.8	3.9	123.5	123.4	20.5
Vehicles Entered	17	308	612	171	95	31	1234
Vehicles Exited	17	308	612	171	91	29	1228
Hourly Exit Rate	17	308	612	171	91	29	1228
Input Volume	16	315	802	213	95	25	1468
% of Volume	105	98	76	80	96	115	84
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.3	0.0	0.0	0.5	0.8	0.9	0.2
Total Del/Veh (s)	84.4	45.4	21.7	18.8	15.3	9.6	48.9	48.3	28.5	23.5
Vehicles Entered	2	304	99	556	755	22	50	44	39	1871
Vehicles Exited	2	302	99	556	758	22	49	44	39	1871
Hourly Exit Rate	2	302	99	556	758	22	49	44	39	1871
Input Volume	3	316	99	748	1001	26	50	44	39	2327
% of Volume	67	95	100	74	76	84	98	99	99	80
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	10.3	9.5	0.0	0.4	0.2	0.3	0.2	0.7	0.4	3.0	1.5
Total Del/Veh (s)	357.9	198.9	4.7	32.5	81.2	48.0	32.5	24.1	24.9	195.5	215.5	162.0
Vehicles Entered	33	121	200	295	700	542	350	696	729	45	785	252
Vehicles Exited	32	114	200	299	697	546	350	694	727	44	774	250
Hourly Exit Rate	32	114	200	299	697	546	350	694	727	44	774	250
Input Volume	39	123	205	486	946	704	458	917	999	65	1059	334
% of Volume	83	92	97	61	74	78	76	76	73	67	73	75
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	0	0	0	2	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	1.5
Total Del/Veh (s)	84.1
Vehicles Entered	4748
Vehicles Exited	4727
Hourly Exit Rate	4727
Input Volume	6335
% of Volume	75
Denied Entry Before	0
Denied Entry After	3

4: US 101 NB Off Ramp/Capitol Ave & Donohoe St Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	1.1	0.0	0.4	0.0	1.9	0.1	0.1	0.8
Total Del/Veh (s)	40.7	112.0	22.2	142.4	107.1	169.8	54.5	14.5	108.6
Vehicles Entered	879	684	12	785	22	628	9	79	3098
Vehicles Exited	876	672	13	785	22	602	9	78	3057
Hourly Exit Rate	876	672	13	785	22	602	9	78	3057
Input Volume	1182	1082	21	977	28	779	10	80	4159
% of Volume	74	62	63	80	77	77	88	97	73
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	1	0	0	1

5: Donohoe St & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.1	1.1	0.1	7.5	13.2	6.2	0.2	0.2	0.7
Total Del/Veh (s)	40.0	19.9	100.9	71.7	55.4	55.8	10.9	39.8	45.2	43.8
Vehicles Entered	434	1069	421	88	93	14	27	92	181	2419
Vehicles Exited	433	1067	417	88	93	14	28	92	179	2411
Hourly Exit Rate	433	1067	417	88	93	14	28	92	179	2411
Input Volume	576	1408	821	155	93	14	25	88	182	3363
% of Volume	75	76	51	57	100	98	111	104	98	72
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

6: E. Bayshore & Donohoe Street Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	1127.0	981.8	4.3	0.8	0.1	0.0	167.9
Total Del/Veh (s)	108.5	879.2	260.8	153.6	28.6	5.6	139.6
Vehicles Entered	3	118	450	24	420	755	1770
Vehicles Exited	3	92	421	23	420	756	1715
Hourly Exit Rate	3	92	421	23	420	756	1715
Input Volume	9	340	639	33	549	960	2529
% of Volume	33	27	66	70	77	79	68
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	4	212	2	0	0	0	218

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	81.3	29.5	63.9	56.6	16.7	68.9	16.2	50.7
Vehicles Entered	350	6	808	1109	263	801	987	4324
Vehicles Exited	344	6	804	1124	259	796	994	4327
Hourly Exit Rate	344	6	804	1124	259	796	994	4327
Input Volume	434	5	983	1574	377	1092	1294	5758
% of Volume	79	126	82	71	69	73	77	75
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.3	0.3	12.5	16.9	36.7	3.2	1.5	2.2
Total Del/Veh (s)	33.9	29.4	20.5	312.5	344.6	337.2	123.6	116.7	111.7	102.5	56.0	12.9
Vehicles Entered	656	96	69	15	65	372	20	397	8	226	719	433
Vehicles Exited	659	96	70	13	57	324	20	393	8	230	710	433
Hourly Exit Rate	659	96	70	13	57	324	20	393	8	230	710	433
Input Volume	675	97	73	15	72	362	47	948	16	287	931	549
% of Volume	98	99	96	85	79	89	42	41	49	80	76	79
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	4	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	3.3
Total Del/Veh (s)	98.9
Vehicles Entered	3076
Vehicles Exited	3013
Hourly Exit Rate	3013
Input Volume	4072
% of Volume	74
Denied Entry Before	0
Denied Entry After	4

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.6	0.4	0.2
Total Del/Veh (s)	20.7	15.5	8.7	3.4	244.8	288.0	73.4
Vehicles Entered	9	514	466	65	342	14	1410
Vehicles Exited	9	513	466	65	323	13	1389
Hourly Exit Rate	9	513	466	65	323	13	1389
Input Volume	9	515	594	92	342	16	1568
% of Volume	97	100	78	71	94	83	89
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0	1

10: Woodland Avenue & Manhattan Dr Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	7.0	9.1	12.0	6.6	6.0	4.4	8.5
Vehicles Entered	11	292	257	207	227	15	1009
Vehicles Exited	11	292	256	206	228	15	1008
Hourly Exit Rate	11	292	256	206	228	15	1008
Input Volume	11	289	324	269	233	13	1139
% of Volume	102	101	79	77	98	115	88
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	1.5	2.1	1.9	1.7	7.8	4.5	2.9
Vehicles Entered	1	201	223	57	87	14	583
Vehicles Exited	1	202	223	57	87	14	584
Hourly Exit Rate	1	202	223	57	87	14	584
Input Volume	1	198	278	70	87	12	646
% of Volume	100	102	80	81	100	114	90
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: Woodland Ave & Crescent Dr Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		171.4	0.0	0.2	0.1	0.0	54.4
Total Del/Veh (s)	232.1	61.0	83.2		665.4	689.5	18.9	2.1	1.8	227.1
Vehicles Entered	4	9	68	0	374	1	8	777	4	1245
Vehicles Exited	3	8	66	0	342	1	8	781	4	1213
Hourly Exit Rate	3	8	66	0	342	1	8	781	4	1213
Input Volume	4	8	65	1	940	3	10	970	4	2005
% of Volume	80	103	102	0	36	31	78	81	94	61
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	30	0	0	0	0	30

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	220.4	2.4	4.0	121.7
Vehicles Entered	1235	1	1054	2290
Vehicles Exited	1161	1	1049	2211
Hourly Exit Rate	1161	1	1049	2211
Input Volume	1417	1	1469	2887
% of Volume	82	100	71	77
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	5.2	29.0	52.3	2.5	17.5
Vehicles Entered	516	1790	139	1276	3721
Vehicles Exited	518	1766	133	1276	3693
Hourly Exit Rate	518	1766	133	1276	3693
Input Volume	644	2362	195	1752	4952
% of Volume	80	75	68	73	75
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: Woodland Ave Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	666.3	0.1	354.4
Total Del/Veh (s)	716.9	10.9	276.0
Vehicles Entered	474	803	1277
Vehicles Exited	371	797	1168
Hourly Exit Rate	371	797	1168
Input Volume	910	989	1900
% of Volume	41	81	61
Denied Entry Before	0	0	0
Denied Entry After	438	0	438

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Vehicles Entered	708	708
Vehicles Exited	708	708
Hourly Exit Rate	708	708
Input Volume	891	891
% of Volume	79	79
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	1.4	1.4
Vehicles Entered	1049	1049
Vehicles Exited	1062	1062
Hourly Exit Rate	1062	1062
Input Volume	1469	1469
% of Volume	72	72
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.3	1.2	1.4	0.7	66.1	63.0	60.3	0.3	0.2	0.2
Total Del/Veh (s)	30.5	27.1	23.3	114.4	111.8	115.1	78.8	58.6	57.6	517.5	492.0	478.2
Vehicles Entered	30	115	19	135	162	35	156	1624	114	52	1276	43
Vehicles Exited	31	116	19	134	160	34	156	1604	112	38	921	32
Hourly Exit Rate	31	116	19	134	160	34	156	1604	112	38	921	32
Input Volume	33	112	20	140	167	33	194	2000	141	55	1289	40
% of Volume	94	103	96	96	96	103	81	80	79	69	71	80
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	3	40	3	0	1	0

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	32.3
Total Del/Veh (s)	224.0
Vehicles Entered	3761
Vehicles Exited	3357
Hourly Exit Rate	3357
Input Volume	4224
% of Volume	79
Denied Entry Before	0
Denied Entry After	47

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	97.8	96.4	96.8
Total Del/Veh (s)	267.9	269.9	269.4
Vehicles Entered	567	1597	2164
Vehicles Exited	513	1432	1945
Hourly Exit Rate	513	1432	1945
Input Volume	644	1779	2422
% of Volume	80	81	80
Denied Entry Before	0	0	0
Denied Entry After	62	181	243

44: O Connor St & E. Bayshore Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	231.0	1.6	94.2
Vehicles Entered	513	761	1274
Vehicles Exited	470	762	1232
Hourly Exit Rate	470	762	1232
Input Volume	666	972	1638
% of Volume	71	78	75
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

58: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.2	0.2
Total Del/Veh (s)	4.1	4.1
Vehicles Entered	728	728
Vehicles Exited	728	728
Hourly Exit Rate	728	728
Input Volume	918	918
% of Volume	79	79
Denied Entry Before	0	0
Denied Entry After	0	0

Total Network Performance

Denied Del/Veh (s)	124.7
Total Del/Veh (s)	444.0
Vehicles Entered	10223
Vehicles Exited	8789
Hourly Exit Rate	8789
Input Volume	74054
% of Volume	12
Denied Entry Before	1
Denied Entry After	993

Appendix D

Current TDM Measure

COMMUTER PROGRAMS

UNIVERSITY CIRCLE

UNIVERSITY CIRCLE COMMUTER SUPPORT – Find transportation and commuter information below.

TRANSIT AND SHUTTLE SERVICES	CARPOOL AND RIDE-MATCHING SERVICES
Map of University Circle nearby Transit Resources University Circle FREE Caltrain Shuttle Schedule Palo Alto Transit Station Map Palo Alto Caltrain Real Time Mobile Tracking SamTrans Routes to/from Caltrain FREE Trial Transit Passes Transit Trip Planner	Scoop Carpool matching app Waze Carpool matching app Scoop/Waze free ride promo code $100 Carpool Incentive $350 Monthly Vanpool Incentives $300 New Vanpool Passenger Credits $500 Vanpool Driver Cash Reward
BICYCLE PARKING AND FACILITIES	**COMMUTER INCENTIVES AND SERVICES**
University Circle Secure Bicycle Parking (registration form) University Circle Bicycle Fixit Repair Studios *(at each of the three secure bike cages)* San Mateo County Bike Map Santa Clara County Bikeways Map Regional City Bike Maps Find a Bike Buddy to share the ride Silicon Valley Bicycle Coalition Bicycle Resource Guide	Transportation Kiosk & Commuter material in each garage lobby University Circle online resource website Free Guaranteed Ride Home Program Commute.org Commuter Rewards Bay Area Spare the Air Alert Notices University Circle Commuter Assistance

BEST Sites for Commuters℠ 2020

University Circle Commute Coordinators
Dom Zona and Elizabeth Hughes
commute@university-circle.com
408-420-2411

FREE University Circle Shuttle Schedule

University Circle

EFFECTIVE 2/4/2019

MORNING COMMUTER SERVICE

PALO ALTO STATION - TRAIN ARRIVES			U-C SCHEDULE	
FROM	Train	Time	DEPARTURE from Station	ARRIVAL at Campus
San Jose	305	6:08 Bullet		
San Jose	309	6:26 Bullet		
San Jose	207	6:38		
San Francisco	206	6:54	**7:00 AM**	**7:15 AM**
San Jose	313	7:12 Bullet		
San Francisco	208	7:14		
San Francisco	310	7:21 Bullet		
San Jose	215	7:21		
San Jose	319	7:26 Bullet		
San Francisco	212	7:33	**7:35 AM**	**7:50 AM**
San Francisco	314	7:37 Bullet		
San Jose	217	7:38		
San Francisco	216	7:52	**8:05 AM**	**8:20 AM**
San Jose	323	8:12 Bullet		
San Francisco	218	8:14		
San Jose	225	8:21		
San Francisco	320	8:21 Bullet		
San Jose	329	8:27 Bullet		
San Francisco	222	8:33	**8:35 AM**	**8:50 AM**
San Francisco	324	8:37 Bullet		
San Jose	227	8:41		
San Francisco	226	8:52	**9:05 AM**	**9:20 AM**
San Jose	233	9:14		
San Francisco	228	9:14		
San Francisco	330	9:21 Bullet		
San Francisco	232	9:33	**9:35 AM**	**9:50 AM**
San Jose	135	9:47		
San Francisco	134	10:00		

Morning pick-up Location
Driveway extension south of the parking lot on Alma St & Lytton Ave

AFTERNOON COMMUTER SERVICE

U-C SCHEDULE		PALO ALTO STATION - TRAIN DEPARTS		
DEPARTURE from Campus	ARRIVAL at Station	TO	Train	Time
		San Jose	254	3:32
		San Francisco	159	3:47
3:30 PM	**3:45 PM**	San Jose	156	4:00
		San Francisco	261	4:15
4:00 PM	**4:12 PM**	San Jose	258	4:26
		San Francisco	263	4:33
		San Francisco	365	4:44 Bullet
		San Jose	360	4:46 Bullet
4:30 PM	**4:55 PM**	San Francisco	267	4:54
		San Jose	262	5:04
		San Francisco	371	5:05 Bullet
		San Jose	366	5:15 Bullet
		San Francisco	269	5:20
5:00 PM	**5:20 PM**	San Francisco	273	5:29
		San Francisco	375	5:40 Bullet
		San Jose	268	5:43
5:30 PM	**5:50 PM**	San Jose	370	5:56 Bullet
		San Francisco	277	5:54
		San Francisco	381	6:05 Bullet
		San Jose	272	6:08
		San Jose	376	6:15 Bullet
		San Francisco	279	6:20
6:00 PM	**6:20 PM**	San Francisco	283	6:29
		San Francisco	385	6:40 Bullet
		San Jose	278	6:43
6:30 PM	**6:50 PM**	San Jose	380	6:55 Bullet
		San Francisco	287	7:01
		San Jose	282	7:04
		San Francisco	289	7:11
		San Jose	386	7:15 Bullet
		San Francisco	191	7:40

Afternoon drop-off Location
Driveway extension south of the parking lot on Alma St & Lytton Ave

FREE DOWNTOWN SHUTTLE LUNCHTIME SCHEDULE

INITIATES AT UNIVERSITY CIRCLE

11:30AM
12:00PM
12:30PM
1:00PM

Lunchtime Shuttle Drop-off and Pick-up
Each time lunchtime slot is reserved for travel to downtown Palo Alto. Please inform the shuttle operator where you are going in the downtown area, and what time you would like to be picked up.

Revised 1/19

2019 University Circle Commute Survey Report

Tuesday, June 11, 2019

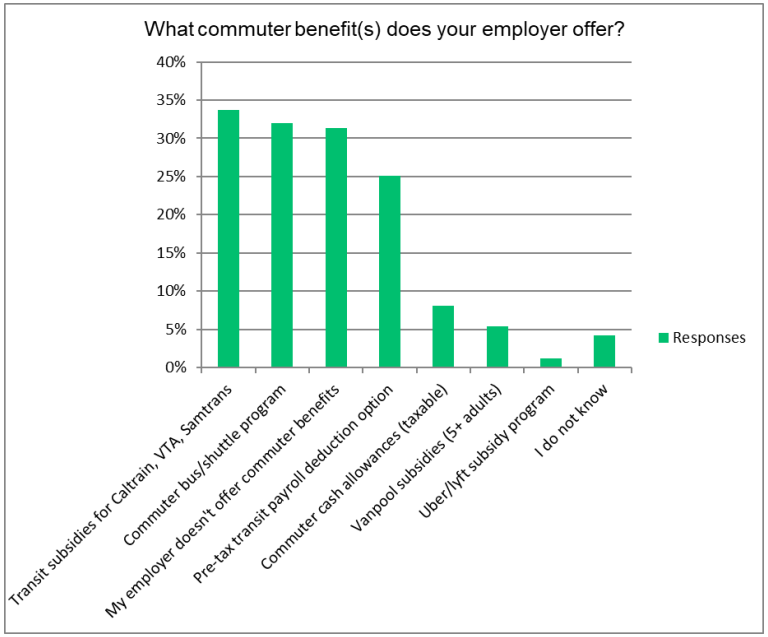
354

Total Survey Responses

Company	Employees	Response Rate	Responses
Columbia Property Trust	15	100.0%	15
Other - Drishti	1	100.0%	1
San Francisco Soup Co.	5	100.0%	5
Crescent Park Management	10	80.0%	8
Duff & Phelps	26	57.7%	15
Amazon Web Services	294	57.5%	169
Ropes & Gray	45	53.3%	24
Kasey Li, DDS, MD	4	50.0%	2
California Ear Institute (CEI)	25	48.0%	12
Faegre Baker Daniels LLP	12	41.7%	5
Greenberg Traurig	42	35.7%	15
Wells Fargo Advisors	48	31.3%	15
Bank Leumi	7	28.6%	2
TD Ameritrade	7	28.6%	2
NTT Innovation Institute	80	27.5%	22
PAMF / CMCA (SV Cardiology)	60	20.0%	12
HGGC	31	19.4%	6
Alston & Bird	44	11.4%	5
Finjan Holdings	22	9.1%	2
DLA Piper	198	8.6%	17
Oppenheimer/Viner Finance	9	0.0%	0
University Circle Campus Total	**985**	**35.9%**	**354**

Note: does not include Four Seasons Hotel

Four Seasons Hotel	270	15.6%	42



Answer Choices	Responses	
Transit subsidies for Caltrain, VTA, Samtrans	33.7%	113
Commuter bus/shuttle program	31.9%	107
My employer doesn't offer commuter benefits	31.3%	105
Pre-tax transit payroll deduction option	25.1%	84
Commuter cash allowances (taxable)	8.1%	27
Vanpool subsidies (5+ adults)	5.4%	18
Uber/lyft subsidy program	1.2%	4
I do not know	4.2%	14
Respondents who Answered		**335**

Note: Multiple responses were allowed.

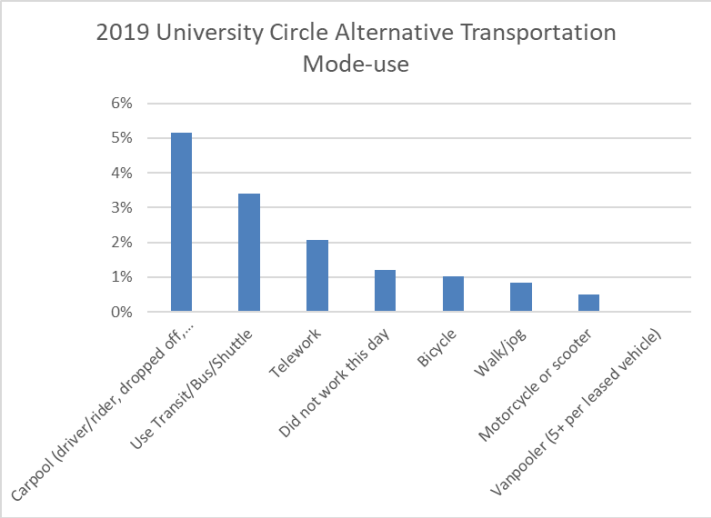
Does your employer provide commuter benefits? If so, please select the commuter benefit(s) your employer offers.

How do you typically travel TO WORK? (Select the primary transportation method you use for commuting to University Circle.) Or, select how you traveled last week to the campus.

University Circle - Commute Modes	Mon	Tue	Wed	Thu	Fri	Avg
Bicycle	10	9	10	9	10	10
Carpool driver	27	29	25	27	25	27
Uber/Lyft/Taxi	7	8	8	9	9	8
Got dropped off	1	1	1	1	1	1
Passenger in a carpool	17	16	16	14	14	15
Did not work this day	13	8	11	9	16	12
Motorcycle or scooter	4	4	5	5	5	5
Telework	20	19	19	20	25	20
Use Transit/Bus/Shuttle	33	33	33	33	36	34
Vanpooler (5+ per leased vehicle)	0	0	0	0	0	0
Walk/jog	7	9	8	9	8	8
Alternative Transportation Commuters	**139**	**136**	**136**	**136**	**149**	**140**
Total Employees	985	985	985	985	985	985
Alternative Transportaiton Mode-use Rate	**14.2%**	**13.9%**	**13.9%**	**13.9%**	**15.2%**	**14.2%**

Note 1: does not include Four Seasons data

Note 2: adjusted to include augmented Amazon data



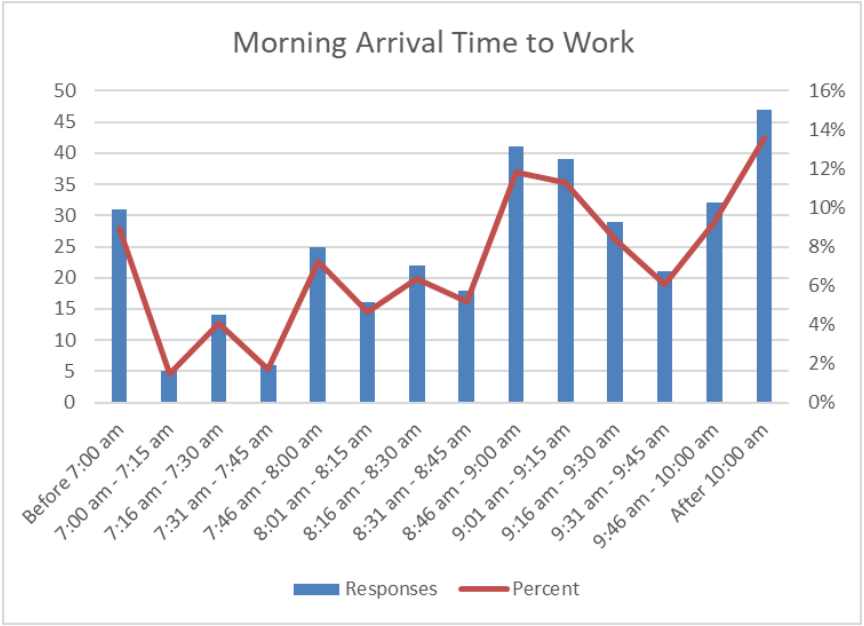
University Circle - Commute Modes	Percent
Carpool (driver/rider, dropped off, Uber/Lyft)	5.14%
Use Transit/Bus/Shuttle	3.41%
Telework	2.07%
Did not work this day	1.20%
Bicycle	1.01%
Walk/jog	0.84%
Motorcycle or scooter	0.50%
Vanpooler (5+ per leased vehicle)	0.00%
Alternative Transportaiton Mode-use Rate	**14.18%**

Note 1: does not include Four Seasons data

Note 2: adjusted to include augmented Amazon data

How do you typically travel TO WORK? (Select the primary transportation method you use for commuting to University Circle.) Or, select how you traveled last week to the campus.

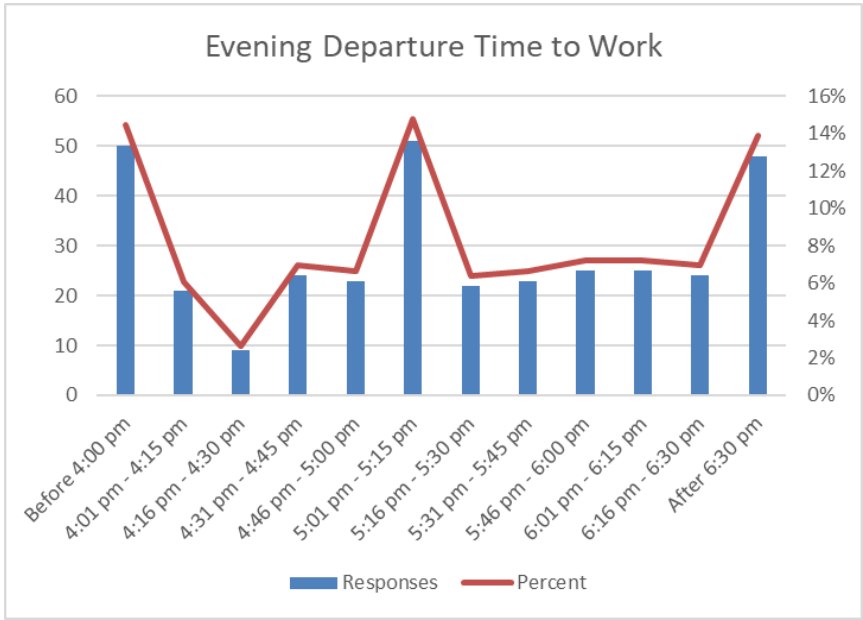
Answer Choices	Responses	Percent
Before 7:00 am	31	9.0%
7:00 am - 7:15 am	5	1.4%
7:16 am - 7:30 am	14	4.0%
7:31 am - 7:45 am	6	1.7%
7:46 am - 8:00 am	25	7.2%
8:01 am - 8:15 am	16	4.6%
8:16 am - 8:30 am	22	6.4%
8:31 am - 8:45 am	18	5.2%
8:46 am - 9:00 am	41	11.8%
9:01 am - 9:15 am	39	11.3%
9:16 am - 9:30 am	29	8.4%
9:31 am - 9:45 am	21	6.1%
9:46 am - 10:00 am	32	9.2%
After 10:00 am	47	13.6%
Answered	**346**	**100.0%**

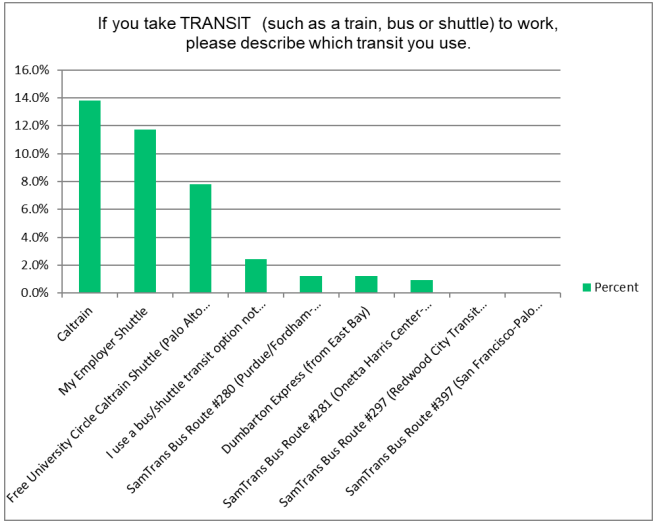


Generally, what time in the morning do you arrive at the University Circle Campus?

Generally, what time in the afternoon do you depart from the University Circle campus?

Answer Choices	Responses	Percent
Before 4:00 pm	50	14.5%
4:01 pm - 4:15 pm	21	6.1%
4:16 pm - 4:30 pm	9	2.6%
4:31 pm - 4:45 pm	24	7.0%
4:46 pm - 5:00 pm	23	6.7%
5:01 pm - 5:15 pm	51	14.8%
5:16 pm - 5:30 pm	22	6.4%
5:31 pm - 5:45 pm	23	6.7%
5:46 pm - 6:00 pm	25	7.2%
6:01 pm - 6:15 pm	25	7.2%
6:16 pm - 6:30 pm	24	7.0%
After 6:30 pm	48	13.9%
Answered	**345**	**100.0%**



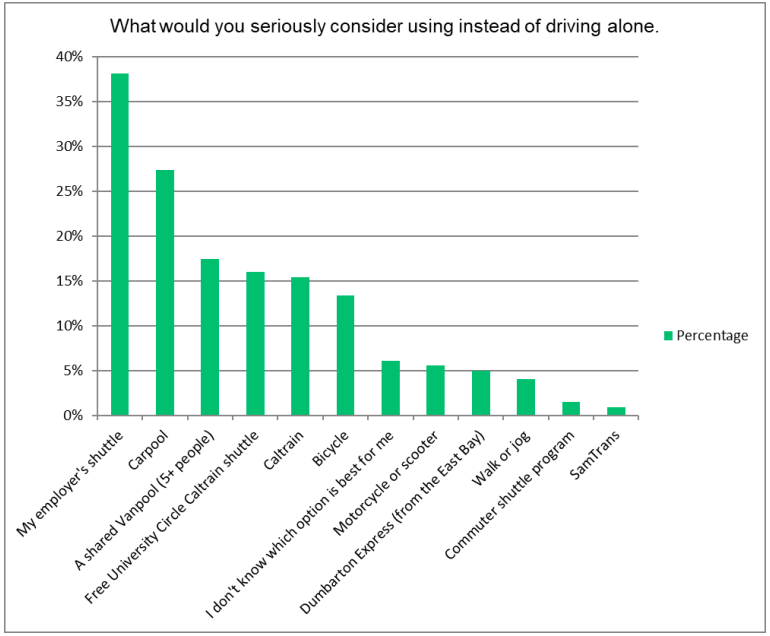


Answer Options	Responses	Percent
Caltrain	46	13.8%
My Employer Shuttle	39	11.7%
Free University Circle Caltrain Shuttle (Palo Alto Transit Center)	26	7.8%
I use a bus/shuttle transit option not listed/named above	8	2.4%
SamTrans Bus Route #280 (Purdue/Fordham-Stanford Shopping Center-Palo Alto Transit Center)	4	1.2%
Dumbarton Express (from East Bay)	4	1.2%
SamTrans Bus Route #281 (Onetta Harris Center-Stanford Shopping Center-Palo Alto Transit Center)	3	0.9%
SamTrans Bus Route #297 (Redwood City Transit Center-Palo Alto Transit Center)	0	0.0%
SamTrans Bus Route #397 (San Francisco-Palo Alto Transit Center)	0	0.0%
Number of respondents who answered	**333**	

Note: Multiple responses were allowed.

I do not use transit to get to work	261	78.4%

If you take TRANSIT (such as a train, bus or shuttle) to work, please describe which transit you use. Select all that apply.



Answer Options	Responses	Percentage
My employer's shuttle	131	38.1%
Carpool	94	27.3%
A shared Vanpool (5+ people)	60	17.4%
Free University Circle Caltrain shuttle	55	16.0%
Caltrain	53	15.4%
Bicycle	46	13.4%
I don't know which option is best for me	21	6.1%
Motorcycle or scooter	19	5.5%
Dumbarton Express (from the East Bay)	17	4.9%
Walk or jog	14	4.1%
Commuter shuttle program	5	1.5%
SamTrans	3	0.9%
Survey respondents who answered	**344**	

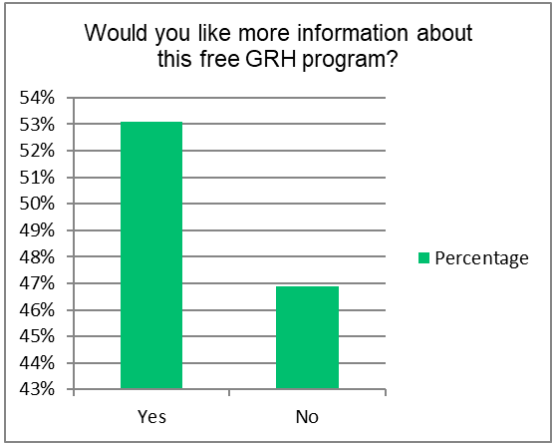
Note: Multiple responses were allowed.

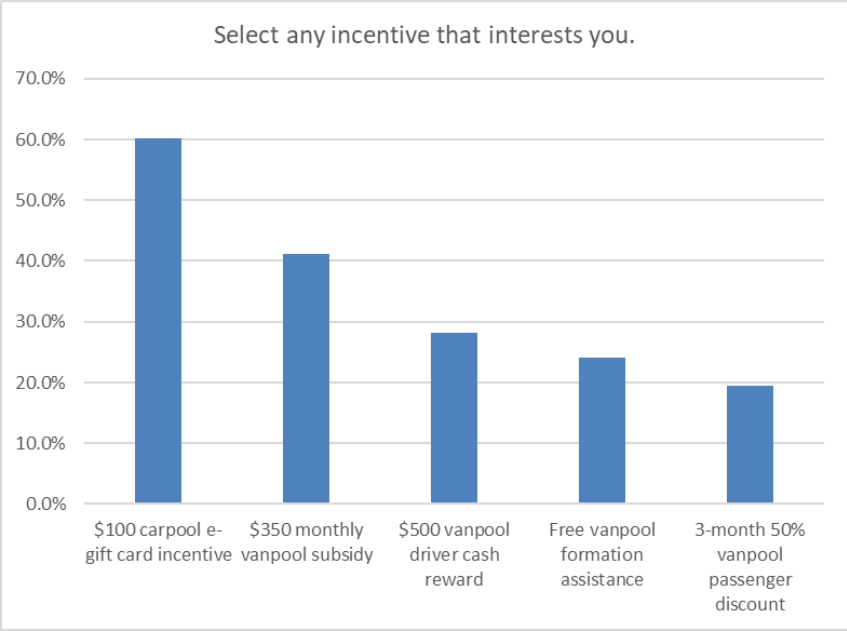
None, I choose to drive alone	86	25.0%
I don't (or rarely) drive alone to work	43	12.5%

Provided is a list of commuter options. Select any that you would seriously consider using instead of driving alone to work.

Would you like more information about this new Guaranteed Ride Home program?

Answer Choices	Percentage	Responses
Yes	53.1%	180
No	46.9%	159
	Answered	**339**



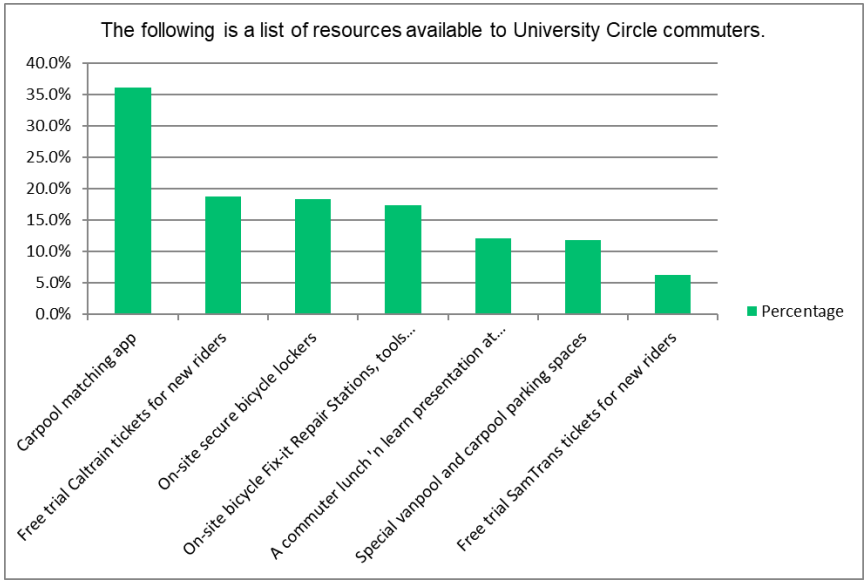


Select any incentive that interests you.	Percentage	Responses
$100 carpool e-gift card incentive	60.2%	130
$350 monthly vanpool subsidy	41.2%	89
$500 vanpool driver cash reward	28.2%	61
Free vanpool formation assistance	24.1%	52
3-month 50% vanpool passenger discount	19.4%	42
Survey respondents who answered		**216**

Note: Multiple responses were allowed.

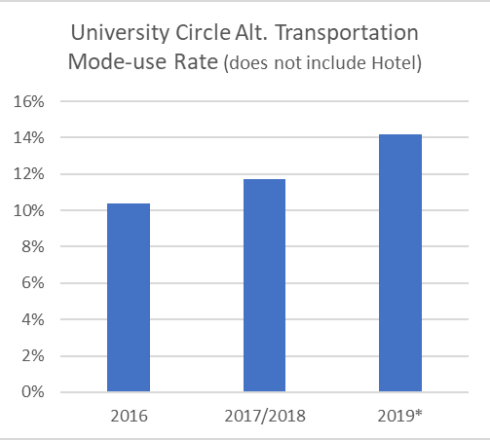
Select any incentive that interests you.

The following is a list of resources available to University Circle commuters. Please select any that interest you.



Answer Choices	Percentage	Responses
Carpool matching app	36.1%	104
Free trial Caltrain tickets for new riders	18.8%	54
On-site secure bicycle lockers	18.4%	53
On-site bicycle Fix-it Repair Stations, tools & air pumps	17.4%	50
A commuter lunch 'n learn presentation at my office	12.2%	35
Special vanpool and carpool parking spaces	11.8%	34
Free trial SamTrans tickets for new riders	6.3%	18
Survey respondents who answered		**288**

Note: Multiple responses were allowed.



Year	Employees	Response Rate	Alt. Mode Split
2016	897	55.5%	10%
2017	1,057	39.0%	12%
2019*	985	35.9%	14%

Does not include Hotel Data

Between 2016 and 2019, employee occupancy varied. During this period, survey response rates dropped progressively lower. However, there was an overall increase in the percentage of commuters who used alternative transportation modes (did not drive alone).

If the 2019 response rate had been higher, it is likely the data would have shown a great percent of commuters who used alternative transportation modes.

2019 Recommendations & Goals

- Increase tenant engagement at the employer level (e.g., promotions, events, Commute.org incentives, referrals)
- Expand University Circle Caltrain shuttle to meet more trains and offer later services
- Initiate a pilot vanpool subsidy program (funded by Columbia Trust) to match the $350 monthly grant funds offered by Metropolitan Transportation Commission (MTC)
- Add a University Circle last-mile shuttle connection for Dumbarton East Bay riders at the VA Hospital (possibly via Lyft program)
- Address Four Seasons' lack of employee participation in commuter programs
- State a 2019 alternative transportation mode-use goal at 16%
- Increase the 2019 commuter survey response rate to 60%

University Circle campus-wide performance compared to Amazon employee performance.

Year	Employees	Response Rate	Alt. Mode Split
2016	897	55.5%	10%
2017	1,057	39.0%	12%
2019*	985	35.9%	14%

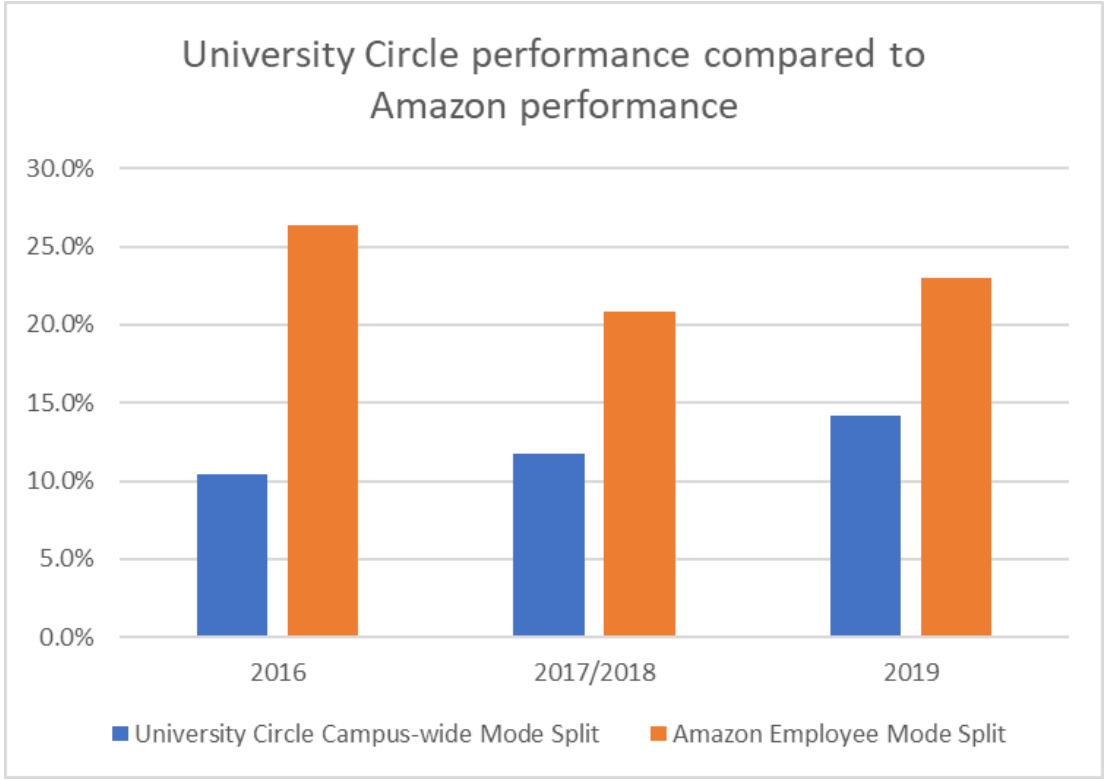
Does not include Hotel Data

Year	Amazon Employees	Response Rate	Commuter Mode-use Rate
2016	230	75.7%	26.4%
2017/2018	275	54.2%	20.8%
2019	294	57.5%	23.0%

Occupancy at University Circle office.

Note: Amazon offers employees a comprehensive commuter program that includes private shuttles, transit subsidies, vanpool subsidies, and commuter cash allowances.

University Circle campus-wide performance compared to Amazon employee performance.



Appendix E

Cost Estimates and Calculation of Fair Share Contributions

University Circle Phase II
Intersection Improvement Cost Estimates

#	Intersection	Improvements	Construction Cost Estimate	Comment	Fair Share %	Fair Share $
3	Euclid Ave and Donohoe St/East Bayshore Rd	Signalize. Add a WB RT lane.	$ 1,080,000	Fair share based on Sobrato reimbursement agreement formula. Cost estimate provided by BKF.	7.4%	$ 80,102
4	US 101 NB On-Ramp and Donohoe Street	Signalize. Realign & widen on ramp. Restripe WB approach for 1 LT, 1 LT/TH, 1 TH.	$ 1,530,000	Fair share based on Sobrato reimbursement agreement formula. Cost estimate provided by BKF.	7.4%	$ 113,478
5	University Avenue and Donohoe Street	Widen the WB approach to include 2 LT, 1 TH, 1 TH/RT, 1 RT lane *and* extend NB LT pocket	$ 4,200,000 *$ 50,000*		2.8% 2.8%	$ 119,652 $ 1,424
6	US 101 NB Off-Ramp/dwy and Donohoe St	Widen WB approach to include 4 TH lanes.	$ 100,000	Requires reducing lanes on EB approach to Cooley.	1.2%	$ 1,200
7	Cooley Avenue and Donohoe Street	Narrow EB approach to include 2 TH and 1 LT lane.	$ 60,000	Required to widen WB approach at US 101 NB Off-Ramp/dwy and Donohoe St.	1.6%	$ 930
8	East Bayshore Road and Donohoe Street	None	$ -	Improvements at int. #3, 4, 5, 6 & 7 would reduce adverse effect at this intersection.	1.5%	$ -
9	University Avenue and US101 SB Ramps	None	$ -	Improvements at int. #3, 4, 5, 6 & 7 would reduce adverse effect at this intersection.	7.4%	$ -
10	University Avenue and Woodland Avenue	None	$ -	Improvements at int. #3, 4, 5, 6 & 7 would reduce adverse effect at this intersection.	12.3%	$ -
11	University Circle and Woodland Avenue	None	$ -	Improvements at int. #3, 4, 5, 6 & 7 would reduce adverse effect at this intersection.	50.5%	$ -
12	Woodland Avenue and Manhattan Avenue	None	$ -	Improvements at int. #3, 4, 5, 6 & 7 would reduce adverse effect at this intersection.	3.0%	$ -
13	Woodland Avenue and Euclid Avenue	None	$ -	Improvements at int. #3, 4, 5, 6 & 7 would reduce adverse effect at this intersection.	13.9%	$ -
					Total	**$ 317,460**

Appendix I

ACIES

ENGINEERING

Date: March 13, 2020

Project: University Circle
Address: Univerity Ave, East Palo Alto, CA

Subject: Potential additon of new office building - impact on the overall water consumption / waste water production and connection to the existing water services

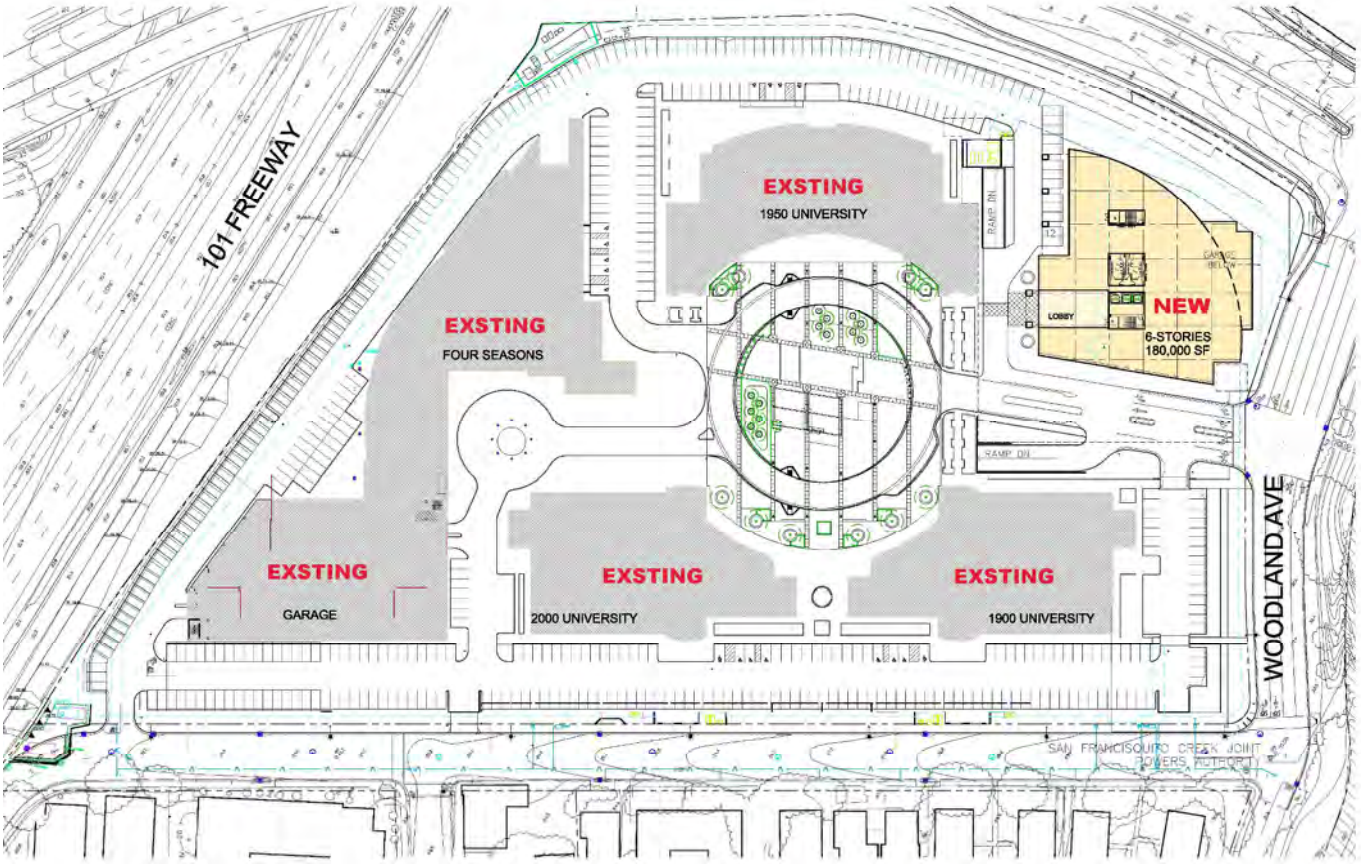
To whom it may concern,

The purpose of this report is to:

- Show that addition of a new office buildings to the existing University Circle site with three existing office buildings will not have impact on overall domestic water consumption and wastewater production if high efficient plumbing fixtures are used in all existing and new office buildings.

- Confirm that new building can be connected to existing water service which serves one of three existing office buildings at the site.

University Circle site is consisted of three office buildings (address: 1900 University, 1950 university and 200 University), Four Seasons Hotel and Garage. Each building is served with dedicated 4" water meter and 4" main water line. The following is site plan showing location of the existing buildings and proposed location of new building.



3371 Olcott Street, Santa Clara, CA 95054 phone(408) 522-5255 fax(408) 522-5260 e-mail:info@acies.net

a) Estimated domestic water consumption and wastewater production

The existing plumbing fixtures in the office buildings are not high-efficient plumbing fixtures (toilets water consumption is 1.6 gallon per flush, urinal water consumption is 1.0 gallon per flush). The intent is to replace the existing toilets and urinals in the core restrooms of three existing office buildings with high efficient fixtures (toilets water consumption 1.1 gallon per flush, urinal water consumption 0.125 gallon per flush) and confirm that water savings obtained on this way are equal or larger than total water consumption of proposed new building. For the purpose of calculations, the occupant load in each building is determined based on the occupant load factor of 200 square feet per person for occupancy Group B (per Table A, Chapter 4, California Plumbing Code).

Per calculations, done in accordance with CalGreen code guides and shown on the Exhibits A, B and C in this report, the estimated water and wastewater savings in the existing office buildings with replacement of water closet and urinal with high efficient fixtures (with water consumption of 1.1 and 0.125 gallons per flush) are as follows:

- Estimated water savings for 1900 University: 21,274 gallons/month
- Estimated water savings for 1950 University: 20,328 gallons/month
- Estimated water savings for 1950 University: 13,376 gallons/month

Total estimated water savings in the office buildings: **54,978 gallons/month**

- Estimated wastewater savings for 1900 University: 21,296 gallons/month
- Estimated wastewater savings for 1950 University: 20,328 gallons/month
- Estimated wastewater savings for 1950 University: 13,376 gallons/month

Total estimated wastewater savings in the office buildings: **55,000 gallons/month**

Per calculation shown on Exhibit D in this report, the estimated water consumption for the proposed New Building (toilets water consumption 1.1 gallon per flush, urinal water consumption 0.125 gallon per flush is **48,535 gallons/month** and wastewater production is **54,186 gallons/month** which is less than total water and wastewater savings obtained by replacement of the existing water closets and urinals in the core restrooms of the existing office buildings.

Conclusion: The proposed addition of new office building will not have impact on overall water consumption and wastewater production of University Circle site as long as the existing toilet/urinals in the existing office buildings are replaced with high efficient fixtures (toilet 1.1 gallon per flush, urinal 0.125 gallon per flush) and that mechanical system will not use water for operation (make-up water for cooling towers should not be used; see section c. below for reference).

b) Connection of new building to existing water service which serves Building 1900 University.

The proposed new building is to be located close to the existing buildings University 1900 and University 1950. The intent is to connect water service of the new office building to the existing water service which serves either of those two buildings and to provide sub-metering in accordance with requirements from Section 5.303, 2016 CalGreen Code. Since the building University 1900 has more plumbing fixtures than the building University 1950, for the purpose of calculations we will use University 1900 as worst-case scenario.
Per domestic water fixture unit calculations, done in accordance with Appendix A, 2016 California Plumbing Code, and shown on Exhibit E in this report, the total fixture unit count for both buildings is 820 and is equivalent to maximum flow rate of **190 GPM** (gallons per minutes).
Building University 1900 is served with dedicated existing 4" water meter and main 4". Typically, 4" water meter can handle maximum flow rate of **500 GPM** and 4" main water line can handle flow rate of **300 GPM** (with velocity of 8 feet per second) which is more than maximum flow rate of 190 GPM for the both buildings.

Conclusion: The existing 4" water service with 4" main water line which serves the existing building University 1900 is capable to serve both, the existing building University 1900 and the proposed new building.

c) Comparison of actual / estimated occupancy loads and water consumption

The current actual occupancy loads of the buildings are as follows:
Building 1900: 510 occupants
Building 1950: 490 occupants
Building 2000: 320 occupants
Those occupant loads are in compliance with the occupant loads used in the estimated calculations in the section a) above.

Per water utility bills (included in Exhibit F), the actual total water consumption per building in 2019 are as follows:

Domestic Water Usage in CCF Centum Cubic Feet per Building
(1 CCF = 100 cu.ft of water=748 gallons)

Billing date	1900	1950 LS	2000
1/17/2020	170	198	102
11/15/2019	424	369	222
9/20/2019	435	460	352
7/19/2019	355	353	304
5/17/2019	282	297	293
3/15/2019	195	204	225
TOTAL	1861	1881	1498

Building 1900: 1861 ccf = 1861 x 748 = 1,392,028 gallons/year
Building 1950: 1881 ccf = 1881 x 748 = 1,406,988 gallons/year
Building 2000: 1498 ccf = 1498 x 748 = 1,120,504 gallons/year

Average actual total water consumption per building per month is:
Building 1900: 1,392,028 / 12 = 116,002 gallons/month
Building 1950: 1,406,988 / 12 = 117,249 gallons/month
Building 2000: 1,120,504 / 12 = 93,375 gallons/month

The total water consumption per building is consisted of domestic water consumption and technical water consumption (water consumption in cooling tower operation). The water consumption in cooling towers is higher during summer (average water usage around1.5 gpm per 100 tons of cooling) than in winter (average water consumption around 0.1 gpm per 100 tons of cooling). So, average water consumption in cooling towers during a year is around 0.6 gpm per 100 tons of cooling capacity. Considering that each building has cooling tower capacity of around 500 tons, the average technical water consumption per building per month is:
500 tons x (0.6 gpm/100 tons) x 60 min/hr x 10 hr/day x 22 day/month = 39,600 gallons/month

The average actual domestic water consumption in each building per month can be determined by deducting average technical water usage from average actual total water consumption:
Building 1900: 116,002 – 39,600 = 76,402 gallons/month
Building 1950: 117,249 – 39,600 = 77,649 gallons/month
Building 2000: 93,375 – 39,600 = 53,775 gallons/month
The estimated domestic water usage per building according to the section a) above and appendix A, B & C are:
Building 1900: 76,648 gallons/month
Building 1950: 73,348 gallons/month
Building 2000: 48,092 gallons/month

Conclusion: Considering that monthly estimated domestic water usages are close to the average actual domestic water usages, it is safe to say that the water saving calculations from the section a) are valid. The mechanical system for the New Building must not use water for operation of mechanical system (cooling tower should not be used).

Sincerely,

Srdjan Rebraca, P.E., Principal

3371 Olcott Street, Santa Clara, CA 95054 phone:(408) 522-5255 fax:(408) 522-5260 e-mail:info@acies.net

EXHIBIT A

Existing Building - 1900 University

OCCUPANT LOAD CALCULATION

FLOOR	TOTAL AREA (SF)		OCCUPANT LOAD FACTOR FOR GROUP B OCCUPANCY		OCCUPANTS
FIRST	20,694	/	200 SF/OCCUPANT	=	124
SECOND	24,532	/	200 SF/OCCUPANT	=	123
THIRD	24,532	/	200 SF/OCCUPANT	=	123
FOURTH	24,532	/	200 SF/OCCUPANT	=	123
FIFTH	24,532	/	200 SF/OCCUPANT	=	123
SIXTH	24,050	/	200 SF/OCCUPANT	=	120
			TOTAL:		736
ACTUAL OCCUPANCY FACTOR = 0.7 (0.7 X 736=516)					516
FEMALE OCCUPANTS = 0.5 X 516 = 258 MALE OCCUPANTS = 0.5 X 516 = 258					

WATER CONSUMPTION - EXISTING CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	516	=	645
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	516	=	387
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	516	=	284
WATER CLOSETS-MALE	1.6 GPF	X	1 FLUSH	X	1	X	258	=	413
WATER CLOSETS-FEMALE	1.6 GPF	X	1 FLUSH	X	3	X	258	=	1239
URINALS	1.0 GPF	X	1 FLUSH	X	2	X	258	=	516
							TOTAL BASELINE CASE DAILY USAGE:		3,484

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 3,484 = 76,648

WATER CONSUMPTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	516	=	645
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	516	=	387
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	516	=	284
WATER CLOSETS-MALE	1.1 GPF	X	1 FLUSH	X	1	X	258	=	284
WATER CLOSETS-FEMALE	1.1 GPF	X	1 FLUSH	X	3	X	258	=	852
URINALS	0.125 GPF	X	1 FLUSH	X	2	X	258	=	65
							TOTAL BASELINE CASE DAILY USAGE:		2,517

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,517 = 55,374
WATER SAVING PER MONTH : 76,648 - 55,374 = 21,274 GALLONS (27.7%)

WASTEWATER NOTE:
IN ORDER TO DETERMINE WASTEWATER PRODUCTION, THE FOLLOWING ESTIMATES ARE ARE USED:
- TOTAL DOMESTIC WATER CONSUMPTION ON ALL PLUMBING FIXTURES WILL BE DRAINED THRU SANITARY SEWER SYSTEM, HENCE IT IS GOING TO BE CONSIDERED AS WASTEWATER PRODUCTION.
- WASTEWATER PRODUCTION AT TOILET AND URINAL ARE TO BE INCREASED AS FOLLOWS:
  * TOILET: 600 grams OF WASTE PER USE WHICH WILL BE EQUIVALENT TO MASS OF 0.158 GALLONS OF WATER.
  * URINAL: 300 ml of URINE PER USE WHICH IS EQUIVALENT TO 0.079 GALLONS.

WASTEWATER PRODUCTION - EXISTING CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	516	=	645
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	516	=	387
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	516	=	284
WATER CLOSETS-MALE	(1.6+0.158) GPF	X	1 FLUSH	X	1	X	258	=	454
WATER CLOSETS-FEMALE	(1.6+0.158) GPF	X	1 FLUSH	X	3	X	258	=	1,362
URINALS	(1.0+0.079) GPF	X	1 FLUSH	X	2	X	258	=	557
							TOTAL BASELINE CASE DAILY USAGE:		3,689

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 3,689 = 81,158

WASTEWATER PRODUCTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	516	=	645
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	516	=	387
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	516	=	284
WATER CLOSETS-MALE	(1.1+0.158) GPF	X	1 FLUSH	X	1	X	258	=	325
WATER CLOSETS-FEMALE	(1.1+0.158) GPF	X	1 FLUSH	X	3	X	258	=	975
URINALS	(0.125+0.079) GPF	X	1 FLUSH	X	2	X	258	=	105
							TOTAL BASELINE CASE DAILY USAGE:		2,721

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,721 = 59,862
WASTEWATER SAVING PER MONTH : 81,158 - 59,826 = 21,296 GALLONS (26.2 %)

EXHIBIT B

Existing Building - 1950 University

OCCUPANT LOAD CALCULATION

FLOOR	TOTAL AREA (SF)		OCCUPANT LOAD FACTOR FOR GROUP B OCCUPANCY		OCCUPANTS
FIRST	23,496	/	200 SF/OCCUPANT	=	117
SECOND	28,216	/	200 SF/OCCUPANT	=	141
THIRD	28,283	/	200 SF/OCCUPANT	=	142
FOURTH	28,444	/	200 SF/OCCUPANT	=	142
FIFTH	28,207	/	200 SF/OCCUPANT	=	141
SIXTH	28,207	/	200 SF/OCCUPANT	=	141
			TOTAL OCCUPANTS:		824
ACTUAL OCCUPANCY FACTOR = 0.6 (0.6 x 824 = 494)					494
FEMALE OCCUPANTS = 0.5 X 494 = 247 MALE OCCUPANTS = 0.5 X 494 = 247					

WATER CONSUMPTION - EXISTING CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	494	=	618
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	494	=	370
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	494	=	272
WATER CLOSETS-MALE	1.6 GPF	X	1 FLUSH	X	1	X	247	=	395
WATER CLOSETS-FEMALE	1.6 GPF	X	1 FLUSH	X	3	X	247	=	1,185
URINALS	1.0 GPF	X	1 FLUSH	X	2	X	247	=	494
					TOTAL BASELINE CASE DAILY USAGE:				3,334

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 3,334 = 73,348

WATER CONSUMPTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	494	=	618
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	494	=	370
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	494	=	272
WATER CLOSETS-MALE	1.1 GPF	X	1 FLUSH	X	1	X	247	=	272
WATER CLOSETS-FEMALE	1.1 GPF	X	1 FLUSH	X	3	X	247	=	816
URINALS	0.125 GPF	X	1 FLUSH	X	2	X	247	=	62
					TOTAL BASELINE CASE DAILY USAGE:				2,410

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,410 = 53,020
WATER SAVING PER MONTH : 73,348 - 53,020 = 20,328 GALLONS (27.7%)

WASTEWATER NOTE:
IN ORDER TO DETERMINE WASTEWATER PRODUCTION, THE FOLLOWING ESTIMATES ARE ARE USED:
- TOTAL DOMESTIC WATER CONSUMPTION ON ALL PLUMBING FIXTURES WILL BE DRAINED THRU SANITARY SEWER SYSTEM, HENCE IT IS GOING TO BE CONSIDERED AS WASTEWATER PRODUCTION.
- WASTEWATER PRODUCTION AT TOILET AND URINAL ARE TO BE INCREASED AS FOLLOWS:
  * TOILET: 600 grams OF WASTE PER USE WHICH WILL BE EQUIVALENT TO MASS OF 0.158 GALLONS OF WATER.
  * URINAL: 300 ml of URINE PER USE WHICH IS EQUIVALENT TO 0.079 GALLONS.

WASTEWATER PRODUCTION - EXISTING CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	494	=	618
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	494	=	370
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	494	=	272
WATER CLOSETS-MALE	(1.6+0.158) GPF	X	1 FLUSH	X	1	X	247	=	434
WATER CLOSETS-FEMALE	(1.6+0.158) GPF	X	1 FLUSH	X	3	X	247	=	1,302
URINALS	(1.0+0.079) GPF	X	1 FLUSH	X	2	X	247	=	533
					TOTAL BASELINE CASE DAILY USAGE:				3,529

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 3,529 = 77,638

WASTEWATER PRODUCTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	494	=	618
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	494	=	370
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	494	=	272
WATER CLOSETS-MALE	(1.1+0.158) GPF	X	1 FLUSH	X	1	X	247	=	311
WATER CLOSETS-FEMALE	(1.1+0.158) GPF	X	1 FLUSH	X	3	X	247	=	933
URINALS	(0.125+0.079) GPF	X	1 FLUSH	X	2	X	247	=	101
					TOTAL BASELINE CASE DAILY USAGE:				2,605

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,605 = 57,310
WATER SAVING PER MONTH : 77,638 - 57,310 = 20,328 GALLONS (26.2%)

EXHIBIT C

Building - 2000 University

OCCUPANT LOAD CALCULATION

FLOOR	TOTAL AREA (SF)		OCCUPANT LOAD FACTOR FOR GROUP B OCCUPANCY		OCCUPANTS
FIRST	23,765	/	200 SF/OCCUPANT	=	119
SECOND	23,764	/	200 SF/OCCUPANT	=	119
THIRD	23,764	/	200 SF/OCCUPANT	=	119
FOURTH	23,764	/	200 SF/OCCUPANT	=	119
FIFTH	23,764	/	200 SF/OCCUPANT	=	119
SIXTH	24,608	/	200 SF/OCCUPANT	=	123
			TOTAL OCCUPANTS:		718
ACTUAL OCCUPANCY FACTOR = 0.45 (0.45 x 718 = 324)					324
FEMALE OCCUPANTS = 0.5 X 324 = 162 MALE OCCUPANTS = 0.5 X 324 = 162					

WATER CONSUMPTION - EXISTING CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	324	=	405
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	324	=	243
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	324	=	178
WATER CLOSETS-MALE	1.6 GPF	X	1 FLUSH	X	1	X	162	=	259
WATER CLOSETS-FEMALE	1.6 GPF	X	1 FLUSH	X	3	X	162	=	777
URINALS	1.0 GPF	X	1 FLUSH	X	2	X	162	=	324
							TOTAL BASELINE CASE DAILY USAGE:		2,186

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,186 = 48,092

WATER CONSUMPTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	324	=	405
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	324	=	243
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	324	=	178
WATER CLOSETS-MALE	1.1 GPF	X	1 FLUSH	X	1	X	162	=	178
WATER CLOSETS-FEMALE	1.1 GPF	X	1 FLUSH	X	3	X	162	=	534
URINALS	0.125 GPF	X	1 FLUSH	X	2	X	162	=	40
							TOTAL BASELINE CASE DAILY USAGE:		1,578

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 1,578 = 34,716
WATER SAVING PER MONTH : 48,092 - 34,716 = 13,376 GALLONS (27.8%)

WASTEWATER NOTE:
IN ORDER TO DETERMINE WASTEWATER PRODUCTION, THE FOLLOWING ESTIMATES ARE ARE USED:
- TOTAL DOMESTIC WATER CONSUMPTION ON ALL PLUMBING FIXTURES WILL BE DRAINED THRU SANITARY SEWER SYSTEM, HENCE IT IS GOING TO BE CONSIDERED AS WASTEWATER PRODUCTION.
- WASTEWATER PRODUCTION AT TOILET AND URINAL ARE TO BE INCREASED AS FOLLOWS:
  * TOILET: 600 grams OF WASTE PER USE WHICH WILL BE EQUIVALENT TO MASS OF 0.158 GALLONS OF WATER.
  * URINAL: 300 ml of URINE PER USE WHICH IS EQUIVALENT TO 0.079 GALLONS.

WASTEWATER PRODUCTION - EXISTING CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	324	=	405
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	324	=	243
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	324	=	178
WATER CLOSETS-MALE	(1.6+0.158) GPF	X	1 FLUSH	X	1	X	162	=	285
WATER CLOSETS-FEMALE	(1.6+0.158) GPF	X	1 FLUSH	X	3	X	162	=	855
URINALS	(1.0+0.079) GPF	X	1 FLUSH	X	2	X	162	=	350
							TOTAL BASELINE CASE DAILY USAGE:		2,316

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,316 = 50,952

WASTEWATER PRODUCTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	2.5 GPM	X	5 MIN.	X	0.1	X	324	=	405
LAVATORY	1.0 GPM	X	0.25 MIN.	X	3	X	324	=	243
KITCHEN FAUCETS	2.2 GPM	X	0.25 MIN.	X	1	X	324	=	178
WATER CLOSETS-MALE	(1.1+0.158) GPF	X	1 FLUSH	X	1	X	162	=	204
WATER CLOSETS-FEMALE	(1.1+0.158) GPF	X	1 FLUSH	X	3	X	162	=	612
URINALS	(0.125+0.079) GPF	X	1 FLUSH	X	2	X	162	=	66
							TOTAL BASELINE CASE DAILY USAGE:		1,708

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 1,708 = 37,576
WATER SAVING PER MONTH : 50,952 - 37,576 = 13,376 GALLONS (26.2%)

EXHIBIT D

New Building - Future

OCCUPANT LOAD CALCULATION

FLOOR	TOTAL AREA (SF)		ESTIMATED AREA FACTOR - PORTION OF FLOOR WITH GROUP B OCCUPANCY		OCCUPANT LOAD FACTOR FOR GROUP B OCCUPANCY		OCCUPANTS
FIRST	28,228	X	0.65	/	200 SF/OCCUPANT	=	91
SECOND	28,590	X	0.65	/	200 SF/OCCUPANT	=	93
THIRD	30,714	X	0.65	/	200 SF/OCCUPANT	=	100
FOURTH	30,714	X	0.65	/	200 SF/OCCUPANT	=	100
FIFTH	30,714	X	0.65	/	200 SF/OCCUPANT	=	100
SIXTH	30,714	X	0.65	/	200 SF/OCCUPANT	=	100
					TOTAL OCCUPANTS:		584

FEMALE OCCUPANTS = 0.5 X 584 = 292
MALE OCCUPANTS = 0.5 X 584 = 292

WATER CONSUMPTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	1.5 GPM	X	5 MIN.	X	0.1	X	584	=	438
LAVATORY	0.5 GPM	X	0.25 MIN.	X	3	X	584	=	219
KITCHEN FAUCETS	1.5 GPM	X	0.25 MIN.	X	1	X	584	=	219
WATER CLOSETS-MALE	1.1 GPF	X	1 FLUSH	X	1	X	292	=	321
WATER CLOSETS-FEMALE	1.1 GPF	X	1 FLUSH	X	3	X	292	=	963
URINALS	0.125 GPF	X	1 FLUSH	X	2	X	292	=	73
							TOTAL BASELINE CASE DAILY USAGE:		2,206

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,206 = 48,535 GALLONS

WASTEWATER NOTE:
IN ORDER TO DETERMINE WASTEWATER PRODUCTION, THE FOLLOWING ESTIMATES ARE ARE USED:
- TOTAL DOMESTIC WATER CONSUMPTION ON ALL PLUMBING FIXTURES WILL BE DRAINED THRU SANITARY SEWER SYSTEM, HENCE IT IS GOING TO BE CONSIDERED AS WASTEWATER PRODUCTION.
- WASTEWATER PRODUCTION AT TOILET AND URINAL ARE TO BE INCREASED AS FOLLOWS:
  * TOILET: 600 grams OF WASTE PER USE WHICH WILL BE EQUIVALENT TO MASS OF 0.158 GALLONS OF WATER.
  * URINAL: 300 ml of URINE PER USE WHICH IS EQUIVALENT TO 0.079 GALLONS.

WASTEWATER PRODUCTION - PROPOSED CONDITION

FIXTURE TYPE	FLOW RATE		DURATION		DAILY USE		OCCUPANTS		GALLONS PER DAY
SHOWERHEAD	1.5 GPM	X	5 MIN.	X	0.1	X	584	=	438
LAVATORY	0.5 GPM	X	0.25 MIN.	X	3	X	584	=	219
KITCHEN FAUCETS	1.5 GPM	X	0.25 MIN.	X	1	X	584	=	219
WATER CLOSETS-MALE	(1.1+0.158) GPF	X	1 FLUSH	X	1	X	292	=	367
WATER CLOSETS-FEMALE	(1.1+0.158) GPF	X	1 FLUSH	X	3	X	292	=	1,101
URINALS	(0.125+0.079) GPF	X	1 FLUSH	X	2	X	292	=	119
							TOTAL BASELINE CASE DAILY USAGE:		2,463

ESTIMATED WATER CONSUMPTION PER MONTH (22 WORKING DAYS): 22 x 2,463 = 54,186 GALLONS

EXHIBIT E

Water fixture units calculations

WATER FIXTURE UNITS: BLDG 1900			
DESCRIPTION	NO. OF FIXTURES	F.U. PER FIXT.	TOTAL CW F.U.
WATER CLOSET	44	5	220
LAVATORY/SINKS	70	1	70
URINAL	15	4	60
DRINKING FOUNTAIN	12	0.5	6
MOP SINK	6	3	18
SHOWER	6	4	24
POTENTIAL FUTURE FIXTURES	10	1	10
TOTAL BLDG 1900			408

NOTES:
1. COMMON RESTROOMS HAVE FLUSHOMETER VALVE TYPE TOILETS.
2. FOR 408 F.U. = 127 GPM REQUIRED CW PIPE SIZE IS 3" (VELOCITY OF 6.0 FT./SEC.) AND REQUIRED WATER METER SIZE IS 2".
3. EXISTING MAIN WATER LINE IS 4" (CAN HANDLE FLOW RATE OF 300 GPM) AND EXISTING WATER METER SIZE IS 4" (CAN HANDLE FLOW RATE OF 500 GPM).
4. CALCULATIONS ARE BASED ON APPENDIX A OF CPC 2016.

WATER FIXTURE UNITS: BLDG NEW			
DESCRIPTION	NO. OF FIXTURES	F.U. PER FIXT.	TOTAL CW F.U.
WATER CLOSET	36	5	180
LAVATORY/SINKS	36	1	36
URINAL	12	4	48
DRINKING FOUNTAIN	12	0.5	6
MOP SINK	6	3	18
SHOWER	6	4	24
POTENTIAL FUTURE FIXTURES	100	1	100
TOTAL BLDG NEW			412

NOTES:
1. COMMON RESTROOMS HAVE FLUSHOMETER VALVE TYPE TOILETS.
2. FOR 412 F.U. = 128 GPM REQUIRED CW PIPE SIZE IS 3" (VELOCITY OF 6.0 FT./SEC.) AND REQUIRED WATER METER SIZE IS 2".
3. CALCULATIONS ARE BASED ON APPENDIX A OF CPC 2016.

In the case that New Building is connected to water service of Buildings 1900

WATER FIXTURE UNITS: BLDG 1900 + NEW	
DESCRIPTION	TOTAL CW F.U.
TOTAL BLDG 1900	408
TOTAL BLDG NEW	412
TOTAL BLDG 1900 + NEW	820

NOTES:
1. COMMON RESTROOMS HAVE FLUSHOMETER VALVE TYPE TOILETS.
2. FOR 820 F.U. = 190 GPM REQUIRED CW PIPE SIZE IS 4" (VELOCITY OF 5.0 FT./SEC.) AND REQUIRED WATER METER SIZE IS 3".
3. EXISTING MAIN WATER LINE IS 4" (CAN HANDLE FLOW RATE OF 300 GPM) AND EXISTING WATER METER SIZE IS 4" (CAN HANDLE FLOW RATE OF 500 GPM).
4. CALCULATIONS ARE BASED ON APPENDIX A OF CPC 2016.

Conclusion:
The existing 4" water meter and 4" main water line can serve Building 1900 and new building.

EXHIBIT F

This exhibit includes water bills for Buildings 1900, 1950 and 2000 for the year 2019.

American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

0009204114905000000000230147011

ACCOUNT NUMBER	92-0411490-5
AMOUNT DUE	$2,301.47
DUE DATE	Apr 05, 2019
AMOUNT PAID	

For Service To: University Av, 1900

Please return this portion with check Payable to the address below

3956000979 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
NXS # 1STSEC-05529
PO BOX 7754 NXS # 1STSEC-05529
MERRIFIELD VA 22116-7754

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

For Service To:	University Av, 1900
Account Number:	92-0411490-5
Premise Number:	92-920030836

Billing Period & Meter Information

Billing Date:	Mar 15, 2019
Billing Period:	Jan 10 to Mar 11 (60 days)
Next reading on/about:	May 12, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613170 is a 3 inch meter
Current - Actual	30065
Previous - Actual	29870
Consumption - 100 CCF	195

Water Usage Comparison

Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2218.69
Payments since Jan 28, 2019.	$-2218.69
Total prior balance, Mar 13, 2019	**$0.00**
Water Service	
Meter: 1613170	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 195)	1201.20
Total Water Service charges, Mar 11, 2019	**$1915.90**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Mar 12, 2019	**$72.20**
Capital Improvement	
Meter: 1613170	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 195)	83.85
Total Capital Improvement charges, Mar 11, 2019	**$217.57**
Taxes	
City Users Utility tax	95.80
Total Taxes, Mar 15, 2019	**95.80**
---------TOTAL AMOUNT DUE ---------	$2,301.47

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

0009204114905000000000293611010

ACCOUNT NUMBER	92-0411490-5
AMOUNT DUE	$2,936.11
DUE DATE	May 31, 2019
AMOUNT PAID	

For Service To: University Av, 1900

Please return this portion with check
Payable to the address below

7450001785 PRESORT 1394 1 AV 0.380 P1C5 <B>

COLUMBIA PROPERTY TRUST
UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1900
Account Number:	92-0411490-5
Premise Number:	92-920030836

Billing Period & Meter Information

Billing Date:	May 10, 2019
Billing Period:	Mar 11 to May 09 (59 days)
Next reading on/about:	Jul 09, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613170 is a 3 inch meter
Current - Actual	30347
Previous - Actual	30065
Consumption - 100 CCF	282

Water Usage Comparison

Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2301.47
Payments since Apr 15, 2019.	$-2301.47
Adjustments since Mar 11, 2019.	$34.52
Total prior balance, May 10, 2019	$34.52
Water Service	
Meter: 1613170	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 282)	1737.12
Total Water Service charges, May 09, 2019	**$2451.82**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, May 09, 2019	**$72.20**
Capital Improvement	
Meter: 1613170	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 282)	121.26
Total Capital Improvement charges, May 09, 2019	**$254.98**
Taxes	
City Users Utility tax	122.59
Total Taxes, May 10, 2019	**122.59**
--------TOTAL AMOUNT DUE --------	$2,936.11

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

0009204114905000000000340515016

Address Service Requested

ACCOUNT NUMBER	92-0411490-5
AMOUNT DUE	$3,405.15
DUE DATE	Aug 09, 2019
AMOUNT PAID	

For Service To: University Av, 1900

Please return this portion with check Payable to the address below

3298000467 PRESORT PBPS001 <B>

COLUMBIA PROPERTY TRUST
UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

For Service To:	University Av, 1900
Account Number:	92-0411490-5
Premise Number:	92-920030836

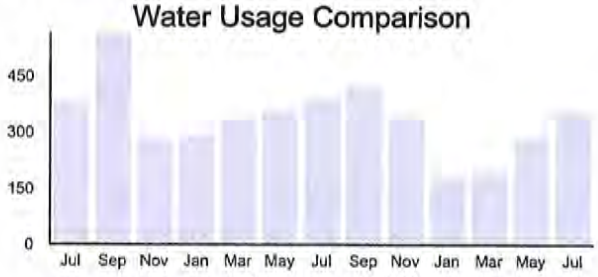
Billing Period & Meter Information

Billing Date:	Jul 19, 2019
Billing Period:	May 09 to Jul 10 (62 days)
Next reading on/about:	Sep 10, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613170 is a 3 inch meter
Current - Actual	30702
Previous - Actual	30347
Consumption - 100 CCF	355

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2936.11
Payments since May 29, 2019.	$-2936.11
Total prior balance, Jul 12, 2019	**$0.00**
Water Service	
Meter: 1613170	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 355)	2186.80
Total Water Service charges, Jul 10, 2019	**$2901.50**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Jul 11, 2019	**$72.20**
Capital Improvement	
Meter: 1613170	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 355)	152.65
Total Capital Improvement charges, Jul 10, 2019	**$286.37**
Taxes	
City Users Utility tax	145.08
Total Taxes, Jul 19, 2019	**145.08**
---------TOTAL AMOUNT DUE ---------	$3,405.15

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149050000000000400807014

ACCOUNT NUMBER	92-0411490-5
AMOUNT DUE	$4,008.07
DUE DATE	Oct 11, 2019
AMOUNT PAID	

For Service To: University Av, 1900

Please return this portion with check Payable to the address below

8256000416 PRESORT PBPS001 <B>

COLUMBIA PROPERTY TRUST
UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1900
Account Number:	92-0411490-5
Premise Number:	92-920030836

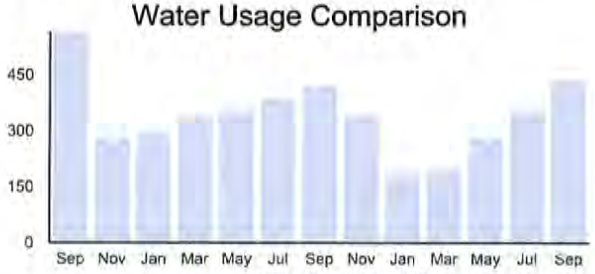
Billing Period & Meter Information

Billing Date:	Sep 20, 2019
Billing Period:	Jul 10 to Sep 16 (68 days)
Next reading on/about:	Nov 12, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613170 is a 3 inch meter
Current - Actual	31137
Previous - Actual	30702
Consumption - 100 CCF	435

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$3405.15
Payments since Aug 13, 2019.	$-3405.15
Adjustments since Jul 10, 2019.	$51.08
Total prior balance, Sep 13, 2019	**$51.08**
Water Service	
Meter: 1613170	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 435)	2679.60
Total Water Service charges, Sep 16, 2019	**$3394.30**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Sep 16, 2019	**$72.20**
Capital Improvement	
Meter: 1613170	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 435)	187.05
Total Capital Improvement charges, Sep 16, 2019	**$320.77**
Taxes	
City Users Utility tax	169.72
Total Taxes, Sep 20, 2019	**169.72**
---------TOTAL AMOUNT DUE ---------	**$4,008.07**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149050000000000516423011

ACCOUNT NUMBER	92-0411490-5
AMOUNT DUE	$5,164.23
DUE DATE	Dec 06, 2019
AMOUNT PAID	

For Service To: University Av, 1900

Please return this portion with check Payable to the address below

2868000857 PRESORT 561 1 AV 0.380 P1C2 <B>

COLUMBIA PROPERTY TRUST
UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1900
Account Number:	92-0411490-5
Premise Number:	92-920030836

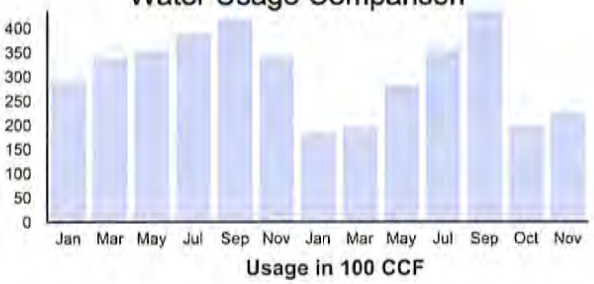
Billing Period & Meter Information

Billing Date:	Nov 15, 2019
Billing Period:	Sep 16 to Nov 12 (57 days)
Next reading on/about:	Jan 13, 2020
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613170 is a 3 inch meter
Current - Actual	31333
Previous - Actual	31137
Consumption - 100 CCF	196
Meter Number:	70378219 is a 4 inch meter
Current - Actual	228
Previous	0
Consumption - 100 CCF	228

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$4008.07
Payments since Oct 16, 2019.	$-4008.07
Adjustments since Sep 16, 2019.	$59.35
Total prior balance, Nov 14, 2019	**$59.35**
Water Service	
Meter: 1613170	
Meter base fee for Water Service ($1,267.160 x 1)	1267.16
Consumption for Water Service ($7.400 x 424)	3137.60
Total Water Service charges, Oct 07, 2019	**$4404.76**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($74.680 x 1)	74.68
Total Meter Replacement charges, Nov 13, 2019	**$74.68**
Capital Improvement	
Meter: 1613170	
Meter base fee for Capital Improvement ($222.880 x 1)	222.88
Consumption for Capital Improvement ($0.430 x 424)	182.32
Total Capital Improvement charges, Oct 07, 2019	**$405.20**
Taxes	
City Users Utility tax	220.24
Total Taxes, Nov 15, 2019	**220.24**
---------TOTAL AMOUNT DUE ---------	**$5,164.23**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

00092041149050000000003022080 14

Address Service Requested

ACCOUNT NUMBER	**92-0411490-5**
AMOUNT DUE	**$3,022.08**
DUE DATE	**Feb 07, 2020**
AMOUNT PAID	

For Service To: University Av, 1900

COLUMBIA PROPERTY TRUST
UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

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American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

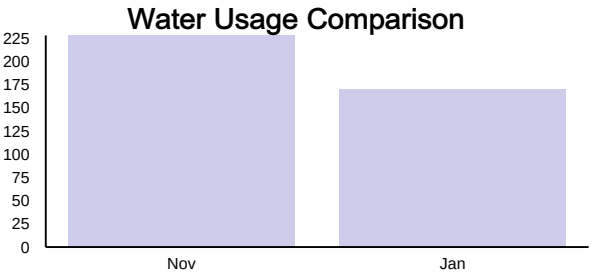
For Service To:	University Av, 1900
Account Number:	92-0411490-5
Premise Number:	92-920030836

Billing Period & Meter Information

Billing Date:	Jan 17, 2020
Billing Period:	Nov 12 to Jan 10 (59 days)
Next reading on/about:	Mar 14, 2020
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70378219 is a 4 inch meter
Current - Actual	398
Previous - Actual	228
Consumption - 100 CCF	170



Billing Summary

Prior Balance	
Balance from last bill	$5164.23
Payments since Dec 06, 2019.	$-5164.23
Total prior balance, Jan 14, 2020	**$0.00**
Water Service	
Meter: 70378219	
Meter base fee for Water Service ($1,267.160 x 1)	1267.16
Consumption for Water Service ($7.400 x 170)	1258.00
Total Water Service charges, Jan 10, 2020	**$2525.16**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($74.680 x 1)	74.68
Total Meter Replacement charges, Jan 13, 2020	**$74.68**
Capital Improvement	
Meter: 70378219	
Meter base fee for Capital Improvement ($222.880 x 1)	222.88
Consumption for Capital Improvement ($0.430 x 170)	73.10
Total Capital Improvement charges, Jan 10, 2020	**$295.98**
Taxes	
City Users Utility tax	126.26
Total Taxes, Jan 17, 2020	**126.26**
---------TOTAL AMOUNT DUE ---------	**$3,022.08**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149210000000000239631012

ACCOUNT NUMBER	92-0411492-1
AMOUNT DUE	$2,396.31
DUE DATE	Apr 05, 2019
AMOUNT PAID	

For Service To: University Av, 1950 LS

Please return this portion with check Payable to the address below

3956000982 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST
PO BOX 7754
MERRIFIELD VA 22116-7754

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1950 LS
Account Number:	92-0411492-1
Premise Number:	92-920031666

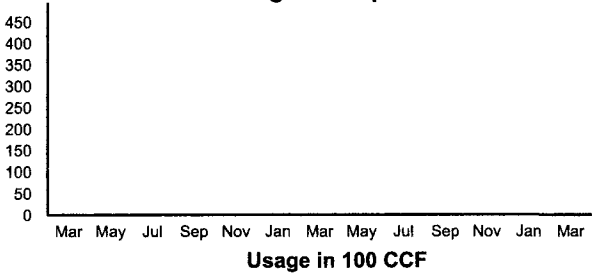
Billing Period & Meter Information

Billing Date:	Mar 15, 2019
Billing Period:	Jan 11 to Mar 11 (59 days)
Next reading on/about:	May 12, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70100858 is a 3 inch meter
Current - Actual	23960
Previous - Actual	23756
Consumption - 100 CCF	204

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2184.20
Payments since Feb 12, 2019.	$-2184.20
Adjustments since Jan 11, 2019.	$32.76
Total prior balance, Mar 13, 2019	$32.76
Water Service	
Meter: 70100858	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 204)	1256.64
Total Water Service charges, Mar 11, 2019	**$1971.34**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Mar 12, 2019	**$72.20**
Capital Improvement	
Meter: 70100858	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 204)	87.72
Total Capital Improvement charges, Mar 11, 2019	**$221.44**
Taxes	
City Users Utility tax	98.57
Total Taxes, Mar 15, 2019	**98.57**
---------TOTAL AMOUNT DUE ---------	**$2,396.31**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149210000000000304051013

ACCOUNT NUMBER	92-0411492-1
AMOUNT DUE	$3,040.51
DUE DATE	May 31, 2019
AMOUNT PAID	

For Service To: University Av, 1950 LS

Please return this portion with check
Payable to the address below

7450001790 PRESORT 1399 1 AV 0.380 P1C5 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1950 LS
Account Number:	92-0411492-1
Premise Number:	92-920031666

Billing Period & Meter Information

Billing Date:	May 10, 2019
Billing Period:	Mar 11 to May 09 (59 days)
Next reading on/about:	Jul 09, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70100858 is a 3 inch meter
Current - Actual	24257
Previous - Actual	23960
Consumption - 100 CCF	297

Water Usage Comparison

Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2396.31
Payments since Apr 15, 2019.	$-2396.31
Adjustments since Mar 11, 2019.	$35.45
Total prior balance, May 10, 2019	$35.45
Water Service	
Meter: 70100858	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 297)	1829.52
Total Water Service charges, May 09, 2019	**$2544.22**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, May 09, 2019	**$72.20**
Capital Improvement	
Meter: 70100858	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 297)	127.71
Total Capital Improvement charges, May 09, 2019	**$261.43**
Taxes	
City Users Utility tax	127.21
Total Taxes, May 10, 2019	**127.21**
--------TOTAL AMOUNT DUE --------	$3,040.51

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

0009204114921000000000339135013

ACCOUNT NUMBER	92-0411492-1
AMOUNT DUE	$3,391.35
DUE DATE	Aug 09, 2019
AMOUNT PAID	

For Service To: University Av, 1950 LS

Please return this portion with check
Payable to the address below

3298000474 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

For Service To:	University Av, 1950 LS
Account Number:	92-0411492-1
Premise Number:	92-920031666

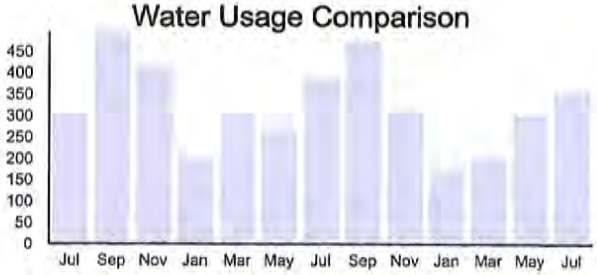
Billing Period & Meter Information

Billing Date:	Jul 19, 2019
Billing Period:	May 09 to Jul 10 (62 days)
Next reading on/about:	Sep 10, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70100858 is a 3 inch meter
Current - Actual	24610
Previous - Actual	24257
Consumption - 100 CCF	353

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$3040.51
Payments since May 29, 2019.	$-3040.51
Total prior balance, Jul 12, 2019	**$0.00**
Water Service	
Meter: 70100858	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 353)	2174.48
Total Water Service charges, Jul 10, 2019	**$2889.18**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Jul 11, 2019	**$72.20**
Capital Improvement	
Meter: 70100858	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 353)	151.79
Total Capital Improvement charges, Jul 10, 2019	**$285.51**
Taxes	
City Users Utility tax	144.46
Total Taxes, Jul 19, 2019	**144.46**
--------TOTAL AMOUNT DUE --------	$3,391.35

You can now pay your bill several convenient ways!
PAY BY PHONE: Call 855-748-6066 and pay by credit or debit card
PAY ONLINE: Go to **epa.aweonline.net** and sign up to see your account and pay your bill
PAY IN-PERSON: Go to the local address on your bill 9AM-4PM Monday-Friday and pay in person
IMPORTANT WATER QUALITY MESSAGE: We encourage you to read your annual Water Quality Report that can be viewed electronically at www.ci.east-palo-alto.ca.us/DocumentCenter/View/3658 . If you prefer a paper copy to be sent to you, please contact our office at 650-325-6195.

American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

0009204114921000000000041803101 8

Address Service Requested

ACCOUNT NUMBER	92-0411492-1
AMOUNT DUE	$4,180.31
DUE DATE	Oct 11, 2019
AMOUNT PAID	

For Service To: University Av, 1950 LS

Please return this portion with check Payable to the address below

82560003 56 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1950 LS
Account Number:	92-0411492-1
Premise Number:	92-920031666

Billing Period & Meter Information

Billing Date:	Sep 20, 2019
Billing Period:	Jul 10 to Sep 11 (63 days)
Next reading on/about:	Nov 12, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70100858 is a 3 inch meter
Current - Actual	25070
Previous - Actual	24610
Consumption - 100 CCF	460

Water Usage Comparison

Billing Summary

Prior Balance	
Balance from last bill	$3391.35
Payments since Aug 13, 2019.	$-3391.35
Adjustments since Jul 10, 2019.	$50.87
Total prior balance, Sep 13, 2019	**$50.87**
Water Service	
Meter: 70100858	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 460)	2833.60
Total Water Service charges, Sep 11, 2019	**$3548.30**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Sep 12, 2019	**$72.20**
Capital Improvement	
Meter: 70100858	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 460)	197.80
Total Capital Improvement charges, Sep 11, 2019	**$331.52**
Taxes	
City Users Utility tax	177.42
Total Taxes, Sep 20, 2019	**177.42**
--------TOTAL AMOUNT DUE --------	**$4,180.31**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

0009204114921000000000409197018

ACCOUNT NUMBER	92-0411492-1
AMOUNT DUE	$4,091.97
DUE DATE	Dec 06, 2019
AMOUNT PAID	

For Service To: University Av, 1950 LS

Please return this portion with check Payable to the address below

2868000864 PRESORT 568 1 AV 0.380 P1C2 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 1950 LS
Account Number:	92-0411492-1
Premise Number:	92-920031666

Billing Period & Meter Information

Billing Date:	Nov 15, 2019
Billing Period:	Sep 11 to Nov 13 (63 days)
Next reading on/about:	Jan 13, 2020
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70100858 is a 3 inch meter
Current - Actual	25439
Previous - Actual	25070
Consumption - 100 CCF	369

Water Usage Comparison

Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$4180.31
Payments since Oct 16, 2019.	$-4180.31
Adjustments since Sep 11, 2019.	$61.94
Total prior balance, Nov 14, 2019	**$61.94**
Water Service	
Meter: 70100858	
Meter base fee for Water Service ($760.300 x 1)	760.30
Consumption for Water Service ($7.400 x 369)	2730.60
Total Water Service charges, Nov 13, 2019	**$3490.90**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Nov 13, 2019	**$72.20**
Capital Improvement	
Meter: 70100858	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 369)	158.67
Total Capital Improvement charges, Nov 13, 2019	**$292.39**
Taxes	
City Users Utility tax	174.54
Total Taxes, Nov 15, 2019	**174.54**
---------TOTAL AMOUNT DUE ---------	**$4,091.97**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

00092041149210000000000262784019

ACCOUNT NUMBER	**92-0411492-1**
AMOUNT DUE	**$2,627.84**
DUE DATE	**Feb 07, 2020**
AMOUNT PAID	

Address Service Requested

For Service To: University Av, 1950 LS

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

Please return this portion with check Payable to the address below

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

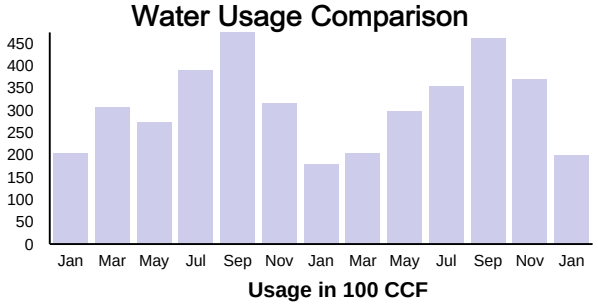
For Service To:	University Av, 1950 LS
Account Number:	92-0411492-1
Premise Number:	92-920031666

Billing Period & Meter Information

Billing Date:	Jan 17, 2020
Billing Period:	Nov 13 to Jan 13 (61 days)
Next reading on/about:	Mar 14, 2020
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	70100858 is a 3 inch meter
Current - Actual	25637
Previous - Actual	25439
Consumption - 100 CCF	198



Billing Summary

Prior Balance	
Balance from last bill	$4091.97
Payments since Dec 06, 2019.	$-4091.97
Total prior balance, Jan 14, 2020	**$0.00**
Water Service	
Meter: 70100858	
Meter base fee for Water Service ($760.300 x 1)	760.30
Consumption for Water Service ($7.400 x 198)	1465.20
Total Water Service charges, Jan 13, 2020	**$2225.50**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Jan 13, 2020	**$72.20**
Capital Improvement	
Meter: 70100858	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 198)	85.14
Total Capital Improvement charges, Jan 13, 2020	**$218.86**
Taxes	
City Users Utility tax	111.28
Total Taxes, Jan 17, 2020	**111.28**
---------TOTAL AMOUNT DUE ---------	**$2,627.84**

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149390000000002543450 11

ACCOUNT NUMBER	**92-0411493-9**
AMOUNT DUE	**$2,543.45**
DUE DATE	**Apr 05, 2019**
AMOUNT PAID	

For Service To: University Av, 2000

Please return this portion with check Payable to the address below

3956000984 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST
PO BOX 7754
MERRIFIELD VA 22116-7754

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 2000
Account Number:	92-0411493-9
Premise Number:	92-920030838

Billing Period & Meter Information

Billing Date:	Mar 15, 2019
Billing Period:	Jan 10 to Mar 11 (60 days)
Next reading on/about:	May 12, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613660 is a 3 inch meter
Current - Actual	25686
Previous - Actual	25461
Consumption - 100 CCF	225

Water Usage Comparison

Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2340.96
Payments since Feb 12, 2019.	$-2340.96
Adjustments since Jan 10, 2019.	$35.04
Total prior balance, Mar 13, 2019	$35.04
Water Service	
Meter: 1613660	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 225)	1386.00
Total Water Service charges, Mar 11, 2019	**$2100.70**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Mar 12, 2019	**$72.20**
Capital Improvement	
Meter: 1613660	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 225)	96.75
Total Capital Improvement charges, Mar 11, 2019	**$230.47**
Taxes	
City Users Utility tax	105.04
Total Taxes, Mar 15, 2019	**105.04**
---------TOTAL AMOUNT DUE ---------	$2,543.45

You can now pay your bill several convenient ways!
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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149390000000000301510013

ACCOUNT NUMBER	92-0411493-9
AMOUNT DUE	$3,015.10
DUE DATE	May 31, 2019
AMOUNT PAID	

For Service To: University Av, 2000

Please return this portion with check
Payable to the address below

7450001796 PRESORT 1405 1 AV 0.380 P1C5 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 2000
Account Number:	92-0411493-9
Premise Number:	92-920030838

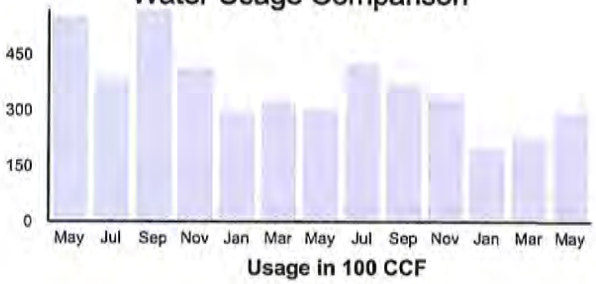
Billing Period & Meter Information

Billing Date:	May 10, 2019
Billing Period:	Mar 11 to May 09 (59 days)
Next reading on/about:	Jul 09, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613660 is a 3 inch meter
Current - Actual	25979
Previous - Actual	25686
Consumption - 100 CCF	293

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2543.45
Payments since Apr 15, 2019.	$-2543.45
Adjustments since Mar 11, 2019.	$37.63
Total prior balance, May 10, 2019	**$37.63**
Water Service	
Meter: 1613660	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 293)	1804.88
Total Water Service charges, May 09, 2019	**$2519.58**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, May 09, 2019	**$72.20**
Capital Improvement	
Meter: 1613660	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 293)	125.99
Total Capital Improvement charges, May 09, 2019	**$259.71**
Taxes	
City Users Utility tax	125.98
Total Taxes, May 10, 2019	**125.98**
--------TOTAL AMOUNT DUE --------	$3,015.10

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IMPORTANT BILLING INFORMATION

Late Charge

A late charge of 1-1/2% per month with a $5.00 minimum will be assessed on accounts when payment is not received by the due date.

Water Service

Water service includes a fixed service charge according to meter size and a water use charge based on consumption measured by the meter.

Account Set-up Fee

An Account Set-up Fee of $75.00 will be collected from persons who wish to open an account in order to receive water service from the District. The Account Set-up Fee must be paid prior to the furnishing of water by the District.

Discontinuation Of Service

If water service is discontinued for non-payment, unauthorized use, or meter tampering, the District must receive full payment for all past due charges and a restoration charge prior to restoring water service.

Returned Check

Service shall be discontinued if payment in cash or money order is not received by the District by the date indicated in the Notice of Returned Check sent to the customer. A Return Check Charge of $30.00 will also be assessed to the customer's account.

Access to Meters

Meters shall be readily accessible to the District personnel. In the event that the water meter is inaccessible, the quantity of water usage shall be estimated for billing purposes. The District shall discontinue water service to customers who, after written notice, fail to provide the District with ready access to the water meter.

Closing Account

Please provide the District with a forwarding address at the time of closing the account. Your final bill with outstanding balance will be sent to your forwarding address.

American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

0009204114939000000000305335011

ACCOUNT NUMBER	92-0411493-9
AMOUNT DUE	$3,053.35
DUE DATE	Aug 09, 2019
AMOUNT PAID	

For Service To: University Av, 2000

Please return this portion with check
Payable to the address below

3298000478 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

For Service To:	University Av, 2000
Account Number:	92-0411493-9
Premise Number:	92-920030838

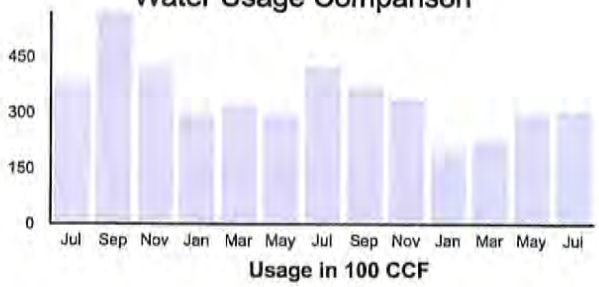
Billing Period & Meter Information

Billing Date:	Jul 19, 2019
Billing Period:	May 09 to Jul 10 (62 days)
Next reading on/about:	Sep 10, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613660 is a 3 inch meter
Current - Actual	26283
Previous - Actual	25979
Consumption - 100 CCF	304

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$3015.10
Payments since May 29, 2019.	$-3015.10
Total prior balance, Jul 12, 2019	**$0.00**
Water Service	
Meter: 1613660	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 304)	1872.64
Total Water Service charges, Jul 10, 2019	**$2587.34**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Jul 11, 2019	**$72.20**
Capital Improvement	
Meter: 1613660	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 304)	130.72
Total Capital Improvement charges, Jul 10, 2019	**$264.44**
Taxes	
City Users Utility tax	129.37
Total Taxes, Jul 19, 2019	**129.37**
---------TOTAL AMOUNT DUE ---------	$3,053.35

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IMPORTANT BILLING INFORMATION

Late Charge

A late charge of 1-1/2% per month with a $5.00 minimum will be assessed on accounts when payment is not received by the due date.

Water Service

Water service includes a fixed service charge according to meter size and a water use charge based on consumption measured by the meter.

Account Set-up Fee

An Account Set-up Fee of $75.00 will be collected from persons who wish to open an account in order to receive water service from the District. The Account Set-up Fee must be paid prior to the furnishing of water by the District.

Discontinuation Of Service

If water service is discontinued for non-payment, unauthorized use, or meter tampering, the District must receive full payment for all past due charges and a restoration charge prior to restoring water service.

Returned Check

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Access to Meters

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Closing Account

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American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

00092041149390000000003430250l2

ACCOUNT NUMBER	92-0411493-9
AMOUNT DUE	$3,430.25
DUE DATE	Oct 11, 2019
AMOUNT PAID	

For Service To: University Av, 2000

Please return this portion with check Payable to the address below

825L000358 PRESORT PBPS001 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 2000
Account Number:	92-0411493-9
Premise Number:	92-920030838

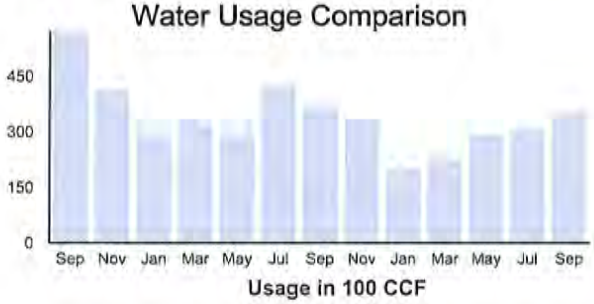
Billing Period & Meter Information

Billing Date:	Sep 20, 2019
Billing Period:	Jul 10 to Sep 11 (63 days)
Next reading on/about:	Nov 12, 2019
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613660 is a 3 inch meter
Current - Actual	26635
Previous - Actual	26283
Consumption - 100 CCF	352

Water Usage Comparison



Billing Summary

Prior Balance	
Balance from last bill	$3053.35
Payments since Aug 13, 2019.	$-3053.35
Adjustments since Jul 10, 2019.	$45.80
Total prior balance, Sep 13, 2019	**$45.80**
Water Service	
Meter: 1613660	
Meter base fee for Water Service ($714.700 x 1)	714.70
Consumption for Water Service ($6.160 x 352)	2168.32
Total Water Service charges, Sep 11, 2019	**$2883.02**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Sep 12, 2019	**$72.20**
Capital Improvement	
Meter: 1613660	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 352)	151.36
Total Capital Improvement charges, Sep 11, 2019	**$285.08**
Taxes	
City Users Utility tax	144.15
Total Taxes, Sep 20, 2019	**144.15**
--------**TOTAL AMOUNT DUE** --------	**$3,430.25**

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0009204114939000000000287541016

American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

Address Service Requested

ACCOUNT NUMBER	92-0411493-9
AMOUNT DUE	$2,875.41
DUE DATE	Dec 06, 2019
AMOUNT PAID	

For Service To: University Av, 2000

Please return this portion with check Payable to the address below

2868000869 PRESORT 573 1 AV 0.380 P1C2 <B>

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCL
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Any outstanding prior balance not paid immediately may result in additional fees, security deposits, and suspension of service

Customer Account Information

For Service To:	University Av, 2000
Account Number:	92-0411493-9
Premise Number:	92-920030838

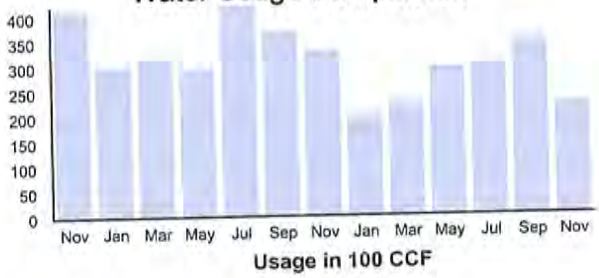
Billing Period & Meter Information

Billing Date:	Nov 15, 2019
Billing Period:	Sep 11 to Nov 12 (62 days)
Next reading on/about:	Jan 13, 2020
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613660 is a 3 inch meter
Current - Actual	26857
Previous - Actual	26635
Consumption - 100 CCF	222

Water Usage Comparison



Billing Summary

Prior Balance	
Balance from last bill	$3430.25
Payments since Oct 16, 2019.	$-3430.25
Adjustments since Sep 11, 2019.	$50.77
Total prior balance, Nov 14, 2019	**$50.77**
Water Service	
Meter: 1613660	
Meter base fee for Water Service ($760.300 x 1)	760.30
Consumption for Water Service ($7.400 x 222)	1642.80
Total Water Service charges, Nov 12, 2019	**$2403.10**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Nov 13, 2019	**$72.20**
Capital Improvement	
Meter: 1613660	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 222)	95.46
Total Capital Improvement charges, Nov 12, 2019	**$229.18**
Taxes	
City Users Utility tax	120.16
Total Taxes, Nov 15, 2019	**120.16**
---------TOTAL AMOUNT DUE ---------	**$2,875.41**

You can now pay your bill several convenient ways!
PAY BY PHONE: Call 855-748-6066 and pay by credit or debit card
PAY ONLINE: Go to **epa.aweonline.net** and sign up to see your account and pay your bill
PAY IN-PERSON: Go to the local address on your bill 9AM-4PM Monday-Friday and pay in person
IMPORTANT WATER QUALITY MESSAGE: We encourage you to read your annual Water Quality Report that can be viewed electronically at http://www.cityofepa.org/index.aspx?NID=512.. If you prefer a paper copy to be sent to you, please contact our office at 650-325-6195.

IMPORTANT BILLING INFORMATION

Late Charge

A late charge of 1-1/2% per month with a $5.00 minimum will be assessed on accounts when payment is not received by the due date.

Water Service

Water service includes a fixed service charge according to meter size and a water use charge based on consumption measured by the meter.

Account Set-up Fee

An Account Set-up Fee of $75.00 will be collected from persons who wish to open an account in order to receive water service from the District. The Account Set-up Fee must be paid prior to the furnishing of water by the District.

Discontinuation Of Service

If water service is discontinued for non-payment, unauthorized use, or meter tampering, the District must receive full payment for all past due charges and a restoration charge prior to restoring water service.

Returned Check

Service shall be discontinued if payment in cash or money order is not received by the District by the date indicated in the Notice of Returned Check sent to the customer. A Return Check Charge of $30.00 will also be assessed to the customer's account.

Access to Meters

Meters shall be readily accessible to the District personnel. In the event that the water meter is inaccessible, the quantity of water usage shall be estimated for billing purposes. The District shall discontinue water service to customers who, after written notice, fail to provide the District with ready access to the water meter.

Closing Account

Please provide the District with a forwarding address at the time of closing the account. Your final bill with outstanding balance will be sent to your forwarding address.

American Water
2415 University Ave, 2nd Floor
East Palo Alto, CA. 94303-1148

00092041149390000000001840640l3

ACCOUNT NUMBER	**92-0411493-9**
AMOUNT DUE	**$1,840.64**
DUE DATE	**Feb 07, 2020**
AMOUNT PAID	

Address Service Requested

For Service To: University Av, 2000

WELLS REIT II - UNIV CIRCLE LP
COLUMBIA PROPERTY TRUST UNIVERSITY CIRCLE
1900 UNIVERSITY AVE. STE 106
EAST PALO ALTO CA 94303-2213

Please return this portion with check Payable to the address below

American Water
DEPT LA 21449
Pasadena, CA. 91185-1449

Customer Account Information

For Service To:	University Av, 2000
Account Number:	92-0411493-9
Premise Number:	92-920030838

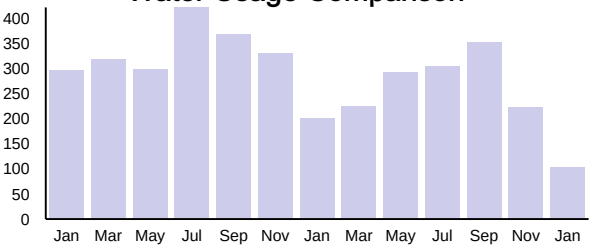
Billing Period & Meter Information

Billing Date:	Jan 17, 2020
Billing Period:	Nov 12 to Jan 15 (64 days)
Next reading on/about:	Mar 16, 2020
Rate Type:	EPA Business

Meter readings in current billing period

Meter Number:	1613660 is a 3 inch meter
Current - Actual	26959
Previous - Actual	26857
Consumption - 100 CCF	102

Water Usage Comparison



Usage in 100 CCF

Billing Summary

Prior Balance	
Balance from last bill	$2875.41
Payments since Dec 06, 2019.	$-2875.41
Total prior balance, Jan 16, 2020	**$0.00**
Water Service	
Meter: 1613660	
Meter base fee for Water Service ($760.300 x 1)	760.30
Consumption for Water Service ($7.400 x 102)	754.80
Total Water Service charges, Jan 15, 2020	**$1515.10**
Meter Replacement	
FLAT RATE FOR Meter Replacement ($72.200 x 1)	72.20
Total Meter Replacement charges, Jan 15, 2020	**$72.20**
Capital Improvement	
Meter: 1613660	
Meter base fee for Capital Improvement ($133.720 x 1)	133.72
Consumption for Capital Improvement ($0.430 x 102)	43.86
Total Capital Improvement charges, Jan 15, 2020	**$177.58**
Taxes	
City Users Utility tax	75.76
Total Taxes, Jan 17, 2020	**75.76**
---------TOTAL AMOUNT DUE ---------	**$1,840.64**

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