APPENDIX A

NOTICE OF PREPARATION AND NOP RESPONSE LETTERS

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
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(510) 657-2350
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NOTICE OF PREPARATION

DRAFT ENVIRONMENTAL IMPACT REPORT

To: State Clearinghouse
Governor's Office of Planning and Research
Alameda County Clerk
Responsible Agencies
Interested Individuals and Organizations

From: John Chwastyk
Director of Facilities
Fremont Unified School District
4210 Technology Drive
Fremont, CA 94538
jchwastyk@fremont.k12.ca.us

The Fremont Unified School District (District) will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the Thornton Middle School Conversion Project (proposed project). The School District is requesting written comments from responsible agencies regarding the scope and content of the environmental document. The public is also invited to submit written comments regarding the scope of the EIR and issues that should be addressed as the document is prepared.

A Scoping Meeting will be held on Thursday, February 14th at 4:00 p.m. at the Thornton Junior High School Library, located at 4357 Thornton Avenue in the City of Fremont.

Alternately, the District is accepting written responses within the California Environmental Quality Act (CEQA)-mandated 30-day comment period that ends **no later than 5:00 p.m. on March 13, 2019.** Public agencies should indicate a contact person in their response to this Notice of Preparation.

Responses should be directed to: John Chwastyk, Director of Facilities, Fremont Unified School District, 4210 Technology Drive, Fremont, California, 94538; jchwastyk@fremont.k12.ca.us.

Project Location: The proposed project is located within the existing Thornton Junior High School campus (Thornton) located at 4357 Thornton Avenue in the City of Fremont within the County of Alameda. Thornton is a part of the District. The total campus is approximately 18 acres in size and has 43 classrooms. The project site is designated Public Facility in the Fremont General Plan, and is zoned P-F Public Facility. It is surrounded primarily by Residential-Low and Residential Low-Medium land uses, per the City's General Plan.

Project Background Information: The District is currently undertaking modernization projects that consist of new construction, replacement and reconstruction of existing structures and facility modernization on junior high school campuses to accommodate the integration of 6th grade into those schools. These capacity improvements are part of the District's Long Range Facilities Plan funded by the City's Measure E bond program. Middle schools included in the Plan include Thornton, Centerville, Hopkins, Walters and Horner Junior High Schools. Conversion projects at Walters and Homer are currently under construction.

Project Description: The proposed Thornton Junior High School Improvements project that is the subject of the EIR includes two components: 1) construction of new buildings to provide new classrooms and

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facilities to support an expanded student enrollment; and 2) modernization and upgrades to existing facilities. The project is intended to support an increase in the overall capacity of the school's facilities from 1,259 students to 2,176 students. As such, the proposed project would support a 73 percent increase in student capacity.

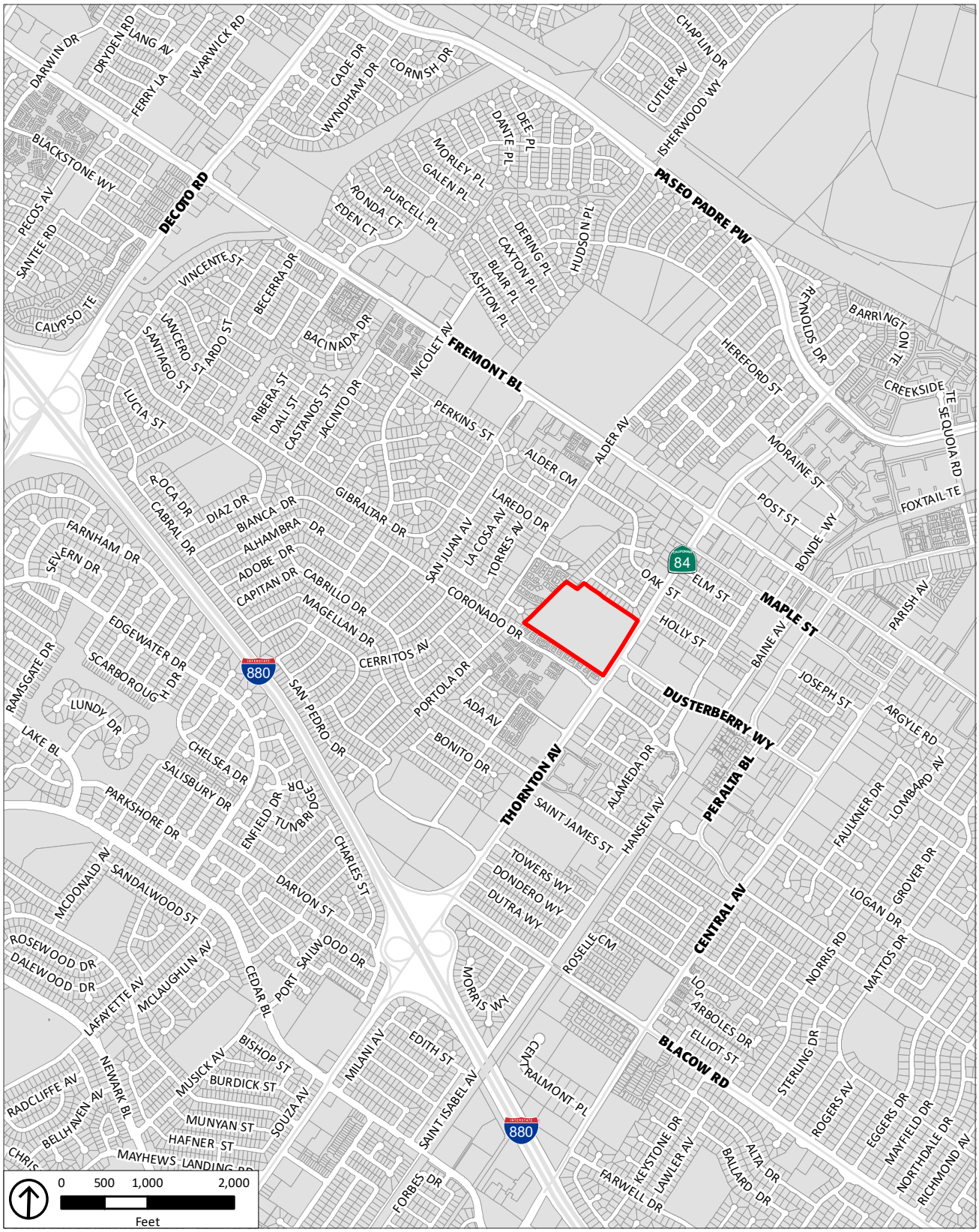
The project proposes the demolition of the existing school entrance building and construction of a new replacement 9,560 square-foot (sf) structure; a series of four new 2-story, classroom structures totaling 35,400 sf and oriented to create courtyard-style outdoor learning spaces; and a 485 sf addition to an existing building for music education.

In addition, the school locker room building would be reconfigured and structurally upgraded; the multi-use room and a classroom building would be reconfigured and receive minor facility modernizations; 5 classroom buildings would receive minor facility modernizations; and the school's 14 existing modular buildings on the far east side of school would receive very minor modernizations. Campus hardtop play areas would be fully redeveloped. New parking areas totaling 102 new stalls and a vehicle turn-around would extend inward on the southwest side of the campus, parallel to Coronado Drive. The configuration of the existing internal vehicular entrance and parking/drop-off area, accessible from Thornton Avenue, would be renovated to improve circulation, parking, safety and ingress/egress. Finally, campus-wide Information Technology upgrades would be implemented for new and existing buildings.

Potential Environmental Effects: It has been determined that an EIR will be necessary to analyze potential environmental impacts associated with the project. Specific analysis will include, but will not be limited to Aesthetics; Air Quality and Greenhouse Gas Emissions; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Noise; Population and Housing; Public Services; Transportation and Circulation; Tribal Cultural Resources; Energy; and Utilities and Service Systems.

Environmental Effects Not Likely to Require Further Analysis: The proposed project is not anticipated to result in significant environmental effects in the following areas: Agricultural Resources; Mineral Resources; Recreation; or Wildfire.

Attachment A: Project Location; Attachment B: Proposed Site Plan

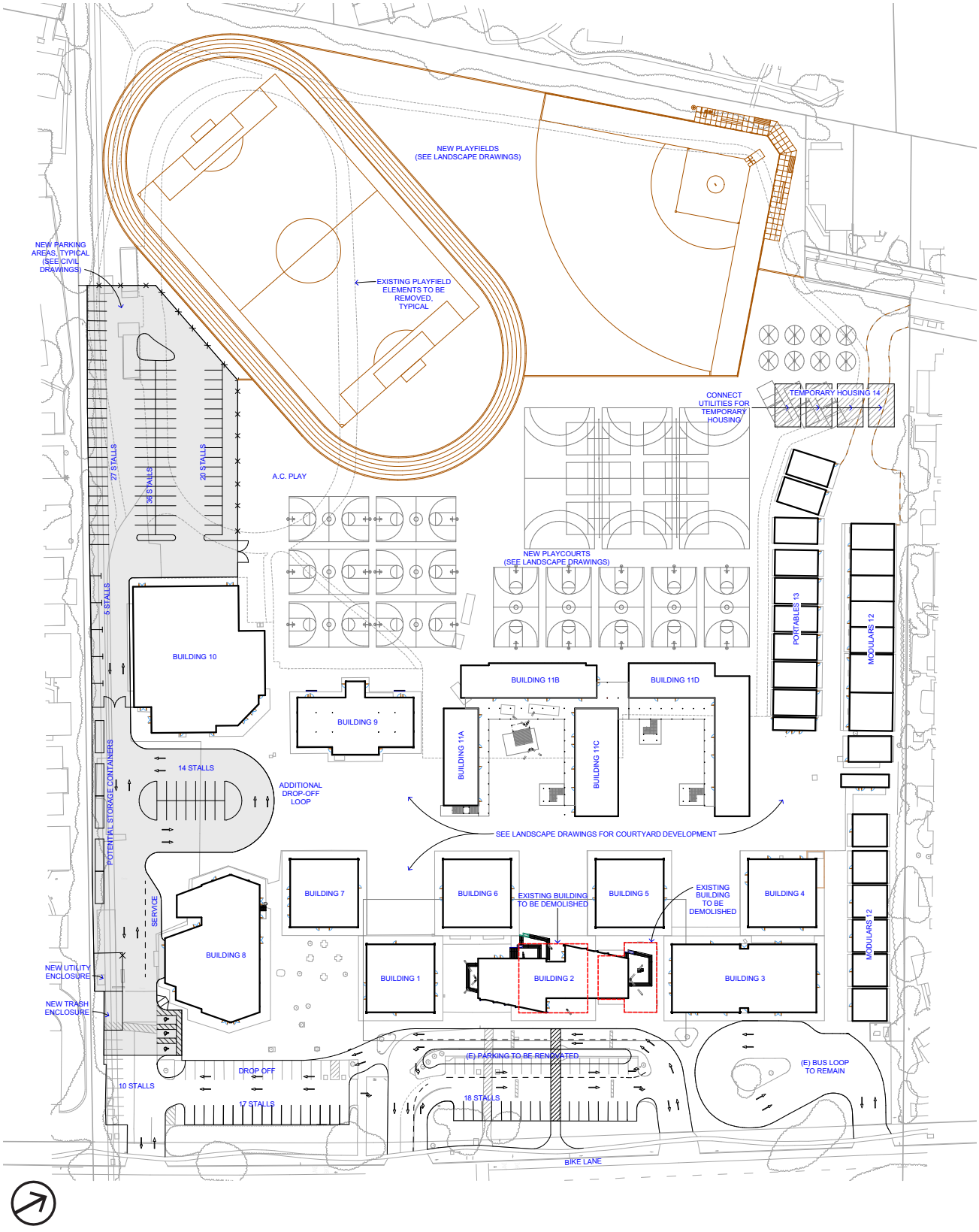


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan

ALAMEDA
County Transportation Commission
1111 Broadway, Suite 800, Oakland, CA 94607 • 510.208.7400 • www.AlamedaCTC.org

March 13, 2019

John Chwastyk
Director of Facilities
Fremont Unified School District
4210 Technology Drive
Fremont, CA 94538

SUBJECT: Response to the Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Thornton Middle School Conversion Project in Fremont

Dear Mr. Chwastyk,

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of the Draft Environmental Impact Report (DEIR) for the Thornton Middle School Conversion Project. The project site is located at 4357 Thornton Avenue in northern Fremont. The site is approximately 18 acres in size, bordered by the residential subdivision south of Oak Street to the Northeast, Thornton Avenue/State Route 84 to the Southeast, Coronado Drive to the Southwest, and the Rancho Coronado Gardens subdivision to the Northwest. The site currently contains the existing Thornton Junior High School campus (Thornton) with 43 classrooms. The proposed project would demolish the existing school entrance building and build a new 9,560 square-foot structure to replace it; a series of four new two-story classroom structures totaling 35,400 square feet oriented to create courtyard-style outdoor learning spaces; and a 485 square foot addition to an existing building. Additionally, the Project will include reconfigurations and structural upgrades to the school locker room; facility modernizations to the existing multi-use room, modular buildings, and various classroom buildings; redevelopment of campus hardtop play areas; creation of new parking areas and a vehicle turnaround; and campus-wide Information Technology upgrades.

The Alameda County Transportation Commission (Alameda CTC) respectfully submits the following comments:

Basis for Congestion Management Program (CMP) Review

- It appears that the proposed project may generate 100 p.m. peak hour trips over existing conditions, and therefore the CMP Land Use Analysis Program requires the City to conduct a transportation impact analysis of the project. For information on the CMP, please visit: https://www.alamedactc.org/planning/congestion-management-program/.

Use of Countywide Travel Demand Model

- The Alameda Countywide Travel Demand Model should be used for CMP Land Use Analysis purposes. The CMP requires local jurisdictions to conduct travel model runs themselves or through a consultant. The City of Fremont and the Alameda CTC signed a Countywide Model Agreement on April 1, 2008. Before the model can be used for this project, a letter must be

submitted to the Alameda CTC requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request. The most current version of the Alameda CTC Countywide Travel Demand Model was updated in June 2018 to be consistent with the assumptions of Plan Bay Area 2040.

Impacts

- The DEIR should address all potential impacts of the project on the Metropolitan Transportation System (MTS) roadway network.
  - MTS roadway facilities in the project area include:
    - State Route 84 (Thornton Ave, Peralta Blvd, Mowry Ave), Interstate 880, Fremont Blvd, Paseo Padre Pkwy, and Central Ave.
  - For the purposes of CMP Land Use Analysis, the Highway Capacity Manual 2010 freeway and urban streets methodologies are the preferred methodologies to study vehicle delay impacts.
  - The Alameda CTC has *not* adopted any policy for determining a threshold of significance for Level of Service for the Land Use Analysis Program of the CMP. Professional judgment should be applied to determine the significance of project impacts (Please see Chapter 6 of the 2017 CMP for more information).

- The DEIR should address potential impacts of the project on Metropolitan Transportation System (MTS) transit operators.
  - MTS transit operators potentially affected by the project include: AC Transit, Amtrak, and the Altamont Corridor Express
  - Transit impacts for consideration include the effects of project vehicle traffic on mixed flow transit operations, transit capacity, transit access/egress, need for future transit service, and consistency with adopted plans. See Appendix J of the 2017 CMP document for more details.

- The DEIR should address potential impacts of the project to cyclists on the Countywide Bicycle Network.
  - Countywide bicycle facilities in the project area include:
    - Planned extension of the Fremont Blvd Bike Lane, Thornton Ave Bike Lane
  - Impacts to consider on conditions for cyclists include effects of vehicle traffic on cyclist safety and performance, site development and roadway improvements, and consistency with adopted plans. See Appendix J of the 2017 CMP document for more details.

- The DEIR should address potential impacts of the project to pedestrians in Pedestrian Plan Areas of Countywide Significance as defined by the Countywide Pedestrian Plan.
  - The Project overlaps with an Area of Countywide Pedestrian Significance:
    - The site is located within a ½ mile of a transit corridor
  - Impacts to consider on conditions for pedestrians include effects of vehicle traffic on pedestrian access and safety, site development and roadway improvements, and consistency with adopted plans. See Appendix J of the 2017 CMP document for more details.

- The DEIR should consider safety issues specific to active freight and passenger rail infrastructure located in the project area, as applicable.

Mitigation Measures

- Alameda CTC's policy regarding mitigation measures is that to be considered adequate they must be:
  - Adequate to sustain CMP roadway and transit service standards;
  - Fully funded; and
  - Consistent with project funding priorities established in the Capital Improvement Program of the CMP, the Countywide Transportation Plan (CTP), and the Regional Transportation Plan (RTP) or the Federal Transportation Improvement Program, if the agency relies on state or federal funds programmed by Alameda CTC.

- The DEIR should discuss the adequacy of proposed mitigation measure according to the criteria above. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and the effect on service standards if only the funded portions of these mitigation measures are built prior to Project completion. The DEIR should also address the issue of transit funding as a mitigation measure in the context of the Alameda CTC mitigation measure criteria discussed above.

- Jurisdictions are encouraged to discuss multimodal tradeoffs associated with mitigation measures that involve changes in roadway geometry, intersection control, or other changes to the transportation network. This analysis should identify impacts to automobiles, transit, bicyclists, and pedestrians. The HCM 2010 MMLOS methodology is encouraged as a tool to evaluate these tradeoffs, but project sponsors may use other methodologies as appropriate for particular contexts or types of mitigations.

- The DEIR should consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. The Alameda CTC CMP Menu of TDM Measures and TDM Checklist may be useful during the review of the development proposal and analysis of TDM mitigation measures (See Appendices F and G of the 2017 CMP).

Thank you for the opportunity to comment on this NOP. Please contact me at (510) 208-7426 or Chris G. Marks, Associate Transportation Planner at (510) 208-7453, if you have any questions.

Sincerely,

Saravana Suthanthira
Principal Transportation Planner

cc: Chris G. Marks, Associate Transportation Planner

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
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Making Conservation a California Way of Life

March 1, 2019

SCH # 2019029016
GTS # 04-ALA-2019-00396
GTS I.D. 14401
ALA – 84 – 7.652

Paul Cristilli
Fremont Unified School District
4210 Technology Drive
Fremont, CA 94538

Thornton Junior High School Improvement Project – Notice of Preparation

Dear Paul Cristilli:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), Caltrans' mission signals a modernization of our approach to evaluate and mitigate impacts to the State Transportation Network (STN). Caltrans' Strategic Management Plan 2015-2020 aims to reduce Vehicle Miles Traveled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the Notice of Preparation (NOP).

Project Understanding

The proposed project would convert a 7th/8th grade junior high school into a middle school with 6th grade. It would include two components: 1) construction of new buildings to provide new classrooms and facilities to support an expanded student enrollment; and 2) modernization and upgrades to existing facilities. The project is intended to support an increase in the overall capacity of the school's facilities from the current capacity of 1,259 students to 2,176 students.

The project proposes the demolition of the existing school entrance building and construction of a new 9,000 square-foot (sf) structure; a series of four new 2-story, modular classroom structures totaling 35,400 square feet and oriented to create courtyard-style outdoor learning spaces; and a 485-sf addition to an existing building for music education.

In addition, the school locker room building would be reconfigured and structurally upgraded; two support buildings would be reconfigured and receive minor facility modernizations; and 5 buildings would receive very minor facility modernizations. Campus hardtop play areas would be fully redeveloped. New parking areas totaling 102 new stalls and a vehicle turn-around would

extend inward on the southwest side of the campus, parallel to Coronado Drive. The existing vehicular entrance and parking/drop-off area would be reconfigured for better circulation, parking, safety and ingress/egress.

Project Access
To minimize the effect of extra traffic volume on Thornton Avenue (SR 84), additional entrance and exit driveways are recommended to be built on the side streets.

Multimodal Planning
To improve connectivity in the proposed project area and encourage active transportation, any reconstruction or changes to the Project's frontage with Thornton Avenue (SR 84) should consider geometry that will accommodate future Class IV bikeways, mentioned in both the City of Fremont's 2018 Bicycle Master Plan, and the Caltrans District 4 Bicycle Plan.

See Caltrans District 4 Bike Plan's Appendix A –
http://www.dot.ca.gov/d4/bikeplan/docs/D4BikePlan_ProjectList.pdf

Vehicle Trip Reduction
We strongly support measures to increase sustainable mode shares, thereby reducing VMT and impacts on the state highway system. The measures listed below should be considered to facilitate efficient transportation access to and from the project location, reduce transportation impacts associated with the project, and promote smart mobility.

- Project design to encourage walking, bicycling and transit access
- On-campus bicycle parking and a shuttle service
- Participation in the 511.org SchoolPool RideMatch service to promote walking, biking and carpooling to school

Additionally, walking and bicycling routes to the campus should be evaluated regarding their safety and directness. The School District should work with the City to plan and fund projects or treatments, such as striping, signage or signals.

These smart growth approaches are consistent with the MTC's Regional Transportation Plan/SCS goals and would meet Caltrans Strategic Management Plan sustainability goals. 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.

Encroachment Permit
Please be advised that any work such as tree removal or traffic control that encroaches onto the State right-of-way requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, the adopted environmental document, and six (6) sets of plans clearly indicating State right-of-way must be submitted to: Office of Permits, California DOT, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related

mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See the website link below for more information.
http://www.dot.ca.gov/hq/traffops/developserv/permits/

Lead Agency

As the lead agency, Fremont Unified School District is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Thank you again for including Caltrans in the environmental review process. Please contact us for coordination on the project. We look forward to working with Fremont Unified School District. Should you have any questions regarding this letter, please contact Michelle Matranga at (510) 286-5544 or michelle.matranga@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

March 13, 2019

Mr. John Chwastyk
Director of Facilities
Fermont Unified School District
4210 Technology Drive
Fremont, California 94538

NOTICE OF PREPARATION FOR AN ENVIRONMENTAL IMPACT REPORT FOR THE THORNTON JUNIOR HIGH SCHOOL IMPROVEMENTS PROJECT, THORNTON AVENUE AND CORONADO DRIVE, FREMONT, ALAMEDA COUNTY (SCH #2019029016)

Dear Mr. Chwastyk:

The Northern California Schools Unit of the Department of Toxic Substances Control (DTSC) has reviewed the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the Thornton Junior High School Improvements project (Project) proposed by the Fremont Unified School District (District). The due date to submit comments is March 13, 2019.

As reported in the NOP, the proposed Project would convert a 7th/8th grade junior high school into a middle school with 6th grade. The project would include two components: 1) construction of new buildings to provide new classrooms and facilities to support an expanded student enrollment; and 2) modernization and upgrades to existing facilities. The project is intended to support an increase in the overall capacity of the school's facilities from the current capacity of 1,259 students to 2,176 students.

Based on a review of the NOP, DTSC would like to provide the following comments:

1. If the District plans to use State funds for the Project, then the District shall comply with the requirements of California Education Code, sections 17210, 17213.1 and 17213.2, unless otherwise specifically exempted under section 17268. If the District is not using State funds for the Project, or is otherwise specifically exempted under section 17268, DTSC recommends the District continue to investigate and clean up the site, if necessary, under the oversight of Alameda County and in concurrence with all applicable DTSC guidance documents.

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A local education agency may also voluntarily request the California Department of Education (CDE) site/plan approval for locally funded site acquisitions and new construction projects. In these cases. CDE will require DTSC review and approval prior to its final approval, except when exempt under section 17268.

2. The presence of existing, older or former structures at the Site may result in potential environmental concerns due to lead from lead-based paint and/or organochlorine pesticides from termiticide applications and polychlorinated biphenyls (PCBs) from electrical transformers, light ballast or window caulking or glazing. DTSC recommends that these environmental concerns be investigated and possibly mitigated, in accordance with DTSC's "*Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, dated June 9, 2006*", and in accordance with the recommendations provided in the United States Environmental Protection Agency's website "*PCBs in Caulk in Older Buildings*" (http://www.epa.gov/pcbsincaulk/index.htm).

3. If the Site is, or was previously, used for agricultural purposes, pesticides (such as DDT, DDE, and toxaphene) and fertilizers (usually containing heavy metals) commonly used as part of agricultural operations are likely to be present. These agricultural chemicals are persistent and bio-accumulative toxic substances. DTSC recommends that these environmental concerns be investigated and possibly mitigated, in accordance with the "*Interim Guidance for Sampling Agricultural Soils (Third Revision)*", dated August 2008. This guidance should be followed to sample agricultural properties where development is anticipated.

4. If fill material exists on the Site, DTSC recommends these areas be investigated and possibly mitigated in accordance with DTSC's "*Information Advisory, Clean Imported Fill*", dated October 2001.

5. The Site appears to be located within 10-miles of a geological unit potentially containing naturally occurring asbestos (NOA). Pursuant to DTSC's "*Interim Guidance – Naturally Occurring Asbestos at School Sites, Revised September 24, 2004*", further action should be considered and conducted to determine whether a naturally occurring hazardous material (i.e., NOA) is present, based on reasonably available information about the properties and the areas in their vicinity, and a soil assessment pursuant to the DTSC's NOA guidance.

6. If a response action is required based on the results of the above investigations, and/or other information, the EIR will require an analysis of the potential public health and environmental impacts associated with any proposed response action, pursuant to requirements of the California Environmental Quality Act (CEQA - Pub.

Resources Code, Division 13, section 21000 et seq.), and its implementing Guidelines (California Code of Regulations, Title 14, section 15000 et seq.), prior to approval or adoption of a CEQA determination for the Project. A discussion of the mitigation and/or removal actions, if necessary, and associated cumulative impacts to the Project properties and the surrounding environment, should be included in the EIR. If sufficient information to discuss the proposed mitigation and/or removal actions, and their associated impacts to the Project properties and the surrounding environment, are not available for inclusion in the EIR, then an Addendum or Supplement to the EIR may be required.

DTSC is also administering the Revolving Loan Fund (RLF) Program which provides revolving loans to investigate and clean up hazardous materials at properties where redevelopment is likely to have a beneficial impact to a community. These loans are available to developers, businesses, schools, and local governments.

For additional information on DTSC's Schools process or RLF Program, please visit DTSC's web site at www.dtsc.ca.gov. If you would like to discuss this matter further, please contact me at (916) 255-3695, or via email at Bud.Duke@dtsc.ca.gov.

Sincerely,

Harold (Bud) Duke, PG
Northern California Schools Unit
Brownfields and Environmental Restoration Program

cc: (via email)

State Clearinghouse (State.clearinghouse@opr.ca.gov)
Office of Planning and Research

Fred Yeager (FYeager@cde.ca.gov)
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Jose Salcedo (Jose.Salcedo@dtsc.ca.gov)
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NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

February 12, 2019

Paul Cristilli
Fremont Unified School District
4210 Technology Drive
Fremont, CA 94538

RE: SCH# 2019029016 Thornton Junior High School Improvements Project, Alameda County

Dear Mr. Cristilli:

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.

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:

Gayle.Totton@nahc.ca.gov.

Sincerely,

Nancy Gonzalez

for

Gayle Totton
Associate Governmental Program Analyst

cc: State Clearinghouse

APPENDIX B

AIR QUALITY, GREENHOUSE GAS AND CONSTRUCTION HEALTH RISK MODELING

Air Quality and Greenhouse Gas Modeling

CalEEMod Inputs (Construction Run)

Name:	Fremont USD Thornton Middle School
Project Location:	4357 Thornton Ave Fremont, CA 94536
County/Air Basin:	Alameda County/SFAAB
Climate Zone:	5
Land Use Setting:	Urban
Operational Year:	2022
Utility Company:	East Bay Community Energy (EBCE)

Total Site Acreage:	18
Disturbed Site Acreage:	12.33

New Components	Building #	"Added" SQFT	Acreage	
New Construction				
Classroom Cluster (2-story Modular)	Building 11	35,396	0.41	
Classroom A		*5,816*		
Classroom B		*8,064*		
Classroom C		*7,992*		
Classroom D		*13,524*		
New Library/Admin (2-Story Modular)	Building 2	9,560	0.11	
New Music Room Addition (Modular)	Building 8	485	0.01	
New Parking Lot		35,000	0.80	
New Hardscaping		140,000	3.21	
New Landscaping		11,700	0.27	
Playfield Relocations		327,571	7.52	Based on Google Earth
			12.33	
Modernization				
Structural upgrade	Building 9	14,344	0.33	
Minor modernization	1, 3, 4, 5, 6, 7, 12	42,399	0.97	
		56,743		

Building Modernizations would not require use of large, off-road equipment. Modeling accounts for worker trips and coatings from building modernizations.
Component Square Footage provided by the Applicant

CalEEMod Land Use Inputs

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
New Buildings	Educational	Junior High School	45.44	1000 sqft	0.53	45,441
New Parking Lot	Parking	Parking Lot	35.00	1000 sqft	0.80	35,000
New Hardscaping	Parking	Other Asphalt	140.00	1000 sqft	3.21	140,000
New Landscaping + Playfields	Parking	Other Non-Asphalt	339.27	1000 sqft	7.79	0
					12.33	

Demolition Haul

Component	Amount to be Demolished (SQFT)*	Amount to be Demolished (Tons)*	Haul Truck Capacity (tons)*	Default Haul Distance (miles)	Total Trip Ends	Duration (days)	Trips Ends/Day
Increment 1 - Asphalt Demolition	50,000	741	20	20	75	36	3
Increment 1- Building Demolition	2,931	135	20	20	14	36	1
TOTAL Increment 1		**876**			**89**	**36**	**3**
Increment 2 - Asphalt Demolition	13,000	193	20	20	20	20	1
Increment 2 - Building Demolition	4,109	189	20	20	19	20	1
TOTAL Increment 2		**382**			**39**	**20**	**2**

**Provided by the Applicant*

Soil Haul *Assumes site is balanced. No soil import/export needed.*

Architectural Coating

BAAQMD Regulation 8 Rule 3

Interior Paint VOC content:	100
Exterior Paint VOC content:	150

Non-Residential Architectural Coating

Percentage of Buildings' Interior Painted:	100%
Percentage of Buildings' Exterior Painted:	100%

Structures	Land Use Square Feet	CalEEMod Paintable Surface Area Multiplier	Total Paintable Surface Area[1]	Paintable Interior Area[1]	Paintable Exterior Area[1]
New Construction + Modifications	102,184	2	204,368	153,276	51,092
		Non-Residential Totals	**204,368**	**153,276**	**51,092**
Parking Lot	175,000	0.06	10,500		10,500
		Striping Totals	**10,500**	**0**	**10,500**

Notes:

[1] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

Construction - Unmitigated Run

BAAQMD BMPs

Replace Ground Cover	PM10:	5	% Reduction
	PM25:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph
Clean Paved Road		9	% PM Reduction

CalEEMod Construction Phase Inputs*

5-Day Work Week/8 hours per day

CalEEMod Default Schedule

Phase Name	Phase Type	CalEEMod Default Days	Percent of Total Construction	Percent of Soil Disturbance
Demolition	Demolition	20	5%	33%
Site Preparation	Site Preparation	10	3%	17%
Grading	Grading	30	8%	50%
Building Construction	Building Construction	300	75%	
Paving	Paving	20	5%	
Architectural Coating	Architectural Coating	20	5%	
	TOTAL DAYS	400	Site Prep Days	60

Phase 1	Phase Type	Start Date	End Date	Adjusted CalEEMod Total Days	Total Days
Increment 1 - Building Cluster Site Improvements					
Increment 1 Demolition	Demolition	2/3/2020	3/23/2020	36	49
Increment 1 Demo Haul	*Demolition*	2/3/2020	3/23/2020	*36*	
Site Preparation	Site Preparation	3/24/2020	4/16/2020	18	24
Grading	Grading	4/17/2020	6/30/2020	53	73
				107	
Increment 2 - New Construction & Building Modernization					
Increment 2 Demolition	Demolition	8/1/2020	8/28/2020	20	27
Increment 2 Demo Haul	*Demolition*	8/1/2020	8/28/2020	*20*	
Site Preparation	Site Preparation	8/29/2020	9/11/2020	10	14
Grading	Grading	9/12/2020	10/23/2020	30	41
Building Construction	Building Construction	8/1/2020	8/10/2022	542	739
Paving	Paving	7/5/2022	8/10/2022	27	37
Architectural Coating	Architectural Coating	7/24/2022	8/30/2022	27	37
				542	

Increment 1 Schedule provided by the District. Duration of Subphases based on percent of soil disturbance duration from CalEEMod Defaults

Increment 2 Schedule provided by the District. Duration of Subphases based on CalEEMod default days (demolition, site preparation, grading) and percent of total days from CalEEMod defaults (Building construction, paving, coating)

Year	Start Date	End Date	Days	Total Days
2020	2/3/2020	6/30/2020	107	148
2020	8/1/2020	12/31/2020	109	152
2021	1/1/2021	12/31/2021	261	364
2022	1/1/2022	8/30/2022	172	241
		Total	**649**	**905**

*Based on overall construction duration for Increment 1 and Increment 2 provided by the Applicant.

CalEEMod Construction Off-Road Equipment Inputs*

Equipment Type	Unit Amount	Hours /Day	HP	LF
Increment 1 Demolition				
Concrete/Industrial Saws	1	8	81	0.73
Excavators	3	8	158	0.38
Rubber Tired Dozers	2	8	247	0.4
Crushing/Processing Eq.***	1	8	85	0.78
Worker Trips	18			
Vendor Trips**	4			
Hauling Trips	0			
Increment 1 Demolition Haul				
Worker Trips	0			
Vendor Trips	0			
Hauling Trips	89			
Increment 1 Site Preparation				
Rubber Tired Dozers	3	8	247	0.4
Tractors/Loaders/Backhoes	4	8	97	0.37
Worker Trips	18			
Vendor Trips**	4			
Hauling Trips	0			
Increment 1 Grading				
Excavators	2	8	158	0.38
Graders	1	8	187	0.41
Rubber Tired Dozers	1	8	247	0.4
Scrapers	2	8	367	0.48
Tractors/Loaders/Backhoes	2	8	97	0.37
Worker Trips	20			
Vendor Trips**	4			
Hauling Trips	0			
Increment 2 Demolition				
Concrete/Industrial Saws	1	8	81	0.73
Excavators	3	8	158	0.38
Rubber Tired Dozers	2	8	247	0.4
Crushing/Processing Eq.***	1	8	85	0.78
Worker Trips	18			
Vendor Trips**	4			
Hauling Trips	0			

CalEEMod Construction Off-Road Equipment Inputs*

Equipment Type	Unit Amount	Hours /Day	HP	LF
Increment 2 - Demolition Haul				
Worker Trips	0			
Vendor Trips	0			
Hauling Trips	39			
Increment 2 - Site Preparation				
Rubber Tired Dozers	3	8	247	0.4
Tractors/Loaders/Backhoes	4	8	97	0.37
Worker Trips	18			
Vendor Trips**	4			
Hauling Trips	0			
Building Construction				
Cranes	1	7	231	0.29
Forklifts	3	8	89	0.2
Generator Sets	1	8	84	0.74
Tractors/Loaders/Backhoes	3	7	97	0.37
Welders	1	8	46	0.45
Worker Trips (incl modernization)	259			
Vendor Trips (incl modernization)	101			
Hauling Trips	0			
Building Modernization				
Worker Trips	24			
Vendor Trips	9			
Hauling Trips	0			
Paving				
Pavers	2	8	130	0.42
Paving Equipment	2	8	132	0.36
Rollers	2	8	80	0.38
Worker Trips	15			
Vendor Trips	0			
Hauling Trips	0			
Painting				
Air Compressors	1	6	78	0.48
Worker Trips (incl modernization)	52			
Vendor Trips	0			
Hauling Trips	0			

*CalEEMod default approved by Applicant.

**Assume 4 vendor trips for water trucks.

*** Asphalt used for aggregate base during grading.

Demo Haul Trip Calculation

*Conversion factors**

0.046	ton/SF
1.264166	tons/cy
20	tons
15.8207	CY
0.791035	CY/ton

Building Demolition Haul Trips (BSF and Haul Truck (CY) given)

Phase	BSF Demo	Tons/SF	Tons	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
1	2,931	0.046	135	20	25	5	11
2	4,109	0.046	189	21	420	0	1
	7,040		324				

*CalEEMod User's Guide Version 2016.3.2, Appendix A

Pavement Volume to Weight Conversion

Component	Total SF of Area[1]	Assumed Thickness (foot)[2]	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf)[3]	AC Mass (lbs)	AC Mass (tons)
Asphalt Phase 1	50,000	0.333	16,667	89	1,481,481	740.74
Asphalt Phase 2	13,000	0.333	4,333	89	385,185	192.59
	63,000					933.33

[1] Based on aerial image of existing project site.

[2] Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System, 1999.

[3] https://www.calrecycle.ca.gov/swfacilities/cdi/Tools/Calculations

CalEEMod Inputs--Operation (Net Increase)

Name:	Fremont USD Thornton Middle School
Project Location:	4357 Thornton Ave Fremont, CA 94536
County/Air Basin:	Alameda County/SFAAB
Climate Zone:	5
Land Use Setting:	Urban
Opening Year:	2022
Utility Company:	East Bay Community Energy (EBCE)

Total Site Acreage:	18	Existing Students	1,259
Disturbed Site Acreage:	12.33	Proposed Students	2,176
		Net Increase	917

Carbon Intensity of Electricity for Proposed Project

CO_2**	CH_4**	N_2O**	CO_2e
lbs/Mwh	lbs/Mwh	lbs/Mwh	lbs/Mwh
356.11	0.041323	0.004851	358.56

**Global Warming Potentials from the Climate Change 2007, IPCC Fourth Assessment Report (AR4).*

*** East Bay Community Energy (EBCE). 2019. Power Mix. https://ebce.org/power-mix/. Accessed March 22, 2019*

Existing

Land Use	Year	SQFT
Existing Permanent Buildings	1963 and 2007 (Building 10 Gym)	56,582
Existing Modular + Portable Buildings	1990-2004	26,880
Total		83,462

Proposed Project

Land Use	Square Feet	Acres	Demolition	Total Buildout	Net
New Buildings	45,441	0.5	2,931	125,972	42,510
New Parking Lot	35,000	0.8	NA	NA	NA
Landscape	11,700	3.2	NA	NA	NA
New Hardscaping	140,000	7.8	NA	NA	NA
Total	232,141	12.33			

CalEEMod Land Use Inputs (Net Increase)

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Net Increase Building SQFT	Educational	Junior High School	42.51	1000 sqft	0.53	42,510
New Parking Lot	Parking	Parking Lot	35.00	1000 sqft	0.80	35,000
New Hardscaping	Parking	Other Asphalt	140.00	1000 sqft	3.21	140000.00
New Landscaping	Parking	Other Non-Asphalt	339.27	1000 sqft	7.79	0.00

Trip Generation

	Weekday Trips	Daily VMT
Existing	2,682	4,410
Proposed	4,635	7,620
Net Change	**1,953**	3,211
Trip Rate (Net)	**45.94**	

	Trip Percentage
Primary	100%
Passby	0%
Diverted	0%

	CalEEMod Default (Miles)	Kittelson (Miles)	CalEEMod Trip Percentage	Kittelson (%) Existing	Kittelson (%) Project
C-C Trip Length	7.3	**7.91**	22.2%	**4.6%**	**4.6%**
C-W Trip Length	9.5	**1.00**	72.8%	**90.7%**	**90.7%**
C-NW Trip Length	7.3	**7.91**	5.0%	**4.7%**	**4.7%**

**Based on the trips and VMT provided by the Traffic Impact Analysis provided by Kittelson. The average trip length is based on an approximately one-mile attendance boundary for the school.*

Solid Waste

	Students*	Rate (ton/student/year)**	Total (tons/yr)
Existing	1,259	0.18	226.62
Proposed	2,176	0.18	391.68
Net	**917**	**0.18**	**165.06**

**Provided in Project Description*
***CalEEMod default rate.*

Water Use

	Students*	Indoor Water Demand Rate (gal/student/year)**	Total Indoor Water Demand (gal/year)
Existing	1,259	2,424	3,051,816
Proposed	2,176	2,424	5,274,624
Net	**917**	**2,424**	**2,222,808**

No Outdoor Water Use increase compared to existing

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

**Provided in Project Description*
***CalEEMod default rate.*

Architectural Coating

See architectural coating calculations for construction

Water Mitigation

Install Low Flow Bathroom Faucet	32	% Reduction in flow
Install Low Flow Kitchen Faucet	18	% Reduction in flow
Install Low Flow Toilet	20	% Reduction in flow
Install Low Flow Shower	20	% Reduction in flow
Use Water Efficiency Irrigation System	6.1	% Reduction in flow

Energy

Modeling is conservative because the carbon intensity of electricity does not account for additional reductions from the 33% RPS and 50% RPS under SB 350.

Buildings constructed after January 1, 2020 are required to meet the 2019 Building and Energy Efficiency Standards. The 2019 Standards are 30% more energy efficient for non-residential buildings and 7% more energy efficient for single family residential buildings than the 2016 Building and Energy Efficiency Standards.

Residential Exceed Title 24	7%	Improvement over 2016
Non-Residential Exceed Title 24	30%	Improvement over 2016

Sources:

[1] California Energy Commission (CEC). 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. Accessed on April 3, 2019. http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

**Residential improvement over 2016 is for single-family homes only.*

**Multi-family of 4 stories and higher are treated as non-residential for the Building and Energy Efficiency Standards.*

Changes to the CalEEMod Defaults - Fleet Mix 2022

Trips 1,953

Default	LDA		LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.0452	0.002184	0.002561	0.005524	0.000326	0.000721	100%
Trips	1,094	77	372	211	31	10	47	88	4	5	11	1	1	1953
Percent	80%			11%	10%									100%
without buses/MH	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0	0	0.005524	0.000326	0	99%
Percent	80%			11%	9%									99%
Adjusted without buses/MH	0.560371	0.039285	0.190378	0.108244	0.016988	0.005515	0.025426	0.047923	0.000000	0.000000	0.005857	0.000346	0.000000	
Percent check	80%			11%	10%									100%
Assumed Mix	97.0%			2.00%	1.00%									100%
adjusted with Assumed	**0.682958**	**0.047879**	**0.232025**	**0.020000**	**0.001766**	**0.000573**	**0.002643**	**0.004982**	**0.000000**	**0.000000**	**0.007138**	**0.000036**	**0.000000**	**100%**
Trips	1,334	94	453	39	3	1	5	10	0	0	14	0	0	1953
Percent check	97%			2%	1%									
Check	*1,894*			*39*	*20*									

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

City of Fremont Carbon Intensity Factor Calculator

The project team calculated a custom electricity emissions factor for East Bay Community Energy (EBCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply EBCE. The team consulted EBCE's Power Mix, which identifies the percent of EBCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with EBCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects EBCE's particular sources of electricity.

Source: East Bay Community Energy (EBCE). 2019. Power Mix. https://ebce.org/power-mix/. Accessed March 22, 2019

$MTCO_2e$			$MTCO_2e/kWh$
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	0.00052518
Large hydro	24.00%	24.00%	0.00000000
Natural gas	0.00%	0.00%	0.00040027
Nuclear	0.00%	0.00%	0.00000000
Oil	0.00%	0.00%	0.00061190
Other/unspecified	38.00%	38.00%	0.00042800
Biomass	0.00%	0.00%	0.00006741
Geothermal	0.00%	0.00%	0.00008747
Small hydro	0.00%	0.00%	0.00000000
Solar	19.00%	19.00%	0.00000000
Wind	19.00%	19.00%	0.00000000
	100.00%	100.00%	

	MTCO2e/kWh
Emission factor	**0.000162640**
Calculation check	0.000162640
	MTCO2e/MWh
	0.1626400000
	lbsCO2e/MWh
	358.556

City of Fremont Carbon Intensity Factor Calculator

The project team calculated a custom electricity emissions factor for East Bay Community Energy (EBCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply EBCE. The team consulted EBCE's Power Mix, which identifies the percent of EBCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with EBCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects EBCE's particular sources of electricity.

Source: East Bay Community Energy (EBCE). 2019. Power Mix. https://ebce.org/power-mix/. Accessed March 22, 2019

$MTCO_2$			$MTCO_2$/kWh
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	0.000525182
Large hydro	24.00%	24.00%	0
Natural gas	0.00%	0.00%	0.000400274
Nuclear	0.00%	0.00%	0
Oil	0.00%	0.00%	0.0006119
Other/unspecified	38.00%	38.00%	0.00042508
Biomass	0.00%	0.00%	6.7393E-05
Geothermal	0.00%	0.00%	8.74747E-05
Small hydro	0.00%	0.00%	0
Solar	19.00%	19.00%	0
Wind	19.00%	19.00%	0
	100.00%	100.00%	

	MTCO2/kWh
Emission factor	**0.0001615320**

MTCO2/MWh
0.161532018645
lbsCO2/MWh
356.113

City of Fremont Carbon Intensity Factor Calculator

The project team calculated a custom electricity emissions factor for East Bay Community Energy (EBCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply EBCE. The team consulted EBCE's Power Mix, which identifies the percent of EBCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with EBCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects EBCE's particular sources of electricity.

Source: East Bay Community Energy (EBCE). 2019. Power Mix. https://ebce.org/power-mix/. Accessed March 22, 2019

$MTCH_4$			$MTCO_4$/kWh
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	5.89676E-12
Large hydro	24.00%	24.00%	0
Natural gas	0.00%	0.00%	7.52558E-12
Nuclear	0.00%	0.00%	0
Oil	0.00%	0.00%	2.00932E-11
Other/unspecified	38.00%	38.00%	0.00000005
Biomass	0.00%	0.00%	2.51224E-10
Geothermal	0.00%	0.00%	0
Small hydro	0.00%	0.00%	0
Solar	19.00%	19.00%	0
Wind	19.00%	19.00%	0
	100.00%	100.00%	

	MTCH4/kWh
Emission factor	**0.000000018744**

MTCH4/MWh
0.0000187440454848
lbsCH4/MWh
0.041323

City of Fremont Carbon Intensity Factor Calculator

The project team calculated a custom electricity emissions factor for East Bay Community Energy (EBCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply EBCE. The team consulted EBCE's Power Mix, which identifies the percent of EBCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with EBCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects EBCE's particular sources of electricity.

Source: East Bay Community Energy (EBCE). 2019. Power Mix. https://ebce.org/power-mix/. Accessed March 22, 2019

MTN_2O			MTN_2O/kWh
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	8.61834E-12
Large hydro	24.00%	24.00%	0
Natural gas	0.00%	0.00%	8.14808E-13
Nuclear	0.00%	0.00%	0
Oil	0.00%	0.00%	3.97229E-12
Other/unspecified	38.00%	38.00%	0.00
Biomass	0.00%	0.00%	3.29476E-11
Geothermal	0.00%	0.00%	0
Small hydro	0.00%	0.00%	0
Solar	19.00%	19.00%	0
Wind	19.00%	19.00%	0
	100.00%	100.00%	

	MTN2O/kWh
Emission factor	**0.000000002**

MTN2O/MWh
0.00000220055879906
lbsN2O/MWh
0.00485135

Emission Factor Calculator

Select GWPs	AR4

CO_2	1
CH_4	25
N_2O	298

Fuel type	MWh generated	lbs CO_2/kWh	lbs CH_4/kWh	lbs N_2O/kWh	lbs CO_2e/kWh	$MTCO_2e$/kWh
Biomass	4,754,601	0.148575	0.000001	0.000000	0.148610	0.000067
Coal	325,958	1.157816	0.000000	0.000000	1.157822	0.000525
Gas	84,035,036	0.882443	0.000000	0.000000	0.882444	0.000400
Geothermal	11,104,158	0.192847	0.000000	0.000000	0.192847	0.000087
Hydro	25,140,892	0.000000	0.000000	0.000000	0.000000	-
Nuclear	18,907,578	0.000000	0.000000	0.000000	0.000000	-
Oil	120,698	1.348996	0.000000	0.000000	1.349000	0.000612
Solar	17,486,623	0.009991	0.000000	0.000000	0.009991	0.000005
Wind	11,337,510	0.000000	0.000000	0.000000	0.000000	-
Other	5,422,246					0.000428

Global Warming Potentials (GWP) and Conversion Factors

	AR2	AR4	AR5
CO_2	1	1	1
CH_4	21	25	28
N_2O	310	298	265

kWh per MWh	1,000
kWh per GWh	1,000,000
lbs per MT	2204.6

Criteria Air Pollutant Emissions Summary - Construction

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Unmitigated	1.77	11.71	9.42	0.03	1.38	0.45	1.83	0.50	0.42	0.92
Total Mitigated	1.77	11.71	9.42	0.03	0.97	0.09	1.06	0.32	0.09	0.41

UNMITIGATED

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	1.45	8.55	7.07	0.01	0.63	0.44	1.06	0.29	0.41	0.70
Total Offsite	0.32	3.16	2.36	0.01	0.76	0.01	0.77	0.21	0.01	0.22
check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR CONSTRUCTION RISK ASSESSMENT - Unmitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite	0.47	4.76	3.28	0.01	0.63	0.24	0.86	0.29	0.22	0.51
2020 Offsite	0.08	0.75	0.56	0.00	0.16	0.00	0.17	0.04	0.00	0.05
2021 Onsite	0.25	2.27	2.16	0.00	0.00	0.13	0.13	0.00	0.12	0.12
2021 Offsite	0.15	1.49	1.10	0.01	0.35	0.00	0.36	0.10	0.00	0.10
2022 Onsite	0.74	1.51	1.63	0.00	0.00	0.08	0.08	0.00	0.07	0.07
2022 Offsite	0.09	0.93	0.69	0.00	0.24	0.00	0.24	0.07	0.00	0.07
check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR CONSTRUCTION REGIONAL EMISSIONS - Unmitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total 2020	0.54	5.50	3.84	0.01	0.79	0.24	1.03	0.33	0.22	0.56
Total 2021	0.40	3.76	3.27	0.01	0.35	0.13	0.48	0.10	0.12	0.22
Total 2022	0.83	2.44	2.32	0.01	0.24	0.08	0.32	0.07	0.08	0.14
Check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	1.45	8.55	7.07	0.01	0.27	0.08	0.35	0.12	0.08	0.20
Total Offsite	0.32	3.16	2.36	0.01	0.70	0.01	0.71	0.19	0.01	0.20
check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR CONSTRUCTION RISK ASSESSMENT - Mitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite	0.47	4.76	3.28	0.01	0.27	0.04	0.31	0.12	0.04	0.16
2020 Offsite	0.08	0.75	0.56	0.00	0.15	0.00	0.16	0.04	0.00	0.05
2021 Onsite	0.25	2.27	2.16	0.00	0.00	0.03	0.03	0.00	0.03	0.03
2021 Offsite	0.15	1.49	1.10	0.01	0.33	0.00	0.33	0.09	0.00	0.09
2022 Onsite	0.74	1.51	1.63	0.00	0.00	0.02	0.02	0.00	0.02	0.02
2022 Offsite	0.09	0.93	0.69	0.00	0.22	0.00	0.23	0.06	0.00	0.06
check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR CONSTRUCTION REGIONAL EMISSIONS - Mitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total 2020	0.54	5.50	3.84	0.01	0.42	0.04	0.46	0.17	0.04	0.21
Total 2021	0.40	3.76	3.27	0.01	0.33	0.03	0.36	0.09	0.03	0.12
Total 2022	0.83	2.44	2.32	0.01	0.22	0.02	0.24	0.06	0.02	0.08
Check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2 Increment-1_Demolition - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.07	0.67	0.47	0.00		0.03	0.03		0.03	0.03
Total		0.07	0.67	0.47	0.00		0.03	0.03		0.03	0.03

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.07	0.67	0.47	0.00		0.01	0.01		0.00	0.00
Total		0.07	0.67	0.47	0.00		0.01	0.01		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3 Increment-1_DemoHaul - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Increment-1_Site Preparation - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.16	0.00	0.16	0.09	0.00	0.09
Off-Road		0.04	0.38	0.19	0.00		0.02	0.02		0.02	0.02
Total		0.04	0.38	0.19	0.00	0.16	0.02	0.18	0.09	0.02	0.11

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.07	0.00	0.07	0.04	0.00	0.04
Off-Road		0.04	0.38	0.19	0.00		0.00	0.00		0.00	0.00
Total		0.04	0.38	0.19	0.00	0.07	0.00	0.07	0.04	0.00	0.04

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Increment-1_Grading - 2020

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.23	0.00	0.23	0.10	0.00	0.10
Off-Road		0.12	1.33	0.85	0.00		0.06	0.06		0.05	0.05
Total		0.12	1.33	0.85	0.00	0.23	0.06	0.29	0.10	0.05	0.15

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.10	0.00	0.10	0.04	0.00	0.04
Off-Road		0.12	1.33	0.85	0.00		0.01	0.01		0.01	0.01
Total		0.12	1.33	0.85	0.00	0.10	0.01	0.11	0.04	0.01	0.05

Mitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Increment-2_Demolition - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.04	0.37	0.26	0.00		0.02	0.02		0.02	0.02
Total		0.04	0.37	0.26	0.00		0.02	0.02		0.02	0.02

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.04	0.37	0.26	0.00		0.00	0.00		0.00	0.00
Total		0.04	0.37	0.26	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Increment-2_DemoHaul - 2020

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8 Building Construction (New+Mod) - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.12	1.05	0.92	0.00		0.06	0.06		0.06	0.06
Total		0.12	1.05	0.92	0.00		0.06	0.06		0.06	0.06

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.02	0.65	0.14	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Worker		0.05	0.04	0.37	0.00	0.11	0.00	0.11	0.03	0.00	0.03
Total		0.07	0.68	0.51	0.00	0.15	0.00	0.15	0.04	0.00	0.04

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.12	1.05	0.92	0.00		0.01	0.01		0.01	0.01
Total		0.12	1.05	0.92	0.00		0.01	0.01		0.01	0.01

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.02	0.65	0.14	0.00	0.03	0.00	0.04	0.01	0.00	0.01
Worker		0.05	0.04	0.37	0.00	0.10	0.00	0.10	0.03	0.00	0.03
Total		0.07	0.68	0.51	0.00	0.14	0.00	0.14	0.04	0.00	0.04

3.8 Building Construction (New+Mod) - 2021

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.25	2.27	2.16	0.00		0.13	0.13		0.12	0.12
Total		0.25	2.27	2.16	0.00		0.13	0.13		0.12	0.12

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.04	1.41	0.30	0.00	0.09	0.00	0.09	0.03	0.00	0.03
Worker		0.11	0.08	0.81	0.00	0.27	0.00	0.27	0.07	0.00	0.07
Total		0.15	1.49	1.10	0.01	0.35	0.00	0.36	0.10	0.00	0.10

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.25	2.27	2.16	0.00		0.03	0.03		0.03	0.03
Total		0.25	2.27	2.16	0.00		0.03	0.03		0.03	0.03

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.04	1.41	0.30	0.00	0.08	0.00	0.08	0.02	0.00	0.03
Worker		0.11	0.08	0.81	0.00	0.25	0.00	0.25	0.07	0.00	0.07
Total		0.15	1.49	1.10	0.01	0.33	0.00	0.33	0.09	0.00	0.09

3.8 Building Construction (New+Mod) - 2022

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.15	1.34	1.41	0.00		0.07	0.07		0.07	0.07
Total		0.15	1.34	1.41	0.00		0.07	0.07		0.07	0.07

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.03	0.88	0.18	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker		0.07	0.05	0.49	0.00	0.18	0.00	0.18	0.05	0.00	0.05
Total		0.09	0.93	0.67	0.00	0.23	0.00	0.24	0.06	0.00	0.07

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.15	1.34	1.41	0.00		0.02	0.02		0.01	0.01
Total		0.15	1.34	1.41	0.00		0.02	0.02		0.01	0.01

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.03	0.88	0.18	0.00	0.05	0.00	0.06	0.02	0.00	0.02
Worker		0.07	0.05	0.49	0.00	0.16	0.00	0.16	0.04	0.00	0.04
Total		0.09	0.93	0.67	0.00	0.22	0.00	0.22	0.06	0.00	0.06

3.9 Increment-2_SitePreparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category **tons/yr**										
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05
Off-Road	0.02	0.21	0.11	0.00		0.01	0.01		0.01	0.01
Total	0.02	0.21	0.11	0.00	0.09	0.01	0.10	0.05	0.01	0.06

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category tons/yr										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category tons/yr										
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02
Off-Road	0.02	0.21	0.11	0.00		0.00	0.00		0.00	0.00
Total	0.02	0.21	0.11	0.00	0.04	0.00	0.04	0.02	0.00	0.02

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category tons/yr										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10 Increment-2_Grading - 2020

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.13	0.00	0.13	0.05	0.00	0.05
Off-Road		0.07	0.75	0.48	0.00		0.03	0.03		0.03	0.03
Total		0.07	0.75	0.48	0.00	0.13	0.03	0.16	0.05	0.03	0.08

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.06	0.00	0.06	0.02	0.00	0.02
Off-Road		0.07	0.75	0.48	0.00		0.00	0.00		0.00	0.00
Total		0.07	0.75	0.48	0.00	0.06	0.00	0.06	0.02	0.00	0.03

Mitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11 Paving - 2022

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.01	0.15	0.20	0.00		0.01	0.01		0.01	0.01
Paving		0.01					0.00	0.00		0.00	0.00
Total		0.02	0.15	0.20	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.01	0.15	0.20	0.00		0.00	0.00		0.00	0.00
Paving		0.01					0.00	0.00		0.00	0.00
Total		0.02	0.15	0.20	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12 Architectural Coating - 2022

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Archit. Coating		0.57					0.00	0.00		0.00	0.00
Off-Road		0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.57	0.02	0.02	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Archit. Coating		0.57					0.00	0.00		0.00	0.00
Off-Road		0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.57	0.02	0.02	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Criteria Air Pollutant Emissions Summary - Construction Unmitigated

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Construction Days	Total Days
649	905

Unmigated Run

	average lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		5	36	29	0	4	1	6	2	1	3
BAAQMD Threshold		54	54	NA	NA	BMP	82	54	BMP	54	NA
Exceeds Threshold		No	No	NA	NA	NA	No	No	NA	No	NA

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
TOTAL 2020		2	17	12	0	2	1	3	1	1	2
TOTAL 2021		1	12	10	0	1	0	1	0.3	0.4	1
TOTAL 2022		3	8	7	0	1	0	1	0.2	0.2	0
check		0									

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite		4.48	26.34	21.78	0.04	1.93	1.35	3.28	0.90	1.26	2.16
Total Offsite		0.98	9.74	7.26	0.04	2.34	0.04	2.37	0.63	0.03	0.67
check		0	0	0	0	0	0	0	0	0	0

FOR CONSTRUCTION RISK ASSESSMENT

Onsite Details

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite		4.31	44.06	30.34	0.05	5.80	2.18	7.98	2.69	2.02	4.71
2021 Onsite		1.90	17.43	16.58	0.03	0.00	0.96	0.96	0.00	0.90	0.90
2022 Onsite		8.59	17.58	18.94	0.03	0.00	0.91	0.91	0.00	0.86	0.86
check		10.33	52.74	44.07	0.08	3.87	2.70	6.56	1.79	2.52	4.31

Offsite Details

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Offsite		0.71	6.90	5.20	0.03	1.51	0.038	1.55	0.41	0.036	0.45
2021 Offsite		1.14	11.39	8.46	0.05	2.71	0.036	2.75	0.74	0.034	0.77
2022 Offsite		1.09	10.81	8.02	0.05	2.79	0.033	2.83	0.76	0.031	0.79
Check		1.96	19.36	14.43	0.08	4.69	0.07	4.76	1.27	0.07	1.34

Criteria Air Pollutant Emissions Summary - Construction Mitigated

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Construction Days	Total Days
649	905

Mitigated - Fugitive Dust BMPs, Level 3 Diesel Particulate Filters for Eq. > 50 hp; with Best Control Measures for Fugitive Dust

	average lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		5	36	29	0	3	0	3	1	0	1
BAAQMD Threshold		54	54	NA	NA	BMP	82	54	BMP	54	NA
Exceeds Threshold		No	No	NA	NA	NA	No	No	NA	No	NA

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
TOTAL 2020		2	17	12	0	1	0	1	1	0	1
TOTAL 2021		1	12	10	0	1	0	1	0	0	0
TOTAL 2022		3	8	7	0	1	0	1	0	0	0
check		0	0	0	0	0	0	0	0	0	0

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite		4.48	26.33	21.78	0.04	0.83	0.26	1.08	0.38	0.24	0.62
Total Offsite		0.98	9.74	7.26	0.04	2.16	0.04	2.20	0.59	0.03	0.63
check		0	0	0	0	0	0	0	0	0	0

FOR CONSTRUCTION RISK ASSESSMENT

Onsite Details

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite		4.31	44.06	30.34	0.05	2.48	0.36	2.84	1.15	0.34	1.49
2021 Onsite		1.90	17.43	16.58	0.03	0.00	0.21	0.21	0.00	0.20	0.20
2022 Onsite		8.59	17.58	18.94	0.03	0.00	0.19	0.19	0.00	0.18	0.18
check		10.33	52.74	44.07	0.08	1.65	0.51	2.16	0.77	0.48	1.25

Offsite Details

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Offsite		0.71	6.90	5.20	0.03	1.40	0.04	1.44	0.38	0.04	0.42
2021 Offsite		1.14	11.39	8.46	0.05	2.51	0.04	2.55	0.69	0.03	0.72
2022 Offsite		1.09	10.81	8.02	0.05	2.59	0.03	2.62	0.71	0.03	0.74
Check		1.96	19.36	14.43	0.08	4.34	0.07	4.41	1.19	0.07	1.25

Criteria Air Pollutant Emissions Summary - Operations

Net Annual Emissions

Mitigated Operational

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area		0.23	0.00	0.01	0.00		0.00	0.00		0.00	0.00
Energy		0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00
Mobile		0.24	0.28	1.65	0.00	0.31	0.00	0.31	0.08	0.00	0.08
Waste							0.00	0.00		0.00	0.00
Water							0.00	0.00		0.00	0.00
Total		0.47	0.31	1.67	0.00	0.31	0.01	0.31	0.08	0.00	0.09
BAAQMD Threshold (T/YR)		10	10	NA	NA	NA	NA	15	NA	NA	10
Exceeds thresholds		No	No					No			No

Criteria Air Pollutant Emissions Summary - Operations

Annual emissions divided by 365 days/year to obtain average daily emissions.

Net AnnualEmission Rates

lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	1	0	0	0	0	0	0	0	0	0
Energy	0	0	0	0	0	0	0	0	0	0
Mobile	1	2	9	0	2	0	2	0	0	0
Waste	0	0	0	0	0	0	0	0	0	0
Water	0	0	0	0	0	0	0	0	0	0
Total	3	2	9	0	2	0	2	0	0	0
BAAQMD Threshold (Daily)	54	54					82			54
Exceeds Threshold	No	No					No			No

Greenhouse Gas Emissions Summary

Operation 2022

Net Emission Rates from Proposed Project

MT/yr

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	Percent
Category	MT/yr						
Area	0	0	0	0	0	0	
Energy	0	58	58	0	0	59	
Mobile	0	291	291	0	0	291	
Waste	34	0	34	2	0	83	
Water	1	2	2	0	0	3	
Total	34	351	385	2	0	436	

Construction

Construction

Unmitigated	CO2e
2020	785
2021	879
2022	608
Total Construction	2,273
30-Year Amortization	76

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Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	45.44	1000sqft	0.53	45,440.00	0
Other Asphalt Surfaces	140.00	1000sqft	3.21	140,000.00	0
Other Non-Asphalt Surfaces	339.27	1000sqft	7.79	339,270.00	0
Parking Lot	35.00	1000sqft	0.80	35,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	356.11	**CH4 Intensity (lb/MWhr)**	0.041	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - East Bay Community Energy (EBCE)

Land Use - Building 11, 2, 8.

Construction Phase - See assumptions

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Haul

Off-road Equipment - Recycle pavement

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Haul

Off-road Equipment - Recycle pavement

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - See Assumptions

Demolition -

Grading -

Architectural Coating - See assumptions

Energy Use -

Construction Off-road Equipment Mitigation - BAAQMD Fugitive Dust Best Management Practices.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	22,720.00	51,092.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	68,160.00	153,276.00
tblArchitecturalCoating	ConstArea_Parking	30,856.00	10,500.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

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Alameda County, Annual

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstructionPhase	NumDays	20.00	27.00
tblConstructionPhase	NumDays	300.00	542.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	30.00	53.00
tblConstructionPhase	NumDays	20.00	27.00
tblConstructionPhase	NumDays	10.00	18.00
tblLandUse	LotAcreage	1.04	0.53
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.041
tblProjectCharacteristics	CO2IntensityFactor	641.35	356.11
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005

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Alameda County, Annual

tblTripsAndVMT	HaulingTripNumber	87.00	89.00
tblTripsAndVMT	HaulingTripNumber	38.00	39.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	92.00	101.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	47.00	52.00
tblTripsAndVMT	WorkerTripNumber	235.00	259.00

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Alameda County, Annual

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					
2020	0.5423	5.5037	3.8386	8.7400e-003	0.7899	0.2392	1.0291	0.3347	0.2224	0.5571	0.0000	780.9094	780.9094	0.1592	0.0000	784.8883
2021	0.3968	3.7617	3.2673	9.6500e-003	0.3538	0.1298	0.4836	0.0961	0.1221	0.2182	0.0000	876.8974	876.8974	0.0974	0.0000	879.3317
2022	0.8328	2.4418	2.3187	6.6900e-003	0.2403	0.0812	0.3215	0.0653	0.0763	0.1416	0.0000	606.6191	606.6191	0.0720	0.0000	608.4196
Maximum	**0.8328**	**5.5037**	**3.8386**	**9.6500e-003**	**0.7899**	**0.2392**	**1.0291**	**0.3347**	**0.2224**	**0.5571**	**0.0000**	**876.8974**	**876.8974**	**0.1592**	**0.0000**	**879.3317**

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					
2020	0.5423	5.5037	3.8386	8.7400e-003	0.4192	0.0434	0.4626	0.1656	0.0407	0.2062	0.0000	780.9088	780.9088	0.1592	0.0000	784.8877
2021	0.3968	3.7617	3.2673	9.6500e-003	0.3276	0.0317	0.3593	0.0897	0.0303	0.1200	0.0000	876.8971	876.8971	0.0974	0.0000	879.3314
2022	0.8328	2.4418	2.3187	6.6900e-003	0.2225	0.0193	0.2418	0.0609	0.0184	0.0793	0.0000	606.6188	606.6188	0.0720	0.0000	608.4193
Maximum	**0.8328**	**5.5037**	**3.8386**	**9.6500e-003**	**0.4192**	**0.0434**	**0.4626**	**0.1656**	**0.0407**	**0.2062**	**0.0000**	**876.8971**	**876.8971**	**0.1592**	**0.0000**	**879.3314**

	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**	**29.97**	**79.03**	**42.01**	**36.28**	**78.74**	**55.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Alameda County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
4	1-19-2020	4-18-2020	1.1969	1.1969
5	4-19-2020	7-18-2020	1.4403	1.4403
6	7-19-2020	10-18-2020	2.3738	2.3738
7	10-19-2020	1-18-2021	1.2363	1.2363
8	1-19-2021	4-18-2021	1.0266	1.0266
9	4-19-2021	7-18-2021	1.0313	1.0313
10	7-19-2021	10-18-2021	1.0443	1.0443
11	10-19-2021	1-18-2022	1.0338	1.0338
12	1-19-2022	4-18-2022	0.9398	0.9398
13	4-19-2022	7-18-2022	1.0077	1.0077
14	7-19-2022	9-30-2022	1.1481	1.1481
		Highest	2.3738	2.3738

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Increment-1_Demolition	Demolition	2/3/2020	3/23/2020	5	36	
2	Increment-1_DemoHaul	Demolition	2/3/2020	3/23/2020	5	36	
3	Increment-1_Site Preparation	Site Preparation	3/24/2020	4/16/2020	5	18	
4	Increment-1_Grading	Grading	4/17/2020	6/30/2020	5	53	
5	Increment-2_Demolition	Demolition	8/1/2020	8/28/2020	5	20	
6	Increment-2_DemoHaul	Demolition	8/1/2020	8/28/2020	5	20	
7	Building Construction (New+Mod)	Building Construction	8/1/2020	8/30/2022	5	542	
8	Increment-2_SitePreparation	Site Preparation	8/29/2020	9/11/2020	5	10	
9	Increment-2_Grading	Grading	9/12/2020	10/23/2020	5	30	
10	Paving	Paving	7/5/2022	8/10/2022	5	27	
11	Architectural Coating	Architectural Coating	7/24/2022	8/30/2022	5	27	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 11.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 153,276; Non-Residential Outdoor: 51,092; Striped Parking Area:

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Alameda County, Annual

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Increment-1_Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Increment-1_Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Increment-1_Demolition	Excavators	3	8.00	158	0.38
Increment-1_Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Increment-1_DemoHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Increment-1_DemoHaul	Excavators	0	8.00	158	0.38
Increment-1_DemoHaul	Rubber Tired Dozers	0	8.00	247	0.40
Increment-1_Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Increment-1_Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Increment-1_Grading	Excavators	2	8.00	158	0.38
Increment-1_Grading	Graders	1	8.00	187	0.41
Increment-1_Grading	Rubber Tired Dozers	1	8.00	247	0.40
Increment-1_Grading	Scrapers	2	8.00	367	0.48
Increment-1_Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Increment-2_Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Increment-2_Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Increment-2_Demolition	Excavators	3	8.00	158	0.38
Increment-2_Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Increment-2_DemoHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Increment-2_DemoHaul	Excavators	0	8.00	158	0.38
Increment-2_DemoHaul	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction (New+Mod)	Cranes	1	7.00	231	0.29
Building Construction (New+Mod)	Forklifts	3	8.00	89	0.20
Building Construction (New+Mod)	Generator Sets	1	8.00	84	0.74
Building Construction (New+Mod)	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction (New+Mod)	Welders	1	8.00	46	0.45
Increment-2_SitePreparation	Rubber Tired Dozers	3	8.00	247	0.40
Increment-2_SitePreparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Increment-2_Grading	Excavators	2	8.00	158	0.38
Increment-2_Grading	Graders	1	8.00	187	0.41
Increment-2_Grading	Rubber Tired Dozers	1	8.00	247	0.40
Increment-2_Grading	Scrapers	2	8.00	367	0.48
Increment-2_Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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FremontUSDThornton - Construction

Alameda County, Annual

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
Increment-1_Demolition	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-1_DemoHaul	0	0.00	0.00	89.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-1_Site Preparation	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-1_Grading	8	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-2_Demolition	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-2_DemoHaul	0	0.00	0.00	39.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (New+Mod)	9	259.00	101.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-2_SitePreparation	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Increment-2_Grading	8	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Increment-1_Demolition - 2020

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	0.0696	0.6660	0.4699	8.2000e-004		0.0342	0.0342		0.0321	0.0321	0.0000	72.0488	72.0488	0.0181	0.0000	72.5008
Total	**0.0696**	**0.6660**	**0.4699**	**8.2000e-004**		**0.0342**	**0.0342**		**0.0321**	**0.0321**	**0.0000**	**72.0488**	**72.0488**	**0.0181**	**0.0000**	**72.5008**

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FremontUSDThornton - Construction

Alameda County, Annual

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	2.7000e-004	8.4600e-003	1.8200e-003	2.0000e-005	4.7000e-004	4.0000e-005	5.1000e-004	1.4000e-004	4.0000e-005	1.7000e-004	0.0000	1.9045	1.9045	1.1000e-004	0.0000	1.9072
Worker	1.1200e-003	8.3000e-004	8.4800e-003	3.0000e-005	2.5600e-003	2.0000e-005	2.5800e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.2773	2.2773	6.0000e-005	0.0000	2.2787
Total	**1.3900e-003**	**9.2900e-003**	**0.0103**	**5.0000e-005**	**3.0300e-003**	**6.0000e-005**	**3.0900e-003**	**8.2000e-004**	**6.0000e-005**	**8.7000e-004**	**0.0000**	**4.1817**	**4.1817**	**1.7000e-004**	**0.0000**	**4.1859**

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	0.0696	0.6660	0.4699	8.2000e-004		5.1300e-003	5.1300e-003		4.8100e-003	4.8100e-003	0.0000	72.0487	72.0487	0.0181	0.0000	72.5007
Total	**0.0696**	**0.6660**	**0.4699**	**8.2000e-004**		**5.1300e-003**	**5.1300e-003**		**4.8100e-003**	**4.8100e-003**	**0.0000**	**72.0487**	**72.0487**	**0.0181**	**0.0000**	**72.5007**

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	2.7000e-004	8.4600e-003	1.8200e-003	2.0000e-005	4.4000e-004	4.0000e-005	4.8000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.9045	1.9045	1.1000e-004	0.0000	1.9072
Worker	1.1200e-003	8.3000e-004	8.4800e-003	3.0000e-005	2.3600e-003	2.0000e-005	2.3800e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.2773	2.2773	6.0000e-005	0.0000	2.2787
Total	**1.3900e-003**	**9.2900e-003**	**0.0103**	**5.0000e-005**	**2.8000e-003**	**6.0000e-005**	**2.8600e-003**	**7.6000e-004**	**6.0000e-005**	**8.2000e-004**	**0.0000**	**4.1817**	**4.1817**	**1.7000e-004**	**0.0000**	**4.1859**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

3.3 Increment-1_DemoHaul - 2020

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					9.3700e-003	0.0000	9.3700e-003	1.4200e-003	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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**	**9.3700e-003**	**0.0000**	**9.3700e-003**	**1.4200e-003**	**0.0000**	**1.4200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.8000e-004	0.0130	2.2800e-003	4.0000e-005	7.5000e-004	4.0000e-005	8.0000e-004	2.1000e-004	4.0000e-005	2.5000e-004	0.0000	3.4071	3.4071	1.7000e-004	0.0000	3.4113
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	**3.8000e-004**	**0.0130**	**2.2800e-003**	**4.0000e-005**	**7.5000e-004**	**4.0000e-005**	**8.0000e-004**	**2.1000e-004**	**4.0000e-005**	**2.5000e-004**	**0.0000**	**3.4071**	**3.4071**	**1.7000e-004**	**0.0000**	**3.4113**

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					4.0100e-003	0.0000	4.0100e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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**	**4.0100e-003**	**0.0000**	**4.0100e-003**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

FremontUSDThornton - Construction

Alameda County, Annual

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	3.8000e-004	0.0130	2.2800e-003	4.0000e-005	7.0000e-004	4.0000e-005	7.4000e-004	1.9000e-004	4.0000e-005	2.3000e-004	0.0000	3.4071	3.4071	1.7000e-004	0.0000	3.4113
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	**3.8000e-004**	**0.0130**	**2.2800e-003**	**4.0000e-005**	**7.0000e-004**	**4.0000e-005**	**7.4000e-004**	**1.9000e-004**	**4.0000e-005**	**2.3000e-004**	**0.0000**	**3.4071**	**3.4071**	**1.7000e-004**	**0.0000**	**3.4113**

3.4 Increment-1_Site Preparation - 2020

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					0.1626	0.0000	0.1626	0.0894	0.0000	0.0894	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.3818	0.1936	3.4000e-004		0.0198	0.0198		0.0182	0.0182	0.0000	30.0876	30.0876	9.7300e-003	0.0000	30.3309
Total	**0.0367**	**0.3818**	**0.1936**	**3.4000e-004**	**0.1626**	**0.0198**	**0.1824**	**0.0894**	**0.0182**	**0.1076**	**0.0000**	**30.0876**	**30.0876**	**9.7300e-003**	**0.0000**	**30.3309**

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	1.4000e-004	4.2300e-003	9.1000e-004	1.0000e-005	2.4000e-004	2.0000e-005	2.6000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.9522	0.9522	5.0000e-005	0.0000	0.9536
Worker	5.6000e-004	4.1000e-004	4.2400e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1386	1.1386	3.0000e-005	0.0000	1.1394
Total	**7.0000e-004**	**4.6400e-003**	**5.1500e-003**	**2.0000e-005**	**1.5200e-003**	**3.0000e-005**	**1.5500e-003**	**4.1000e-004**	**3.0000e-005**	**4.4000e-004**	**0.0000**	**2.0909**	**2.0909**	**8.0000e-005**	**0.0000**	**2.0930**

FremontUSDThornton - Construction

Alameda County, Annual

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					0.0695	0.0000	0.0695	0.0382	0.0000	0.0382	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.3818	0.1936	3.4000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	30.0876	30.0876	9.7300e-003	0.0000	30.3309
Total	**0.0367**	**0.3818**	**0.1936**	**3.4000e-004**	**0.0695**	**2.9700e-003**	**0.0725**	**0.0382**	**2.7300e-003**	**0.0409**	**0.0000**	**30.0876**	**30.0876**	**9.7300e-003**	**0.0000**	**30.3309**

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	1.4000e-004	4.2300e-003	9.1000e-004	1.0000e-005	2.2000e-004	2.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.9522	0.9522	5.0000e-005	0.0000	0.9536
Worker	5.6000e-004	4.1000e-004	4.2400e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1386	1.1386	3.0000e-005	0.0000	1.1394
Total	**7.0000e-004**	**4.6400e-003**	**5.1500e-003**	**2.0000e-005**	**1.4000e-003**	**3.0000e-005**	**1.4300e-003**	**3.8000e-004**	**3.0000e-005**	**4.0000e-004**	**0.0000**	**2.0909**	**2.0909**	**8.0000e-005**	**0.0000**	**2.0930**

3.5 Increment-1_Grading - 2020

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					0.2298	0.0000	0.2298	0.0953	0.0000	0.0953	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1179	1.3302	0.8469	1.6400e-003		0.0576	0.0576		0.0530	0.0530	0.0000	144.3834	144.3834	0.0467	0.0000	145.5508
Total	**0.1179**	**1.3302**	**0.8469**	**1.6400e-003**	**0.2298**	**0.0576**	**0.2875**	**0.0953**	**0.0530**	**0.1483**	**0.0000**	**144.3834**	**144.3834**	**0.0467**	**0.0000**	**145.5508**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

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	4.0000e-004	0.0125	2.6800e-003	3.0000e-005	7.0000e-004	6.0000e-005	7.5000e-004	2.0000e-004	6.0000e-005	2.6000e-004	0.0000	2.8038	2.8038	1.6000e-004	0.0000	2.8078
Worker	1.8300e-003	1.3500e-003	0.0139	4.0000e-005	4.1900e-003	3.0000e-005	4.2200e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7251	3.7251	1.0000e-004	0.0000	3.7275
Total	**2.2300e-003**	**0.0138**	**0.0166**	**7.0000e-005**	**4.8900e-003**	**9.0000e-005**	**4.9700e-003**	**1.3100e-003**	**9.0000e-005**	**1.4000e-003**	**0.0000**	**6.5289**	**6.5289**	**2.6000e-004**	**0.0000**	**6.5354**

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					0.0983	0.0000	0.0983	0.0407	0.0000	0.0407	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1179	1.3302	0.8469	1.6400e-003		8.6400e-003	8.6400e-003		7.9500e-003	7.9500e-003	0.0000	144.3832	144.3832	0.0467	0.0000	145.5506
Total	**0.1179**	**1.3302**	**0.8469**	**1.6400e-003**	**0.0983**	**8.6400e-003**	**0.1069**	**0.0407**	**7.9500e-003**	**0.0487**	**0.0000**	**144.3832**	**144.3832**	**0.0467**	**0.0000**	**145.5506**

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	4.0000e-004	0.0125	2.6800e-003	3.0000e-005	6.5000e-004	6.0000e-005	7.1000e-004	1.9000e-004	6.0000e-005	2.5000e-004	0.0000	2.8038	2.8038	1.6000e-004	0.0000	2.8078
Worker	1.8300e-003	1.3500e-003	0.0139	4.0000e-005	3.8600e-003	3.0000e-005	3.8900e-003	1.0300e-003	3.0000e-005	1.0600e-003	0.0000	3.7251	3.7251	1.0000e-004	0.0000	3.7275
Total	**2.2300e-003**	**0.0138**	**0.0166**	**7.0000e-005**	**4.5100e-003**	**9.0000e-005**	**4.6000e-003**	**1.2200e-003**	**9.0000e-005**	**1.3100e-003**	**0.0000**	**6.5289**	**6.5289**	**2.6000e-004**	**0.0000**	**6.5354**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

3.6 Increment-2_Demolition - 2020

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	0.0387	0.3700	0.2611	4.6000e-004		0.0190	0.0190		0.0178	0.0178	0.0000	40.0271	40.0271	0.0100	0.0000	40.2782
Total	**0.0387**	**0.3700**	**0.2611**	**4.6000e-004**		**0.0190**	**0.0190**		**0.0178**	**0.0178**	**0.0000**	**40.0271**	**40.0271**	**0.0100**	**0.0000**	**40.2782**

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	1.5000e-004	4.7000e-003	1.0100e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0580	1.0580	6.0000e-005	0.0000	1.0596
Worker	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2651	1.2651	3.0000e-005	0.0000	1.2660
Total	**7.7000e-004**	**5.1600e-003**	**5.7200e-003**	**2.0000e-005**	**1.6800e-003**	**3.0000e-005**	**1.7100e-003**	**4.6000e-004**	**3.0000e-005**	**4.9000e-004**	**0.0000**	**2.3232**	**2.3232**	**9.0000e-005**	**0.0000**	**2.3255**

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	0.0387	0.3700	0.2611	4.6000e-004		2.8500e-003	2.8500e-003		2.6700e-003	2.6700e-003	0.0000	40.0271	40.0271	0.0100	0.0000	40.2782
Total	**0.0387**	**0.3700**	**0.2611**	**4.6000e-004**		**2.8500e-003**	**2.8500e-003**		**2.6700e-003**	**2.6700e-003**	**0.0000**	**40.0271**	**40.0271**	**0.0100**	**0.0000**	**40.2782**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

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	1.5000e-004	4.7000e-003	1.0100e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.0580	1.0580	6.0000e-005	0.0000	1.0596
Worker	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2651	1.2651	3.0000e-005	0.0000	1.2660
Total	**7.7000e-004**	**5.1600e-003**	**5.7200e-003**	**2.0000e-005**	**1.5600e-003**	**3.0000e-005**	**1.5900e-003**	**4.2000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.3232**	**2.3232**	**9.0000e-005**	**0.0000**	**2.3255**

3.7 Increment-2_DemoHaul - 2020

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					4.0900e-003	0.0000	4.0900e-003	6.2000e-004	0.0000	6.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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**	**4.0900e-003**	**0.0000**	**4.0900e-003**	**6.2000e-004**	**0.0000**	**6.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.7000e-004	5.6900e-003	1.0000e-003	2.0000e-005	3.3000e-004	2.0000e-005	3.5000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.4930	1.4930	8.0000e-005	0.0000	1.4949
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	**1.7000e-004**	**5.6900e-003**	**1.0000e-003**	**2.0000e-005**	**3.3000e-004**	**2.0000e-005**	**3.5000e-004**	**9.0000e-005**	**2.0000e-005**	**1.1000e-004**	**0.0000**	**1.4930**	**1.4930**	**8.0000e-005**	**0.0000**	**1.4949**

FremontUSDThornton - Construction

Alameda County, Annual

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					1.7500e-003	0.0000	1.7500e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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**	**1.7500e-003**	**0.0000**	**1.7500e-003**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.7000e-004	5.6900e-003	1.0000e-003	2.0000e-005	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.4930	1.4930	8.0000e-005	0.0000	1.4949
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	**1.7000e-004**	**5.6900e-003**	**1.0000e-003**	**2.0000e-005**	**3.1000e-004**	**2.0000e-005**	**3.3000e-004**	**9.0000e-005**	**2.0000e-005**	**1.0000e-004**	**0.0000**	**1.4930**	**1.4930**	**8.0000e-005**	**0.0000**	**1.4949**

3.8 Building Construction (New+Mod) - 2020

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	0.1155	1.0456	0.9182	1.4700e-003		0.0609	0.0609		0.0572	0.0572	0.0000	126.2274	126.2274	0.0308	0.0000	126.9973
Total	**0.1155**	**1.0456**	**0.9182**	**1.4700e-003**		**0.0609**	**0.0609**		**0.0572**	**0.0572**	**0.0000**	**126.2274**	**126.2274**	**0.0308**	**0.0000**	**126.9973**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

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	0.0207	0.6470	0.1394	1.5200e-003	0.0362	3.0000e-003	0.0392	0.0105	2.8700e-003	0.0133	0.0000	145.5997	145.5997	8.3700e-003	0.0000	145.8090
Worker	0.0488	0.0360	0.3693	1.1000e-003	0.1116	7.7000e-004	0.1124	0.0297	7.1000e-004	0.0304	0.0000	99.2116	99.2116	2.5600e-003	0.0000	99.2756
Total	**0.0695**	**0.6831**	**0.5088**	**2.6200e-003**	**0.1478**	**3.7700e-003**	**0.1515**	**0.0402**	**3.5800e-003**	**0.0437**	**0.0000**	**244.8113**	**244.8113**	**0.0109**	**0.0000**	**245.0846**

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	0.1155	1.0456	0.9182	1.4700e-003		0.0132	0.0132		0.0126	0.0126	0.0000	126.2273	126.2273	0.0308	0.0000	126.9972
Total	**0.1155**	**1.0456**	**0.9182**	**1.4700e-003**		**0.0132**	**0.0132**		**0.0126**	**0.0126**	**0.0000**	**126.2273**	**126.2273**	**0.0308**	**0.0000**	**126.9972**

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	0.0207	0.6470	0.1394	1.5200e-003	0.0339	3.0000e-003	0.0369	9.9000e-003	2.8700e-003	0.0128	0.0000	145.5997	145.5997	8.3700e-003	0.0000	145.8090
Worker	0.0488	0.0360	0.3693	1.1000e-003	0.1029	7.7000e-004	0.1037	0.0276	7.1000e-004	0.0283	0.0000	99.2116	99.2116	2.5600e-003	0.0000	99.2756
Total	**0.0695**	**0.6831**	**0.5088**	**2.6200e-003**	**0.1368**	**3.7700e-003**	**0.1406**	**0.0375**	**3.5800e-003**	**0.0410**	**0.0000**	**244.8113**	**244.8113**	**0.0109**	**0.0000**	**245.0846**

FremontUSDThornton - Construction

Alameda County, Annual

3.8 Building Construction (New+Mod) - 2021

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.0408	1.4098	0.2986	3.6100e-003	0.0866	2.9400e-003	0.0895	0.0250	2.8100e-003	0.0279	0.0000	345.2904	345.2904	0.0190	0.0000	345.7645
Worker	0.1079	0.0769	0.8056	2.5400e-003	0.2672	1.8000e-003	0.2690	0.0711	1.6500e-003	0.0728	0.0000	229.3204	229.3204	5.4800e-003	0.0000	229.4574
Total	**0.1487**	**1.4868**	**1.1042**	**6.1500e-003**	**0.3538**	**4.7400e-003**	**0.3585**	**0.0961**	**4.4600e-003**	**0.1006**	**0.0000**	**574.6108**	**574.6108**	**0.0244**	**0.0000**	**575.2219**

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	0.2481	2.2749	2.1631	3.5100e-003		0.0270	0.0270		0.0259	0.0259	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.0270**	**0.0270**		**0.0259**	**0.0259**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

FremontUSDThornton - Construction

Alameda County, Annual

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	0.0408	1.4098	0.2986	3.6100e-003	0.0811	2.9400e-003	0.0840	0.0237	2.8100e-003	0.0265	0.0000	345.2904	345.2904	0.0190	0.0000	345.7645
Worker	0.1079	0.0769	0.8056	2.5400e-003	0.2465	1.8000e-003	0.2483	0.0660	1.6500e-003	0.0677	0.0000	229.3204	229.3204	5.4800e-003	0.0000	229.4574
Total	**0.1487**	**1.4868**	**1.1042**	**6.1500e-003**	**0.3276**	**4.7400e-003**	**0.3323**	**0.0897**	**4.4600e-003**	**0.0942**	**0.0000**	**574.6108**	**574.6108**	**0.0244**	**0.0000**	**575.2219**

3.8 Building Construction (New+Mod) - 2022

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	0.1467	1.3430	1.4073	2.3200e-003		0.0696	0.0696		0.0655	0.0655	0.0000	199.2837	199.2837	0.0477	0.0000	200.4773
Total	**0.1467**	**1.3430**	**1.4073**	**2.3200e-003**		**0.0696**	**0.0696**		**0.0655**	**0.0655**	**0.0000**	**199.2837**	**199.2837**	**0.0477**	**0.0000**	**200.4773**

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	0.0251	0.8825	0.1843	2.3500e-003	0.0571	1.6800e-003	0.0587	0.0165	1.6000e-003	0.0181	0.0000	225.3226	225.3226	0.0119	0.0000	225.6213
Worker	0.0661	0.0454	0.4860	1.6100e-003	0.1761	1.1500e-003	0.1773	0.0469	1.0600e-003	0.0479	0.0000	145.6155	145.6155	3.2300e-003	0.0000	145.6964
Total	**0.0912**	**0.9278**	**0.6703**	**3.9600e-003**	**0.2332**	**2.8300e-003**	**0.2360**	**0.0634**	**2.6600e-003**	**0.0660**	**0.0000**	**370.9382**	**370.9382**	**0.0152**	**0.0000**	**371.3176**

FremontUSDThornton - Construction

Alameda County, Annual

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	0.1467	1.3429	1.4073	2.3200e-003		0.0151	0.0151		0.0145	0.0145	0.0000	199.2835	199.2835	0.0477	0.0000	200.4770
Total	**0.1467**	**1.3429**	**1.4073**	**2.3200e-003**		**0.0151**	**0.0151**		**0.0145**	**0.0145**	**0.0000**	**199.2835**	**199.2835**	**0.0477**	**0.0000**	**200.4770**

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	0.0251	0.8825	0.1843	2.3500e-003	0.0534	1.6800e-003	0.0551	0.0156	1.6000e-003	0.0172	0.0000	225.3226	225.3226	0.0119	0.0000	225.6213
Worker	0.0661	0.0454	0.4860	1.6100e-003	0.1624	1.1500e-003	0.1636	0.0435	1.0600e-003	0.0446	0.0000	145.6155	145.6155	3.2300e-003	0.0000	145.6964
Total	**0.0912**	**0.9278**	**0.6703**	**3.9600e-003**	**0.2159**	**2.8300e-003**	**0.2187**	**0.0591**	**2.6600e-003**	**0.0618**	**0.0000**	**370.9382**	**370.9382**	**0.0152**	**0.0000**	**371.3176**

3.9 Increment-2_SitePreparation - 2020

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

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	8.0000e-005	2.3500e-003	5.1000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5290	0.5290	3.0000e-005	0.0000	0.5298
Worker	3.1000e-004	2.3000e-004	2.3500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6326	0.6326	2.0000e-005	0.0000	0.6330
Total	**3.9000e-004**	**2.5800e-003**	**2.8600e-003**	**2.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**1.1616**	**1.1616**	**5.0000e-005**	**0.0000**	**1.1628**

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					0.0386	0.0000	0.0386	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		1.6500e-003	1.6500e-003		1.5200e-003	1.5200e-003	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0386**	**1.6500e-003**	**0.0403**	**0.0212**	**1.5200e-003**	**0.0228**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

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	8.0000e-005	2.3500e-003	5.1000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5290	0.5290	3.0000e-005	0.0000	0.5298
Worker	3.1000e-004	2.3000e-004	2.3500e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6326	0.6326	2.0000e-005	0.0000	0.6330
Total	**3.9000e-004**	**2.5800e-003**	**2.8600e-003**	**2.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**1.1616**	**1.1616**	**5.0000e-005**	**0.0000**	**1.1628**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

3.10 Increment-2_Grading - 2020

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7264	81.7264	0.0264	0.0000	82.3872
Total	**0.0668**	**0.7530**	**0.4794**	**9.3000e-004**	**0.1301**	**0.0326**	**0.1627**	**0.0540**	**0.0300**	**0.0840**	**0.0000**	**81.7264**	**81.7264**	**0.0264**	**0.0000**	**82.3872**

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	2.3000e-004	7.0500e-003	1.5200e-003	2.0000e-005	3.9000e-004	3.0000e-005	4.3000e-004	1.1000e-004	3.0000e-005	1.5000e-004	0.0000	1.5871	1.5871	9.0000e-005	0.0000	1.5893
Worker	1.0400e-003	7.7000e-004	7.8500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.1086	2.1086	5.0000e-005	0.0000	2.1099
Total	**1.2700e-003**	**7.8200e-003**	**9.3700e-003**	**4.0000e-005**	**2.7600e-003**	**5.0000e-005**	**2.8200e-003**	**7.4000e-004**	**5.0000e-005**	**8.0000e-004**	**0.0000**	**3.6956**	**3.6956**	**1.4000e-004**	**0.0000**	**3.6993**

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					0.0556	0.0000	0.0556	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		4.8900e-003	4.8900e-003		4.5000e-003	4.5000e-003	0.0000	81.7263	81.7263	0.0264	0.0000	82.3871
Total	**0.0668**	**0.7530**	**0.4794**	**9.3000e-004**	**0.0556**	**4.8900e-003**	**0.0605**	**0.0231**	**4.5000e-003**	**0.0276**	**0.0000**	**81.7263**	**81.7263**	**0.0264**	**0.0000**	**82.3871**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

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	2.3000e-004	7.0500e-003	1.5200e-003	2.0000e-005	3.7000e-004	3.0000e-005	4.0000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.5871	1.5871	9.0000e-005	0.0000	1.5893
Worker	1.0400e-003	7.7000e-004	7.8500e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2000e-003	5.9000e-004	2.0000e-005	6.0000e-004	0.0000	2.1086	2.1086	5.0000e-005	0.0000	2.1099
Total	**1.2700e-003**	**7.8200e-003**	**9.3700e-003**	**4.0000e-005**	**2.5600e-003**	**5.0000e-005**	**2.6000e-003**	**7.0000e-004**	**5.0000e-005**	**7.4000e-004**	**0.0000**	**3.6956**	**3.6956**	**1.4000e-004**	**0.0000**	**3.6993**

3.11 Paving - 2022

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	0.0149	0.1502	0.1968	3.1000e-004		7.6700e-003	7.6700e-003		7.0500e-003	7.0500e-003	0.0000	27.0372	27.0372	8.7400e-003	0.0000	27.2558
Paving	5.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0201**	**0.1502**	**0.1968**	**3.1000e-004**		**7.6700e-003**	**7.6700e-003**		**7.0500e-003**	**7.0500e-003**	**0.0000**	**27.0372**	**27.0372**	**8.7400e-003**	**0.0000**	**27.2558**

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	6.0000e-004	4.1000e-004	4.4200e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.3238	1.3238	3.0000e-005	0.0000	1.3246
Total	**6.0000e-004**	**4.1000e-004**	**4.4200e-003**	**1.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.3238**	**1.3238**	**3.0000e-005**	**0.0000**	**1.3246**

FremontUSDThornton - Construction

Alameda County, Annual

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	0.0149	0.1502	0.1968	3.1000e-004		1.1500e-003	1.1500e-003		1.0600e-003	1.0600e-003	0.0000	27.0372	27.0372	8.7400e-003	0.0000	27.2558
Paving	5.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0201**	**0.1502**	**0.1968**	**3.1000e-004**		**1.1500e-003**	**1.1500e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**27.0372**	**27.0372**	**8.7400e-003**	**0.0000**	**27.2558**

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	6.0000e-004	4.1000e-004	4.4200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3238	1.3238	3.0000e-005	0.0000	1.3246
Total	**6.0000e-004**	**4.1000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.3238**	**1.3238**	**3.0000e-005**	**0.0000**	**1.3246**

3.12 Architectural Coating - 2022

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	0.5693					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7600e-003	0.0190	0.0245	4.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	3.4469	3.4469	2.2000e-004	0.0000	3.4525
Total	**0.5721**	**0.0190**	**0.0245**	**4.0000e-005**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**3.4469**	**3.4469**	**2.2000e-004**	**0.0000**	**3.4525**

FremontUSDThornton - Alameda County, Annual

FremontUSDThornton - Construction

Alameda County, Annual

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	2.0800e-003	1.4300e-003	0.0153	5.0000e-005	5.5500e-003	4.0000e-005	5.5900e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.5893	4.5893	1.0000e-004	0.0000	4.5919
Total	**2.0800e-003**	**1.4300e-003**	**0.0153**	**5.0000e-005**	**5.5500e-003**	**4.0000e-005**	**5.5900e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.5893**	**4.5893**	**1.0000e-004**	**0.0000**	**4.5919**

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	0.5693					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7600e-003	0.0190	0.0245	4.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	3.4469	3.4469	2.2000e-004	0.0000	3.4525
Total	**0.5721**	**0.0190**	**0.0245**	**4.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**3.4469**	**3.4469**	**2.2000e-004**	**0.0000**	**3.4525**

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	2.0800e-003	1.4300e-003	0.0153	5.0000e-005	5.1200e-003	4.0000e-005	5.1600e-003	1.3700e-003	3.0000e-005	1.4000e-003	0.0000	4.5893	4.5893	1.0000e-004	0.0000	4.5919
Total	**2.0800e-003**	**1.4300e-003**	**0.0153**	**5.0000e-005**	**5.1200e-003**	**4.0000e-005**	**5.1600e-003**	**1.3700e-003**	**3.0000e-005**	**1.4000e-003**	**0.0000**	**4.5893**	**4.5893**	**1.0000e-004**	**0.0000**	**4.5919**

ThorntonMS_Operation2022 - Alameda County, Annual

ThorntonMS_Operation2022

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	42.51	1000sqft	0.53	42,510.00	0
Other Asphalt Surfaces	140.00	1000sqft	3.21	140,000.00	0
Other Non-Asphalt Surfaces	339.27	1000sqft	7.79	339,270.00	0
Parking Lot	35.00	1000sqft	0.80	35,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	356.12	**CH4 Intensity (lb/MWhr)**	0.041	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - East Bay Community Energy

Land Use - See Assumptions

Construction Phase - Operation Phase = No Construction

Off-road Equipment - Operation Phase = No Construction

Trips and VMT - Operation Phase = No Construction

Architectural Coating - Operation Phase = No Construction

Vehicle Trips - See assumptions = Average trip length is 1.0 Mile for student trips based on the Thornton MS Student Boundary (Kittelson).

Area Coating - See Construction assumptions for Parking SQFT repainting

Energy Use -

Water And Wastewater - No increase in exterior water use. Indoor water use is based on 2,424 gallons/student/yr in CalEEMod x 917 additional students (see assumptions)

Solid Waste - see assumptions

Energy Mitigation - Built under the 2019 Building and Energy Efficiency Standards, which are 30% more efficient than the 2016 Standards (CEC 2018)

Water Mitigation - WELO requirements

Fleet Mix - See Assumptions: normalized fleet mix to account for higher proportion of Light Duty Automobiles compared to CalEEMod defaults.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	21,255.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	63,765.00	0.00
tblArchitecturalCoating	ConstArea_Parking	30,856.00	0.00
tblAreaCoating	Area_Parking	30856	10500
tblConstructionPhase	NumDays	20.00	1.00
tblFleetMix	HHD	0.05	4.9820e-003
tblFleetMix	LDA	0.56	0.68
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	1.7660e-003
tblFleetMix	LHD2	5.2020e-003	5.7300e-004

ThorntonMS_Operation2022

Alameda County, Annual

tblFleetMix	MCY	5.5240e-003	7.1380e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	2.6430e-003
tblFleetMix	OBUS	2.1840e-003	0.00
tblFleetMix	SBUS	3.2600e-004	3.6000e-005
tblFleetMix	UBUS	2.5610e-003	0.00
tblLandUse	LotAcreage	0.98	0.53
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.041
tblProjectCharacteristics	CO2IntensityFactor	641.35	356.12
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblSolidWaste	SolidWasteGenerationRate	55.26	165.06
tblTripsAndVMT	WorkerTripNumber	47.00	0.00
tblVehicleTrips	CC_TL	7.30	7.91
tblVehicleTrips	CC_TTP	22.20	4.60
tblVehicleTrips	CNW_TL	7.30	7.91
tblVehicleTrips	CNW_TTP	5.00	4.70
tblVehicleTrips	CW_TL	9.50	1.00
tblVehicleTrips	CW_TTP	72.80	90.70
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	WD_TR	13.78	45.94
tblWater	AerobicPercent	87.46	100.00
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	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	876,598.90	2,222,808.00
tblWater	OutdoorWaterUseRate	2,254,111.45	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

ThorntonMS_Operation2022 - Alameda County, Annual

ThorntonMS_Operation2022

Alameda County, Annual

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	0.2256	5.0000e-005	5.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9500e-003	9.9500e-003	3.0000e-005	0.0000	0.0106
Energy	3.7800e-003	0.0343	0.0288	2.1000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	69.8294	69.8294	4.4500e-003	1.1400e-003	70.2807
Mobile	0.2439	0.2815	1.6475	3.2200e-003	0.3053	3.1000e-003	0.3084	0.0812	2.8600e-003	0.0841	0.0000	291.0678	291.0678	0.0139	0.0000	291.4154
Waste						0.0000	0.0000		0.0000	0.0000	33.5057	0.0000	33.5057	1.9801	0.0000	83.0089
Water						0.0000	0.0000		0.0000	0.0000	0.7864	1.9429	2.7293	2.9300e-003	1.7400e-003	3.3203
Total	**0.4732**	**0.3159**	**1.6815**	**3.4300e-003**	**0.3053**	**5.7300e-003**	**0.3111**	**0.0812**	**5.4900e-003**	**0.0867**	**34.2921**	**362.8500**	**397.1422**	**2.0014**	**2.8800e-003**	**448.0359**

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	0.2256	5.0000e-005	5.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9500e-003	9.9500e-003	3.0000e-005	0.0000	0.0106
Energy	2.7500e-003	0.0250	0.0210	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	58.3636	58.3636	4.1000e-003	9.4000e-004	58.7453
Mobile	0.2439	0.2815	1.6475	3.2200e-003	0.3053	3.1000e-003	0.3084	0.0812	2.8600e-003	0.0841	0.0000	291.0678	291.0678	0.0139	0.0000	291.4154
Waste						0.0000	0.0000		0.0000	0.0000	33.5057	0.0000	33.5057	1.9801	0.0000	83.0089
Water						0.0000	0.0000		0.0000	0.0000	0.6292	1.5543	2.1834	2.3400e-003	1.3900e-003	2.6563
Total	**0.4722**	**0.3066**	**1.6737**	**3.3700e-003**	**0.3053**	**5.0200e-003**	**0.3104**	**0.0812**	**4.7800e-003**	**0.0860**	**34.1348**	**350.9957**	**385.1305**	**2.0005**	**2.3300e-003**	**435.8365**

	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	**0.22**	**2.94**	**0.46**	**1.75**	**0.00**	**12.39**	**0.23**	**0.00**	**12.93**	**0.82**	**0.46**	**3.27**	**3.02**	**0.05**	**19.10**	**2.72**

ThorntonMS_Operation2022

Alameda County, Annual

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	0.2439	0.2815	1.6475	3.2200e-003	0.3053	3.1000e-003	0.3084	0.0812	2.8600e-003	0.0841	0.0000	291.0678	291.0678	0.0139	0.0000	291.4154
Unmitigated	0.2439	0.2815	1.6475	3.2200e-003	0.3053	3.1000e-003	0.3084	0.0812	2.8600e-003	0.0841	0.0000	291.0678	291.0678	0.0139	0.0000	291.4154

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior High School	1,952.91	0.00	0.00	834,056	834,056
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,952.91	0.00	0.00	834,056	834,056

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
Junior High School	1.00	7.91	7.91	90.70	4.60	4.70	100	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
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
Junior High School	0.682958	0.047879	0.232025	0.020000	0.001766	0.000573	0.002643	0.004982	0.000000	0.000000	0.007138	0.000036	0.000000
Other Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Other Non-Asphalt Surfaces	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Parking Lot	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

ThorntonMS_Operation2022

Alameda County, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	31.1077	31.1077	3.5800e-003	4.4000e-004	31.3274
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	32.4673	32.4673	3.7400e-003	4.6000e-004	32.6966
NaturalGas Mitigated	2.7500e-003	0.0250	0.0210	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.2560	27.2560	5.2000e-004	5.0000e-004	27.4179
NaturalGas Unmitigated	3.7800e-003	0.0343	0.0288	2.1000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	37.3621	37.3621	7.2000e-004	6.8000e-004	37.5842

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					
Junior High School	700140	3.7800e-003	0.0343	0.0288	2.1000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	37.3621	37.3621	7.2000e-004	6.8000e-004	37.5842
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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		**3.7800e-003**	**0.0343**	**0.0288**	**2.1000e-004**		**2.6100e-003**	**2.6100e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**37.3621**	**37.3621**	**7.2000e-004**	**6.8000e-004**	**37.5842**

ThorntonMS_Operation2022

Alameda County, Annual

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					
Junior High School	510758	2.7500e-003	0.0250	0.0210	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.2560	27.2560	5.2000e-004	5.0000e-004	27.4179
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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		**2.7500e-003**	**0.0250**	**0.0210**	**1.5000e-004**		**1.9000e-003**	**1.9000e-003**		**1.9000e-003**	**1.9000e-003**	**0.0000**	**27.2560**	**27.2560**	**5.2000e-004**	**5.0000e-004**	**27.4179**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior High School	188744	30.4885	3.5100e-003	4.3000e-004	30.7038
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	12250	1.9788	2.3000e-004	3.0000e-005	1.9928
Total		**32.4673**	**3.7400e-003**	**4.6000e-004**	**32.6966**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior High School	180327	29.1289	3.3500e-003	4.1000e-004	29.3346
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	12250	1.9788	2.3000e-004	3.0000e-005	1.9928
Total		**31.1077**	**3.5800e-003**	**4.4000e-004**	**31.3274**

ThorntonMS_Operation2022 - Alameda County, Annual

ThorntonMS_Operation2022

Alameda County, Annual

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	0.2256	5.0000e-005	5.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9500e-003	9.9500e-003	3.0000e-005	0.0000	0.0106
Unmitigated	0.2256	5.0000e-005	5.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9500e-003	9.9500e-003	3.0000e-005	0.0000	0.0106

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	0.0258					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1993					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.8000e-004	5.0000e-005	5.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9500e-003	9.9500e-003	3.0000e-005	0.0000	0.0106
Total	**0.2256**	**5.0000e-005**	**5.1200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.9500e-003**	**9.9500e-003**	**3.0000e-005**	**0.0000**	**0.0106**

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	0.0258					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1993					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.8000e-004	5.0000e-005	5.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9500e-003	9.9500e-003	3.0000e-005	0.0000	0.0106
Total	**0.2256**	**5.0000e-005**	**5.1200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.9500e-003**	**9.9500e-003**	**3.0000e-005**	**0.0000**	**0.0106**

ThorntonMS_Operation2022

Alameda County, Annual

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1834	2.3400e-003	1.3900e-003	2.6563
Unmitigated	2.7293	2.9300e-003	1.7400e-003	3.3203

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior High School	2.22281 / 0	2.7293	2.9300e-003	1.7400e-003	3.3203
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.7293**	**2.9300e-003**	**1.7400e-003**	**3.3203**

ThorntonMS_Operation2022

Alameda County, Annual

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior High School	1.77825 / 0	2.1834	2.3400e-003	1.3900e-003	2.6563
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.1834**	**2.3400e-003**	**1.3900e-003**	**2.6563**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.5057	1.9801	0.0000	83.0089
Unmitigated	33.5057	1.9801	0.0000	83.0089

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior High School	165.06	33.5057	1.9801	0.0000	83.0089
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.5057**	**1.9801**	**0.0000**	**83.0089**

ThorntonMS_Operation2022

Alameda County, Annual

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior High School	165.06	33.5057	1.9801	0.0000	83.0089
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.5057**	**1.9801**	**0.0000**	**83.0089**

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Construction Health Risk Modeling

Construction Emissions - DPM and PM2.5
Input to Risk Tables

On-site Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2020 On-site Emissions	Average Daily Emissions (lbs/day)	2.18	2.02
	Average Daily Emissions (lbs/hr)	2.72E-01	2.53E-01
	Emission Rate (g/s)	3.43E-02	3.19E-02
2021 On-site Emissions	Average Daily Emissions (lbs/day)	0.96	0.90
	Average Daily Emissions (lbs/hr)	1.20E-01	1.13E-01
	Emission Rate (g/s)	1.51E-02	1.42E-02
2022 On-site Emissions	Average Daily Emissions (lbs/day)	0.91	0.86
	Average Daily Emissions (lbs/hr)	1.14E-01	1.07E-01
	Emission Rate (g/s)	1.44E-02	1.35E-02

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Off-site Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2020 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.038	0.036
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.59E-04	7.24E-04
	Emission Rate (lbs/hr)	9.49E-05	9.05E-05
	Emission Rate (g/s)	1.20E-05	1.14E-05
2021 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.036	0.034
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.26E-04	6.84E-04
	Emission Rate (lbs/hr)	9.08E-05	8.54E-05
	Emission Rate (g/s)	1.14E-05	1.08E-05
2022 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.033	0.031
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	6.70E-04	6.28E-04
	Emission Rate (lbs/hr)	8.37E-05	7.85E-05
	Emission Rate (g/s)	1.05E-05	9.89E-06

Note: Emissions evenly distributed over 25 modeled volume sources.

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [4] 8 hours

	Year	Workdays	Risk Scalar [5]
Total construction days per year	2020	216	0.82
	2021	261	1.00
	2022	172	0.66

Average Hauling Length (miles) 20.0

Haul Length within 1,000 ft of Site (mile) [3] 0.40

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as $PM_{2.5}$ exhaust emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances proportioned to evaluate emissions from the 0.40-mile route within 1,000 ft of the project site.

[4] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App B - Air Dispersion Model Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Construction Emissions - DPM and PM2.5
Input to Risk Tables
With Mitigation - Level 3 DPF's for Eq. > 50 hp

On-site Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2020 On-site Emissions	Average Daily Emissions (lbs/day)	0.36	0.34
	Average Daily Emissions (lbs/hr)	4.55E-02	4.26E-02
	Emission Rate (g/s)	5.74E-03	5.36E-03
2021 On-site Emissions	Average Daily Emissions (lbs/day)	0.21	0.20
	Average Daily Emissions (lbs/hr)	2.59E-02	2.48E-02
	Emission Rate (g/s)	3.26E-03	3.13E-03
2022 On-site Emissions	Average Daily Emissions (lbs/day)	0.19	0.18
	Average Daily Emissions (lbs/hr)	2.39E-02	2.29E-02
	Emission Rate (g/s)	3.01E-03	2.88E-03

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Off-site Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2020 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.038	0.036
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.59E-04	7.24E-04
	Emission Rate (lbs/hr)	9.49E-05	9.05E-05
	Emission Rate (g/s)	1.20E-05	1.14E-05
2021 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.036	0.034
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.26E-04	6.84E-04
	Emission Rate (lbs/hr)	9.08E-05	8.54E-05
	Emission Rate (g/s)	1.14E-05	1.08E-05
2022 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.033	0.031
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	6.70E-04	6.28E-04
	Emission Rate (lbs/hr)	8.37E-05	7.85E-05
	Emission Rate (g/s)	1.05E-05	9.89E-06

Note: Emissions evenly distributed over 25 modeled volume sources.

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [4] 8 hours

	Year	Workdays	Risk Scalar [5]
Total construction days per year	2020	216	0.82
	2021	261	1.00
	2022	172	0.66

Average Hauling Length (miles) 20.0

Haul Length within 1,000 ft of Site (mile) [3] 0.40

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as $PM_{2.5}$ exhaust emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances proportioned to evaluate emissions from the 0.40-mile route within 1,000 ft of the project site.

[4] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App B - Air Dispersion Model Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 27 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 1663000.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates PERIOD Averages Only

**This Run Includes: 27 Source(s); 2 Source Group(s); and 490 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 25 VOLUME source(s)
and: 2 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
**The AERMET Input Meteorological Data Version Date:  14134

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    15.50 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   FREM01.err
**File for Summary of Results:   FREM01.sum
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.40000E-01	587043.4	4157121.1	14.7	4.15	11.91	1.93	YES	HRDOW
L0000002	0	0.40000E-01	587029.7	4157099.5	14.9	4.15	11.91	1.93	YES	HRDOW
L0000003	0	0.40000E-01	587016.0	4157077.8	14.5	4.15	11.91	1.93	YES	HRDOW
L0000004	0	0.40000E-01	587002.3	4157056.2	14.3	4.15	11.91	1.93	YES	HRDOW
L0000005	0	0.40000E-01	586988.5	4157034.6	14.1	4.15	11.91	1.93	YES	HRDOW
L0000006	0	0.40000E-01	586974.8	4157013.0	14.0	4.15	11.91	1.93	YES	HRDOW
L0000007	0	0.40000E-01	586961.1	4156991.4	13.7	4.15	11.91	1.93	YES	HRDOW
L0000008	0	0.40000E-01	586947.4	4156969.8	13.7	4.15	11.91	1.93	YES	HRDOW
L0000009	0	0.40000E-01	586933.7	4156948.2	13.5	4.15	11.91	1.93	YES	HRDOW
L0000010	0	0.40000E-01	586919.9	4156926.5	13.4	4.15	11.91	1.93	YES	HRDOW
L0000011	0	0.40000E-01	586906.2	4156904.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000012	0	0.40000E-01	586892.5	4156883.3	13.0	4.15	11.91	1.93	YES	HRDOW
L0000013	0	0.40000E-01	586878.8	4156861.7	13.1	4.15	11.91	1.93	YES	HRDOW
L0000014	0	0.40000E-01	586865.0	4156840.1	13.1	4.15	11.91	1.93	YES	HRDOW
L0000015	0	0.40000E-01	586851.3	4156818.5	13.1	4.15	11.91	1.93	YES	HRDOW
L0000016	0	0.40000E-01	586837.6	4156796.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000017	0	0.40000E-01	586823.9	4156775.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000018	0	0.40000E-01	586810.2	4156753.6	13.2	4.15	11.91	1.93	YES	HRDOW
L0000019	0	0.40000E-01	586796.4	4156732.0	13.2	4.15	11.91	1.93	YES	HRDOW
L0000020	0	0.40000E-01	586782.7	4156710.4	13.2	4.15	11.91	1.93	YES	HRDOW
L0000021	0	0.40000E-01	586769.0	4156688.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000022	0	0.40000E-01	586755.3	4156667.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000023	0	0.40000E-01	586741.5	4156645.5	13.2	4.15	11.91	1.93	YES	HRDOW
L0000024	0	0.40000E-01	586727.8	4156623.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000025	0	0.40000E-01	586714.1	4156602.3	13.2	4.15	11.91	1.93	YES	HRDOW

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE2	0	0.24683E-04	586929.4	4157071.2	14.4	4.15	20.23	52.06	29.54	1.93	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE1	0	0.24989E-04	586639.0	4157127.5	13.3	4.15	12	1.93	YES	HRDOW

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
HAUL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 ,
ONSITE	ONSITE1 , ONSITE2 ,

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	1663000.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
		L0000025 , ONSITE1 , ONSITE2 ,

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = ALL SOURCES ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.0000E+00	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(586404.7,	4156628.8,	12.3,	12.3,	1.5);	(586444.7,	4156628.8,	12.2,	12.2,	1.5);
(586484.7,	4156628.8,	12.0,	12.0,	1.5);	(586536.3,	4156643.1,	12.7,	12.7,	1.5);
(586564.7,	4156628.8,	12.7,	12.7,	1.5);	(586604.7,	4156628.8,	12.9,	12.9,	1.5);
(586644.7,	4156628.8,	13.0,	13.0,	1.5);	(586684.7,	4156628.8,	13.2,	13.2,	1.5);
(586764.7,	4156628.8,	13.3,	13.3,	1.5);	(586804.7,	4156628.8,	13.4,	13.4,	1.5);
(586844.7,	4156628.8,	13.5,	13.5,	1.5);	(586884.7,	4156628.8,	13.6,	13.6,	1.5);
(586924.7,	4156628.8,	13.8,	13.8,	1.5);	(586964.7,	4156628.8,	13.6,	13.6,	1.5);
(587004.7,	4156628.8,	13.7,	13.7,	1.5);	(587044.7,	4156628.8,	13.4,	13.4,	1.5);
(587084.7,	4156628.8,	13.8,	13.8,	1.5);	(587124.7,	4156628.8,	13.9,	13.9,	1.5);
(587164.7,	4156628.8,	14.1,	14.1,	1.5);	(587204.7,	4156628.8,	13.9,	13.9,	1.5);
(587244.7,	4156628.8,	14.2,	14.2,	1.5);	(587284.7,	4156628.8,	14.8,	14.8,	1.5);
(586404.7,	4156668.8,	12.0,	12.0,	1.5);	(586444.7,	4156668.8,	12.0,	12.0,	1.5);
(586484.7,	4156668.8,	12.5,	12.5,	1.5);	(586524.7,	4156668.8,	12.5,	12.5,	1.5);
(586564.7,	4156668.8,	12.6,	12.6,	1.5);	(586604.7,	4156668.8,	12.8,	12.8,	1.5);
(586804.7,	4156668.8,	13.5,	13.5,	1.5);	(586844.7,	4156668.8,	13.2,	13.2,	1.5);
(586884.7,	4156668.8,	13.6,	13.6,	1.5);	(586924.7,	4156668.8,	13.4,	13.4,	1.5);
(586964.7,	4156668.8,	13.2,	13.2,	1.5);	(587004.7,	4156668.8,	13.5,	13.5,	1.5);
(587044.7,	4156668.8,	13.5,	13.5,	1.5);	(587084.7,	4156668.8,	13.4,	13.4,	1.5);
(587124.7,	4156668.8,	13.6,	13.6,	1.5);	(587164.7,	4156668.8,	14.2,	14.2,	1.5);
(587204.7,	4156668.8,	14.2,	14.2,	1.5);	(587244.7,	4156668.8,	14.0,	14.0,	1.5);
(587284.7,	4156668.8,	14.7,	14.7,	1.5);	(586404.7,	4156708.8,	12.1,	12.1,	1.5);
(586444.7,	4156708.8,	12.3,	12.3,	1.5);	(586484.7,	4156708.8,	12.4,	12.4,	1.5);
(586524.7,	4156708.8,	12.5,	12.5,	1.5);	(586564.7,	4156708.8,	12.7,	12.7,	1.5);
(586604.7,	4156708.8,	12.7,	12.7,	1.5);	(586804.7,	4156708.8,	13.3,	13.3,	1.5);
(586844.7,	4156708.8,	13.4,	13.4,	1.5);	(586884.7,	4156708.8,	13.4,	13.4,	1.5);
(586924.7,	4156708.8,	13.3,	13.3,	1.5);	(586964.7,	4156708.8,	13.5,	13.5,	1.5);
(587004.7,	4156708.8,	13.4,	13.4,	1.5);	(587044.7,	4156708.8,	13.6,	13.6,	1.5);
(587084.7,	4156708.8,	13.6,	13.6,	1.5);	(587124.7,	4156708.8,	13.6,	13.6,	1.5);
(587164.7,	4156708.8,	13.8,	13.8,	1.5);	(587204.7,	4156708.8,	14.3,	14.3,	1.5);
(587244.7,	4156708.8,	14.3,	14.3,	1.5);	(587284.7,	4156708.8,	14.8,	14.8,	1.5);
(586404.7,	4156748.8,	12.2,	12.2,	1.5);	(586444.7,	4156748.8,	12.3,	12.3,	1.5);
(586484.7,	4156748.8,	12.4,	12.4,	1.5);	(586524.7,	4156748.8,	12.5,	12.5,	1.5);
(586564.7,	4156748.8,	12.3,	12.3,	1.5);	(586604.7,	4156748.8,	12.5,	12.5,	1.5);
(586644.7,	4156748.8,	12.9,	12.9,	1.5);	(586844.7,	4156748.8,	13.3,	13.3,	1.5);
(586884.7,	4156748.8,	13.2,	13.2,	1.5);	(586924.7,	4156748.8,	13.3,	13.3,	1.5);
(586964.7,	4156748.8,	13.6,	13.6,	1.5);	(587004.7,	4156748.8,	13.5,	13.5,	1.5);
(587044.7,	4156748.8,	13.7,	13.7,	1.5);	(587084.7,	4156748.8,	13.7,	13.7,	1.5);
(587124.7,	4156748.8,	13.7,	13.7,	1.5);	(587164.7,	4156748.8,	14.1,	14.1,	1.5);
(587204.7,	4156748.8,	14.4,	14.4,	1.5);	(587244.7,	4156748.8,	14.5,	14.5,	1.5);
(587284.7,	4156748.8,	14.4,	14.4,	1.5);	(586404.7,	4156788.8,	12.0,	12.0,	1.5);
(586444.7,	4156788.8,	12.5,	12.5,	1.5);	(586484.7,	4156788.8,	12.5,	12.5,	1.5);

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 586524.7, 4156788.8,      12.2,      12.2,       1.5);         ( 586564.7, 4156788.8,      12.4,      12.4,       1.5);
    ( 586604.7, 4156788.8,      12.3,      12.3,       1.5);         ( 586644.7, 4156788.8,      12.9,      12.9,       1.5);
    ( 586684.7, 4156788.8,      13.1,      13.1,       1.5);         ( 586724.7, 4156788.8,      13.4,      13.4,       1.5);
    ( 586764.7, 4156788.8,      12.9,      12.9,       1.5);         ( 586804.7, 4156788.8,      13.2,      13.2,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                    ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                             ***        15:58:10
                                                                                                                 PAGE  35
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 586884.7, 4156788.8,      13.5,      13.5,       1.5);         ( 586924.7, 4156788.8,      13.4,      13.4,       1.5);
    ( 586964.7, 4156788.8,      13.6,      13.6,       1.5);         ( 587004.7, 4156788.8,      13.7,      13.7,       1.5);
    ( 587044.7, 4156788.8,      13.8,      13.8,       1.5);         ( 587084.7, 4156788.8,      13.7,      13.7,       1.5);
    ( 587124.7, 4156788.8,      13.9,      13.9,       1.5);         ( 587164.7, 4156788.8,      14.2,      14.2,       1.5);
    ( 587204.7, 4156788.8,      14.3,      14.3,       1.5);         ( 587244.7, 4156788.8,      14.5,      14.5,       1.5);
    ( 587284.7, 4156788.8,      14.6,      14.6,       1.5);         ( 586404.7, 4156828.8,      12.4,      12.4,       1.5);
    ( 586444.7, 4156828.8,      12.2,      12.2,       1.5);         ( 586484.7, 4156828.8,      12.3,      12.3,       1.5);
    ( 586524.7, 4156828.8,      12.6,      12.6,       1.5);         ( 586564.7, 4156828.8,      12.8,      12.8,       1.5);
    ( 586604.7, 4156828.8,      12.5,      12.5,       1.5);         ( 586644.7, 4156828.8,      12.7,      12.7,       1.5);
    ( 586684.7, 4156828.8,      13.0,      13.0,       1.5);         ( 586724.7, 4156828.8,      13.2,      13.2,       1.5);
    ( 586764.7, 4156828.8,      13.3,      13.3,       1.5);         ( 586804.7, 4156828.8,      13.3,      13.3,       1.5);
    ( 586924.7, 4156828.8,      13.4,      13.4,       1.5);         ( 586964.7, 4156828.8,      13.3,      13.3,       1.5);
    ( 587004.7, 4156828.8,      13.5,      13.5,       1.5);         ( 587044.7, 4156828.8,      13.7,      13.7,       1.5);
    ( 587084.7, 4156828.8,      14.1,      14.1,       1.5);         ( 587124.7, 4156828.8,      14.0,      14.0,       1.5);
    ( 587164.7, 4156828.8,      13.6,      13.6,       1.5);         ( 587204.7, 4156828.8,      14.1,      14.1,       1.5);
    ( 587244.7, 4156828.8,      14.6,      14.6,       1.5);         ( 587284.7, 4156828.8,      14.7,      14.7,       1.5);
    ( 586404.7, 4156868.8,      12.5,      12.5,       1.5);         ( 586444.7, 4156868.8,      12.2,      12.2,       1.5);
    ( 586484.7, 4156868.8,      12.4,      12.4,       1.5);         ( 586524.7, 4156868.8,      12.4,      12.4,       1.5);
    ( 586564.7, 4156868.8,      12.8,      12.8,       1.5);         ( 586604.7, 4156868.8,      12.8,      12.8,       1.5);
    ( 586644.7, 4156868.8,      12.9,      12.9,       1.5);         ( 586684.7, 4156868.8,      13.1,      13.1,       1.5);
    ( 586724.7, 4156868.8,      13.1,      13.1,       1.5);         ( 586764.7, 4156868.8,      13.2,      13.2,       1.5);
    ( 586804.7, 4156868.8,      13.2,      13.2,       1.5);         ( 586844.7, 4156868.8,      13.0,      13.0,       1.5);
    ( 586854.2, 4156883.6,      13.0,      13.0,       1.5);         ( 586921.9, 4156855.6,      13.5,      13.5,       1.5);
    ( 587044.7, 4156868.8,      13.7,      13.7,       1.5);         ( 587084.7, 4156868.8,      13.8,      13.8,       1.5);
    ( 587124.7, 4156868.8,      13.9,      13.9,       1.5);         ( 587164.7, 4156868.8,      13.9,      13.9,       1.5);
    ( 587204.7, 4156868.8,      13.9,      13.9,       1.5);         ( 587244.7, 4156868.8,      14.2,      14.2,       1.5);
    ( 587284.7, 4156868.8,      14.6,      14.6,       1.5);         ( 586404.7, 4156908.8,      12.0,      12.0,       1.5);
    ( 586444.7, 4156908.8,      12.6,      12.6,       1.5);         ( 586484.7, 4156908.8,      12.3,      12.3,       1.5);
    ( 586524.7, 4156908.8,      12.7,      12.7,       1.5);         ( 586564.7, 4156908.8,      12.9,      12.9,       1.5);
    ( 586604.7, 4156908.8,      12.8,      12.8,       1.5);         ( 586644.7, 4156908.8,      12.9,      12.9,       1.5);
    ( 586684.7, 4156908.8,      13.1,      13.1,       1.5);         ( 586724.7, 4156908.8,      12.7,      12.7,       1.5);
    ( 586764.7, 4156908.8,      13.1,      13.1,       1.5);         ( 586804.7, 4156908.8,      13.0,      13.0,       1.5);
    ( 586844.7, 4156908.8,      13.0,      13.0,       1.5);         ( 587044.7, 4156908.8,      13.6,      13.6,       1.5);
    ( 587084.7, 4156908.8,      13.8,      13.8,       1.5);         ( 587124.7, 4156908.8,      13.9,      13.9,       1.5);
    ( 587164.7, 4156908.8,      13.9,      13.9,       1.5);         ( 587204.7, 4156908.8,      14.1,      14.1,       1.5);
    ( 587244.7, 4156908.8,      14.2,      14.2,       1.5);         ( 587284.7, 4156908.8,      14.6,      14.6,       1.5);
    ( 586404.7, 4156948.8,      12.3,      12.3,       1.5);         ( 586444.7, 4156948.8,      12.3,      12.3,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 586484.7, 4156948.8,      12.6,      12.6,       1.5);         ( 586524.7, 4156948.8,      12.6,      12.6,       1.5);
    ( 586564.7, 4156948.8,      12.7,      12.7,       1.5);         ( 586604.7, 4156948.8,      12.8,      12.8,       1.5);
    ( 586644.7, 4156948.8,      13.0,      13.0,       1.5);         ( 586684.7, 4156948.8,      13.0,      13.0,       1.5);
    ( 586724.7, 4156948.8,      13.2,      13.2,       1.5);         ( 586764.7, 4156948.8,      13.2,      13.2,       1.5);
    ( 586804.7, 4156948.8,      13.1,      13.1,       1.5);         ( 586844.7, 4156948.8,      13.0,      13.0,       1.5);
    ( 586884.7, 4156948.8,      13.3,      13.3,       1.5);         ( 586986.7, 4156959.8,      13.7,      13.7,       1.5);
    ( 587004.7, 4156948.8,      13.6,      13.6,       1.5);         ( 587044.7, 4156948.8,      13.9,      13.9,       1.5);
    ( 587164.7, 4156948.8,      14.5,      14.5,       1.5);         ( 587204.7, 4156948.8,      14.1,      14.1,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  36
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 587244.7, 4156948.8,      14.2,      14.2,       1.5);         ( 587284.7, 4156948.8,      14.7,      14.7,       1.5);
    ( 586404.7, 4156988.8,      12.6,      12.6,       1.5);         ( 586444.7, 4156988.8,      12.3,      12.3,       1.5);
    ( 586484.7, 4156988.8,      12.4,      12.4,       1.5);         ( 586524.7, 4156988.8,      12.8,      12.8,       1.5);
    ( 586564.7, 4156988.8,      12.8,      12.8,       1.5);         ( 586604.7, 4156988.8,      12.9,      12.9,       1.5);
    ( 586644.7, 4156988.8,      13.0,      13.0,       1.5);         ( 586684.7, 4156988.8,      13.2,      13.2,       1.5);
    ( 586724.7, 4156988.8,      13.2,      13.2,       1.5);         ( 586764.7, 4156988.8,      13.4,      13.4,       1.5);
    ( 586804.7, 4156988.8,      13.2,      13.2,       1.5);         ( 586838.2, 4156976.5,      13.4,      13.4,       1.5);
    ( 586404.7, 4157028.8,      12.4,      12.4,       1.5);         ( 586444.7, 4157028.8,      12.6,      12.6,       1.5);
    ( 586484.7, 4157028.8,      12.5,      12.5,       1.5);         ( 586524.7, 4157028.8,      12.6,      12.6,       1.5);
    ( 586564.7, 4157028.8,      12.9,      12.9,       1.5);         ( 586604.7, 4157028.8,      12.9,      12.9,       1.5);
    ( 586644.7, 4157028.8,      13.1,      13.1,       1.5);         ( 586684.7, 4157028.8,      13.1,      13.1,       1.5);
    ( 586724.7, 4157028.8,      13.4,      13.4,       1.5);         ( 586764.7, 4157028.8,      13.4,      13.4,       1.5);
    ( 586791.1, 4157010.6,      13.4,      13.4,       1.5);         ( 587244.7, 4157028.8,      14.8,      14.8,       1.5);
    ( 587284.7, 4157028.8,      15.0,      15.0,       1.5);         ( 586404.7, 4157068.8,      12.7,      12.7,       1.5);
    ( 586444.7, 4157068.8,      12.8,      12.8,       1.5);         ( 586484.7, 4157068.8,      12.7,      12.7,       1.5);
    ( 586524.7, 4157068.8,      12.6,      12.6,       1.5);         ( 586564.7, 4157068.8,      12.8,      12.8,       1.5);
    ( 586604.7, 4157068.8,      13.0,      13.0,       1.5);         ( 586644.7, 4157068.8,      13.0,      13.0,       1.5);
    ( 586684.7, 4157068.8,      13.3,      13.3,       1.5);         ( 586713.7, 4157057.1,      13.3,      13.3,       1.5);
    ( 587204.7, 4157068.8,      14.5,      14.5,       1.5);         ( 587244.7, 4157068.8,      15.0,      15.0,       1.5);
    ( 587284.7, 4157068.8,      15.1,      15.1,       1.5);         ( 586404.7, 4157108.8,      12.8,      12.8,       1.5);
    ( 586444.7, 4157108.8,      12.9,      12.9,       1.5);         ( 586484.7, 4157108.8,      12.9,      12.9,       1.5);
    ( 586524.7, 4157108.8,      12.8,      12.8,       1.5);         ( 586564.7, 4157108.8,      12.8,      12.8,       1.5);
    ( 586604.7, 4157108.8,      13.0,      13.0,       1.5);         ( 586644.7, 4157108.8,      13.4,      13.4,       1.5);
    ( 587124.7, 4157108.8,      14.9,      14.9,       1.5);         ( 587164.7, 4157108.8,      14.8,      14.8,       1.5);
    ( 587204.7, 4157108.8,      14.9,      14.9,       1.5);         ( 587244.7, 4157108.8,      15.0,      15.0,       1.5);
    ( 587284.7, 4157108.8,      14.9,      14.9,       1.5);         ( 586404.7, 4157148.8,      12.9,      12.9,       1.5);
    ( 586444.7, 4157148.8,      13.0,      13.0,       1.5);         ( 586484.7, 4157148.8,      12.9,      12.9,       1.5);
    ( 586524.7, 4157148.8,      13.0,      13.0,       1.5);         ( 586564.7, 4157148.8,      13.1,      13.1,       1.5);
    ( 586604.7, 4157148.8,      13.3,      13.3,       1.5);         ( 586644.7, 4157148.8,      13.2,      13.2,       1.5);
    ( 587035.6, 4157161.4,      14.8,      14.8,       1.5);         ( 587084.7, 4157148.8,      14.9,      14.9,       1.5);
    ( 587124.7, 4157148.8,      15.0,      15.0,       1.5);         ( 587164.7, 4157148.8,      15.1,      15.1,       1.5);
    ( 587204.7, 4157148.8,      15.0,      15.0,       1.5);         ( 587244.7, 4157148.8,      15.1,      15.1,       1.5);
    ( 587284.7, 4157148.8,      15.1,      15.1,       1.5);         ( 586404.7, 4157188.8,      13.1,      13.1,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 586444.7, 4157188.8,      13.1,      13.1,       1.5);         ( 586484.7, 4157188.8,      13.2,      13.2,       1.5);
    ( 586524.7, 4157188.8,      13.2,      13.2,       1.5);         ( 586564.7, 4157188.8,      13.3,      13.3,       1.5);
    ( 586604.7, 4157188.8,      13.3,      13.3,       1.5);         ( 586644.7, 4157188.8,      13.4,      13.4,       1.5);
    ( 586684.7, 4157188.8,      13.6,      13.6,       1.5);         ( 586978.2, 4157202.3,      14.6,      14.6,       1.5);
    ( 587004.7, 4157188.8,      14.7,      14.7,       1.5);         ( 587044.7, 4157188.8,      14.7,      14.7,       1.5);
    ( 587105.4, 4157182.4,      15.0,      15.0,       1.5);         ( 587124.7, 4157188.8,      15.0,      15.0,       1.5);
    ( 587164.7, 4157188.8,      14.9,      14.9,       1.5);         ( 587204.7, 4157188.8,      15.1,      15.1,       1.5);
    ( 587244.7, 4157188.8,      15.1,      15.1,       1.5);         ( 587284.7, 4157188.8,      15.2,      15.2,       1.5);
    ( 586404.7, 4157228.8,      13.3,      13.3,       1.5);         ( 586444.7, 4157228.8,      13.3,      13.3,       1.5);
    ( 586484.7, 4157228.8,      13.0,      13.0,       1.5);         ( 586524.7, 4157228.8,      13.1,      13.1,       1.5);
    ( 586564.7, 4157228.8,      13.3,      13.3,       1.5);         ( 586604.7, 4157228.8,      13.5,      13.5,       1.5);
    ( 586644.7, 4157228.8,      13.4,      13.4,       1.5);         ( 586684.7, 4157228.8,      13.5,      13.5,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  37
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

    ( 586724.7, 4157228.8,      13.7,      13.7,       1.5);         ( 586906.1, 4157250.1,      14.5,      14.5,       1.5);
    ( 587001.8, 4157286.3,      14.7,      14.7,       1.5);         ( 586924.7, 4157228.8,      14.4,      14.4,       1.5);
    ( 586964.7, 4157228.8,      14.5,      14.5,       1.5);         ( 587004.7, 4157228.8,      14.5,      14.5,       1.5);
    ( 587044.7, 4157228.8,      14.7,      14.7,       1.5);         ( 587084.7, 4157228.8,      14.9,      14.9,       1.5);
    ( 587124.7, 4157228.8,      15.2,      15.2,       1.5);         ( 587164.7, 4157228.8,      15.2,      15.2,       1.5);
    ( 587204.7, 4157228.8,      15.1,      15.1,       1.5);         ( 587244.7, 4157228.8,      15.4,      15.4,       1.5);
    ( 587284.7, 4157228.8,      15.4,      15.4,       1.5);         ( 586404.7, 4157268.8,      13.2,      13.2,       1.5);
    ( 586444.7, 4157268.8,      13.0,      13.0,       1.5);         ( 586484.7, 4157268.8,      13.1,      13.1,       1.5);
    ( 586524.7, 4157268.8,      13.0,      13.0,       1.5);         ( 586564.7, 4157268.8,      13.4,      13.4,       1.5);
    ( 586604.7, 4157268.8,      13.7,      13.7,       1.5);         ( 586644.7, 4157268.8,      13.7,      13.7,       1.5);
    ( 586684.7, 4157268.8,      13.8,      13.8,       1.5);         ( 586724.7, 4157268.8,      13.9,      13.9,       1.5);
    ( 586758.2, 4157280.4,      13.9,      13.9,       1.5);         ( 586815.0, 4157274.6,      14.4,      14.4,       1.5);
    ( 586858.2, 4157275.2,      14.1,      14.1,       1.5);         ( 586884.7, 4157268.8,      14.2,      14.2,       1.5);
    ( 586924.7, 4157268.8,      14.3,      14.3,       1.5);         ( 586964.7, 4157268.8,      14.3,      14.3,       1.5);
    ( 587004.7, 4157268.8,      14.7,      14.7,       1.5);         ( 587044.7, 4157268.8,      14.9,      14.9,       1.5);
    ( 587084.7, 4157268.8,      14.9,      14.9,       1.5);         ( 587124.7, 4157268.8,      15.2,      15.2,       1.5);
    ( 587164.7, 4157268.8,      15.3,      15.3,       1.5);         ( 587204.7, 4157268.8,      15.5,      15.5,       1.5);
    ( 587244.7, 4157268.8,      15.5,      15.5,       1.5);         ( 587284.7, 4157268.8,      15.5,      15.5,       1.5);
    ( 586404.7, 4157308.8,      12.9,      12.9,       1.5);         ( 586444.7, 4157308.8,      13.4,      13.4,       1.5);
    ( 586484.7, 4157308.8,      13.5,      13.5,       1.5);         ( 586524.7, 4157308.8,      13.1,      13.1,       1.5);
    ( 586564.7, 4157308.8,      13.5,      13.5,       1.5);         ( 586604.7, 4157308.8,      13.6,      13.6,       1.5);
    ( 586644.7, 4157308.8,      14.2,      14.2,       1.5);         ( 586684.7, 4157308.8,      14.1,      14.1,       1.5);
    ( 586724.7, 4157308.8,      14.4,      14.4,       1.5);         ( 586764.7, 4157308.8,      14.1,      14.1,       1.5);
    ( 586804.7, 4157308.8,      14.6,      14.6,       1.5);         ( 586844.7, 4157308.8,      14.3,      14.3,       1.5);
    ( 586884.7, 4157308.8,      14.1,      14.1,       1.5);         ( 586924.7, 4157308.8,      14.7,      14.7,       1.5);
    ( 586964.7, 4157308.8,      14.9,      14.9,       1.5);         ( 587004.7, 4157308.8,      15.1,      15.1,       1.5);
    ( 587044.7, 4157308.8,      14.9,      14.9,       1.5);         ( 587084.7, 4157308.8,      15.1,      15.1,       1.5);
    ( 587124.7, 4157308.8,      15.4,      15.4,       1.5);         ( 587164.7, 4157308.8,      15.7,      15.7,       1.5);
    ( 587204.7, 4157308.8,      15.6,      15.6,       1.5);         ( 587244.7, 4157308.8,      15.6,      15.6,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 587284.7, 4157308.8,      15.7,      15.7,       1.5);         ( 586404.7, 4157348.8,      13.5,      13.5,       1.5);
    ( 586444.7, 4157348.8,      13.1,      13.1,       1.5);         ( 586484.7, 4157348.8,      13.7,      13.7,       1.5);
    ( 586524.7, 4157348.8,      13.6,      13.6,       1.5);         ( 586564.7, 4157348.8,      13.5,      13.5,       1.5);
    ( 586604.7, 4157348.8,      14.2,      14.2,       1.5);         ( 586644.7, 4157348.8,      14.3,      14.3,       1.5);
    ( 586684.7, 4157348.8,      14.5,      14.5,       1.5);         ( 586724.7, 4157348.8,      14.4,      14.4,       1.5);
    ( 586764.7, 4157348.8,      14.6,      14.6,       1.5);         ( 586804.7, 4157348.8,      14.8,      14.8,       1.5);
    ( 586844.7, 4157348.8,      14.8,      14.8,       1.5);         ( 586884.7, 4157348.8,      14.7,      14.7,       1.5);
    ( 586924.7, 4157348.8,      14.8,      14.8,       1.5);         ( 586964.7, 4157348.8,      15.2,      15.2,       1.5);
    ( 587004.7, 4157348.8,      15.1,      15.1,       1.5);         ( 587044.7, 4157348.8,      15.3,      15.3,       1.5);
    ( 587084.7, 4157348.8,      15.5,      15.5,       1.5);         ( 587124.7, 4157348.8,      15.8,      15.8,       1.5);
    ( 587164.7, 4157348.8,      15.9,      15.9,       1.5);         ( 587204.7, 4157348.8,      15.8,      15.8,       1.5);
    ( 587244.7, 4157348.8,      15.8,      15.8,       1.5);         ( 587284.7, 4157348.8,      15.8,      15.8,       1.5);
    ( 586404.7, 4157388.8,      13.6,      13.6,       1.5);         ( 586444.7, 4157388.8,      13.7,      13.7,       1.5);
    ( 586484.7, 4157388.8,      13.6,      13.6,       1.5);         ( 586524.7, 4157388.8,      13.9,      13.9,       1.5);
    ( 586564.7, 4157388.8,      13.6,      13.6,       1.5);         ( 586604.7, 4157388.8,      14.3,      14.3,       1.5);
    ( 586644.7, 4157388.8,      14.6,      14.6,       1.5);         ( 586684.7, 4157388.8,      14.8,      14.8,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  38
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                  *** DISCRETE CARTESIAN RECEPTORS ***
                                 (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                           (METERS)

    ( 586724.7, 4157388.8,      15.1,      15.1,       1.5);         ( 586764.7, 4157388.8,      15.1,      15.1,       1.5);
    ( 586804.7, 4157388.8,      14.8,      14.8,       1.5);         ( 586844.7, 4157388.8,      14.7,      14.7,       1.5);
    ( 586884.7, 4157388.8,      14.8,      14.8,       1.5);         ( 586924.7, 4157388.8,      15.0,      15.0,       1.5);
    ( 586964.7, 4157388.8,      15.3,      15.3,       1.5);         ( 587004.7, 4157388.8,      15.2,      15.2,       1.5);
    ( 587044.7, 4157388.8,      15.6,      15.6,       1.5);         ( 587084.7, 4157388.8,      15.8,      15.8,       1.5);
    ( 587124.7, 4157388.8,      16.0,      16.0,       1.5);         ( 587164.7, 4157388.8,      16.0,      16.0,       1.5);
    ( 587204.7, 4157388.8,      16.1,      16.1,       1.5);         ( 587244.7, 4157388.8,      16.2,      16.2,       1.5);
    ( 587284.7, 4157388.8,      16.4,      16.4,       1.5);         ( 586404.7, 4157428.8,      13.6,      13.6,       1.5);
    ( 586444.7, 4157428.8,      14.0,      14.0,       1.5);         ( 586484.7, 4157428.8,      13.7,      13.7,       1.5);
    ( 586524.7, 4157428.8,      14.2,      14.2,       1.5);         ( 586564.7, 4157428.8,      14.1,      14.1,       1.5);
    ( 586604.7, 4157428.8,      14.1,      14.1,       1.5);         ( 586644.7, 4157428.8,      14.6,      14.6,       1.5);
    ( 586684.7, 4157428.8,      14.8,      14.8,       1.5);         ( 586724.7, 4157428.8,      15.1,      15.1,       1.5);
    ( 586764.7, 4157428.8,      14.9,      14.9,       1.5);         ( 586804.7, 4157428.8,      15.0,      15.0,       1.5);
    ( 586844.7, 4157428.8,      14.9,      14.9,       1.5);         ( 586884.7, 4157428.8,      14.9,      14.9,       1.5);
    ( 586924.7, 4157428.8,      15.3,      15.3,       1.5);         ( 586964.7, 4157428.8,      15.4,      15.4,       1.5);
    ( 587004.7, 4157428.8,      15.3,      15.3,       1.5);         ( 587044.7, 4157428.8,      15.6,      15.6,       1.5);
    ( 587084.7, 4157428.8,      16.0,      16.0,       1.5);         ( 587124.7, 4157428.8,      16.0,      16.0,       1.5);
    ( 587164.7, 4157428.8,      16.2,      16.2,       1.5);         ( 587204.7, 4157428.8,      16.4,      16.4,       1.5);
    ( 587244.7, 4157428.8,      16.5,      16.5,       1.5);         ( 587284.7, 4157428.8,      16.9,      16.9,       1.5);
    ( 586404.7, 4157468.8,      13.9,      13.9,       1.5);         ( 586444.7, 4157468.8,      14.0,      14.0,       1.5);
    ( 586484.7, 4157468.8,      14.3,      14.3,       1.5);         ( 586524.7, 4157468.8,      13.9,      13.9,       1.5);
    ( 586564.7, 4157468.8,      14.3,      14.3,       1.5);         ( 586604.7, 4157468.8,      13.9,      13.9,       1.5);
    ( 586644.7, 4157468.8,      14.8,      14.8,       1.5);         ( 586684.7, 4157468.8,      14.7,      14.7,       1.5);
    ( 586724.7, 4157468.8,      15.1,      15.1,       1.5);         ( 586764.7, 4157468.8,      15.0,      15.0,       1.5);
    ( 586804.7, 4157468.8,      15.5,      15.5,       1.5);         ( 586844.7, 4157468.8,      15.2,      15.2,       1.5);
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    ( 586884.7, 4157468.8,      15.2,      15.2,       1.5);         ( 586924.7, 4157468.8,      15.4,      15.4,       1.5);
    ( 586964.7, 4157468.8,      15.8,      15.8,       1.5);         ( 586993.5, 4157461.9,      15.7,      15.7,       1.5);
    ( 587044.7, 4157468.8,      15.5,      15.5,       1.5);         ( 587084.7, 4157468.8,      16.0,      16.0,       1.5);
    ( 587124.7, 4157468.8,      16.3,      16.3,       1.5);         ( 587164.7, 4157468.8,      16.5,      16.5,       1.5);
    ( 587204.7, 4157468.8,      16.8,      16.8,       1.5);         ( 587244.7, 4157468.8,      16.6,      16.6,       1.5);
    ( 587284.7, 4157468.8,      16.8,      16.8,       1.5);         ( 586404.7, 4157508.8,      14.0,      14.0,       1.5);
    ( 586444.7, 4157508.8,      14.0,      14.0,       1.5);         ( 586484.7, 4157508.8,      14.4,      14.4,       1.5);
    ( 586524.7, 4157508.8,      14.3,      14.3,       1.5);         ( 586564.7, 4157508.8,      14.5,      14.5,       1.5);
    ( 586604.7, 4157508.8,      14.1,      14.1,       1.5);         ( 586644.7, 4157508.8,      14.3,      14.3,       1.5);
    ( 586684.7, 4157508.8,      14.9,      14.9,       1.5);         ( 586724.7, 4157508.8,      15.2,      15.2,       1.5);
    ( 586764.7, 4157508.8,      15.3,      15.3,       1.5);         ( 586804.7, 4157508.8,      15.4,      15.4,       1.5);
    ( 586844.7, 4157508.8,      15.5,      15.5,       1.5);         ( 586884.7, 4157508.8,      15.4,      15.4,       1.5);
    ( 586924.7, 4157508.8,      15.6,      15.6,       1.5);         ( 586964.7, 4157508.8,      15.9,      15.9,       1.5);
    ( 587004.7, 4157508.8,      15.6,      15.6,       1.5);         ( 587044.7, 4157508.8,      15.8,      15.8,       1.5);
    ( 587084.7, 4157508.8,      16.1,      16.1,       1.5);         ( 587124.7, 4157508.8,      16.6,      16.6,       1.5);
    ( 587164.7, 4157508.8,      16.8,      16.8,       1.5);         ( 587204.7, 4157508.8,      16.8,      16.8,       1.5);
    ( 587244.7, 4157508.8,      16.9,      16.9,       1.5);         ( 587284.7, 4157508.8,      16.6,      16.6,       1.5);
    ( 586404.7, 4157548.8,      13.8,      13.8,       1.5);         ( 586444.7, 4157548.8,      14.4,      14.4,       1.5);
    ( 586484.7, 4157548.8,      14.1,      14.1,       1.5);         ( 586524.7, 4157548.8,      14.3,      14.3,       1.5);
    ( 586564.7, 4157548.8,      14.2,      14.2,       1.5);         ( 586604.7, 4157548.8,      14.5,      14.5,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  39
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

    ( 586644.7, 4157548.8,      14.4,      14.4,       1.5);         ( 586684.7, 4157548.8,      14.4,      14.4,       1.5);
    ( 586724.7, 4157548.8,      15.0,      15.0,       1.5);         ( 586764.7, 4157548.8,      15.4,      15.4,       1.5);
    ( 586804.7, 4157548.8,      15.2,      15.2,       1.5);         ( 586844.7, 4157548.8,      15.4,      15.4,       1.5);
    ( 586884.7, 4157548.8,      15.4,      15.4,       1.5);         ( 586924.7, 4157548.8,      15.5,      15.5,       1.5);
    ( 586964.7, 4157548.8,      15.6,      15.6,       1.5);         ( 587004.7, 4157548.8,      15.7,      15.7,       1.5);
    ( 587044.7, 4157548.8,      15.9,      15.9,       1.5);         ( 587084.7, 4157548.8,      16.4,      16.4,       1.5);
    ( 587124.7, 4157548.8,      16.8,      16.8,       1.5);         ( 587164.7, 4157548.8,      16.8,      16.8,       1.5);
    ( 587204.7, 4157548.8,      16.9,      16.9,       1.5);         ( 587244.7, 4157548.8,      16.8,      16.8,       1.5);
    ( 587284.7, 4157548.8,      16.9,      16.9,       1.5);         ( 586404.7, 4157588.8,      13.5,      13.5,       1.5);
    ( 586444.7, 4157588.8,      13.9,      13.9,       1.5);         ( 586484.7, 4157588.8,      14.2,      14.2,       1.5);
    ( 586524.7, 4157588.8,      14.3,      14.3,       1.5);         ( 586564.7, 4157588.8,      14.8,      14.8,       1.5);
    ( 586604.7, 4157588.8,      14.3,      14.3,       1.5);         ( 586644.7, 4157588.8,      13.8,      13.8,       1.5);
    ( 586684.7, 4157588.8,      14.9,      14.9,       1.5);         ( 586724.7, 4157588.8,      14.8,      14.8,       1.5);
    ( 586764.7, 4157588.8,      15.5,      15.5,       1.5);         ( 586804.7, 4157588.8,      15.2,      15.2,       1.5);
    ( 586844.7, 4157588.8,      15.4,      15.4,       1.5);         ( 586884.7, 4157588.8,      15.1,      15.1,       1.5);
    ( 586924.7, 4157588.8,      15.5,      15.5,       1.5);         ( 586964.7, 4157588.8,      15.7,      15.7,       1.5);
    ( 587004.7, 4157588.8,      16.0,      16.0,       1.5);         ( 587044.7, 4157588.8,      16.4,      16.4,       1.5);
    ( 587084.7, 4157588.8,      16.6,      16.6,       1.5);         ( 587124.7, 4157588.8,      16.6,      16.6,       1.5);
    ( 587164.7, 4157588.8,      16.7,      16.7,       1.5);         ( 587204.7, 4157588.8,      16.8,      16.8,       1.5);
    ( 587244.7, 4157588.8,      16.7,      16.7,       1.5);         ( 587284.7, 4157588.8,      16.9,      16.9,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000017	586804.7	4156788.8	-2.10
L0000019	586804.7	4156708.8	-0.96
L0000020	586804.7	4156708.8	-3.60

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\met data\724945.SFC Met Version: 14134
Profile file: ..\met data\724945.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23293 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	02	-13.4	0.236	-9.000	-9.000	-999.	275.	89.0	0.32	1.10	1.00	2.36	18.	10.0	282.5	2.0
09	01	01	1	03	-7.9	0.139	-9.000	-9.000	-999.	128.	30.9	0.32	1.10	1.00	1.76	4.	10.0	282.0	2.0
09	01	01	1	04	-12.4	0.217	-9.000	-9.000	-999.	242.	74.8	0.25	1.10	1.00	2.36	73.	10.0	281.4	2.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.0	2.0
09	01	01	1	06	-9.7	0.170	-9.000	-9.000	-999.	168.	46.1	0.47	1.10	1.00	1.76	342.	10.0	281.4	2.0
09	01	01	1	07	-13.5	0.236	-9.000	-9.000	-999.	275.	88.6	0.32	1.10	1.00	2.36	5.	10.0	281.4	2.0
09	01	01	1	08	-19.7	0.345	-9.000	-9.000	-999.	486.	189.6	0.47	1.10	0.74	2.86	333.	10.0	280.9	2.0
09	01	01	1	09	-8.3	0.363	-9.000	-9.000	-999.	526.	525.4	0.47	1.10	0.39	2.86	327.	10.0	280.9	2.0
09	01	01	1	10	8.1	0.382	0.288	0.014	106.	566.	-625.1	0.47	1.10	0.27	2.86	351.	10.0	280.9	2.0
09	01	01	1	11	17.6	-9.000	-9.000	-9.000	189.	-999.	-99999.0	0.25	1.10	0.23	0.00	0.	10.0	280.9	2.0
09	01	01	1	12	23.0	-9.000	-9.000	-9.000	259.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	13	23.9	-9.000	-9.000	-9.000	315.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	14	48.5	-9.000	-9.000	-9.000	407.	-999.	-99999.0	0.25	1.10	0.22	0.00	0.	10.0	283.1	2.0
09	01	01	1	15	69.5	0.319	0.953	0.016	453.	433.	-42.6	0.32	1.10	0.25	2.36	32.	10.0	283.1	2.0
09	01	01	1	16	24.5	-9.000	-9.000	-9.000	460.	-999.	-99999.0	0.25	1.10	0.33	0.00	0.	10.0	283.1	2.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	0.57	0.00	0.	10.0	283.1	2.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	19	-24.2	0.212	-9.000	-9.000	-999.	235.	35.9	0.47	1.10	1.00	2.36	324.	10.0	281.4	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	281.4	2.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.4	2.0
09	01	01	1	24	-9.7	0.170	-9.000	-9.000	-999.	168.	45.7	0.47	1.10	1.00	1.76	310.	10.0	280.4	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	10.0	1	-999.	-99.00	282.6	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586404.66	4156628.76	0.06980	586444.66	4156628.76	0.08856
586484.66	4156628.76	0.11634	586536.32	4156643.07	0.18675
586564.66	4156628.76	0.23157	586604.66	4156628.76	0.38170
586644.66	4156628.76	0.76880	586684.66	4156628.76	2.26119
586764.66	4156628.76	7.47395	586804.66	4156628.76	4.08047
586844.66	4156628.76	2.70130	586884.66	4156628.76	1.99380
586924.66	4156628.76	1.56863	586964.66	4156628.76	1.28094
587004.66	4156628.76	1.07890	587044.66	4156628.76	0.92470
587084.66	4156628.76	0.80728	587124.66	4156628.76	0.71094
587164.66	4156628.76	0.63116	587204.66	4156628.76	0.56293
587244.66	4156628.76	0.50445	587284.66	4156628.76	0.45341
586404.66	4156668.76	0.08036	586444.66	4156668.76	0.10263
586484.66	4156668.76	0.13460	586524.66	4156668.76	0.18672
586564.66	4156668.76	0.27453	586604.66	4156668.76	0.43877
586804.66	4156668.76	6.04327	586844.66	4156668.76	3.55941
586884.66	4156668.76	2.47563	586924.66	4156668.76	1.86495
586964.66	4156668.76	1.48361	587004.66	4156668.76	1.22793
587044.66	4156668.76	1.03817	587084.66	4156668.76	0.89260
587124.66	4156668.76	0.77791	587164.66	4156668.76	0.68459
587204.66	4156668.76	0.60509	587244.66	4156668.76	0.53669
587284.66	4156668.76	0.47845	586404.66	4156708.76	0.09038
586444.66	4156708.76	0.11520	586484.66	4156708.76	0.15132
586524.66	4156708.76	0.20646	586564.66	4156708.76	0.29355
586604.66	4156708.76	0.44284	586804.66	4156708.76	2.66261
586844.66	4156708.76	4.93165	586884.66	4156708.76	3.12556
586924.66	4156708.76	2.24350	586964.66	4156708.76	1.73597
587004.66	4156708.76	1.40055	587044.66	4156708.76	1.16552
587084.66	4156708.76	0.98826	587124.66	4156708.76	0.85020
587164.66	4156708.76	0.73955	587204.66	4156708.76	0.64800
587244.66	4156708.76	0.56938	587284.66	4156708.76	0.50231
586404.66	4156748.76	0.09899	586444.66	4156748.76	0.12529
586484.66	4156748.76	0.16222	586524.66	4156748.76	0.21569
586564.66	4156748.76	0.29695	586604.66	4156748.76	0.42031
586644.66	4156748.76	0.61765	586844.66	4156748.76	7.35851

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586884.66	4156748.76	4.11383	586924.66	4156748.76	2.76637
586964.66	4156748.76	2.05480	587004.66	4156748.76	1.61179
587044.66	4156748.76	1.31364	587084.66	4156748.76	1.09616
587124.66	4156748.76	0.93004	587164.66	4156748.76	0.79986
587204.66	4156748.76	0.69216	587244.66	4156748.76	0.60155
587284.66	4156748.76	0.52389	586404.66	4156788.76	0.10547

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586444.66	4156788.76	0.13138	586484.66	4156788.76	0.16694
586524.66	4156788.76	0.21697	586564.66	4156788.76	0.28616
586604.66	4156788.76	0.38870	586644.66	4156788.76	0.53774
586684.66	4156788.76	0.78202	586724.66	4156788.76	1.22300
586764.66	4156788.76	2.27817	586804.66	4156788.76	3.51159
586884.66	4156788.76	5.84620	586924.66	4156788.76	3.53739
586964.66	4156788.76	2.48048	587004.66	4156788.76	1.87726
587044.66	4156788.76	1.49060	587084.66	4156788.76	1.21992
587124.66	4156788.76	1.02005	587164.66	4156788.76	0.86436
587204.66	4156788.76	0.73733	587244.66	4156788.76	0.63237
587284.66	4156788.76	0.54399	586404.66	4156828.76	0.10926
586444.66	4156828.76	0.13447	586484.66	4156828.76	0.16738
586524.66	4156828.76	0.21072	586564.66	4156828.76	0.26939
586604.66	4156828.76	0.35328	586644.66	4156828.76	0.47200
586684.66	4156828.76	0.65228	586724.66	4156828.76	0.95194
586764.66	4156828.76	1.53005	586804.66	4156828.76	2.97289
586924.66	4156828.76	4.77630	586964.66	4156828.76	3.06704
587004.66	4156828.76	2.21470	587044.66	4156828.76	1.70737
587084.66	4156828.76	1.36863	587124.66	4156828.76	1.12075
587164.66	4156828.76	0.92962	587204.66	4156828.76	0.78233
587244.66	4156828.76	0.66126	587284.66	4156828.76	0.55991
586404.66	4156868.76	0.11090	586444.66	4156868.76	0.13442
586484.66	4156868.76	0.16406	586524.66	4156868.76	0.20256
586564.66	4156868.76	0.25231	586604.66	4156868.76	0.32000
586644.66	4156868.76	0.41469	586684.66	4156868.76	0.55125
586724.66	4156868.76	0.76908	586764.66	4156868.76	1.14450
586804.66	4156868.76	1.91946	586844.66	4156868.76	4.24695

586854.25	4156883.64	4.27260	586921.87	4156855.61	6.37792
587044.66	4156868.76	1.98245	587084.66	4156868.76	1.54227
587124.66	4156868.76	1.23487	587164.66	4156868.76	1.00465
587204.66	4156868.76	0.82552	587244.66	4156868.76	0.68392
587284.66	4156868.76	0.56919	586404.66	4156908.76	0.11088
586444.66	4156908.76	0.13194	586484.66	4156908.76	0.15870
586524.66	4156908.76	0.19184	586564.66	4156908.76	0.23459
586604.66	4156908.76	0.29126	586644.66	4156908.76	0.36800
586684.66	4156908.76	0.47580	586724.66	4156908.76	0.64388
586764.66	4156908.76	0.90073	586804.66	4156908.76	1.38628
586844.66	4156908.76	2.49705	587044.66	4156908.76	2.34645
587084.66	4156908.76	1.76041	587124.66	4156908.76	1.36606
587164.66	4156908.76	1.08026	587204.66	4156908.76	0.86649

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
587244.66	4156908.76	0.69926	587284.66	4156908.76	0.56789
586404.66	4156948.76	0.10912	586444.66	4156948.76	0.12836
586484.66	4156948.76	0.15184	586524.66	4156948.76	0.18116
586564.66	4156948.76	0.21800	586604.66	4156948.76	0.26549
586644.66	4156948.76	0.32803	586684.66	4156948.76	0.41517
586724.66	4156948.76	0.53882	586764.66	4156948.76	0.72737
586804.66	4156948.76	1.04873	586844.66	4156948.76	1.68608
586884.66	4156948.76	3.28563	586986.66	4156959.76	6.41045
587004.66	4156948.76	4.44809	587044.66	4156948.76	2.87879
587164.66	4156948.76	1.16185	587204.66	4156948.76	0.89352
587244.66	4156948.76	0.69770	587284.66	4156948.76	0.54907
586404.66	4156988.76	0.10628	586444.66	4156988.76	0.12362
586484.66	4156988.76	0.14451	586524.66	4156988.76	0.16980
586564.66	4156988.76	0.20153	586604.66	4156988.76	0.24166
586644.66	4156988.76	0.29370	586684.66	4156988.76	0.36313
586724.66	4156988.76	0.46134	586764.66	4156988.76	0.60194
586804.66	4156988.76	0.82741	586838.19	4156976.47	1.23140
586404.66	4157028.76	0.10276	586444.66	4157028.76	0.11815
586484.66	4157028.76	0.13663	586524.66	4157028.76	0.15890
586564.66	4157028.76	0.18595	586604.66	4157028.76	0.22014

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586644.66	4157028.76	0.26336	586684.66	4157028.76	0.32070
586724.66	4157028.76	0.39733	586764.66	4157028.76	0.50613
586791.07	4157010.64	0.65940	587244.66	4157028.76	0.58617
587284.66	4157028.76	0.42466	586404.66	4157068.76	0.09857
586444.66	4157068.76	0.11229	586484.66	4157068.76	0.12856
586524.66	4157068.76	0.14801	586564.66	4157068.76	0.17140
586604.66	4157068.76	0.20020	586644.66	4157068.76	0.23666
586684.66	4157068.76	0.28304	586713.66	4157057.11	0.33923
587204.66	4157068.76	0.67543	587244.66	4157068.76	0.45180
587284.66	4157068.76	0.32142	586404.66	4157108.76	0.09399
586444.66	4157108.76	0.10614	586484.66	4157108.76	0.12036
586524.66	4157108.76	0.13723	586564.66	4157108.76	0.15740
586604.66	4157108.76	0.18175	586644.66	4157108.76	0.21158
587124.66	4157108.76	1.36169	587164.66	4157108.76	0.71365
587204.66	4157108.76	0.44164	587244.66	4157108.76	0.30316
587284.66	4157108.76	0.22365	586404.66	4157148.76	0.08911
586444.66	4157148.76	0.09981	586484.66	4157148.76	0.11222
586524.66	4157148.76	0.12670	586564.66	4157148.76	0.14378
586604.66	4157148.76	0.16418	586644.66	4157148.76	0.18924
587035.57	4157161.39	1.65463	587084.66	4157148.76	1.13752

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
587124.66	4157148.76	0.58599	587164.66	4157148.76	0.37150
587204.66	4157148.76	0.26237	587244.66	4157148.76	0.19624
587284.66	4157148.76	0.15356	586404.66	4157188.76	0.08398
586444.66	4157188.76	0.09334	586484.66	4157188.76	0.10399
586524.66	4157188.76	0.11637	586564.66	4157188.76	0.13072
586604.66	4157188.76	0.14770	586644.66	4157188.76	0.16792
586684.66	4157188.76	0.19224	586978.25	4157202.35	0.57765
587004.66	4157188.76	0.78041	587044.66	4157188.76	0.78112
587105.38	4157182.38	0.44375	587124.66	4157188.76	0.33386
587164.66	4157188.76	0.23593	587204.66	4157188.76	0.17727
587244.66	4157188.76	0.14011	587284.66	4157188.76	0.11377
586404.66	4157228.76	0.07870	586444.66	4157228.76	0.08675
586484.66	4157228.76	0.09598	586524.66	4157228.76	0.10634

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586564.66	4157228.76	0.11822		586604.66	4157228.76	0.13193
586644.66	4157228.76	0.14809		586684.66	4157228.76	0.16694
586724.66	4157228.76	0.18903	Residential MER Location	586906.12	4157250.11	0.28595
587001.76	4157286.34	0.23058		586924.66	4157228.76	0.36239
586964.66	4157228.76	0.40170		587004.66	4157228.76	0.42549
587044.66	4157228.76	0.40501		587084.66	4157228.76	0.31918
587124.66	4157228.76	0.22951		587164.66	4157228.76	0.17266
587204.66	4157228.76	0.13584		587244.66	4157228.76	0.10953
587284.66	4157228.76	0.09105		586404.66	4157268.76	0.07337
586444.66	4157268.76	0.08030		586484.66	4157268.76	0.08795
586524.66	4157268.76	0.09659		586564.66	4157268.76	0.10618
586604.66	4157268.76	0.11703		586644.66	4157268.76	0.12944
586684.66	4157268.76	0.14356		586724.66	4157268.76	0.15941
586758.19	4157280.41	0.16478		586815.01	4157274.58	0.19455
586858.25	4157275.23	0.21451		586884.66	4157268.76	0.23708
586924.66	4157268.76	0.25542		586964.66	4157268.76	0.26895
587004.66	4157268.76	0.27072		587044.66	4157268.76	0.25597
587084.66	4157268.76	0.21761		587124.66	4157268.76	0.16978
587164.66	4157268.76	0.13432		587204.66	4157268.76	0.10864
587244.66	4157268.76	0.09002		587284.66	4157268.76	0.07618
586404.66	4157308.76	0.06807		586444.66	4157308.76	0.07374
586484.66	4157308.76	0.08004		586524.66	4157308.76	0.08715
586564.66	4157308.76	0.09475		586604.66	4157308.76	0.10321
586644.66	4157308.76	0.11228		586684.66	4157308.76	0.12258
586724.66	4157308.76	0.13350		586764.66	4157308.76	0.14547
586804.66	4157308.76	0.15683		586844.66	4157308.76	0.16876
586884.66	4157308.76	0.17974		586924.66	4157308.76	0.18641

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586964.66	4157308.76	0.19069	587004.66	4157308.76	0.18988
587044.66	4157308.76	0.18147	587084.66	4157308.76	0.15872
587124.66	4157308.76	0.13041	587164.66	4157308.76	0.10687
587204.66	4157308.76	0.08970	587244.66	4157308.76	0.07608
587284.66	4157308.76	0.06524	586404.66	4157348.76	0.06263
586444.66	4157348.76	0.06746	586484.66	4157348.76	0.07248

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586524.66	4157348.76	0.07806	586564.66	4157348.76	0.08409
586604.66	4157348.76	0.09028	586644.66	4157348.76	0.09712
586684.66	4157348.76	0.10425	586724.66	4157348.76	0.11186
586764.66	4157348.76	0.11933	586804.66	4157348.76	0.12639
586844.66	4157348.76	0.13298	586884.66	4157348.76	0.13867
586924.66	4157348.76	0.14250	586964.66	4157348.76	0.14388
587004.66	4157348.76	0.14338	587044.66	4157348.76	0.13623
587084.66	4157348.76	0.12153	587124.66	4157348.76	0.10339
587164.66	4157348.76	0.08732	587204.66	4157348.76	0.07496
587244.66	4157348.76	0.06495	587284.66	4157348.76	0.05669
586404.66	4157388.76	0.05741	586444.66	4157388.76	0.06125
586484.66	4157388.76	0.06538	586524.66	4157388.76	0.06964
586564.66	4157388.76	0.07432	586604.66	4157388.76	0.07886
586644.66	4157388.76	0.08370	586684.66	4157388.76	0.08867
586724.66	4157388.76	0.09355	586764.66	4157388.76	0.09842
586804.66	4157388.76	0.10326	586844.66	4157388.76	0.10740
586884.66	4157388.76	0.11059	586924.66	4157388.76	0.11272
586964.66	4157388.76	0.11338	587004.66	4157388.76	0.11259
587044.66	4157388.76	0.10695	587084.66	4157388.76	0.09698
587124.66	4157388.76	0.08451	587164.66	4157388.76	0.07301
587204.66	4157388.76	0.06351	587244.66	4157388.76	0.05581
587284.66	4157388.76	0.04933	586404.66	4157428.76	0.05241
586444.66	4157428.76	0.05542	586484.66	4157428.76	0.05871
586524.66	4157428.76	0.06190	586564.66	4157428.76	0.06537
586604.66	4157428.76	0.06890	586644.66	4157428.76	0.07229
586684.66	4157428.76	0.07573	586724.66	4157428.76	0.07905
586764.66	4157428.76	0.08249	586804.66	4157428.76	0.08542
586844.66	4157428.76	0.08821	586884.66	4157428.76	0.09036
586924.66	4157428.76	0.09152	586964.66	4157428.76	0.09210
587004.66	4157428.76	0.09118	587044.66	4157428.76	0.08705
587084.66	4157428.76	0.07971	587124.66	4157428.76	0.07080
587164.66	4157428.76	0.06188	587204.66	4157428.76	0.05442
587244.66	4157428.76	0.04838	587284.66	4157428.76	0.04320
586404.66	4157468.76	0.04763	586444.66	4157468.76	0.05004

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586484.66	4157468.76	0.05247	586524.66	4157468.76	0.05508
586564.66	4157468.76	0.05754	586604.66	4157468.76	0.06026
586644.66	4157468.76	0.06250	586684.66	4157468.76	0.06505
586724.66	4157468.76	0.06729	586764.66	4157468.76	0.06971
586804.66	4157468.76	0.07151	586844.66	4157468.76	0.07360
586884.66	4157468.76	0.07513	586924.66	4157468.76	0.07613
586964.66	4157468.76	0.07621	586993.53	4157461.87	0.07816
587044.66	4157468.76	0.07259	587084.66	4157468.76	0.06701
587124.66	4157468.76	0.06008	587164.66	4157468.76	0.05314
587204.66	4157468.76	0.04676	587244.66	4157468.76	0.04238
587284.66	4157468.76	0.03826	586404.66	4157508.76	0.04321
586444.66	4157508.76	0.04511	586484.66	4157508.76	0.04693
586524.66	4157508.76	0.04885	586564.66	4157508.76	0.05071
586604.66	4157508.76	0.05272	586644.66	4157508.76	0.05454
586684.66	4157508.76	0.05613	586724.66	4157508.76	0.05777
586764.66	4157508.76	0.05941	586804.66	4157508.76	0.06095
586844.66	4157508.76	0.06236	586884.66	4157508.76	0.06364
586924.66	4157508.76	0.06435	586964.66	4157508.76	0.06440
587004.66	4157508.76	0.06384	587044.66	4157508.76	0.06138
587084.66	4157508.76	0.05717	587124.66	4157508.76	0.05173
587164.66	4157508.76	0.04585	587204.66	4157508.76	0.04114
587244.66	4157508.76	0.03714	587284.66	4157508.76	0.03424
586404.66	4157548.76	0.03919	586444.66	4157548.76	0.04054
586484.66	4157548.76	0.04205	586524.66	4157548.76	0.04344
586564.66	4157548.76	0.04492	586604.66	4157548.76	0.04625
586644.66	4157548.76	0.04767	586684.66	4157548.76	0.04907
586724.66	4157548.76	0.05018	586764.66	4157548.76	0.05132
586804.66	4157548.76	0.05269	586844.66	4157548.76	0.05372
586884.66	4157548.76	0.05471	586924.66	4157548.76	0.05534
586964.66	4157548.76	0.05546	587004.66	4157548.76	0.05473
587044.66	4157548.76	0.05274	587084.66	4157548.76	0.04937
587124.66	4157548.76	0.04475	587164.66	4157548.76	0.04042
587204.66	4157548.76	0.03633	587244.66	4157548.76	0.03310
587284.66	4157548.76	0.03036	586404.66	4157588.76	0.03556

586444.66	4157588.76	0.03661	586484.66	4157588.76	0.03767
586524.66	4157588.76	0.03874	586564.66	4157588.76	0.03970
586604.66	4157588.76	0.04091	586644.66	4157588.76	0.04214
586684.66	4157588.76	0.04288	586724.66	4157588.76	0.04398
586764.66	4157588.76	0.04477	586804.66	4157588.76	0.04591
586844.66	4157588.76	0.04678	586884.66	4157588.76	0.04771

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586924.66	4157588.76	0.04811	586964.66	4157588.76	0.04811
587004.66	4157588.76	0.04741	587044.66	4157588.76	0.04576
587084.66	4157588.76	0.04316	587124.66	4157588.76	0.03991
587164.66	4157588.76	0.03614	587204.66	4157588.76	0.03265
587244.66	4157588.76	0.02982	587284.66	4157588.76	0.02733

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43872 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
HAUL	1ST HIGHEST VALUE IS	7.47395 AT (	586764.66, 4156628.76, 13.31, 13.31, 1.50)	DC	
	2ND HIGHEST VALUE IS	7.35851 AT (	586844.66, 4156748.76, 13.29, 13.29, 1.50)	DC	
	3RD HIGHEST VALUE IS	6.41045 AT (	586986.66, 4156959.76, 13.70, 13.70, 1.50)	DC	
	4TH HIGHEST VALUE IS	6.37792 AT (	586921.87, 4156855.61, 13.50, 13.50, 1.50)	DC	
	5TH HIGHEST VALUE IS	6.04327 AT (	586804.66, 4156668.76, 13.48, 13.48, 1.50)	DC	
	6TH HIGHEST VALUE IS	5.84620 AT (	586884.66, 4156788.76, 13.46, 13.46, 1.50)	DC	
	7TH HIGHEST VALUE IS	4.93165 AT (	586844.66, 4156708.76, 13.42, 13.42, 1.50)	DC	
	8TH HIGHEST VALUE IS	4.77630 AT (	586924.66, 4156828.76, 13.42, 13.42, 1.50)	DC	
	9TH HIGHEST VALUE IS	4.44809 AT (	587004.66, 4156948.76, 13.59, 13.59, 1.50)	DC	
	10TH HIGHEST VALUE IS	4.27260 AT (	Residential MER Location 0, 13.00, 1.50)	DC	
ONSITE	1ST HIGHEST VALUE IS	3.65493 AT (	586724.66, 4157228.76, 13.65, 13.65, 1.50)	DC	
	2ND HIGHEST VALUE IS	3.30064 AT (	586684.66, 4157188.76, 13.56, 13.56, 1.50)	DC	
	3RD HIGHEST VALUE IS	3.17292 AT (	586764.66, 4157028.76, 13.38, 13.38, 1.50)	DC	
	4TH HIGHEST VALUE IS	2.93933 AT (	586815.01, 4157274.58, 14.37, 14.37, 1.50)	DC	
	5TH HIGHEST VALUE IS	2.86948 AT (	586791.07, 4157010.64, 13.42, 13.42, 1.50)	DC	
	6TH HIGHEST VALUE IS	2.62859 AT (	586924.66, 4157228.76, 14.44, 14.44, 1.50)	DC	
	7TH HIGHEST VALUE IS	2.48090 AT (	586758.19, 4157280.41, 13.87, 13.87, 1.50)	DC	
	8TH HIGHEST VALUE IS	2.39029 AT (	586713.66, 4157057.11, 13.30, 13.30, 1.50)	DC	
	9TH HIGHEST VALUE IS	2.34652 AT (	586906.12, 4157250.11, 14.53, 14.53, 1.50)	DC	
	10TH HIGHEST VALUE IS	2.29224 AT (	586644.66, 4157148.76, 13.21, 13.21, 1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   0 Warning Message(s)
A Total of   13130 Informational Message(s)

A Total of   43872 Hours Were Processed

A Total of   11611 Calm Hours Identified

A Total of   1519 Missing Hours Identified (3.46 Percent)

   ******** FATAL ERROR MESSAGES ********
              *** NONE ***

   ********   WARNING MESSAGES   ********
              *** NONE ***

   ****
   *** AERMOD Finishes Successfully ***
   ****

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.01125	ug/m^3		586536.32	4156643.07	12.66	1.50	12.66	
PERIOD		0.42847	ug/m^3	Oliveria ES MER	586804.66	4157388.76	14.80	1.50	14.80	
PERIOD		0.37564	ug/m^3		586844.66	4157388.76	14.73	1.50	14.73	
PERIOD		0.30640	ug/m^3		586884.66	4157388.76	14.84	1.50	14.84	
PERIOD		0.31153	ug/m^3		586724.66	4157428.76	15.06	1.50	15.06	
PERIOD		0.31169	ug/m^3		586764.66	4157428.76	14.86	1.50	14.86	
PERIOD		0.29767	ug/m^3		586804.66	4157428.76	15.00	1.50	15.00	
PERIOD		0.26883	ug/m^3		586844.66	4157428.76	14.88	1.50	14.88	
PERIOD		0.22827	ug/m^3		586884.66	4157428.76	14.93	1.50	14.93	
PERIOD		0.22796	ug/m^3		586764.66	4157468.76	14.95	1.50	14.95	
PERIOD		0.21944	ug/m^3		586804.66	4157468.76	15.46	1.50	15.46	
PERIOD		0.20234	ug/m^3		586844.66	4157468.76	15.18	1.50	15.18	
PERIOD		0.17645	ug/m^3		586884.66	4157468.76	15.23	1.50	15.23	
PERIOD		0.14770	ug/m^3		586924.66	4157468.76	15.38	1.50	15.38	
PERIOD		0.10935	ug/m^3	Daycare MER	586993.53	4157461.87	15.67	1.50	15.67	
PERIOD		0.17399	ug/m^3		586764.66	4157508.76	15.34	1.50	15.34	
PERIOD		0.16943	ug/m^3		586804.66	4157508.76	15.44	1.50	15.44	
PERIOD		0.15805	ug/m^3		586844.66	4157508.76	15.49	1.50	15.49	
PERIOD		0.14073	ug/m^3		586884.66	4157508.76	15.36	1.50	15.36	
PERIOD		0.12031	ug/m^3		586924.66	4157508.76	15.59	1.50	15.59	

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.13514	ug/m^3		586804.66	4157548.76	15.16	1.50	15.16	
PERIOD		0.12728	ug/m^3		586844.66	4157548.76	15.41	1.50	15.41	
PERIOD		0.11496	ug/m^3		586884.66	4157548.76	15.38	1.50	15.38	
PERIOD		0.11019	ug/m^3		586804.66	4157588.76	15.17	1.50	15.17	

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: HAUL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.18675	ug/m^3		586536.32	4156643.07	12.66	1.50	12.66	
PERIOD		0.10326	ug/m^3		586804.66	4157388.76	14.80	1.50	14.80	
PERIOD		0.10740	ug/m^3		586844.66	4157388.76	14.73	1.50	14.73	
PERIOD		0.11059	ug/m^3		586884.66	4157388.76	14.84	1.50	14.84	
PERIOD		0.07905	ug/m^3		586724.66	4157428.76	15.06	1.50	15.06	
PERIOD		0.08249	ug/m^3		586764.66	4157428.76	14.86	1.50	14.86	
PERIOD		0.08542	ug/m^3		586804.66	4157428.76	15.00	1.50	15.00	
PERIOD		0.08821	ug/m^3		586844.66	4157428.76	14.88	1.50	14.88	
PERIOD		0.09036	ug/m^3		586884.66	4157428.76	14.93	1.50	14.93	
PERIOD		0.06971	ug/m^3		586764.66	4157468.76	14.95	1.50	14.95	
PERIOD		0.07151	ug/m^3		586804.66	4157468.76	15.46	1.50	15.46	
PERIOD		0.07360	ug/m^3		586844.66	4157468.76	15.18	1.50	15.18	
PERIOD		0.07513	ug/m^3		586884.66	4157468.76	15.23	1.50	15.23	
PERIOD		0.07613	ug/m^3		586924.66	4157468.76	15.38	1.50	15.38	
PERIOD		0.07816	ug/m^3	Daycare	586993.53	4157461.87	15.67	1.50	15.67	
PERIOD		0.05941	ug/m^3		586764.66	4157508.76	15.34	1.50	15.34	
PERIOD		0.06095	ug/m^3		586804.66	4157508.76	15.44	1.50	15.44	
PERIOD		0.06236	ug/m^3		586844.66	4157508.76	15.49	1.50	15.49	
PERIOD		0.06364	ug/m^3		586884.66	4157508.76	15.36	1.50	15.36	
PERIOD		0.06435	ug/m^3		586924.66	4157508.76	15.59	1.50	15.59	

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: HAUL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.05269	ug/m^3		586804.66	4157548.76	15.16	1.50	15.16	
PERIOD		0.05372	ug/m^3		586844.66	4157548.76	15.41	1.50	15.41	
PERIOD		0.05471	ug/m^3		586884.66	4157548.76	15.38	1.50	15.38	
PERIOD		0.04591	ug/m^3		586804.66	4157588.76	15.17	1.50	15.17	

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

```
*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/07/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - On-site Receptors                             ***        09:53:59
                                                                                                                PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for    27 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   1663000.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of:  OTHER

**Model Calculates PERIOD Averages Only

**This Run Includes:     27 Source(s);       2 Source Group(s); and     128 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:     25 VOLUME source(s)
                and:      2 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


**Model Set To Continue RUNning After the Setup Testing.
```

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

```
**The AERMET Input Meteorological Data Version Date:  14134

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    15.50 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   FREM02.err
**File for Summary of Results:   FREM02.sum
```

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.40000E-01	587043.4	4157121.1	14.7	4.15	11.91	1.93	YES	HRDOW
L0000002	0	0.40000E-01	587029.7	4157099.5	14.9	4.15	11.91	1.93	YES	HRDOW
L0000003	0	0.40000E-01	587016.0	4157077.8	14.5	4.15	11.91	1.93	YES	HRDOW
L0000004	0	0.40000E-01	587002.3	4157056.2	14.3	4.15	11.91	1.93	YES	HRDOW
L0000005	0	0.40000E-01	586988.5	4157034.6	14.1	4.15	11.91	1.93	YES	HRDOW
L0000006	0	0.40000E-01	586974.8	4157013.0	14.0	4.15	11.91	1.93	YES	HRDOW
L0000007	0	0.40000E-01	586961.1	4156991.4	13.7	4.15	11.91	1.93	YES	HRDOW
L0000008	0	0.40000E-01	586947.4	4156969.8	13.7	4.15	11.91	1.93	YES	HRDOW
L0000009	0	0.40000E-01	586933.7	4156948.2	13.5	4.15	11.91	1.93	YES	HRDOW
L0000010	0	0.40000E-01	586919.9	4156926.5	13.4	4.15	11.91	1.93	YES	HRDOW
L0000011	0	0.40000E-01	586906.2	4156904.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000012	0	0.40000E-01	586892.5	4156883.3	13.0	4.15	11.91	1.93	YES	HRDOW
L0000013	0	0.40000E-01	586878.8	4156861.7	13.1	4.15	11.91	1.93	YES	HRDOW
L0000014	0	0.40000E-01	586865.0	4156840.1	13.1	4.15	11.91	1.93	YES	HRDOW
L0000015	0	0.40000E-01	586851.3	4156818.5	13.1	4.15	11.91	1.93	YES	HRDOW
L0000016	0	0.40000E-01	586837.6	4156796.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000017	0	0.40000E-01	586823.9	4156775.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000018	0	0.40000E-01	586810.2	4156753.6	13.2	4.15	11.91	1.93	YES	HRDOW
L0000019	0	0.40000E-01	586796.4	4156732.0	13.2	4.15	11.91	1.93	YES	HRDOW
L0000020	0	0.40000E-01	586782.7	4156710.4	13.2	4.15	11.91	1.93	YES	HRDOW
L0000021	0	0.40000E-01	586769.0	4156688.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000022	0	0.40000E-01	586755.3	4156667.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000023	0	0.40000E-01	586741.5	4156645.5	13.2	4.15	11.91	1.93	YES	HRDOW
L0000024	0	0.40000E-01	586727.8	4156623.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000025	0	0.40000E-01	586714.1	4156602.3	13.2	4.15	11.91	1.93	YES	HRDOW

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE2	0	0.24683E-04	586929.4	4157071.2	14.4	4.15	20.23	52.06	29.54	1.93	YES	HRDOW

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE1	0	0.24989E-04	586639.0	4157127.5	13.3	4.15	12	1.93	YES	HRDOW

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
HAUL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 ,
ONSITE	ONSITE1 , ONSITE2 ,

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	1663000.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
		L0000025 , ONSITE1 , ONSITE2 ,

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = ALL SOURCES ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.0000E+00	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(	586862.2,	4156988.8,	13.6,	13.6,	1.5);	(586877.2,	4156988.8,	13.9,	13.9,	1.5);
(	586892.2,	4156988.8,	14.2,	14.2,	1.5);	(586907.2,	4156988.8,	14.1,	14.1,	1.5);
(	586922.2,	4156988.8,	14.0,	14.0,	1.5);	(586937.2,	4156988.8,	13.8,	13.8,	1.5);
(	586847.2,	4157003.8,	14.0,	14.0,	1.5);	(586862.2,	4157003.8,	13.9,	13.9,	1.5);
(	586877.2,	4157003.8,	14.1,	14.1,	1.5);	(586892.2,	4157003.8,	14.3,	14.3,	1.5);
(	586907.2,	4157003.8,	14.3,	14.3,	1.5);	(586922.2,	4157003.8,	14.2,	14.2,	1.5);
(	586937.2,	4157003.8,	13.9,	13.9,	1.5);	(586952.2,	4157003.8,	13.8,	13.8,	1.5);
(	586817.2,	4157018.8,	13.8,	13.8,	1.5);	(586832.2,	4157018.8,	13.9,	13.9,	1.5);
(	586847.2,	4157018.8,	14.0,	14.0,	1.5);	(586862.2,	4157018.8,	14.0,	14.0,	1.5);
(	586877.2,	4157018.8,	14.2,	14.2,	1.5);	(586892.2,	4157018.8,	14.4,	14.4,	1.5);
(	586907.2,	4157018.8,	14.3,	14.3,	1.5);	(586922.2,	4157018.8,	14.2,	14.2,	1.5);
(	586937.2,	4157018.8,	14.1,	14.1,	1.5);	(586952.2,	4157018.8,	14.0,	14.0,	1.5);
(	586793.1,	4157034.4,	13.4,	13.4,	1.5);	(586802.2,	4157033.8,	13.7,	13.7,	1.5);
(	586817.2,	4157033.8,	14.1,	14.1,	1.5);	(586832.2,	4157033.8,	14.0,	14.0,	1.5);
(	586847.2,	4157033.8,	14.0,	14.0,	1.5);	(586862.2,	4157033.8,	14.1,	14.1,	1.5);
(	586877.2,	4157033.8,	14.2,	14.2,	1.5);	(586892.2,	4157033.8,	14.4,	14.4,	1.5);
(	586907.2,	4157033.8,	14.3,	14.3,	1.5);	(586922.2,	4157033.8,	14.2,	14.2,	1.5);
(	586937.2,	4157033.8,	14.2,	14.2,	1.5);	(586952.2,	4157033.8,	14.1,	14.1,	1.5);
(	586967.2,	4157033.8,	14.0,	14.0,	1.5);	(586792.8,	4157044.4,	13.4,	13.4,	1.5);
(	586802.2,	4157048.8,	13.7,	13.7,	1.5);	(586817.2,	4157048.8,	14.1,	14.1,	1.5);
(	586832.2,	4157048.8,	14.0,	14.0,	1.5);	(586847.2,	4157048.8,	14.0,	14.0,	1.5);
(	586862.2,	4157048.8,	14.2,	14.2,	1.5);	(586877.2,	4157048.8,	14.2,	14.2,	1.5);
(	586892.2,	4157048.8,	14.3,	14.3,	1.5);	(586907.2,	4157048.8,	14.4,	14.4,	1.5);
(	586922.2,	4157048.8,	14.4,	14.4,	1.5);	(586937.2,	4157048.8,	14.2,	14.2,	1.5);
(	586952.2,	4157048.8,	14.1,	14.1,	1.5);	(586967.2,	4157048.8,	14.1,	14.1,	1.5);
(	586982.2,	4157048.8,	14.1,	14.1,	1.5);	(586802.2,	4157063.8,	13.7,	13.7,	1.5);
(	586817.2,	4157063.8,	14.0,	14.0,	1.5);	(586832.5,	4157058.6,	14.0,	14.0,	1.5);
(	586847.2,	4157063.8,	14.0,	14.0,	1.5);	(586862.2,	4157063.8,	14.2,	14.2,	1.5);
(	586877.2,	4157063.8,	14.2,	14.2,	1.5);	(586892.2,	4157063.8,	14.3,	14.3,	1.5);
(	586907.2,	4157063.8,	14.6,	14.6,	1.5);	(586922.2,	4157063.8,	14.5,	14.5,	1.5);
(	586930.1,	4157056.3,	14.3,	14.3,	1.5);	(586952.2,	4157063.8,	14.1,	14.1,	1.5);
(	586967.2,	4157063.8,	14.1,	14.1,	1.5);	(586982.2,	4157063.8,	14.2,	14.2,	1.5);
(	586847.2,	4157078.8,	13.9,	13.9,	1.5);	(586862.2,	4157078.8,	14.1,	14.1,	1.5);
(	586877.2,	4157078.8,	14.1,	14.1,	1.5);	(586892.2,	4157078.8,	14.2,	14.2,	1.5);
(	586907.2,	4157078.8,	14.4,	14.4,	1.5);	(586922.2,	4157078.8,	14.4,	14.4,	1.5);
(	586967.2,	4157078.8,	14.2,	14.2,	1.5);	(586982.2,	4157078.8,	14.2,	14.2,	1.5);
(	586997.2,	4157078.8,	14.3,	14.3,	1.5);	(586862.2,	4157093.8,	14.0,	14.0,	1.5);
(	586907.2,	4157093.8,	14.1,	14.1,	1.5);	(586922.2,	4157093.8,	14.2,	14.2,	1.5);
(	586934.2,	4157097.2,	14.2,	14.2,	1.5);	(586971.3,	4157091.0,	14.2,	14.2,	1.5);
(	586982.2,	4157093.8,	14.2,	14.2,	1.5);	(586997.2,	4157093.8,	14.3,	14.3,	1.5);
(	586922.2,	4157108.8,	14.2,	14.2,	1.5);	(586937.2,	4157108.8,	14.2,	14.2,	1.5);
(	586982.2,	4157108.8,	14.4,	14.4,	1.5);	(586997.2,	4157108.8,	14.4,	14.4,	1.5);

```
    ( 587012.2, 4157108.8,      14.4,      14.4,       1.5);         ( 586937.2, 4157123.8,      14.1,      14.1,       1.5);
    ( 586952.2, 4157123.8,      14.3,      14.3,       1.5);         ( 586967.2, 4157123.8,      14.5,      14.5,       1.5);
    ( 586982.2, 4157123.8,      14.6,      14.6,       1.5);         ( 586997.2, 4157123.8,      14.5,      14.5,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                    ***        05/07/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - On-site Receptors                              ***        09:53:59
                                                                                                                PAGE  35
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 587012.2, 4157123.8,      14.2,      14.2,       1.5);         ( 586937.2, 4157138.8,      14.1,      14.1,       1.5);
    ( 586952.2, 4157138.8,      14.3,      14.3,       1.5);         ( 586967.2, 4157138.8,      14.5,      14.5,       1.5);
    ( 586982.2, 4157138.8,      14.6,      14.6,       1.5);         ( 586997.2, 4157138.8,      14.5,      14.5,       1.5);
    ( 587012.2, 4157138.8,      14.2,      14.2,       1.5);         ( 586944.7, 4157150.4,      14.2,      14.2,       1.5);
    ( 586952.2, 4157153.8,      14.2,      14.2,       1.5);         ( 586967.2, 4157153.8,      14.4,      14.4,       1.5);
    ( 586982.2, 4157153.8,      14.5,      14.5,       1.5);         ( 586997.2, 4157153.8,      14.5,      14.5,       1.5);
    ( 587012.2, 4157153.8,      14.5,      14.5,       1.5);         ( 586940.7, 4157173.1,      14.2,      14.2,       1.5);
    ( 586952.2, 4157168.8,      14.2,      14.2,       1.5);         ( 586967.2, 4157168.8,      14.4,      14.4,       1.5);
    ( 586982.2, 4157168.8,      14.5,      14.5,       1.5);         ( 586997.2, 4157168.8,      14.6,      14.6,       1.5);
    ( 586922.2, 4157183.8,      14.1,      14.1,       1.5);         ( 586937.2, 4157183.8,      14.3,      14.3,       1.5);
    ( 586952.2, 4157183.8,      14.3,      14.3,       1.5);         ( 586967.2, 4157183.8,      14.4,      14.4,       1.5);
    ( 586982.2, 4157183.8,      14.7,      14.7,       1.5);         ( 586894.7, 4157200.9,      14.2,      14.2,       1.5);
    ( 586907.2, 4157198.8,      14.1,      14.1,       1.5);         ( 586922.2, 4157198.8,      14.2,      14.2,       1.5);
    ( 586937.2, 4157198.8,      14.4,      14.4,       1.5);         ( 586952.2, 4157198.8,      14.4,      14.4,       1.5);
    ( 586877.2, 4157213.8,      14.1,      14.1,       1.5);         ( 586892.2, 4157213.8,      14.3,      14.3,       1.5);
    ( 586907.2, 4157213.8,      14.3,      14.3,       1.5);         ( 586922.2, 4157213.8,      14.4,      14.4,       1.5);
    ( 586862.2, 4157228.8,      14.0,      14.0,       1.5);         ( 586877.2, 4157228.8,      14.3,      14.3,       1.5);
    ( 586892.2, 4157228.8,      14.4,      14.4,       1.5);         ( 586907.2, 4157228.8,      14.5,      14.5,       1.5);
    ( 586877.2, 4157243.8,      14.4,      14.4,       1.5);         ( 586892.2, 4157243.8,      14.5,      14.5,       1.5);
```

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000002	587012.2	4157108.8	-5.83
L0000003	586997.2	4157078.8	-6.85
L0000003	586997.2	4157093.8	-1.03
L0000004	586982.2	4157048.8	-4.24
L0000004	586982.2	4157063.8	-4.23
L0000004	586997.2	4157078.8	-2.53
L0000005	586967.2	4157033.8	-4.30
L0000005	586967.2	4157048.8	-0.05
L0000005	586982.2	4157048.8	-10.13
L0000006	586952.2	4157003.8	-1.22
L0000006	586952.2	4157018.8	-2.32
L0000006	586967.2	4157033.8	-3.51
L0000007	586937.2	4156988.8	-1.62
L0000007	586952.2	4157003.8	-10.40
L0000008	586937.2	4156988.8	-4.09

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\met data\724945.SFC Met Version: 14134
Profile file: ..\met data\724945.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23293 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	02	-13.4	0.236	-9.000	-9.000	-999.	275.	89.0	0.32	1.10	1.00	2.36	18.	10.0	282.5	2.0
09	01	01	1	03	-7.9	0.139	-9.000	-9.000	-999.	128.	30.9	0.32	1.10	1.00	1.76	4.	10.0	282.0	2.0
09	01	01	1	04	-12.4	0.217	-9.000	-9.000	-999.	242.	74.8	0.25	1.10	1.00	2.36	73.	10.0	281.4	2.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.0	2.0
09	01	01	1	06	-9.7	0.170	-9.000	-9.000	-999.	168.	46.1	0.47	1.10	1.00	1.76	342.	10.0	281.4	2.0
09	01	01	1	07	-13.5	0.236	-9.000	-9.000	-999.	275.	88.6	0.32	1.10	1.00	2.36	5.	10.0	281.4	2.0
09	01	01	1	08	-19.7	0.345	-9.000	-9.000	-999.	486.	189.6	0.47	1.10	0.74	2.86	333.	10.0	280.9	2.0
09	01	01	1	09	-8.3	0.363	-9.000	-9.000	-999.	526.	525.4	0.47	1.10	0.39	2.86	327.	10.0	280.9	2.0
09	01	01	1	10	8.1	0.382	0.288	0.014	106.	566.	-625.1	0.47	1.10	0.27	2.86	351.	10.0	280.9	2.0
09	01	01	1	11	17.6	-9.000	-9.000	-9.000	189.	-999.	-99999.0	0.25	1.10	0.23	0.00	0.	10.0	280.9	2.0
09	01	01	1	12	23.0	-9.000	-9.000	-9.000	259.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	13	23.9	-9.000	-9.000	-9.000	315.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	14	48.5	-9.000	-9.000	-9.000	407.	-999.	-99999.0	0.25	1.10	0.22	0.00	0.	10.0	283.1	2.0
09	01	01	1	15	69.5	0.319	0.953	0.016	453.	433.	-42.6	0.32	1.10	0.25	2.36	32.	10.0	283.1	2.0
09	01	01	1	16	24.5	-9.000	-9.000	-9.000	460.	-999.	-99999.0	0.25	1.10	0.33	0.00	0.	10.0	283.1	2.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	0.57	0.00	0.	10.0	283.1	2.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	19	-24.2	0.212	-9.000	-9.000	-999.	235.	35.9	0.47	1.10	1.00	2.36	324.	10.0	281.4	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	281.4	2.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.4	2.0
09	01	01	1	24	-9.7	0.170	-9.000	-9.000	-999.	168.	45.7	0.47	1.10	1.00	1.76	310.	10.0	280.4	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	10.0	1	-999.	-99.00	282.6	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586862.25	4156988.76	1.48270	586877.25	4156988.76	1.79642
586892.25	4156988.76	2.23855	586907.25	4156988.76	2.97017
586922.25	4156988.76	4.22378	586937.25	4156988.76	2.38447
586847.25	4157003.76	1.10617	586862.25	4157003.76	1.30696
586877.25	4157003.76	1.56063	586892.25	4157003.76	1.90990
586907.25	4157003.76	2.44960	586922.25	4157003.76	3.33298
586937.25	4157003.76	4.95905	586952.25	4157003.76	2.66101
586817.25	4157018.76	0.77147	586832.25	4157018.76	0.87362
586847.25	4157018.76	1.00173	586862.25	4157018.76	1.16811
586877.25	4157018.76	1.37843	586892.25	4157018.76	1.66214
586907.25	4157018.76	2.08244	586922.25	4157018.76	2.73432
586937.25	4157018.76	3.83786	586952.25	4157018.76	3.77812
586793.13	4157034.38	0.59754	586802.25	4157033.76	0.63681
586817.25	4157033.76	0.70719	586832.25	4157033.76	0.79932
586847.25	4157033.76	0.91167	586862.25	4157033.76	1.05098
586877.25	4157033.76	1.22763	586892.25	4157033.76	1.46240
586907.25	4157033.76	1.79768	586922.25	4157033.76	2.29143
586937.25	4157033.76	3.07024	586952.25	4157033.76	4.42522
586967.25	4157033.76	2.34911	586792.82	4157044.43	0.56904
586802.25	4157048.76	0.59240	586817.25	4157048.76	0.65485
586832.25	4157048.76	0.73605	586847.25	4157048.76	0.83341
586862.25	4157048.76	0.95114	586877.25	4157048.76	1.10117
586892.25	4157048.76	1.29625	586907.25	4157048.76	1.55993
586922.25	4157048.76	1.94202	586937.25	4157048.76	2.53217
586952.25	4157048.76	3.49066	586967.25	4157048.76	3.33352
586982.25	4157048.76	2.51346	586802.25	4157063.76	0.55192
586817.25	4157063.76	0.60793	586832.46	4157058.61	0.69938
586847.25	4157063.76	0.76388	586862.25	4157063.76	0.86418
586877.25	4157063.76	0.99224	586892.25	4157063.76	1.15584
586907.25	4157063.76	1.36345	586922.25	4157063.76	1.66576
586930.14	4157056.34	2.04002	586952.25	4157063.76	2.83086
586967.25	4157063.76	4.00450	586982.25	4157063.76	3.72279
586847.25	4157078.76	0.70300	586862.25	4157078.76	0.78931
586877.25	4157078.76	0.89989	586892.25	4157078.76	1.03906

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

586907.25	4157078.76	1.21179		586922.25	4157078.76	1.45371
586967.25	4157078.76	3.14964		586982.25	4157078.76	4.57220
586997.25	4157078.76	2.24592		586862.25	4157093.76	0.72214
586907.25	4157093.76	1.08247	MER Location	586922.25	4157093.76	1.27745
586934.16	4157097.16	1.43712		586971.27	4157090.98	2.85315
586982.25	4157093.76	3.52218		586997.25	4157093.76	3.26361

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586922.25	4157108.76	1.11977	586937.25	4157108.76	1.33350
586982.25	4157108.76	2.72150	586997.25	4157108.76	3.89025
587012.25	4157108.76	3.32810	586937.25	4157123.76	1.14756
586952.25	4157123.76	1.36178	586967.25	4157123.76	1.66047
586982.25	4157123.76	2.10902	586997.25	4157123.76	2.86918
587012.25	4157123.76	4.27426	586937.25	4157138.76	0.98330
586952.25	4157138.76	1.14245	586967.25	4157138.76	1.35402
586982.25	4157138.76	1.64963	586997.25	4157138.76	2.10694
587012.25	4157138.76	2.84655	586944.67	4157150.36	0.92800
586952.25	4157153.76	0.95455	586967.25	4157153.76	1.10018
586982.25	4157153.76	1.28743	586997.25	4157153.76	1.53301
587012.25	4157153.76	1.84161	586940.65	4157173.09	0.69496
586952.25	4157168.76	0.79368	586967.25	4157168.76	0.88821
586982.25	4157168.76	0.99594	586997.25	4157168.76	1.11745
586922.25	4157183.76	0.55626	586937.25	4157183.76	0.60403
586952.25	4157183.76	0.65922	586967.25	4157183.76	0.71766
586982.25	4157183.76	0.77319	586894.72	4157200.92	0.41610
586907.25	4157198.76	0.44863	586922.25	4157198.76	0.47998
586937.25	4157198.76	0.51273	586952.25	4157198.76	0.54909
586877.25	4157213.76	0.35014	586892.25	4157213.76	0.37025
586907.25	4157213.76	0.39214	586922.25	4157213.76	0.41453
586862.25	4157228.76	0.29802	586877.25	4157228.76	0.31256
586892.25	4157228.76	0.32766	586907.25	4157228.76	0.34365
586877.25	4157243.76	0.27922	586892.25	4157243.76	0.29067

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43872 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
HAUL	1ST HIGHEST VALUE IS	4.95905 AT	(586937.25, 4157003.76, 13.92, 13.92, 1.50)	DC	
	2ND HIGHEST VALUE IS	4.57220 AT	(586982.25, 4157078.76, 14.20, 14.20, 1.50)	DC	
	3RD HIGHEST VALUE IS	4.42522 AT	(586952.25, 4157033.76, 14.08, 14.08, 1.50)	DC	
	4TH HIGHEST VALUE IS	4.27426 AT	(587012.25, 4157123.76, 14.21, 14.21, 1.50)	DC	
	5TH HIGHEST VALUE IS	4.22378 AT	(586922.25, 4156988.76, 13.98, 13.98, 1.50)	DC	
	6TH HIGHEST VALUE IS	4.00450 AT	(586967.25, 4157063.76, 14.07, 14.07, 1.50)	DC	
	7TH HIGHEST VALUE IS	3.89025 AT	(586997.25, 4157108.76, 14.36, 14.36, 1.50)	DC	
	8TH HIGHEST VALUE IS	3.83786 AT	(586937.25, 4157018.76, 14.05, 14.05, 1.50)	DC	
	9TH HIGHEST VALUE IS	3.77812 AT	(586952.25, 4157018.76, 13.95, 13.95, 1.50)	DC	
	10TH HIGHEST VALUE IS	3.72279 AT	(5869 On-site MER Location 17, 14.17, 1.50)	DC	
ONSITE	1ST HIGHEST VALUE IS	13.67682 AT	(586907.25, 4157093.76, 14.14, 14.14, 1.50)	DC	
	2ND HIGHEST VALUE IS	12.97513 AT	(586847.25, 4157078.76, 13.88, 13.88, 1.50)	DC	
	3RD HIGHEST VALUE IS	12.96507 AT	(586862.25, 4157093.76, 13.97, 13.97, 1.50)	DC	
	4TH HIGHEST VALUE IS	12.76117 AT	(586922.25, 4157108.76, 14.15, 14.15, 1.50)	DC	
	5TH HIGHEST VALUE IS	12.00690 AT	(586802.25, 4157063.76, 13.67, 13.67, 1.50)	DC	
	6TH HIGHEST VALUE IS	11.49156 AT	(586937.25, 4157138.76, 14.08, 14.08, 1.50)	DC	
	7TH HIGHEST VALUE IS	11.22510 AT	(586922.25, 4157093.76, 14.22, 14.22, 1.50)	DC	
	8TH HIGHEST VALUE IS	11.00594 AT	(586937.25, 4157123.76, 14.09, 14.09, 1.50)	DC	
	9TH HIGHEST VALUE IS	10.72740 AT	(586862.25, 4157078.76, 14.10, 14.10, 1.50)	DC	
	10TH HIGHEST VALUE IS	10.44262 AT	(586817.25, 4157063.76, 14.02, 14.02, 1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   0 Warning Message(s)
A Total of   13130 Informational Message(s)

A Total of   43872 Hours Were Processed

A Total of   11611 Calm Hours Identified

A Total of   1519 Missing Hours Identified (3.46 Percent)

   ******** FATAL ERROR MESSAGES ********
            *** NONE ***

   ********   WARNING MESSAGES   ********
            *** NONE ***

   ****
   *** AERMOD Finishes Successfully ***
   ****

Table C1
Residential MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MER Conc. ($\mu g/m^3$)	Total MER Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)
Residential Receptors - Unmitigated						
DPM	2020	On-Site Emissions	3.65	3.43E-02	1.25E-01	1.25E-01
		Truck Route	0.19	1.20E-05	2.26E-06	
	2021	On-Site Emissions	3.65	1.51E-02	5.52E-02	5.52E-02
		Truck Route	0.19	1.14E-05	2.16E-06	
	2022	On-Site Emissions	3.65	1.44E-02	5.25E-02	5.25E-02
		Truck Route	0.19	1.05E-05	1.99E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	3.65	3.19E-02	1.16E-01	1.16E-01
		Truck Route	0.19	1.14E-05	2.16E-06	
	2021	On-Site Emissions	3.65	1.42E-02	5.19E-02	5.19E-02
		Truck Route	0.19	1.08E-05	2.04E-06	
	2022	On-Site Emissions	3.65	1.35E-02	4.93E-02	4.93E-02
		Truck Route	0.19	9.89E-06	1.87E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.12**
Residential Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	3.65	5.74E-03	2.10E-02	2.10E-02
		Truck Route	0.19	1.20E-05	2.26E-06	
	2021	On-Site Emissions	3.65	3.26E-03	1.19E-02	1.19E-02
		Truck Route	0.19	1.14E-05	2.16E-06	
	2022	On-Site Emissions	3.65	3.01E-03	1.10E-02	1.10E-02
		Truck Route	0.19	1.05E-05	1.99E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	3.65	5.36E-03	1.96E-02	1.96E-02
		Truck Route	0.19	1.14E-05	2.16E-06	
	2021	On-Site Emissions	3.65	3.13E-03	1.14E-02	1.14E-02
		Truck Route	0.19	1.08E-05	2.04E-06	
	2022	On-Site Emissions	3.65	2.88E-03	1.05E-02	1.05E-02
		Truck Route	0.19	9.89E-06	1.87E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.02**

Maximum Exposed Receptor (MER) UTM coordinates: 786724.66E, 4157228.76N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C2
Quantification of Health Risks for Off-site Residents

Source		MER	Weight	Contaminant			Dose (by age bin)		Carcinogenic Risks (by age bin)		**Total Cancer Risk**	**Chronic Hazards [3]**	
		Conc.	Fraction		URF	CPF	3rd Trimester	0 < 2 years	3rd Trimester	0 < 2 years		Chronic REL	RESP
		($\mu g/m^3$)			$(\mu g/m^3)^{-1}$	$(mg/kg/day)^{-1}$	(mg/kg-day)	(mg/kg-day)	per million	per million	per million	($\mu g/m^3$)	
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Residential Receptors - Unmitigated													
2020	On & Off-Site	1.25E-01	1.00E+00	DPM	3.0E-04	1.1E+00	4.34E-05	1.31E-04	1.38	9.59	10.98	5.0E+00	2.51E-02
2021	On & Off-Site	5.52E-02	1.00E+00		3.0E-04	1.1E+00		5.77E-05		7.4	7.4	5.0E+00	1.10E-02
2022	On & Off-Site	5.25E-02	1.00E+00		3.0E-04	1.1E+00		5.48E-05		4.62	4.62	5.0E+00	1.05E-02
											23.0		**0.047**
Residential Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP													
2020	On & Off-Site	2.10E-02	1.00E+00	DPM	3.0E-04	1.1E+00	7.26E-06	2.19E-05	0.23	1.60	1.84	5.0E+00	4.19E-03
2021	On & Off-Site	1.19E-02	1.00E+00		3.0E-04	1.1E+00		1.25E-05		1.59	1.59	5.0E+00	2.38E-03
2022	On & Off-Site	1.10E-02	1.00E+00		3.0E-04	1.1E+00		1.15E-05		0.97	0.97	5.0E+00	2.20E-03
											4.4		**0.009**

Maximum Exposed Receptor (MER) UTM coordinates: 786724.66E, 4157228.76N

		3rd Trimester	0 < 2 years
OEHHA age bin			
exposure year(s)		2020	2020-2022
Dose Exposure Factors:	xposure frequency (days/year)	350	350
	inhalation rate (L/kg-day) [1]	361	1090
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10	10
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06
	fraction of time at home	0.85	0.85

exposure durations per age bin			exposure durations (year)	
	Construction Year	Risk Scalar [2]	3rd Trimester	0 < 2 years
	2020	0.82	0.25	0.57
	2021	1.00		1.00
	2022	0.66		0.66
	Total	2.49	0.25	2.24

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Risk scalar determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

Table C3
Day-Care MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MER Conc. ($\mu g/m^3$)	Total MER Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)
Day Care Receptors - Unmitigated						
DPM	2020	On-Site Emissions	0.109	3.43E-02	3.75E-03	3.75E-03
		Truck Route	0.078	1.20E-05	9.35E-07	
	2021	On-Site Emissions	0.109	1.51E-02	1.65E-03	1.65E-03
		Truck Route	0.078	1.14E-05	8.94E-07	
	2022	On-Site Emissions	0.109	1.44E-02	1.57E-03	1.57E-03
		Truck Route	0.078	1.19E-06	9.29E-08	
Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations						
$PM_{2.5}$	2020	On-Site Emissions	0.109	3.19E-02	3.48E-03	3.48E-03
		Truck Route	0.078	1.14E-05	8.91E-07	
	2021	On-Site Emissions	0.109	1.42E-02	1.55E-03	1.55E-03
		Truck Route	0.078	1.08E-05	8.41E-07	
	2022	On-Site Emissions	0.109	1.35E-02	1.47E-03	1.48E-03
		Truck Route	0.078	9.89E-06	7.73E-07	
				Maximum Annual $PM_{2.5}$ Concentration		**0.003**
Day Care Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	0.109	5.74E-03	6.27E-04	6.28E-04
		Truck Route	0.078	1.20E-05	9.35E-07	
	2021	On-Site Emissions	0.109	3.26E-03	3.56E-04	3.57E-04
		Truck Route	0.078	1.14E-05	8.94E-07	
	2022	On-Site Emissions	0.109	3.01E-03	3.29E-04	3.30E-04
		Truck Route	0.078	1.05E-05	8.24E-07	
Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations						
$PM_{2.5}$	2020	On-Site Emissions	0.109	5.36E-03	5.87E-04	5.87E-04
		Truck Route	0.078	1.14E-05	8.91E-07	
	2021	On-Site Emissions	0.109	3.13E-03	3.42E-04	3.43E-04
		Truck Route	0.078	1.08E-05	8.41E-07	
	2022	On-Site Emissions	0.109	2.88E-03	3.15E-04	3.16E-04
		Truck Route	0.078	9.89E-06	7.73E-07	
				Maximum Annual $PM_{2.5}$ Concentration		**0.001**

Day Care Student MER UTM coordinates: 586993.53E, 4157461.87N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C4
Quantification of Health Risks for Off-site Day Care Children

Source		MER Conc. ($\mu g/m^3$)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose 0 < 2 years (mg/kg-day)	**Total Cancer Risk** per million	**Chronic Hazards [4]** Chronic REL ($\mu g/m^3$)	RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Day Care Receptors - Unmitigated										
2020	On & Off-Site	3.75E-03	1.00E+00	DPM	3.0E-04	1.1E+00	3.08E-06	3.81E-01	5.0E+00	7.50E-04
2021	On & Off-Site	1.65E-03	1.00E+00		3.0E-04	1.1E+00	1.36E-06	2.04E-01	5.0E+00	3.30E-04
2022	On & Off-Site	1.57E-03	1.00E+00		3.0E-04	1.1E+00	1.29E-06	1.28E-01	5.0E+00	3.14E-04
							Total	**0.7**		**0.001**
Day Care Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP										
2020	On & Off-Site	6.28E-04	1.00E+00	DPM	3.0E-04	1.1E+00	5.16E-07	6.38E-02	5.0E+00	1.26E-04
2021	On & Off-Site	3.57E-04	1.00E+00		3.0E-04	1.1E+00	2.94E-07	4.40E-02	5.0E+00	7.14E-05
2022	On & Off-Site	3.30E-04	1.00E+00		3.0E-04	1.1E+00	2.71E-07	2.69E-02	5.0E+00	6.59E-05
							Total	**0.1**		**2.6E-04**

Day Care Student MER UTM coordinates: 586993.53E, 4157461.87N

	OEHHA age bin	0 < 2 years
	exposure year(s)	2020-2022
Dose Exposure Factors:	posure frequency (days/year) [1]	250
	inhalation rate (L/kg-8 hours) [2]	1200
	inhalation absorption factor	1
	conversion factor (mg/µg; m^3/L)	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10
	averaging time (years)	70
	per million	1.0E+06

exposure durations per age bin		exposure durations (year)
Construction Year	Risk Scalar [3]	0 < 2 years
2020	0.82	0.82
2021	1.00	1.00
2022	0.66	0.66
Total	2.49	2.49

[1] Office of Environmental Health Hazard Assessment. *Guidance for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(f): Guidance for Assessing Exposures and Health Risks at Existing and Proposed School Sites* . Dated February, 2004..

[2] Inhalation rate taken as the 95th percentile 8-hour breathing rate for moderate intensity activities (OEHHA, 2015).

[3] Risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[4] Chronic Hazards for DPM using the chronic reference exposure level (REL) for Respiratory Toxicological Endpoint.

Table C5
Oliveira Elementary School MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MER Conc. ($\mu g/m^3$)	Total MER Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)
Oliveira ES Receptors - Unmitigated						
DPM	2020	On-Site Emissions	0.428	3.43E-02	1.47E-02	1.47E-02
		Truck Route	0.103	1.20E-05	1.23E-06	
	2021	On-Site Emissions	0.428	1.51E-02	6.47E-03	6.47E-03
		Truck Route	0.103	1.14E-05	1.18E-06	
	2022	On-Site Emissions	0.428	1.44E-02	6.15E-03	6.15E-03
		Truck Route	0.103	1.05E-05	1.09E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	0.428	3.19E-02	1.36E-02	1.36E-02
		Truck Route	0.103	1.14E-05	1.18E-06	
	2021	On-Site Emissions	0.428	1.42E-02	6.08E-03	6.08E-03
		Truck Route	0.103	1.08E-05	1.11E-06	
	2022	On-Site Emissions	0.428	1.35E-02	5.78E-03	5.78E-03
		Truck Route	0.103	9.89E-06	1.02E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.014**
Oliveira ES Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	0.428	5.74E-03	2.46E-03	2.46E-03
		Truck Route	0.103	1.20E-05	1.23E-06	
	2021	On-Site Emissions	0.428	3.26E-03	1.40E-03	1.40E-03
		Truck Route	0.103	1.14E-05	1.18E-06	
	2022	On-Site Emissions	0.428	3.01E-03	1.29E-03	1.29E-03
		Truck Route	0.103	1.05E-05	1.09E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	0.428	5.36E-03	2.30E-03	2.30E-03
		Truck Route	0.103	1.14E-05	1.18E-06	
	2021	On-Site Emissions	0.428	3.13E-03	1.34E-03	1.34E-03
		Truck Route	0.103	1.08E-05	1.11E-06	
	2022	On-Site Emissions	0.428	2.88E-03	1.23E-03	1.24E-03
		Truck Route	0.103	9.89E-06	1.02E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.002**

Maximum Exposed Receptor (MER) UTM coordinates: 586804.66E, 4157388.76N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C6
Quantification of Health Risks for Oliveira Elementary School

Source		MER Conc. ($\mu g/m^3$)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose (by age bin) Staff (mg/kg-day)	Dose (by age bin) Students (mg/kg-day)	**Carcinogenic Risks Staff** per million	**Carcinogenic Risks Students** per million	**Chronic Hazards** [4] Chronic REL ($\mu g/m^3$)	**Chronic Hazards** [4] RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(m)	(n)
Oliveira ES Receptors - Unmitigated												
2020	On & Off-Site	1.47E-02	1.00E+00	DPM	3.0E-04	1.1E+00	2.31E-06	4.64E-06	0.03	0.17	5.0E+00	2.94E-03
2021	On & Off-Site	6.47E-03	1.00E+00		3.0E-04	1.1E+00	1.02E-06	2.04E-06	0.02	0.09	5.0E+00	1.29E-03
2022	On & Off-Site	6.15E-03	1.00E+00		3.0E-04	1.1E+00	9.69E-07	1.94E-06	0.01	0.06	5.0E+00	1.23E-03
								Total	**0.05**	**0.3**		**0.005**
Oliveira ES Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP												
2020	On & Off-Site	2.46E-03	1.00E+00	DPM	3.0E-04	1.1E+00	3.87E-07	7.76E-07	0.00	0.03	5.0E+00	4.92E-04
2021	On & Off-Site	1.40E-03	1.00E+00		3.0E-04	1.1E+00	2.20E-07	4.41E-07	0.00	0.02	5.0E+00	2.79E-04
2022	On & Off-Site	1.29E-03	1.00E+00		3.0E-04	1.1E+00	2.03E-07	4.07E-07	0.00	0.01	5.0E+00	2.58E-04
								Total	**0.01**	**0.1**		**0.001**

Maximum Exposed Receptor (MER) UTM coordinates: 586804.66E, 4157388.76N

		Staff	Students (ES)
	OEHHA age bin	16 < 70 years	2 < 9 years
Dose Exposure Factors:	osure frequency (days/year) [1]	250	180
	inhalation rate (L/kg-8 hours) [2]	230	640
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	1	3
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06

exposure durations per age bin		exposure durations (year)	
Construction Year	Risk Scalar [3]	Staff	Students
2020	0.82	0.82	0.82
2021	1.00	1.00	1.00
2022	0.66	0.66	0.66
Total	2.49	1.82	2.49

[1] Office of Environmental Health Hazard Assessment. *Guidance for School Site Risk Assessment Pursuant to Health and Safety Code*

[2] Inhalation rate taken as the 95th percentile 8-hour breathing rate for moderate intensity activities (OEHHA, 2015).

[3] Risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction

[4] Chronic Hazards for DPM using the chronic reference exposure level (REL) for Respiratory Toxicological Endpoint.

Table C7
On-site MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] (µg/m³)	Emission Rates [2] (g/s)	MER Conc. (µg/m³)	Total MER Conc. Annual Average (µg/m³)
(a)		(b)	(c)	(d)	(e)	(f)
On-site School Receptors - Unmitigated						
DPM	2020	On-Site Emissions	13.68	3.43E-02	4.69E-01	4.69E-01
		Truck Route	1.082	1.20E-05	1.29E-05	
	2021	On-Site Emissions	13.68	1.51E-02	2.06E-01	2.07E-01
		Truck Route	1.082	1.14E-05	1.24E-05	
	2022	On-Site Emissions	13.68	1.44E-02	1.96E-01	1.96E-01
		Truck Route	1.082	1.05E-05	1.14E-05	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	13.68	3.19E-02	4.36E-01	4.36E-01
		Truck Route	1.082	1.14E-05	1.23E-05	
	2021	On-Site Emissions	13.68	1.42E-02	1.94E-01	1.94E-01
		Truck Route	1.082	1.08E-05	1.17E-05	
	2022	On-Site Emissions	13.68	1.35E-02	1.84E-01	1.84E-01
		Truck Route	1.082	9.89E-06	1.07E-05	
				Maximum Annual $PM_{2.5}$ Concentration		**0.44**
On-site School Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	13.68	5.74E-03	7.84E-02	7.85E-02
		Truck Route	1.082	1.20E-05	1.29E-05	
	2021	On-Site Emissions	13.68	3.26E-03	4.46E-02	4.46E-02
		Truck Route	1.082	1.14E-05	1.24E-05	
	2022	On-Site Emissions	13.68	3.01E-03	4.11E-02	4.11E-02
		Truck Route	1.082	1.05E-05	1.14E-05	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	13.68	5.36E-03	7.34E-02	7.34E-02
		Truck Route	1.082	1.14E-05	1.23E-05	
	2021	On-Site Emissions	13.68	3.13E-03	4.28E-02	4.28E-02
		Truck Route	1.082	1.08E-05	1.17E-05	
	2022	On-Site Emissions	13.68	2.88E-03	3.94E-02	3.94E-02
		Truck Route	1.082	9.89E-06	1.07E-05	
				Maximum Annual $PM_{2.5}$ Concentration		**0.07**

Maximum Exposed Receptor (MER) UTM coordinates: 586907.25E, 4157093.76N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C8
Quantification of Health Risks for On-site Receptors

Source		MER Conc. ($\mu g/m^3$)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose (by age bin) Staff (mg/kg-day)	Dose (by age bin) Students (mg/kg-day)	**Carcinogenic Risks** Staff per million	**Carcinogenic Risks** Students per million	**Chronic Hazards** [4] Chronic REL ($\mu g/m^3$)	**Chronic Hazards** [4] RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(m)	(n)
On-site School Receptors - Unmitigated												
2020	On & Off-Site	4.69E-01	1.00E+00	DPM	3.0E-04	1.1E+00	7.39E-05	1.20E-04	0.91	4.46	5.0E+00	9.38E-02
2021	On & Off-Site	2.07E-01	1.00E+00		3.0E-04	1.1E+00	3.25E-05	5.30E-05	0.49	2.38	5.0E+00	4.13E-02
2022	On & Off-Site	1.96E-01	1.00E+00		3.0E-04	1.1E+00	3.09E-05	5.03E-05	0.31	1.50	5.0E+00	3.93E-02
								Total	**1.7**	**8.3**		**0.174**
On-site School Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP												
2020	On & Off-Site	7.85E-02	1.00E+00	DPM	3.0E-04	1.1E+00	1.24E-05	2.01E-05	0.15	0.75	5.0E+00	1.57E-02
2021	On & Off-Site	4.46E-02	1.00E+00		3.0E-04	1.1E+00	7.02E-06	1.14E-05	0.11	0.51	5.0E+00	8.92E-03
2022	On & Off-Site	4.11E-02	1.00E+00		3.0E-04	1.1E+00	6.48E-06	1.05E-05	0.06	0.31	5.0E+00	8.23E-03
								Total	**0.3**	**1.6**		**0.033**

Maximum Exposed Receptor (MER) UTM coordinates: 586907.25E, 4157093.76N

		Staff	Students (Jr HS)
	OEHHA age bin	16 < 70 years	2 < 16 years
Dose Exposure Factors:	osure frequency (days/year) [1]	250	180
	inhalation rate (L/kg-8 hours) [2]	230	520
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	1	3
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06

exposure durations per age bin		exposure durations (year)	
Construction Year	Risk Scalar [3]	Staff	Students
2020	0.82	0.82	0.82
2021	1.00	1.00	1.00
2022	0.66	0.66	0.66
Total	2.49	1.82	2.49

[1] Office of Environmental Health Hazard Assessment. *Guidance for School Site Risk Assessment Pursuant to Health and Safety Code*

[2] Inhalation rate taken as the 95th percentile 8-hour breathing rate for moderate intensity activities (OEHHA, 2015).

[3] Risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction

[4] Chronic Hazards for DPM using the chronic reference exposure level (REL) for Respiratory Toxicological Endpoint.

Construction Emissions - DPM and PM2.5
Input to Risk Tables

On-site Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2020 On-site Emissions	Average Daily Emissions (lbs/day)	2.18	2.02
	Average Daily Emissions (lbs/hr)	2.72E-01	2.53E-01
	Emission Rate (g/s)	3.43E-02	3.19E-02
2021 On-site Emissions	Average Daily Emissions (lbs/day)	0.96	0.90
	Average Daily Emissions (lbs/hr)	1.20E-01	1.13E-01
	Emission Rate (g/s)	1.51E-02	1.42E-02
2022 On-site Emissions	Average Daily Emissions (lbs/day)	0.91	0.86
	Average Daily Emissions (lbs/hr)	1.14E-01	1.07E-01
	Emission Rate (g/s)	1.44E-02	1.35E-02

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Off-site Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2020 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.038	0.036
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.59E-04	7.24E-04
	Emission Rate (lbs/hr)	9.49E-05	9.05E-05
	Emission Rate (g/s)	1.20E-05	1.14E-05
2021 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.036	0.034
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.26E-04	6.84E-04
	Emission Rate (lbs/hr)	9.08E-05	8.54E-05
	Emission Rate (g/s)	1.14E-05	1.08E-05
2022 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.033	0.031
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	6.70E-04	6.28E-04
	Emission Rate (lbs/hr)	8.37E-05	7.85E-05
	Emission Rate (g/s)	1.05E-05	9.89E-06

Note: Emissions evenly distributed over 25 modeled volume sources.

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [4] 8 hours

	Year	Workdays	Risk Scalar [5]
Total construction days per year	2020	216	0.82
	2021	261	1.00
	2022	172	0.66

Average Hauling Length (miles) 20.0

Haul Length within 1,000 ft of Site (mile) [3] 0.40

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as $PM_{2.5}$ exhaust emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances proportioned to evaluate emissions from the 0.40-mile route within 1,000 ft of the project site.

[4] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App B - Air Dispersion Model Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Construction Emissions - DPM and PM2.5
Input to Risk Tables
With Mitigation - Level 3 DPF's for Eq. > 50 hp

On-site Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2020 On-site Emissions	Average Daily Emissions (lbs/day)	0.36	0.34
	Average Daily Emissions (lbs/hr)	4.55E-02	4.26E-02
	Emission Rate (g/s)	5.74E-03	5.36E-03
2021 On-site Emissions	Average Daily Emissions (lbs/day)	0.21	0.20
	Average Daily Emissions (lbs/hr)	2.59E-02	2.48E-02
	Emission Rate (g/s)	3.26E-03	3.13E-03
2022 On-site Emissions	Average Daily Emissions (lbs/day)	0.19	0.18
	Average Daily Emissions (lbs/hr)	2.39E-02	2.29E-02
	Emission Rate (g/s)	3.01E-03	2.88E-03

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Off-site Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2020 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.038	0.036
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.59E-04	7.24E-04
	Emission Rate (lbs/hr)	9.49E-05	9.05E-05
	Emission Rate (g/s)	1.20E-05	1.14E-05
2021 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.036	0.034
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	7.26E-04	6.84E-04
	Emission Rate (lbs/hr)	9.08E-05	8.54E-05
	Emission Rate (g/s)	1.14E-05	1.08E-05
2022 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.033	0.031
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	6.70E-04	6.28E-04
	Emission Rate (lbs/hr)	8.37E-05	7.85E-05
	Emission Rate (g/s)	1.05E-05	9.89E-06

Note: Emissions evenly distributed over 25 modeled volume sources.

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [4] 8 hours

	Year	Workdays	Risk Scalar [5]
Total construction days per year	2020	216	0.82
	2021	261	1.00
	2022	172	0.66

Average Hauling Length (miles) 20.0

Haul Length within 1,000 ft of Site (mile) [3] 0.40

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as $PM_{2.5}$ exhaust emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances proportioned to evaluate emissions from the 0.40-mile route within 1,000 ft of the project site.

[4] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App B - Air Dispersion Model Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 27 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 1663000.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates PERIOD Averages Only

**This Run Includes: 27 Source(s); 2 Source Group(s); and 490 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 25 VOLUME source(s)
and: 2 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
**The AERMET Input Meteorological Data Version Date:  14134

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    15.50 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   FREM01.err
**File for Summary of Results:   FREM01.sum
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.40000E-01	587043.4	4157121.1	14.7	4.15	11.91	1.93	YES	HRDOW
L0000002	0	0.40000E-01	587029.7	4157099.5	14.9	4.15	11.91	1.93	YES	HRDOW
L0000003	0	0.40000E-01	587016.0	4157077.8	14.5	4.15	11.91	1.93	YES	HRDOW
L0000004	0	0.40000E-01	587002.3	4157056.2	14.3	4.15	11.91	1.93	YES	HRDOW
L0000005	0	0.40000E-01	586988.5	4157034.6	14.1	4.15	11.91	1.93	YES	HRDOW
L0000006	0	0.40000E-01	586974.8	4157013.0	14.0	4.15	11.91	1.93	YES	HRDOW
L0000007	0	0.40000E-01	586961.1	4156991.4	13.7	4.15	11.91	1.93	YES	HRDOW
L0000008	0	0.40000E-01	586947.4	4156969.8	13.7	4.15	11.91	1.93	YES	HRDOW
L0000009	0	0.40000E-01	586933.7	4156948.2	13.5	4.15	11.91	1.93	YES	HRDOW
L0000010	0	0.40000E-01	586919.9	4156926.5	13.4	4.15	11.91	1.93	YES	HRDOW
L0000011	0	0.40000E-01	586906.2	4156904.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000012	0	0.40000E-01	586892.5	4156883.3	13.0	4.15	11.91	1.93	YES	HRDOW
L0000013	0	0.40000E-01	586878.8	4156861.7	13.1	4.15	11.91	1.93	YES	HRDOW
L0000014	0	0.40000E-01	586865.0	4156840.1	13.1	4.15	11.91	1.93	YES	HRDOW
L0000015	0	0.40000E-01	586851.3	4156818.5	13.1	4.15	11.91	1.93	YES	HRDOW
L0000016	0	0.40000E-01	586837.6	4156796.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000017	0	0.40000E-01	586823.9	4156775.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000018	0	0.40000E-01	586810.2	4156753.6	13.2	4.15	11.91	1.93	YES	HRDOW
L0000019	0	0.40000E-01	586796.4	4156732.0	13.2	4.15	11.91	1.93	YES	HRDOW
L0000020	0	0.40000E-01	586782.7	4156710.4	13.2	4.15	11.91	1.93	YES	HRDOW
L0000021	0	0.40000E-01	586769.0	4156688.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000022	0	0.40000E-01	586755.3	4156667.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000023	0	0.40000E-01	586741.5	4156645.5	13.2	4.15	11.91	1.93	YES	HRDOW
L0000024	0	0.40000E-01	586727.8	4156623.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000025	0	0.40000E-01	586714.1	4156602.3	13.2	4.15	11.91	1.93	YES	HRDOW

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE2	0	0.24683E-04	586929.4	4157071.2	14.4	4.15	20.23	52.06	29.54	1.93	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE1	0	0.24989E-04	586639.0	4157127.5	13.3	4.15	12	1.93	YES	HRDOW

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
HAUL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 ,
ONSITE	ONSITE1 , ONSITE2 ,

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	1663000.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
		L0000025 , ONSITE1 , ONSITE2 ,

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = ALL SOURCES ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.0000E+00	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(586404.7,	4156628.8,	12.3,	12.3,	1.5);	(586444.7,	4156628.8,	12.2,	12.2,	1.5);
(586484.7,	4156628.8,	12.0,	12.0,	1.5);	(586536.3,	4156643.1,	12.7,	12.7,	1.5);
(586564.7,	4156628.8,	12.7,	12.7,	1.5);	(586604.7,	4156628.8,	12.9,	12.9,	1.5);
(586644.7,	4156628.8,	13.0,	13.0,	1.5);	(586684.7,	4156628.8,	13.2,	13.2,	1.5);
(586764.7,	4156628.8,	13.3,	13.3,	1.5);	(586804.7,	4156628.8,	13.4,	13.4,	1.5);
(586844.7,	4156628.8,	13.5,	13.5,	1.5);	(586884.7,	4156628.8,	13.6,	13.6,	1.5);
(586924.7,	4156628.8,	13.8,	13.8,	1.5);	(586964.7,	4156628.8,	13.6,	13.6,	1.5);
(587004.7,	4156628.8,	13.7,	13.7,	1.5);	(587044.7,	4156628.8,	13.4,	13.4,	1.5);
(587084.7,	4156628.8,	13.8,	13.8,	1.5);	(587124.7,	4156628.8,	13.9,	13.9,	1.5);
(587164.7,	4156628.8,	14.1,	14.1,	1.5);	(587204.7,	4156628.8,	13.9,	13.9,	1.5);
(587244.7,	4156628.8,	14.2,	14.2,	1.5);	(587284.7,	4156628.8,	14.8,	14.8,	1.5);
(586404.7,	4156668.8,	12.0,	12.0,	1.5);	(586444.7,	4156668.8,	12.0,	12.0,	1.5);
(586484.7,	4156668.8,	12.5,	12.5,	1.5);	(586524.7,	4156668.8,	12.5,	12.5,	1.5);
(586564.7,	4156668.8,	12.6,	12.6,	1.5);	(586604.7,	4156668.8,	12.8,	12.8,	1.5);
(586804.7,	4156668.8,	13.5,	13.5,	1.5);	(586844.7,	4156668.8,	13.2,	13.2,	1.5);
(586884.7,	4156668.8,	13.6,	13.6,	1.5);	(586924.7,	4156668.8,	13.4,	13.4,	1.5);
(586964.7,	4156668.8,	13.2,	13.2,	1.5);	(587004.7,	4156668.8,	13.5,	13.5,	1.5);
(587044.7,	4156668.8,	13.5,	13.5,	1.5);	(587084.7,	4156668.8,	13.4,	13.4,	1.5);
(587124.7,	4156668.8,	13.6,	13.6,	1.5);	(587164.7,	4156668.8,	14.2,	14.2,	1.5);
(587204.7,	4156668.8,	14.2,	14.2,	1.5);	(587244.7,	4156668.8,	14.0,	14.0,	1.5);
(587284.7,	4156668.8,	14.7,	14.7,	1.5);	(586404.7,	4156708.8,	12.1,	12.1,	1.5);
(586444.7,	4156708.8,	12.3,	12.3,	1.5);	(586484.7,	4156708.8,	12.4,	12.4,	1.5);
(586524.7,	4156708.8,	12.5,	12.5,	1.5);	(586564.7,	4156708.8,	12.7,	12.7,	1.5);
(586604.7,	4156708.8,	12.7,	12.7,	1.5);	(586804.7,	4156708.8,	13.3,	13.3,	1.5);
(586844.7,	4156708.8,	13.4,	13.4,	1.5);	(586884.7,	4156708.8,	13.4,	13.4,	1.5);
(586924.7,	4156708.8,	13.3,	13.3,	1.5);	(586964.7,	4156708.8,	13.5,	13.5,	1.5);
(587004.7,	4156708.8,	13.4,	13.4,	1.5);	(587044.7,	4156708.8,	13.6,	13.6,	1.5);
(587084.7,	4156708.8,	13.6,	13.6,	1.5);	(587124.7,	4156708.8,	13.6,	13.6,	1.5);
(587164.7,	4156708.8,	13.8,	13.8,	1.5);	(587204.7,	4156708.8,	14.3,	14.3,	1.5);
(587244.7,	4156708.8,	14.3,	14.3,	1.5);	(587284.7,	4156708.8,	14.8,	14.8,	1.5);
(586404.7,	4156748.8,	12.2,	12.2,	1.5);	(586444.7,	4156748.8,	12.3,	12.3,	1.5);
(586484.7,	4156748.8,	12.4,	12.4,	1.5);	(586524.7,	4156748.8,	12.5,	12.5,	1.5);
(586564.7,	4156748.8,	12.3,	12.3,	1.5);	(586604.7,	4156748.8,	12.5,	12.5,	1.5);
(586644.7,	4156748.8,	12.9,	12.9,	1.5);	(586844.7,	4156748.8,	13.3,	13.3,	1.5);
(586884.7,	4156748.8,	13.2,	13.2,	1.5);	(586924.7,	4156748.8,	13.3,	13.3,	1.5);
(586964.7,	4156748.8,	13.6,	13.6,	1.5);	(587004.7,	4156748.8,	13.5,	13.5,	1.5);
(587044.7,	4156748.8,	13.7,	13.7,	1.5);	(587084.7,	4156748.8,	13.7,	13.7,	1.5);
(587124.7,	4156748.8,	13.7,	13.7,	1.5);	(587164.7,	4156748.8,	14.1,	14.1,	1.5);
(587204.7,	4156748.8,	14.4,	14.4,	1.5);	(587244.7,	4156748.8,	14.5,	14.5,	1.5);
(587284.7,	4156748.8,	14.4,	14.4,	1.5);	(586404.7,	4156788.8,	12.0,	12.0,	1.5);
(586444.7,	4156788.8,	12.5,	12.5,	1.5);	(586484.7,	4156788.8,	12.5,	12.5,	1.5);

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 586524.7, 4156788.8,      12.2,      12.2,       1.5);         ( 586564.7, 4156788.8,      12.4,      12.4,       1.5);
    ( 586604.7, 4156788.8,      12.3,      12.3,       1.5);         ( 586644.7, 4156788.8,      12.9,      12.9,       1.5);
    ( 586684.7, 4156788.8,      13.1,      13.1,       1.5);         ( 586724.7, 4156788.8,      13.4,      13.4,       1.5);
    ( 586764.7, 4156788.8,      12.9,      12.9,       1.5);         ( 586804.7, 4156788.8,      13.2,      13.2,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                    ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                             ***        15:58:10
                                                                                                                 PAGE  35
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 586884.7, 4156788.8,      13.5,      13.5,       1.5);         ( 586924.7, 4156788.8,      13.4,      13.4,       1.5);
    ( 586964.7, 4156788.8,      13.6,      13.6,       1.5);         ( 587004.7, 4156788.8,      13.7,      13.7,       1.5);
    ( 587044.7, 4156788.8,      13.8,      13.8,       1.5);         ( 587084.7, 4156788.8,      13.7,      13.7,       1.5);
    ( 587124.7, 4156788.8,      13.9,      13.9,       1.5);         ( 587164.7, 4156788.8,      14.2,      14.2,       1.5);
    ( 587204.7, 4156788.8,      14.3,      14.3,       1.5);         ( 587244.7, 4156788.8,      14.5,      14.5,       1.5);
    ( 587284.7, 4156788.8,      14.6,      14.6,       1.5);         ( 586404.7, 4156828.8,      12.4,      12.4,       1.5);
    ( 586444.7, 4156828.8,      12.2,      12.2,       1.5);         ( 586484.7, 4156828.8,      12.3,      12.3,       1.5);
    ( 586524.7, 4156828.8,      12.6,      12.6,       1.5);         ( 586564.7, 4156828.8,      12.8,      12.8,       1.5);
    ( 586604.7, 4156828.8,      12.5,      12.5,       1.5);         ( 586644.7, 4156828.8,      12.7,      12.7,       1.5);
    ( 586684.7, 4156828.8,      13.0,      13.0,       1.5);         ( 586724.7, 4156828.8,      13.2,      13.2,       1.5);
    ( 586764.7, 4156828.8,      13.3,      13.3,       1.5);         ( 586804.7, 4156828.8,      13.3,      13.3,       1.5);
    ( 586924.7, 4156828.8,      13.4,      13.4,       1.5);         ( 586964.7, 4156828.8,      13.3,      13.3,       1.5);
    ( 587004.7, 4156828.8,      13.5,      13.5,       1.5);         ( 587044.7, 4156828.8,      13.7,      13.7,       1.5);
    ( 587084.7, 4156828.8,      14.1,      14.1,       1.5);         ( 587124.7, 4156828.8,      14.0,      14.0,       1.5);
    ( 587164.7, 4156828.8,      13.6,      13.6,       1.5);         ( 587204.7, 4156828.8,      14.1,      14.1,       1.5);
    ( 587244.7, 4156828.8,      14.6,      14.6,       1.5);         ( 587284.7, 4156828.8,      14.7,      14.7,       1.5);
    ( 586404.7, 4156868.8,      12.5,      12.5,       1.5);         ( 586444.7, 4156868.8,      12.2,      12.2,       1.5);
    ( 586484.7, 4156868.8,      12.4,      12.4,       1.5);         ( 586524.7, 4156868.8,      12.4,      12.4,       1.5);
    ( 586564.7, 4156868.8,      12.8,      12.8,       1.5);         ( 586604.7, 4156868.8,      12.8,      12.8,       1.5);
    ( 586644.7, 4156868.8,      12.9,      12.9,       1.5);         ( 586684.7, 4156868.8,      13.1,      13.1,       1.5);
    ( 586724.7, 4156868.8,      13.1,      13.1,       1.5);         ( 586764.7, 4156868.8,      13.2,      13.2,       1.5);
    ( 586804.7, 4156868.8,      13.2,      13.2,       1.5);         ( 586844.7, 4156868.8,      13.0,      13.0,       1.5);
    ( 586854.2, 4156883.6,      13.0,      13.0,       1.5);         ( 586921.9, 4156855.6,      13.5,      13.5,       1.5);
    ( 587044.7, 4156868.8,      13.7,      13.7,       1.5);         ( 587084.7, 4156868.8,      13.8,      13.8,       1.5);
    ( 587124.7, 4156868.8,      13.9,      13.9,       1.5);         ( 587164.7, 4156868.8,      13.9,      13.9,       1.5);
    ( 587204.7, 4156868.8,      13.9,      13.9,       1.5);         ( 587244.7, 4156868.8,      14.2,      14.2,       1.5);
    ( 587284.7, 4156868.8,      14.6,      14.6,       1.5);         ( 586404.7, 4156908.8,      12.0,      12.0,       1.5);
    ( 586444.7, 4156908.8,      12.6,      12.6,       1.5);         ( 586484.7, 4156908.8,      12.3,      12.3,       1.5);
    ( 586524.7, 4156908.8,      12.7,      12.7,       1.5);         ( 586564.7, 4156908.8,      12.9,      12.9,       1.5);
    ( 586604.7, 4156908.8,      12.8,      12.8,       1.5);         ( 586644.7, 4156908.8,      12.9,      12.9,       1.5);
    ( 586684.7, 4156908.8,      13.1,      13.1,       1.5);         ( 586724.7, 4156908.8,      12.7,      12.7,       1.5);
    ( 586764.7, 4156908.8,      13.1,      13.1,       1.5);         ( 586804.7, 4156908.8,      13.0,      13.0,       1.5);
    ( 586844.7, 4156908.8,      13.0,      13.0,       1.5);         ( 587044.7, 4156908.8,      13.6,      13.6,       1.5);
    ( 587084.7, 4156908.8,      13.8,      13.8,       1.5);         ( 587124.7, 4156908.8,      13.9,      13.9,       1.5);
    ( 587164.7, 4156908.8,      13.9,      13.9,       1.5);         ( 587204.7, 4156908.8,      14.1,      14.1,       1.5);
    ( 587244.7, 4156908.8,      14.2,      14.2,       1.5);         ( 587284.7, 4156908.8,      14.6,      14.6,       1.5);
    ( 586404.7, 4156948.8,      12.3,      12.3,       1.5);         ( 586444.7, 4156948.8,      12.3,      12.3,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 586484.7, 4156948.8,      12.6,      12.6,       1.5);         ( 586524.7, 4156948.8,      12.6,      12.6,       1.5);
    ( 586564.7, 4156948.8,      12.7,      12.7,       1.5);         ( 586604.7, 4156948.8,      12.8,      12.8,       1.5);
    ( 586644.7, 4156948.8,      13.0,      13.0,       1.5);         ( 586684.7, 4156948.8,      13.0,      13.0,       1.5);
    ( 586724.7, 4156948.8,      13.2,      13.2,       1.5);         ( 586764.7, 4156948.8,      13.2,      13.2,       1.5);
    ( 586804.7, 4156948.8,      13.1,      13.1,       1.5);         ( 586844.7, 4156948.8,      13.0,      13.0,       1.5);
    ( 586884.7, 4156948.8,      13.3,      13.3,       1.5);         ( 586986.7, 4156959.8,      13.7,      13.7,       1.5);
    ( 587004.7, 4156948.8,      13.6,      13.6,       1.5);         ( 587044.7, 4156948.8,      13.9,      13.9,       1.5);
    ( 587164.7, 4156948.8,      14.5,      14.5,       1.5);         ( 587204.7, 4156948.8,      14.1,      14.1,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  36
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 587244.7, 4156948.8,      14.2,      14.2,       1.5);         ( 587284.7, 4156948.8,      14.7,      14.7,       1.5);
    ( 586404.7, 4156988.8,      12.6,      12.6,       1.5);         ( 586444.7, 4156988.8,      12.3,      12.3,       1.5);
    ( 586484.7, 4156988.8,      12.4,      12.4,       1.5);         ( 586524.7, 4156988.8,      12.8,      12.8,       1.5);
    ( 586564.7, 4156988.8,      12.8,      12.8,       1.5);         ( 586604.7, 4156988.8,      12.9,      12.9,       1.5);
    ( 586644.7, 4156988.8,      13.0,      13.0,       1.5);         ( 586684.7, 4156988.8,      13.2,      13.2,       1.5);
    ( 586724.7, 4156988.8,      13.2,      13.2,       1.5);         ( 586764.7, 4156988.8,      13.4,      13.4,       1.5);
    ( 586804.7, 4156988.8,      13.2,      13.2,       1.5);         ( 586838.2, 4156976.5,      13.4,      13.4,       1.5);
    ( 586404.7, 4157028.8,      12.4,      12.4,       1.5);         ( 586444.7, 4157028.8,      12.6,      12.6,       1.5);
    ( 586484.7, 4157028.8,      12.5,      12.5,       1.5);         ( 586524.7, 4157028.8,      12.6,      12.6,       1.5);
    ( 586564.7, 4157028.8,      12.9,      12.9,       1.5);         ( 586604.7, 4157028.8,      12.9,      12.9,       1.5);
    ( 586644.7, 4157028.8,      13.1,      13.1,       1.5);         ( 586684.7, 4157028.8,      13.1,      13.1,       1.5);
    ( 586724.7, 4157028.8,      13.4,      13.4,       1.5);         ( 586764.7, 4157028.8,      13.4,      13.4,       1.5);
    ( 586791.1, 4157010.6,      13.4,      13.4,       1.5);         ( 587244.7, 4157028.8,      14.8,      14.8,       1.5);
    ( 587284.7, 4157028.8,      15.0,      15.0,       1.5);         ( 586404.7, 4157068.8,      12.7,      12.7,       1.5);
    ( 586444.7, 4157068.8,      12.8,      12.8,       1.5);         ( 586484.7, 4157068.8,      12.7,      12.7,       1.5);
    ( 586524.7, 4157068.8,      12.6,      12.6,       1.5);         ( 586564.7, 4157068.8,      12.8,      12.8,       1.5);
    ( 586604.7, 4157068.8,      13.0,      13.0,       1.5);         ( 586644.7, 4157068.8,      13.0,      13.0,       1.5);
    ( 586684.7, 4157068.8,      13.3,      13.3,       1.5);         ( 586713.7, 4157057.1,      13.3,      13.3,       1.5);
    ( 587204.7, 4157068.8,      14.5,      14.5,       1.5);         ( 587244.7, 4157068.8,      15.0,      15.0,       1.5);
    ( 587284.7, 4157068.8,      15.1,      15.1,       1.5);         ( 586404.7, 4157108.8,      12.8,      12.8,       1.5);
    ( 586444.7, 4157108.8,      12.9,      12.9,       1.5);         ( 586484.7, 4157108.8,      12.9,      12.9,       1.5);
    ( 586524.7, 4157108.8,      12.8,      12.8,       1.5);         ( 586564.7, 4157108.8,      12.8,      12.8,       1.5);
    ( 586604.7, 4157108.8,      13.0,      13.0,       1.5);         ( 586644.7, 4157108.8,      13.4,      13.4,       1.5);
    ( 587124.7, 4157108.8,      14.9,      14.9,       1.5);         ( 587164.7, 4157108.8,      14.8,      14.8,       1.5);
    ( 587204.7, 4157108.8,      14.9,      14.9,       1.5);         ( 587244.7, 4157108.8,      15.0,      15.0,       1.5);
    ( 587284.7, 4157108.8,      14.9,      14.9,       1.5);         ( 586404.7, 4157148.8,      12.9,      12.9,       1.5);
    ( 586444.7, 4157148.8,      13.0,      13.0,       1.5);         ( 586484.7, 4157148.8,      12.9,      12.9,       1.5);
    ( 586524.7, 4157148.8,      13.0,      13.0,       1.5);         ( 586564.7, 4157148.8,      13.1,      13.1,       1.5);
    ( 586604.7, 4157148.8,      13.3,      13.3,       1.5);         ( 586644.7, 4157148.8,      13.2,      13.2,       1.5);
    ( 587035.6, 4157161.4,      14.8,      14.8,       1.5);         ( 587084.7, 4157148.8,      14.9,      14.9,       1.5);
    ( 587124.7, 4157148.8,      15.0,      15.0,       1.5);         ( 587164.7, 4157148.8,      15.1,      15.1,       1.5);
    ( 587204.7, 4157148.8,      15.0,      15.0,       1.5);         ( 587244.7, 4157148.8,      15.1,      15.1,       1.5);
    ( 587284.7, 4157148.8,      15.1,      15.1,       1.5);         ( 586404.7, 4157188.8,      13.1,      13.1,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 586444.7, 4157188.8,      13.1,      13.1,       1.5);         ( 586484.7, 4157188.8,      13.2,      13.2,       1.5);
    ( 586524.7, 4157188.8,      13.2,      13.2,       1.5);         ( 586564.7, 4157188.8,      13.3,      13.3,       1.5);
    ( 586604.7, 4157188.8,      13.3,      13.3,       1.5);         ( 586644.7, 4157188.8,      13.4,      13.4,       1.5);
    ( 586684.7, 4157188.8,      13.6,      13.6,       1.5);         ( 586978.2, 4157202.3,      14.6,      14.6,       1.5);
    ( 587004.7, 4157188.8,      14.7,      14.7,       1.5);         ( 587044.7, 4157188.8,      14.7,      14.7,       1.5);
    ( 587105.4, 4157182.4,      15.0,      15.0,       1.5);         ( 587124.7, 4157188.8,      15.0,      15.0,       1.5);
    ( 587164.7, 4157188.8,      14.9,      14.9,       1.5);         ( 587204.7, 4157188.8,      15.1,      15.1,       1.5);
    ( 587244.7, 4157188.8,      15.1,      15.1,       1.5);         ( 587284.7, 4157188.8,      15.2,      15.2,       1.5);
    ( 586404.7, 4157228.8,      13.3,      13.3,       1.5);         ( 586444.7, 4157228.8,      13.3,      13.3,       1.5);
    ( 586484.7, 4157228.8,      13.0,      13.0,       1.5);         ( 586524.7, 4157228.8,      13.1,      13.1,       1.5);
    ( 586564.7, 4157228.8,      13.3,      13.3,       1.5);         ( 586604.7, 4157228.8,      13.5,      13.5,       1.5);
    ( 586644.7, 4157228.8,      13.4,      13.4,       1.5);         ( 586684.7, 4157228.8,      13.5,      13.5,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  37
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

    ( 586724.7, 4157228.8,      13.7,      13.7,       1.5);         ( 586906.1, 4157250.1,      14.5,      14.5,       1.5);
    ( 587001.8, 4157286.3,      14.7,      14.7,       1.5);         ( 586924.7, 4157228.8,      14.4,      14.4,       1.5);
    ( 586964.7, 4157228.8,      14.5,      14.5,       1.5);         ( 587004.7, 4157228.8,      14.5,      14.5,       1.5);
    ( 587044.7, 4157228.8,      14.7,      14.7,       1.5);         ( 587084.7, 4157228.8,      14.9,      14.9,       1.5);
    ( 587124.7, 4157228.8,      15.2,      15.2,       1.5);         ( 587164.7, 4157228.8,      15.2,      15.2,       1.5);
    ( 587204.7, 4157228.8,      15.1,      15.1,       1.5);         ( 587244.7, 4157228.8,      15.4,      15.4,       1.5);
    ( 587284.7, 4157228.8,      15.4,      15.4,       1.5);         ( 586404.7, 4157268.8,      13.2,      13.2,       1.5);
    ( 586444.7, 4157268.8,      13.0,      13.0,       1.5);         ( 586484.7, 4157268.8,      13.1,      13.1,       1.5);
    ( 586524.7, 4157268.8,      13.0,      13.0,       1.5);         ( 586564.7, 4157268.8,      13.4,      13.4,       1.5);
    ( 586604.7, 4157268.8,      13.7,      13.7,       1.5);         ( 586644.7, 4157268.8,      13.7,      13.7,       1.5);
    ( 586684.7, 4157268.8,      13.8,      13.8,       1.5);         ( 586724.7, 4157268.8,      13.9,      13.9,       1.5);
    ( 586758.2, 4157280.4,      13.9,      13.9,       1.5);         ( 586815.0, 4157274.6,      14.4,      14.4,       1.5);
    ( 586858.2, 4157275.2,      14.1,      14.1,       1.5);         ( 586884.7, 4157268.8,      14.2,      14.2,       1.5);
    ( 586924.7, 4157268.8,      14.3,      14.3,       1.5);         ( 586964.7, 4157268.8,      14.3,      14.3,       1.5);
    ( 587004.7, 4157268.8,      14.7,      14.7,       1.5);         ( 587044.7, 4157268.8,      14.9,      14.9,       1.5);
    ( 587084.7, 4157268.8,      14.9,      14.9,       1.5);         ( 587124.7, 4157268.8,      15.2,      15.2,       1.5);
    ( 587164.7, 4157268.8,      15.3,      15.3,       1.5);         ( 587204.7, 4157268.8,      15.5,      15.5,       1.5);
    ( 587244.7, 4157268.8,      15.5,      15.5,       1.5);         ( 587284.7, 4157268.8,      15.5,      15.5,       1.5);
    ( 586404.7, 4157308.8,      12.9,      12.9,       1.5);         ( 586444.7, 4157308.8,      13.4,      13.4,       1.5);
    ( 586484.7, 4157308.8,      13.5,      13.5,       1.5);         ( 586524.7, 4157308.8,      13.1,      13.1,       1.5);
    ( 586564.7, 4157308.8,      13.5,      13.5,       1.5);         ( 586604.7, 4157308.8,      13.6,      13.6,       1.5);
    ( 586644.7, 4157308.8,      14.2,      14.2,       1.5);         ( 586684.7, 4157308.8,      14.1,      14.1,       1.5);
    ( 586724.7, 4157308.8,      14.4,      14.4,       1.5);         ( 586764.7, 4157308.8,      14.1,      14.1,       1.5);
    ( 586804.7, 4157308.8,      14.6,      14.6,       1.5);         ( 586844.7, 4157308.8,      14.3,      14.3,       1.5);
    ( 586884.7, 4157308.8,      14.1,      14.1,       1.5);         ( 586924.7, 4157308.8,      14.7,      14.7,       1.5);
    ( 586964.7, 4157308.8,      14.9,      14.9,       1.5);         ( 587004.7, 4157308.8,      15.1,      15.1,       1.5);
    ( 587044.7, 4157308.8,      14.9,      14.9,       1.5);         ( 587084.7, 4157308.8,      15.1,      15.1,       1.5);
    ( 587124.7, 4157308.8,      15.4,      15.4,       1.5);         ( 587164.7, 4157308.8,      15.7,      15.7,       1.5);
    ( 587204.7, 4157308.8,      15.6,      15.6,       1.5);         ( 587244.7, 4157308.8,      15.6,      15.6,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

```
    ( 587284.7, 4157308.8,      15.7,      15.7,       1.5);         ( 586404.7, 4157348.8,      13.5,      13.5,       1.5);
    ( 586444.7, 4157348.8,      13.1,      13.1,       1.5);         ( 586484.7, 4157348.8,      13.7,      13.7,       1.5);
    ( 586524.7, 4157348.8,      13.6,      13.6,       1.5);         ( 586564.7, 4157348.8,      13.5,      13.5,       1.5);
    ( 586604.7, 4157348.8,      14.2,      14.2,       1.5);         ( 586644.7, 4157348.8,      14.3,      14.3,       1.5);
    ( 586684.7, 4157348.8,      14.5,      14.5,       1.5);         ( 586724.7, 4157348.8,      14.4,      14.4,       1.5);
    ( 586764.7, 4157348.8,      14.6,      14.6,       1.5);         ( 586804.7, 4157348.8,      14.8,      14.8,       1.5);
    ( 586844.7, 4157348.8,      14.8,      14.8,       1.5);         ( 586884.7, 4157348.8,      14.7,      14.7,       1.5);
    ( 586924.7, 4157348.8,      14.8,      14.8,       1.5);         ( 586964.7, 4157348.8,      15.2,      15.2,       1.5);
    ( 587004.7, 4157348.8,      15.1,      15.1,       1.5);         ( 587044.7, 4157348.8,      15.3,      15.3,       1.5);
    ( 587084.7, 4157348.8,      15.5,      15.5,       1.5);         ( 587124.7, 4157348.8,      15.8,      15.8,       1.5);
    ( 587164.7, 4157348.8,      15.9,      15.9,       1.5);         ( 587204.7, 4157348.8,      15.8,      15.8,       1.5);
    ( 587244.7, 4157348.8,      15.8,      15.8,       1.5);         ( 587284.7, 4157348.8,      15.8,      15.8,       1.5);
    ( 586404.7, 4157388.8,      13.6,      13.6,       1.5);         ( 586444.7, 4157388.8,      13.7,      13.7,       1.5);
    ( 586484.7, 4157388.8,      13.6,      13.6,       1.5);         ( 586524.7, 4157388.8,      13.9,      13.9,       1.5);
    ( 586564.7, 4157388.8,      13.6,      13.6,       1.5);         ( 586604.7, 4157388.8,      14.3,      14.3,       1.5);
    ( 586644.7, 4157388.8,      14.6,      14.6,       1.5);         ( 586684.7, 4157388.8,      14.8,      14.8,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  38
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                  *** DISCRETE CARTESIAN RECEPTORS ***
                                 (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                           (METERS)

    ( 586724.7, 4157388.8,      15.1,      15.1,       1.5);         ( 586764.7, 4157388.8,      15.1,      15.1,       1.5);
    ( 586804.7, 4157388.8,      14.8,      14.8,       1.5);         ( 586844.7, 4157388.8,      14.7,      14.7,       1.5);
    ( 586884.7, 4157388.8,      14.8,      14.8,       1.5);         ( 586924.7, 4157388.8,      15.0,      15.0,       1.5);
    ( 586964.7, 4157388.8,      15.3,      15.3,       1.5);         ( 587004.7, 4157388.8,      15.2,      15.2,       1.5);
    ( 587044.7, 4157388.8,      15.6,      15.6,       1.5);         ( 587084.7, 4157388.8,      15.8,      15.8,       1.5);
    ( 587124.7, 4157388.8,      16.0,      16.0,       1.5);         ( 587164.7, 4157388.8,      16.0,      16.0,       1.5);
    ( 587204.7, 4157388.8,      16.1,      16.1,       1.5);         ( 587244.7, 4157388.8,      16.2,      16.2,       1.5);
    ( 587284.7, 4157388.8,      16.4,      16.4,       1.5);         ( 586404.7, 4157428.8,      13.6,      13.6,       1.5);
    ( 586444.7, 4157428.8,      14.0,      14.0,       1.5);         ( 586484.7, 4157428.8,      13.7,      13.7,       1.5);
    ( 586524.7, 4157428.8,      14.2,      14.2,       1.5);         ( 586564.7, 4157428.8,      14.1,      14.1,       1.5);
    ( 586604.7, 4157428.8,      14.1,      14.1,       1.5);         ( 586644.7, 4157428.8,      14.6,      14.6,       1.5);
    ( 586684.7, 4157428.8,      14.8,      14.8,       1.5);         ( 586724.7, 4157428.8,      15.1,      15.1,       1.5);
    ( 586764.7, 4157428.8,      14.9,      14.9,       1.5);         ( 586804.7, 4157428.8,      15.0,      15.0,       1.5);
    ( 586844.7, 4157428.8,      14.9,      14.9,       1.5);         ( 586884.7, 4157428.8,      14.9,      14.9,       1.5);
    ( 586924.7, 4157428.8,      15.3,      15.3,       1.5);         ( 586964.7, 4157428.8,      15.4,      15.4,       1.5);
    ( 587004.7, 4157428.8,      15.3,      15.3,       1.5);         ( 587044.7, 4157428.8,      15.6,      15.6,       1.5);
    ( 587084.7, 4157428.8,      16.0,      16.0,       1.5);         ( 587124.7, 4157428.8,      16.0,      16.0,       1.5);
    ( 587164.7, 4157428.8,      16.2,      16.2,       1.5);         ( 587204.7, 4157428.8,      16.4,      16.4,       1.5);
    ( 587244.7, 4157428.8,      16.5,      16.5,       1.5);         ( 587284.7, 4157428.8,      16.9,      16.9,       1.5);
    ( 586404.7, 4157468.8,      13.9,      13.9,       1.5);         ( 586444.7, 4157468.8,      14.0,      14.0,       1.5);
    ( 586484.7, 4157468.8,      14.3,      14.3,       1.5);         ( 586524.7, 4157468.8,      13.9,      13.9,       1.5);
    ( 586564.7, 4157468.8,      14.3,      14.3,       1.5);         ( 586604.7, 4157468.8,      13.9,      13.9,       1.5);
    ( 586644.7, 4157468.8,      14.8,      14.8,       1.5);         ( 586684.7, 4157468.8,      14.7,      14.7,       1.5);
    ( 586724.7, 4157468.8,      15.1,      15.1,       1.5);         ( 586764.7, 4157468.8,      15.0,      15.0,       1.5);
    ( 586804.7, 4157468.8,      15.5,      15.5,       1.5);         ( 586844.7, 4157468.8,      15.2,      15.2,       1.5);
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```
    ( 586884.7, 4157468.8,      15.2,      15.2,       1.5);         ( 586924.7, 4157468.8,      15.4,      15.4,       1.5);
    ( 586964.7, 4157468.8,      15.8,      15.8,       1.5);         ( 586993.5, 4157461.9,      15.7,      15.7,       1.5);
    ( 587044.7, 4157468.8,      15.5,      15.5,       1.5);         ( 587084.7, 4157468.8,      16.0,      16.0,       1.5);
    ( 587124.7, 4157468.8,      16.3,      16.3,       1.5);         ( 587164.7, 4157468.8,      16.5,      16.5,       1.5);
    ( 587204.7, 4157468.8,      16.8,      16.8,       1.5);         ( 587244.7, 4157468.8,      16.6,      16.6,       1.5);
    ( 587284.7, 4157468.8,      16.8,      16.8,       1.5);         ( 586404.7, 4157508.8,      14.0,      14.0,       1.5);
    ( 586444.7, 4157508.8,      14.0,      14.0,       1.5);         ( 586484.7, 4157508.8,      14.4,      14.4,       1.5);
    ( 586524.7, 4157508.8,      14.3,      14.3,       1.5);         ( 586564.7, 4157508.8,      14.5,      14.5,       1.5);
    ( 586604.7, 4157508.8,      14.1,      14.1,       1.5);         ( 586644.7, 4157508.8,      14.3,      14.3,       1.5);
    ( 586684.7, 4157508.8,      14.9,      14.9,       1.5);         ( 586724.7, 4157508.8,      15.2,      15.2,       1.5);
    ( 586764.7, 4157508.8,      15.3,      15.3,       1.5);         ( 586804.7, 4157508.8,      15.4,      15.4,       1.5);
    ( 586844.7, 4157508.8,      15.5,      15.5,       1.5);         ( 586884.7, 4157508.8,      15.4,      15.4,       1.5);
    ( 586924.7, 4157508.8,      15.6,      15.6,       1.5);         ( 586964.7, 4157508.8,      15.9,      15.9,       1.5);
    ( 587004.7, 4157508.8,      15.6,      15.6,       1.5);         ( 587044.7, 4157508.8,      15.8,      15.8,       1.5);
    ( 587084.7, 4157508.8,      16.1,      16.1,       1.5);         ( 587124.7, 4157508.8,      16.6,      16.6,       1.5);
    ( 587164.7, 4157508.8,      16.8,      16.8,       1.5);         ( 587204.7, 4157508.8,      16.8,      16.8,       1.5);
    ( 587244.7, 4157508.8,      16.9,      16.9,       1.5);         ( 587284.7, 4157508.8,      16.6,      16.6,       1.5);
    ( 586404.7, 4157548.8,      13.8,      13.8,       1.5);         ( 586444.7, 4157548.8,      14.4,      14.4,       1.5);
    ( 586484.7, 4157548.8,      14.1,      14.1,       1.5);         ( 586524.7, 4157548.8,      14.3,      14.3,       1.5);
    ( 586564.7, 4157548.8,      14.2,      14.2,       1.5);         ( 586604.7, 4157548.8,      14.5,      14.5,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/06/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - Off-site Receptors                           ***        15:58:10
                                                                                                                PAGE  39
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

    ( 586644.7, 4157548.8,      14.4,      14.4,       1.5);         ( 586684.7, 4157548.8,      14.4,      14.4,       1.5);
    ( 586724.7, 4157548.8,      15.0,      15.0,       1.5);         ( 586764.7, 4157548.8,      15.4,      15.4,       1.5);
    ( 586804.7, 4157548.8,      15.2,      15.2,       1.5);         ( 586844.7, 4157548.8,      15.4,      15.4,       1.5);
    ( 586884.7, 4157548.8,      15.4,      15.4,       1.5);         ( 586924.7, 4157548.8,      15.5,      15.5,       1.5);
    ( 586964.7, 4157548.8,      15.6,      15.6,       1.5);         ( 587004.7, 4157548.8,      15.7,      15.7,       1.5);
    ( 587044.7, 4157548.8,      15.9,      15.9,       1.5);         ( 587084.7, 4157548.8,      16.4,      16.4,       1.5);
    ( 587124.7, 4157548.8,      16.8,      16.8,       1.5);         ( 587164.7, 4157548.8,      16.8,      16.8,       1.5);
    ( 587204.7, 4157548.8,      16.9,      16.9,       1.5);         ( 587244.7, 4157548.8,      16.8,      16.8,       1.5);
    ( 587284.7, 4157548.8,      16.9,      16.9,       1.5);         ( 586404.7, 4157588.8,      13.5,      13.5,       1.5);
    ( 586444.7, 4157588.8,      13.9,      13.9,       1.5);         ( 586484.7, 4157588.8,      14.2,      14.2,       1.5);
    ( 586524.7, 4157588.8,      14.3,      14.3,       1.5);         ( 586564.7, 4157588.8,      14.8,      14.8,       1.5);
    ( 586604.7, 4157588.8,      14.3,      14.3,       1.5);         ( 586644.7, 4157588.8,      13.8,      13.8,       1.5);
    ( 586684.7, 4157588.8,      14.9,      14.9,       1.5);         ( 586724.7, 4157588.8,      14.8,      14.8,       1.5);
    ( 586764.7, 4157588.8,      15.5,      15.5,       1.5);         ( 586804.7, 4157588.8,      15.2,      15.2,       1.5);
    ( 586844.7, 4157588.8,      15.4,      15.4,       1.5);         ( 586884.7, 4157588.8,      15.1,      15.1,       1.5);
    ( 586924.7, 4157588.8,      15.5,      15.5,       1.5);         ( 586964.7, 4157588.8,      15.7,      15.7,       1.5);
    ( 587004.7, 4157588.8,      16.0,      16.0,       1.5);         ( 587044.7, 4157588.8,      16.4,      16.4,       1.5);
    ( 587084.7, 4157588.8,      16.6,      16.6,       1.5);         ( 587124.7, 4157588.8,      16.6,      16.6,       1.5);
    ( 587164.7, 4157588.8,      16.7,      16.7,       1.5);         ( 587204.7, 4157588.8,      16.8,      16.8,       1.5);
    ( 587244.7, 4157588.8,      16.7,      16.7,       1.5);         ( 587284.7, 4157588.8,      16.9,      16.9,       1.5);
```

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000017	586804.7	4156788.8	-2.10
L0000019	586804.7	4156708.8	-0.96
L0000020	586804.7	4156708.8	-3.60

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\met data\724945.SFC Met Version: 14134
Profile file: ..\met data\724945.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23293 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	02	-13.4	0.236	-9.000	-9.000	-999.	275.	89.0	0.32	1.10	1.00	2.36	18.	10.0	282.5	2.0
09	01	01	1	03	-7.9	0.139	-9.000	-9.000	-999.	128.	30.9	0.32	1.10	1.00	1.76	4.	10.0	282.0	2.0
09	01	01	1	04	-12.4	0.217	-9.000	-9.000	-999.	242.	74.8	0.25	1.10	1.00	2.36	73.	10.0	281.4	2.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.0	2.0
09	01	01	1	06	-9.7	0.170	-9.000	-9.000	-999.	168.	46.1	0.47	1.10	1.00	1.76	342.	10.0	281.4	2.0
09	01	01	1	07	-13.5	0.236	-9.000	-9.000	-999.	275.	88.6	0.32	1.10	1.00	2.36	5.	10.0	281.4	2.0
09	01	01	1	08	-19.7	0.345	-9.000	-9.000	-999.	486.	189.6	0.47	1.10	0.74	2.86	333.	10.0	280.9	2.0
09	01	01	1	09	-8.3	0.363	-9.000	-9.000	-999.	526.	525.4	0.47	1.10	0.39	2.86	327.	10.0	280.9	2.0
09	01	01	1	10	8.1	0.382	0.288	0.014	106.	566.	-625.1	0.47	1.10	0.27	2.86	351.	10.0	280.9	2.0
09	01	01	1	11	17.6	-9.000	-9.000	-9.000	189.	-999.	-99999.0	0.25	1.10	0.23	0.00	0.	10.0	280.9	2.0
09	01	01	1	12	23.0	-9.000	-9.000	-9.000	259.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	13	23.9	-9.000	-9.000	-9.000	315.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	14	48.5	-9.000	-9.000	-9.000	407.	-999.	-99999.0	0.25	1.10	0.22	0.00	0.	10.0	283.1	2.0
09	01	01	1	15	69.5	0.319	0.953	0.016	453.	433.	-42.6	0.32	1.10	0.25	2.36	32.	10.0	283.1	2.0
09	01	01	1	16	24.5	-9.000	-9.000	-9.000	460.	-999.	-99999.0	0.25	1.10	0.33	0.00	0.	10.0	283.1	2.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	0.57	0.00	0.	10.0	283.1	2.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	19	-24.2	0.212	-9.000	-9.000	-999.	235.	35.9	0.47	1.10	1.00	2.36	324.	10.0	281.4	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	281.4	2.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.4	2.0
09	01	01	1	24	-9.7	0.170	-9.000	-9.000	-999.	168.	45.7	0.47	1.10	1.00	1.76	310.	10.0	280.4	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	10.0	1	-999.	-99.00	282.6	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586404.66	4156628.76	0.06980	586444.66	4156628.76	0.08856
586484.66	4156628.76	0.11634	586536.32	4156643.07	0.18675
586564.66	4156628.76	0.23157	586604.66	4156628.76	0.38170
586644.66	4156628.76	0.76880	586684.66	4156628.76	2.26119
586764.66	4156628.76	7.47395	586804.66	4156628.76	4.08047
586844.66	4156628.76	2.70130	586884.66	4156628.76	1.99380
586924.66	4156628.76	1.56863	586964.66	4156628.76	1.28094
587004.66	4156628.76	1.07890	587044.66	4156628.76	0.92470
587084.66	4156628.76	0.80728	587124.66	4156628.76	0.71094
587164.66	4156628.76	0.63116	587204.66	4156628.76	0.56293
587244.66	4156628.76	0.50445	587284.66	4156628.76	0.45341
586404.66	4156668.76	0.08036	586444.66	4156668.76	0.10263
586484.66	4156668.76	0.13460	586524.66	4156668.76	0.18672
586564.66	4156668.76	0.27453	586604.66	4156668.76	0.43877
586804.66	4156668.76	6.04327	586844.66	4156668.76	3.55941
586884.66	4156668.76	2.47563	586924.66	4156668.76	1.86495
586964.66	4156668.76	1.48361	587004.66	4156668.76	1.22793
587044.66	4156668.76	1.03817	587084.66	4156668.76	0.89260
587124.66	4156668.76	0.77791	587164.66	4156668.76	0.68459
587204.66	4156668.76	0.60509	587244.66	4156668.76	0.53669
587284.66	4156668.76	0.47845	586404.66	4156708.76	0.09038
586444.66	4156708.76	0.11520	586484.66	4156708.76	0.15132
586524.66	4156708.76	0.20646	586564.66	4156708.76	0.29355
586604.66	4156708.76	0.44284	586804.66	4156708.76	2.66261
586844.66	4156708.76	4.93165	586884.66	4156708.76	3.12556
586924.66	4156708.76	2.24350	586964.66	4156708.76	1.73597
587004.66	4156708.76	1.40055	587044.66	4156708.76	1.16552
587084.66	4156708.76	0.98826	587124.66	4156708.76	0.85020
587164.66	4156708.76	0.73955	587204.66	4156708.76	0.64800
587244.66	4156708.76	0.56938	587284.66	4156708.76	0.50231
586404.66	4156748.76	0.09899	586444.66	4156748.76	0.12529
586484.66	4156748.76	0.16222	586524.66	4156748.76	0.21569
586564.66	4156748.76	0.29695	586604.66	4156748.76	0.42031
586644.66	4156748.76	0.61765	586844.66	4156748.76	7.35851

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586884.66	4156748.76	4.11383	586924.66	4156748.76	2.76637
586964.66	4156748.76	2.05480	587004.66	4156748.76	1.61179
587044.66	4156748.76	1.31364	587084.66	4156748.76	1.09616
587124.66	4156748.76	0.93004	587164.66	4156748.76	0.79986
587204.66	4156748.76	0.69216	587244.66	4156748.76	0.60155
587284.66	4156748.76	0.52389	586404.66	4156788.76	0.10547

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586444.66	4156788.76	0.13138	586484.66	4156788.76	0.16694
586524.66	4156788.76	0.21697	586564.66	4156788.76	0.28616
586604.66	4156788.76	0.38870	586644.66	4156788.76	0.53774
586684.66	4156788.76	0.78202	586724.66	4156788.76	1.22300
586764.66	4156788.76	2.27817	586804.66	4156788.76	3.51159
586884.66	4156788.76	5.84620	586924.66	4156788.76	3.53739
586964.66	4156788.76	2.48048	587004.66	4156788.76	1.87726
587044.66	4156788.76	1.49060	587084.66	4156788.76	1.21992
587124.66	4156788.76	1.02005	587164.66	4156788.76	0.86436
587204.66	4156788.76	0.73733	587244.66	4156788.76	0.63237
587284.66	4156788.76	0.54399	586404.66	4156828.76	0.10926
586444.66	4156828.76	0.13447	586484.66	4156828.76	0.16738
586524.66	4156828.76	0.21072	586564.66	4156828.76	0.26939
586604.66	4156828.76	0.35328	586644.66	4156828.76	0.47200
586684.66	4156828.76	0.65228	586724.66	4156828.76	0.95194
586764.66	4156828.76	1.53005	586804.66	4156828.76	2.97289
586924.66	4156828.76	4.77630	586964.66	4156828.76	3.06704
587004.66	4156828.76	2.21470	587044.66	4156828.76	1.70737
587084.66	4156828.76	1.36863	587124.66	4156828.76	1.12075
587164.66	4156828.76	0.92962	587204.66	4156828.76	0.78233
587244.66	4156828.76	0.66126	587284.66	4156828.76	0.55991
586404.66	4156868.76	0.11090	586444.66	4156868.76	0.13442
586484.66	4156868.76	0.16406	586524.66	4156868.76	0.20256
586564.66	4156868.76	0.25231	586604.66	4156868.76	0.32000
586644.66	4156868.76	0.41469	586684.66	4156868.76	0.55125
586724.66	4156868.76	0.76908	586764.66	4156868.76	1.14450
586804.66	4156868.76	1.91946	586844.66	4156868.76	4.24695

586854.25	4156883.64	4.27260	586921.87	4156855.61	6.37792
587044.66	4156868.76	1.98245	587084.66	4156868.76	1.54227
587124.66	4156868.76	1.23487	587164.66	4156868.76	1.00465
587204.66	4156868.76	0.82552	587244.66	4156868.76	0.68392
587284.66	4156868.76	0.56919	586404.66	4156908.76	0.11088
586444.66	4156908.76	0.13194	586484.66	4156908.76	0.15870
586524.66	4156908.76	0.19184	586564.66	4156908.76	0.23459
586604.66	4156908.76	0.29126	586644.66	4156908.76	0.36800
586684.66	4156908.76	0.47580	586724.66	4156908.76	0.64388
586764.66	4156908.76	0.90073	586804.66	4156908.76	1.38628
586844.66	4156908.76	2.49705	587044.66	4156908.76	2.34645
587084.66	4156908.76	1.76041	587124.66	4156908.76	1.36606
587164.66	4156908.76	1.08026	587204.66	4156908.76	0.86649

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
587244.66	4156908.76	0.69926	587284.66	4156908.76	0.56789
586404.66	4156948.76	0.10912	586444.66	4156948.76	0.12836
586484.66	4156948.76	0.15184	586524.66	4156948.76	0.18116
586564.66	4156948.76	0.21800	586604.66	4156948.76	0.26549
586644.66	4156948.76	0.32803	586684.66	4156948.76	0.41517
586724.66	4156948.76	0.53882	586764.66	4156948.76	0.72737
586804.66	4156948.76	1.04873	586844.66	4156948.76	1.68608
586884.66	4156948.76	3.28563	586986.66	4156959.76	6.41045
587004.66	4156948.76	4.44809	587044.66	4156948.76	2.87879
587164.66	4156948.76	1.16185	587204.66	4156948.76	0.89352
587244.66	4156948.76	0.69770	587284.66	4156948.76	0.54907
586404.66	4156988.76	0.10628	586444.66	4156988.76	0.12362
586484.66	4156988.76	0.14451	586524.66	4156988.76	0.16980
586564.66	4156988.76	0.20153	586604.66	4156988.76	0.24166
586644.66	4156988.76	0.29370	586684.66	4156988.76	0.36313
586724.66	4156988.76	0.46134	586764.66	4156988.76	0.60194
586804.66	4156988.76	0.82741	586838.19	4156976.47	1.23140
586404.66	4157028.76	0.10276	586444.66	4157028.76	0.11815
586484.66	4157028.76	0.13663	586524.66	4157028.76	0.15890
586564.66	4157028.76	0.18595	586604.66	4157028.76	0.22014

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586644.66	4157028.76	0.26336	586684.66	4157028.76	0.32070
586724.66	4157028.76	0.39733	586764.66	4157028.76	0.50613
586791.07	4157010.64	0.65940	587244.66	4157028.76	0.58617
587284.66	4157028.76	0.42466	586404.66	4157068.76	0.09857
586444.66	4157068.76	0.11229	586484.66	4157068.76	0.12856
586524.66	4157068.76	0.14801	586564.66	4157068.76	0.17140
586604.66	4157068.76	0.20020	586644.66	4157068.76	0.23666
586684.66	4157068.76	0.28304	586713.66	4157057.11	0.33923
587204.66	4157068.76	0.67543	587244.66	4157068.76	0.45180
587284.66	4157068.76	0.32142	586404.66	4157108.76	0.09399
586444.66	4157108.76	0.10614	586484.66	4157108.76	0.12036
586524.66	4157108.76	0.13723	586564.66	4157108.76	0.15740
586604.66	4157108.76	0.18175	586644.66	4157108.76	0.21158
587124.66	4157108.76	1.36169	587164.66	4157108.76	0.71365
587204.66	4157108.76	0.44164	587244.66	4157108.76	0.30316
587284.66	4157108.76	0.22365	586404.66	4157148.76	0.08911
586444.66	4157148.76	0.09981	586484.66	4157148.76	0.11222
586524.66	4157148.76	0.12670	586564.66	4157148.76	0.14378
586604.66	4157148.76	0.16418	586644.66	4157148.76	0.18924
587035.57	4157161.39	1.65463	587084.66	4157148.76	1.13752

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
587124.66	4157148.76	0.58599	587164.66	4157148.76	0.37150
587204.66	4157148.76	0.26237	587244.66	4157148.76	0.19624
587284.66	4157148.76	0.15356	586404.66	4157188.76	0.08398
586444.66	4157188.76	0.09334	586484.66	4157188.76	0.10399
586524.66	4157188.76	0.11637	586564.66	4157188.76	0.13072
586604.66	4157188.76	0.14770	586644.66	4157188.76	0.16792
586684.66	4157188.76	0.19224	586978.25	4157202.35	0.57765
587004.66	4157188.76	0.78041	587044.66	4157188.76	0.78112
587105.38	4157182.38	0.44375	587124.66	4157188.76	0.33386
587164.66	4157188.76	0.23593	587204.66	4157188.76	0.17727
587244.66	4157188.76	0.14011	587284.66	4157188.76	0.11377
586404.66	4157228.76	0.07870	586444.66	4157228.76	0.08675
586484.66	4157228.76	0.09598	586524.66	4157228.76	0.10634

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586564.66	4157228.76	0.11822		586604.66	4157228.76	0.13193
586644.66	4157228.76	0.14809		586684.66	4157228.76	0.16694
586724.66	4157228.76	0.18903	Residential MER Location	586906.12	4157250.11	0.28595
587001.76	4157286.34	0.23058		586924.66	4157228.76	0.36239
586964.66	4157228.76	0.40170		587004.66	4157228.76	0.42549
587044.66	4157228.76	0.40501		587084.66	4157228.76	0.31918
587124.66	4157228.76	0.22951		587164.66	4157228.76	0.17266
587204.66	4157228.76	0.13584		587244.66	4157228.76	0.10953
587284.66	4157228.76	0.09105		586404.66	4157268.76	0.07337
586444.66	4157268.76	0.08030		586484.66	4157268.76	0.08795
586524.66	4157268.76	0.09659		586564.66	4157268.76	0.10618
586604.66	4157268.76	0.11703		586644.66	4157268.76	0.12944
586684.66	4157268.76	0.14356		586724.66	4157268.76	0.15941
586758.19	4157280.41	0.16478		586815.01	4157274.58	0.19455
586858.25	4157275.23	0.21451		586884.66	4157268.76	0.23708
586924.66	4157268.76	0.25542		586964.66	4157268.76	0.26895
587004.66	4157268.76	0.27072		587044.66	4157268.76	0.25597
587084.66	4157268.76	0.21761		587124.66	4157268.76	0.16978
587164.66	4157268.76	0.13432		587204.66	4157268.76	0.10864
587244.66	4157268.76	0.09002		587284.66	4157268.76	0.07618
586404.66	4157308.76	0.06807		586444.66	4157308.76	0.07374
586484.66	4157308.76	0.08004		586524.66	4157308.76	0.08715
586564.66	4157308.76	0.09475		586604.66	4157308.76	0.10321
586644.66	4157308.76	0.11228		586684.66	4157308.76	0.12258
586724.66	4157308.76	0.13350		586764.66	4157308.76	0.14547
586804.66	4157308.76	0.15683		586844.66	4157308.76	0.16876
586884.66	4157308.76	0.17974		586924.66	4157308.76	0.18641

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586964.66	4157308.76	0.19069	587004.66	4157308.76	0.18988
587044.66	4157308.76	0.18147	587084.66	4157308.76	0.15872
587124.66	4157308.76	0.13041	587164.66	4157308.76	0.10687
587204.66	4157308.76	0.08970	587244.66	4157308.76	0.07608
587284.66	4157308.76	0.06524	586404.66	4157348.76	0.06263
586444.66	4157348.76	0.06746	586484.66	4157348.76	0.07248

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

586524.66	4157348.76	0.07806	586564.66	4157348.76	0.08409
586604.66	4157348.76	0.09028	586644.66	4157348.76	0.09712
586684.66	4157348.76	0.10425	586724.66	4157348.76	0.11186
586764.66	4157348.76	0.11933	586804.66	4157348.76	0.12639
586844.66	4157348.76	0.13298	586884.66	4157348.76	0.13867
586924.66	4157348.76	0.14250	586964.66	4157348.76	0.14388
587004.66	4157348.76	0.14338	587044.66	4157348.76	0.13623
587084.66	4157348.76	0.12153	587124.66	4157348.76	0.10339
587164.66	4157348.76	0.08732	587204.66	4157348.76	0.07496
587244.66	4157348.76	0.06495	587284.66	4157348.76	0.05669
586404.66	4157388.76	0.05741	586444.66	4157388.76	0.06125
586484.66	4157388.76	0.06538	586524.66	4157388.76	0.06964
586564.66	4157388.76	0.07432	586604.66	4157388.76	0.07886
586644.66	4157388.76	0.08370	586684.66	4157388.76	0.08867
586724.66	4157388.76	0.09355	586764.66	4157388.76	0.09842
586804.66	4157388.76	0.10326	586844.66	4157388.76	0.10740
586884.66	4157388.76	0.11059	586924.66	4157388.76	0.11272
586964.66	4157388.76	0.11338	587004.66	4157388.76	0.11259
587044.66	4157388.76	0.10695	587084.66	4157388.76	0.09698
587124.66	4157388.76	0.08451	587164.66	4157388.76	0.07301
587204.66	4157388.76	0.06351	587244.66	4157388.76	0.05581
587284.66	4157388.76	0.04933	586404.66	4157428.76	0.05241
586444.66	4157428.76	0.05542	586484.66	4157428.76	0.05871
586524.66	4157428.76	0.06190	586564.66	4157428.76	0.06537
586604.66	4157428.76	0.06890	586644.66	4157428.76	0.07229
586684.66	4157428.76	0.07573	586724.66	4157428.76	0.07905
586764.66	4157428.76	0.08249	586804.66	4157428.76	0.08542
586844.66	4157428.76	0.08821	586884.66	4157428.76	0.09036
586924.66	4157428.76	0.09152	586964.66	4157428.76	0.09210
587004.66	4157428.76	0.09118	587044.66	4157428.76	0.08705
587084.66	4157428.76	0.07971	587124.66	4157428.76	0.07080
587164.66	4157428.76	0.06188	587204.66	4157428.76	0.05442
587244.66	4157428.76	0.04838	587284.66	4157428.76	0.04320
586404.66	4157468.76	0.04763	586444.66	4157468.76	0.05004

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586484.66	4157468.76	0.05247	586524.66	4157468.76	0.05508
586564.66	4157468.76	0.05754	586604.66	4157468.76	0.06026
586644.66	4157468.76	0.06250	586684.66	4157468.76	0.06505
586724.66	4157468.76	0.06729	586764.66	4157468.76	0.06971
586804.66	4157468.76	0.07151	586844.66	4157468.76	0.07360
586884.66	4157468.76	0.07513	586924.66	4157468.76	0.07613
586964.66	4157468.76	0.07621	586993.53	4157461.87	0.07816
587044.66	4157468.76	0.07259	587084.66	4157468.76	0.06701
587124.66	4157468.76	0.06008	587164.66	4157468.76	0.05314
587204.66	4157468.76	0.04676	587244.66	4157468.76	0.04238
587284.66	4157468.76	0.03826	586404.66	4157508.76	0.04321
586444.66	4157508.76	0.04511	586484.66	4157508.76	0.04693
586524.66	4157508.76	0.04885	586564.66	4157508.76	0.05071
586604.66	4157508.76	0.05272	586644.66	4157508.76	0.05454
586684.66	4157508.76	0.05613	586724.66	4157508.76	0.05777
586764.66	4157508.76	0.05941	586804.66	4157508.76	0.06095
586844.66	4157508.76	0.06236	586884.66	4157508.76	0.06364
586924.66	4157508.76	0.06435	586964.66	4157508.76	0.06440
587004.66	4157508.76	0.06384	587044.66	4157508.76	0.06138
587084.66	4157508.76	0.05717	587124.66	4157508.76	0.05173
587164.66	4157508.76	0.04585	587204.66	4157508.76	0.04114
587244.66	4157508.76	0.03714	587284.66	4157508.76	0.03424
586404.66	4157548.76	0.03919	586444.66	4157548.76	0.04054
586484.66	4157548.76	0.04205	586524.66	4157548.76	0.04344
586564.66	4157548.76	0.04492	586604.66	4157548.76	0.04625
586644.66	4157548.76	0.04767	586684.66	4157548.76	0.04907
586724.66	4157548.76	0.05018	586764.66	4157548.76	0.05132
586804.66	4157548.76	0.05269	586844.66	4157548.76	0.05372
586884.66	4157548.76	0.05471	586924.66	4157548.76	0.05534
586964.66	4157548.76	0.05546	587004.66	4157548.76	0.05473
587044.66	4157548.76	0.05274	587084.66	4157548.76	0.04937
587124.66	4157548.76	0.04475	587164.66	4157548.76	0.04042
587204.66	4157548.76	0.03633	587244.66	4157548.76	0.03310
587284.66	4157548.76	0.03036	586404.66	4157588.76	0.03556

586444.66	4157588.76	0.03661	586484.66	4157588.76	0.03767
586524.66	4157588.76	0.03874	586564.66	4157588.76	0.03970
586604.66	4157588.76	0.04091	586644.66	4157588.76	0.04214
586684.66	4157588.76	0.04288	586724.66	4157588.76	0.04398
586764.66	4157588.76	0.04477	586804.66	4157588.76	0.04591
586844.66	4157588.76	0.04678	586884.66	4157588.76	0.04771

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586924.66	4157588.76	0.04811	586964.66	4157588.76	0.04811
587004.66	4157588.76	0.04741	587044.66	4157588.76	0.04576
587084.66	4157588.76	0.04316	587124.66	4157588.76	0.03991
587164.66	4157588.76	0.03614	587204.66	4157588.76	0.03265
587244.66	4157588.76	0.02982	587284.66	4157588.76	0.02733

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43872 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
HAUL	1ST HIGHEST VALUE IS	7.47395 AT (	586764.66, 4156628.76, 13.31, 13.31, 1.50)	DC	
	2ND HIGHEST VALUE IS	7.35851 AT (	586844.66, 4156748.76, 13.29, 13.29, 1.50)	DC	
	3RD HIGHEST VALUE IS	6.41045 AT (	586986.66, 4156959.76, 13.70, 13.70, 1.50)	DC	
	4TH HIGHEST VALUE IS	6.37792 AT (	586921.87, 4156855.61, 13.50, 13.50, 1.50)	DC	
	5TH HIGHEST VALUE IS	6.04327 AT (	586804.66, 4156668.76, 13.48, 13.48, 1.50)	DC	
	6TH HIGHEST VALUE IS	5.84620 AT (	586884.66, 4156788.76, 13.46, 13.46, 1.50)	DC	
	7TH HIGHEST VALUE IS	4.93165 AT (	586844.66, 4156708.76, 13.42, 13.42, 1.50)	DC	
	8TH HIGHEST VALUE IS	4.77630 AT (	586924.66, 4156828.76, 13.42, 13.42, 1.50)	DC	
	9TH HIGHEST VALUE IS	4.44809 AT (	587004.66, 4156948.76, 13.59, 13.59, 1.50)	DC	
	10TH HIGHEST VALUE IS	4.27260 AT (	Residential MER Location 0, 13.00, 1.50)	DC	
ONSITE	1ST HIGHEST VALUE IS	3.65493 AT (	586724.66, 4157228.76, 13.65, 13.65, 1.50)	DC	
	2ND HIGHEST VALUE IS	3.30064 AT (	586684.66, 4157188.76, 13.56, 13.56, 1.50)	DC	
	3RD HIGHEST VALUE IS	3.17292 AT (	586764.66, 4157028.76, 13.38, 13.38, 1.50)	DC	
	4TH HIGHEST VALUE IS	2.93933 AT (	586815.01, 4157274.58, 14.37, 14.37, 1.50)	DC	
	5TH HIGHEST VALUE IS	2.86948 AT (	586791.07, 4157010.64, 13.42, 13.42, 1.50)	DC	
	6TH HIGHEST VALUE IS	2.62859 AT (	586924.66, 4157228.76, 14.44, 14.44, 1.50)	DC	
	7TH HIGHEST VALUE IS	2.48090 AT (	586758.19, 4157280.41, 13.87, 13.87, 1.50)	DC	
	8TH HIGHEST VALUE IS	2.39029 AT (	586713.66, 4157057.11, 13.30, 13.30, 1.50)	DC	
	9TH HIGHEST VALUE IS	2.34652 AT (	586906.12, 4157250.11, 14.53, 14.53, 1.50)	DC	
	10TH HIGHEST VALUE IS	2.29224 AT (	586644.66, 4157148.76, 13.21, 13.21, 1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

Model Output - Off-site Receptors
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   0 Warning Message(s)
A Total of   13130 Informational Message(s)

A Total of   43872 Hours Were Processed

A Total of   11611 Calm Hours Identified

A Total of   1519 Missing Hours Identified (3.46 Percent)

   ******** FATAL ERROR MESSAGES ********
              *** NONE ***

   ********   WARNING MESSAGES   ********
              *** NONE ***

   ****
   *** AERMOD Finishes Successfully ***
   ****

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.01125	ug/m^3		586536.32	4156643.07	12.66	1.50	12.66	
PERIOD		0.42847	ug/m^3	Oliveria ES MER	586804.66	4157388.76	14.80	1.50	14.80	
PERIOD		0.37564	ug/m^3		586844.66	4157388.76	14.73	1.50	14.73	
PERIOD		0.30640	ug/m^3		586884.66	4157388.76	14.84	1.50	14.84	
PERIOD		0.31153	ug/m^3		586724.66	4157428.76	15.06	1.50	15.06	
PERIOD		0.31169	ug/m^3		586764.66	4157428.76	14.86	1.50	14.86	
PERIOD		0.29767	ug/m^3		586804.66	4157428.76	15.00	1.50	15.00	
PERIOD		0.26883	ug/m^3		586844.66	4157428.76	14.88	1.50	14.88	
PERIOD		0.22827	ug/m^3		586884.66	4157428.76	14.93	1.50	14.93	
PERIOD		0.22796	ug/m^3		586764.66	4157468.76	14.95	1.50	14.95	
PERIOD		0.21944	ug/m^3		586804.66	4157468.76	15.46	1.50	15.46	
PERIOD		0.20234	ug/m^3		586844.66	4157468.76	15.18	1.50	15.18	
PERIOD		0.17645	ug/m^3		586884.66	4157468.76	15.23	1.50	15.23	
PERIOD		0.14770	ug/m^3		586924.66	4157468.76	15.38	1.50	15.38	
PERIOD		0.10935	ug/m^3	Daycare MER	586993.53	4157461.87	15.67	1.50	15.67	
PERIOD		0.17399	ug/m^3		586764.66	4157508.76	15.34	1.50	15.34	
PERIOD		0.16943	ug/m^3		586804.66	4157508.76	15.44	1.50	15.44	
PERIOD		0.15805	ug/m^3		586844.66	4157508.76	15.49	1.50	15.49	
PERIOD		0.14073	ug/m^3		586884.66	4157508.76	15.36	1.50	15.36	
PERIOD		0.12031	ug/m^3		586924.66	4157508.76	15.59	1.50	15.59	

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.13514	ug/m^3		586804.66	4157548.76	15.16	1.50	15.16	
PERIOD		0.12728	ug/m^3		586844.66	4157548.76	15.41	1.50	15.41	
PERIOD		0.11496	ug/m^3		586884.66	4157548.76	15.38	1.50	15.38	
PERIOD		0.11019	ug/m^3		586804.66	4157588.76	15.17	1.50	15.17	

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: HAUL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.18675	ug/m^3		586536.32	4156643.07	12.66	1.50	12.66	
PERIOD		0.10326	ug/m^3		586804.66	4157388.76	14.80	1.50	14.80	
PERIOD		0.10740	ug/m^3		586844.66	4157388.76	14.73	1.50	14.73	
PERIOD		0.11059	ug/m^3		586884.66	4157388.76	14.84	1.50	14.84	
PERIOD		0.07905	ug/m^3		586724.66	4157428.76	15.06	1.50	15.06	
PERIOD		0.08249	ug/m^3		586764.66	4157428.76	14.86	1.50	14.86	
PERIOD		0.08542	ug/m^3		586804.66	4157428.76	15.00	1.50	15.00	
PERIOD		0.08821	ug/m^3		586844.66	4157428.76	14.88	1.50	14.88	
PERIOD		0.09036	ug/m^3		586884.66	4157428.76	14.93	1.50	14.93	
PERIOD		0.06971	ug/m^3		586764.66	4157468.76	14.95	1.50	14.95	
PERIOD		0.07151	ug/m^3		586804.66	4157468.76	15.46	1.50	15.46	
PERIOD		0.07360	ug/m^3		586844.66	4157468.76	15.18	1.50	15.18	
PERIOD		0.07513	ug/m^3		586884.66	4157468.76	15.23	1.50	15.23	
PERIOD		0.07613	ug/m^3		586924.66	4157468.76	15.38	1.50	15.38	
PERIOD		0.07816	ug/m^3	Daycare	586993.53	4157461.87	15.67	1.50	15.67	
PERIOD		0.05941	ug/m^3		586764.66	4157508.76	15.34	1.50	15.34	
PERIOD		0.06095	ug/m^3		586804.66	4157508.76	15.44	1.50	15.44	
PERIOD		0.06236	ug/m^3		586844.66	4157508.76	15.49	1.50	15.49	
PERIOD		0.06364	ug/m^3		586884.66	4157508.76	15.36	1.50	15.36	
PERIOD		0.06435	ug/m^3		586924.66	4157508.76	15.59	1.50	15.59	

Sensitive Receptor Summary

Thornton MS Conversion, Fremont
Construction HRA - Off-site Receptors

Concentration - Source Group: HAUL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.05269	ug/m^3		586804.66	4157548.76	15.16	1.50	15.16	
PERIOD		0.05372	ug/m^3		586844.66	4157548.76	15.41	1.50	15.41	
PERIOD		0.05471	ug/m^3		586884.66	4157548.76	15.38	1.50	15.38	
PERIOD		0.04591	ug/m^3		586804.66	4157588.76	15.17	1.50	15.17	

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

```
*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                  ***        05/07/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - On-site Receptors                             ***        09:53:59
                                                                                                                PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for    27 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   1663000.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of:  OTHER

**Model Calculates PERIOD Averages Only

**This Run Includes:     27 Source(s);       2 Source Group(s); and     128 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:     25 VOLUME source(s)
                and:      2 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


**Model Set To Continue RUNning After the Setup Testing.
```

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

```
**The AERMET Input Meteorological Data Version Date:  14134

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    15.50 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   FREM02.err
**File for Summary of Results:   FREM02.sum
```

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.40000E-01	587043.4	4157121.1	14.7	4.15	11.91	1.93	YES	HRDOW
L0000002	0	0.40000E-01	587029.7	4157099.5	14.9	4.15	11.91	1.93	YES	HRDOW
L0000003	0	0.40000E-01	587016.0	4157077.8	14.5	4.15	11.91	1.93	YES	HRDOW
L0000004	0	0.40000E-01	587002.3	4157056.2	14.3	4.15	11.91	1.93	YES	HRDOW
L0000005	0	0.40000E-01	586988.5	4157034.6	14.1	4.15	11.91	1.93	YES	HRDOW
L0000006	0	0.40000E-01	586974.8	4157013.0	14.0	4.15	11.91	1.93	YES	HRDOW
L0000007	0	0.40000E-01	586961.1	4156991.4	13.7	4.15	11.91	1.93	YES	HRDOW
L0000008	0	0.40000E-01	586947.4	4156969.8	13.7	4.15	11.91	1.93	YES	HRDOW
L0000009	0	0.40000E-01	586933.7	4156948.2	13.5	4.15	11.91	1.93	YES	HRDOW
L0000010	0	0.40000E-01	586919.9	4156926.5	13.4	4.15	11.91	1.93	YES	HRDOW
L0000011	0	0.40000E-01	586906.2	4156904.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000012	0	0.40000E-01	586892.5	4156883.3	13.0	4.15	11.91	1.93	YES	HRDOW
L0000013	0	0.40000E-01	586878.8	4156861.7	13.1	4.15	11.91	1.93	YES	HRDOW
L0000014	0	0.40000E-01	586865.0	4156840.1	13.1	4.15	11.91	1.93	YES	HRDOW
L0000015	0	0.40000E-01	586851.3	4156818.5	13.1	4.15	11.91	1.93	YES	HRDOW
L0000016	0	0.40000E-01	586837.6	4156796.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000017	0	0.40000E-01	586823.9	4156775.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000018	0	0.40000E-01	586810.2	4156753.6	13.2	4.15	11.91	1.93	YES	HRDOW
L0000019	0	0.40000E-01	586796.4	4156732.0	13.2	4.15	11.91	1.93	YES	HRDOW
L0000020	0	0.40000E-01	586782.7	4156710.4	13.2	4.15	11.91	1.93	YES	HRDOW
L0000021	0	0.40000E-01	586769.0	4156688.8	13.2	4.15	11.91	1.93	YES	HRDOW
L0000022	0	0.40000E-01	586755.3	4156667.2	13.2	4.15	11.91	1.93	YES	HRDOW
L0000023	0	0.40000E-01	586741.5	4156645.5	13.2	4.15	11.91	1.93	YES	HRDOW
L0000024	0	0.40000E-01	586727.8	4156623.9	13.2	4.15	11.91	1.93	YES	HRDOW
L0000025	0	0.40000E-01	586714.1	4156602.3	13.2	4.15	11.91	1.93	YES	HRDOW

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE2	0	0.24683E-04	586929.4	4157071.2	14.4	4.15	20.23	52.06	29.54	1.93	YES	HRDOW

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ONSITE1	0	0.24989E-04	586639.0	4157127.5	13.3	4.15	12	1.93	YES	HRDOW

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
HAUL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 ,
ONSITE	ONSITE1 , ONSITE2 ,

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	1663000.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
		L0000025 , ONSITE1 , ONSITE2 ,

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = ALL SOURCES ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.0000E+00	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(	586862.2,	4156988.8,	13.6,	13.6,	1.5);	(586877.2,	4156988.8,	13.9,	13.9,	1.5);
(	586892.2,	4156988.8,	14.2,	14.2,	1.5);	(586907.2,	4156988.8,	14.1,	14.1,	1.5);
(	586922.2,	4156988.8,	14.0,	14.0,	1.5);	(586937.2,	4156988.8,	13.8,	13.8,	1.5);
(	586847.2,	4157003.8,	14.0,	14.0,	1.5);	(586862.2,	4157003.8,	13.9,	13.9,	1.5);
(	586877.2,	4157003.8,	14.1,	14.1,	1.5);	(586892.2,	4157003.8,	14.3,	14.3,	1.5);
(	586907.2,	4157003.8,	14.3,	14.3,	1.5);	(586922.2,	4157003.8,	14.2,	14.2,	1.5);
(	586937.2,	4157003.8,	13.9,	13.9,	1.5);	(586952.2,	4157003.8,	13.8,	13.8,	1.5);
(	586817.2,	4157018.8,	13.8,	13.8,	1.5);	(586832.2,	4157018.8,	13.9,	13.9,	1.5);
(	586847.2,	4157018.8,	14.0,	14.0,	1.5);	(586862.2,	4157018.8,	14.0,	14.0,	1.5);
(	586877.2,	4157018.8,	14.2,	14.2,	1.5);	(586892.2,	4157018.8,	14.4,	14.4,	1.5);
(	586907.2,	4157018.8,	14.3,	14.3,	1.5);	(586922.2,	4157018.8,	14.2,	14.2,	1.5);
(	586937.2,	4157018.8,	14.1,	14.1,	1.5);	(586952.2,	4157018.8,	14.0,	14.0,	1.5);
(	586793.1,	4157034.4,	13.4,	13.4,	1.5);	(586802.2,	4157033.8,	13.7,	13.7,	1.5);
(	586817.2,	4157033.8,	14.1,	14.1,	1.5);	(586832.2,	4157033.8,	14.0,	14.0,	1.5);
(	586847.2,	4157033.8,	14.0,	14.0,	1.5);	(586862.2,	4157033.8,	14.1,	14.1,	1.5);
(	586877.2,	4157033.8,	14.2,	14.2,	1.5);	(586892.2,	4157033.8,	14.4,	14.4,	1.5);
(	586907.2,	4157033.8,	14.3,	14.3,	1.5);	(586922.2,	4157033.8,	14.2,	14.2,	1.5);
(	586937.2,	4157033.8,	14.2,	14.2,	1.5);	(586952.2,	4157033.8,	14.1,	14.1,	1.5);
(	586967.2,	4157033.8,	14.0,	14.0,	1.5);	(586792.8,	4157044.4,	13.4,	13.4,	1.5);
(	586802.2,	4157048.8,	13.7,	13.7,	1.5);	(586817.2,	4157048.8,	14.1,	14.1,	1.5);
(	586832.2,	4157048.8,	14.0,	14.0,	1.5);	(586847.2,	4157048.8,	14.0,	14.0,	1.5);
(	586862.2,	4157048.8,	14.2,	14.2,	1.5);	(586877.2,	4157048.8,	14.2,	14.2,	1.5);
(	586892.2,	4157048.8,	14.3,	14.3,	1.5);	(586907.2,	4157048.8,	14.4,	14.4,	1.5);
(	586922.2,	4157048.8,	14.4,	14.4,	1.5);	(586937.2,	4157048.8,	14.2,	14.2,	1.5);
(	586952.2,	4157048.8,	14.1,	14.1,	1.5);	(586967.2,	4157048.8,	14.1,	14.1,	1.5);
(	586982.2,	4157048.8,	14.1,	14.1,	1.5);	(586802.2,	4157063.8,	13.7,	13.7,	1.5);
(	586817.2,	4157063.8,	14.0,	14.0,	1.5);	(586832.5,	4157058.6,	14.0,	14.0,	1.5);
(	586847.2,	4157063.8,	14.0,	14.0,	1.5);	(586862.2,	4157063.8,	14.2,	14.2,	1.5);
(	586877.2,	4157063.8,	14.2,	14.2,	1.5);	(586892.2,	4157063.8,	14.3,	14.3,	1.5);
(	586907.2,	4157063.8,	14.6,	14.6,	1.5);	(586922.2,	4157063.8,	14.5,	14.5,	1.5);
(	586930.1,	4157056.3,	14.3,	14.3,	1.5);	(586952.2,	4157063.8,	14.1,	14.1,	1.5);
(	586967.2,	4157063.8,	14.1,	14.1,	1.5);	(586982.2,	4157063.8,	14.2,	14.2,	1.5);
(	586847.2,	4157078.8,	13.9,	13.9,	1.5);	(586862.2,	4157078.8,	14.1,	14.1,	1.5);
(	586877.2,	4157078.8,	14.1,	14.1,	1.5);	(586892.2,	4157078.8,	14.2,	14.2,	1.5);
(	586907.2,	4157078.8,	14.4,	14.4,	1.5);	(586922.2,	4157078.8,	14.4,	14.4,	1.5);
(	586967.2,	4157078.8,	14.2,	14.2,	1.5);	(586982.2,	4157078.8,	14.2,	14.2,	1.5);
(	586997.2,	4157078.8,	14.3,	14.3,	1.5);	(586862.2,	4157093.8,	14.0,	14.0,	1.5);
(	586907.2,	4157093.8,	14.1,	14.1,	1.5);	(586922.2,	4157093.8,	14.2,	14.2,	1.5);
(	586934.2,	4157097.2,	14.2,	14.2,	1.5);	(586971.3,	4157091.0,	14.2,	14.2,	1.5);
(	586982.2,	4157093.8,	14.2,	14.2,	1.5);	(586997.2,	4157093.8,	14.3,	14.3,	1.5);
(	586922.2,	4157108.8,	14.2,	14.2,	1.5);	(586937.2,	4157108.8,	14.2,	14.2,	1.5);
(	586982.2,	4157108.8,	14.4,	14.4,	1.5);	(586997.2,	4157108.8,	14.4,	14.4,	1.5);

```
    ( 587012.2, 4157108.8,      14.4,      14.4,       1.5);         ( 586937.2, 4157123.8,      14.1,      14.1,       1.5);
    ( 586952.2, 4157123.8,      14.3,      14.3,       1.5);         ( 586967.2, 4157123.8,      14.5,      14.5,       1.5);
    ( 586982.2, 4157123.8,      14.6,      14.6,       1.5);         ( 586997.2, 4157123.8,      14.5,      14.5,       1.5);

*** AERMOD - VERSION  18081 ***   *** Thornton MS Conversion, Fremont                                    ***        05/07/19
*** AERMET - VERSION  14134 ***   *** Construction HRA - On-site Receptors                              ***        09:53:59
                                                                                                                PAGE  35
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 587012.2, 4157123.8,      14.2,      14.2,       1.5);         ( 586937.2, 4157138.8,      14.1,      14.1,       1.5);
    ( 586952.2, 4157138.8,      14.3,      14.3,       1.5);         ( 586967.2, 4157138.8,      14.5,      14.5,       1.5);
    ( 586982.2, 4157138.8,      14.6,      14.6,       1.5);         ( 586997.2, 4157138.8,      14.5,      14.5,       1.5);
    ( 587012.2, 4157138.8,      14.2,      14.2,       1.5);         ( 586944.7, 4157150.4,      14.2,      14.2,       1.5);
    ( 586952.2, 4157153.8,      14.2,      14.2,       1.5);         ( 586967.2, 4157153.8,      14.4,      14.4,       1.5);
    ( 586982.2, 4157153.8,      14.5,      14.5,       1.5);         ( 586997.2, 4157153.8,      14.5,      14.5,       1.5);
    ( 587012.2, 4157153.8,      14.5,      14.5,       1.5);         ( 586940.7, 4157173.1,      14.2,      14.2,       1.5);
    ( 586952.2, 4157168.8,      14.2,      14.2,       1.5);         ( 586967.2, 4157168.8,      14.4,      14.4,       1.5);
    ( 586982.2, 4157168.8,      14.5,      14.5,       1.5);         ( 586997.2, 4157168.8,      14.6,      14.6,       1.5);
    ( 586922.2, 4157183.8,      14.1,      14.1,       1.5);         ( 586937.2, 4157183.8,      14.3,      14.3,       1.5);
    ( 586952.2, 4157183.8,      14.3,      14.3,       1.5);         ( 586967.2, 4157183.8,      14.4,      14.4,       1.5);
    ( 586982.2, 4157183.8,      14.7,      14.7,       1.5);         ( 586894.7, 4157200.9,      14.2,      14.2,       1.5);
    ( 586907.2, 4157198.8,      14.1,      14.1,       1.5);         ( 586922.2, 4157198.8,      14.2,      14.2,       1.5);
    ( 586937.2, 4157198.8,      14.4,      14.4,       1.5);         ( 586952.2, 4157198.8,      14.4,      14.4,       1.5);
    ( 586877.2, 4157213.8,      14.1,      14.1,       1.5);         ( 586892.2, 4157213.8,      14.3,      14.3,       1.5);
    ( 586907.2, 4157213.8,      14.3,      14.3,       1.5);         ( 586922.2, 4157213.8,      14.4,      14.4,       1.5);
    ( 586862.2, 4157228.8,      14.0,      14.0,       1.5);         ( 586877.2, 4157228.8,      14.3,      14.3,       1.5);
    ( 586892.2, 4157228.8,      14.4,      14.4,       1.5);         ( 586907.2, 4157228.8,      14.5,      14.5,       1.5);
    ( 586877.2, 4157243.8,      14.4,      14.4,       1.5);         ( 586892.2, 4157243.8,      14.5,      14.5,       1.5);
```

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000002	587012.2	4157108.8	-5.83
L0000003	586997.2	4157078.8	-6.85
L0000003	586997.2	4157093.8	-1.03
L0000004	586982.2	4157048.8	-4.24
L0000004	586982.2	4157063.8	-4.23
L0000004	586997.2	4157078.8	-2.53
L0000005	586967.2	4157033.8	-4.30
L0000005	586967.2	4157048.8	-0.05
L0000005	586982.2	4157048.8	-10.13
L0000006	586952.2	4157003.8	-1.22
L0000006	586952.2	4157018.8	-2.32
L0000006	586967.2	4157033.8	-3.51
L0000007	586937.2	4156988.8	-1.62
L0000007	586952.2	4157003.8	-10.40
L0000008	586937.2	4156988.8	-4.09

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\met data\724945.SFC Met Version: 14134
Profile file: ..\met data\724945.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23293 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	02	-13.4	0.236	-9.000	-9.000	-999.	275.	89.0	0.32	1.10	1.00	2.36	18.	10.0	282.5	2.0
09	01	01	1	03	-7.9	0.139	-9.000	-9.000	-999.	128.	30.9	0.32	1.10	1.00	1.76	4.	10.0	282.0	2.0
09	01	01	1	04	-12.4	0.217	-9.000	-9.000	-999.	242.	74.8	0.25	1.10	1.00	2.36	73.	10.0	281.4	2.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.0	2.0
09	01	01	1	06	-9.7	0.170	-9.000	-9.000	-999.	168.	46.1	0.47	1.10	1.00	1.76	342.	10.0	281.4	2.0
09	01	01	1	07	-13.5	0.236	-9.000	-9.000	-999.	275.	88.6	0.32	1.10	1.00	2.36	5.	10.0	281.4	2.0
09	01	01	1	08	-19.7	0.345	-9.000	-9.000	-999.	486.	189.6	0.47	1.10	0.74	2.86	333.	10.0	280.9	2.0
09	01	01	1	09	-8.3	0.363	-9.000	-9.000	-999.	526.	525.4	0.47	1.10	0.39	2.86	327.	10.0	280.9	2.0
09	01	01	1	10	8.1	0.382	0.288	0.014	106.	566.	-625.1	0.47	1.10	0.27	2.86	351.	10.0	280.9	2.0
09	01	01	1	11	17.6	-9.000	-9.000	-9.000	189.	-999.	-99999.0	0.25	1.10	0.23	0.00	0.	10.0	280.9	2.0
09	01	01	1	12	23.0	-9.000	-9.000	-9.000	259.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	13	23.9	-9.000	-9.000	-9.000	315.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	281.4	2.0
09	01	01	1	14	48.5	-9.000	-9.000	-9.000	407.	-999.	-99999.0	0.25	1.10	0.22	0.00	0.	10.0	283.1	2.0
09	01	01	1	15	69.5	0.319	0.953	0.016	453.	433.	-42.6	0.32	1.10	0.25	2.36	32.	10.0	283.1	2.0
09	01	01	1	16	24.5	-9.000	-9.000	-9.000	460.	-999.	-99999.0	0.25	1.10	0.33	0.00	0.	10.0	283.1	2.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	0.57	0.00	0.	10.0	283.1	2.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.5	2.0
09	01	01	1	19	-24.2	0.212	-9.000	-9.000	-999.	235.	35.9	0.47	1.10	1.00	2.36	324.	10.0	281.4	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	281.4	2.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.4	2.0
09	01	01	1	24	-9.7	0.170	-9.000	-9.000	-999.	168.	45.7	0.47	1.10	1.00	1.76	310.	10.0	280.4	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	10.0	1	-999.	-99.00	282.6	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586862.25	4156988.76	1.48270	586877.25	4156988.76	1.79642
586892.25	4156988.76	2.23855	586907.25	4156988.76	2.97017
586922.25	4156988.76	4.22378	586937.25	4156988.76	2.38447
586847.25	4157003.76	1.10617	586862.25	4157003.76	1.30696
586877.25	4157003.76	1.56063	586892.25	4157003.76	1.90990
586907.25	4157003.76	2.44960	586922.25	4157003.76	3.33298
586937.25	4157003.76	4.95905	586952.25	4157003.76	2.66101
586817.25	4157018.76	0.77147	586832.25	4157018.76	0.87362
586847.25	4157018.76	1.00173	586862.25	4157018.76	1.16811
586877.25	4157018.76	1.37843	586892.25	4157018.76	1.66214
586907.25	4157018.76	2.08244	586922.25	4157018.76	2.73432
586937.25	4157018.76	3.83786	586952.25	4157018.76	3.77812
586793.13	4157034.38	0.59754	586802.25	4157033.76	0.63681
586817.25	4157033.76	0.70719	586832.25	4157033.76	0.79932
586847.25	4157033.76	0.91167	586862.25	4157033.76	1.05098
586877.25	4157033.76	1.22763	586892.25	4157033.76	1.46240
586907.25	4157033.76	1.79768	586922.25	4157033.76	2.29143
586937.25	4157033.76	3.07024	586952.25	4157033.76	4.42522
586967.25	4157033.76	2.34911	586792.82	4157044.43	0.56904
586802.25	4157048.76	0.59240	586817.25	4157048.76	0.65485
586832.25	4157048.76	0.73605	586847.25	4157048.76	0.83341
586862.25	4157048.76	0.95114	586877.25	4157048.76	1.10117
586892.25	4157048.76	1.29625	586907.25	4157048.76	1.55993
586922.25	4157048.76	1.94202	586937.25	4157048.76	2.53217
586952.25	4157048.76	3.49066	586967.25	4157048.76	3.33352
586982.25	4157048.76	2.51346	586802.25	4157063.76	0.55192
586817.25	4157063.76	0.60793	586832.46	4157058.61	0.69938
586847.25	4157063.76	0.76388	586862.25	4157063.76	0.86418
586877.25	4157063.76	0.99224	586892.25	4157063.76	1.15584
586907.25	4157063.76	1.36345	586922.25	4157063.76	1.66576
586930.14	4157056.34	2.04002	586952.25	4157063.76	2.83086
586967.25	4157063.76	4.00450	586982.25	4157063.76	3.72279
586847.25	4157078.76	0.70300	586862.25	4157078.76	0.78931
586877.25	4157078.76	0.89989	586892.25	4157078.76	1.03906

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

586907.25	4157078.76	1.21179		586922.25	4157078.76	1.45371
586967.25	4157078.76	3.14964		586982.25	4157078.76	4.57220
586997.25	4157078.76	2.24592		586862.25	4157093.76	0.72214
586907.25	4157093.76	1.08247	MER Location	586922.25	4157093.76	1.27745
586934.16	4157097.16	1.43712		586971.27	4157090.98	2.85315
586982.25	4157093.76	3.52218		586997.25	4157093.76	3.26361

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: HAUL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
586922.25	4157108.76	1.11977	586937.25	4157108.76	1.33350
586982.25	4157108.76	2.72150	586997.25	4157108.76	3.89025
587012.25	4157108.76	3.32810	586937.25	4157123.76	1.14756
586952.25	4157123.76	1.36178	586967.25	4157123.76	1.66047
586982.25	4157123.76	2.10902	586997.25	4157123.76	2.86918
587012.25	4157123.76	4.27426	586937.25	4157138.76	0.98330
586952.25	4157138.76	1.14245	586967.25	4157138.76	1.35402
586982.25	4157138.76	1.64963	586997.25	4157138.76	2.10694
587012.25	4157138.76	2.84655	586944.67	4157150.36	0.92800
586952.25	4157153.76	0.95455	586967.25	4157153.76	1.10018
586982.25	4157153.76	1.28743	586997.25	4157153.76	1.53301
587012.25	4157153.76	1.84161	586940.65	4157173.09	0.69496
586952.25	4157168.76	0.79368	586967.25	4157168.76	0.88821
586982.25	4157168.76	0.99594	586997.25	4157168.76	1.11745
586922.25	4157183.76	0.55626	586937.25	4157183.76	0.60403
586952.25	4157183.76	0.65922	586967.25	4157183.76	0.71766
586982.25	4157183.76	0.77319	586894.72	4157200.92	0.41610
586907.25	4157198.76	0.44863	586922.25	4157198.76	0.47998
586937.25	4157198.76	0.51273	586952.25	4157198.76	0.54909
586877.25	4157213.76	0.35014	586892.25	4157213.76	0.37025
586907.25	4157213.76	0.39214	586922.25	4157213.76	0.41453
586862.25	4157228.76	0.29802	586877.25	4157228.76	0.31256
586892.25	4157228.76	0.32766	586907.25	4157228.76	0.34365
586877.25	4157243.76	0.27922	586892.25	4157243.76	0.29067

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43872 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
HAUL	1ST HIGHEST VALUE IS	4.95905 AT	(586937.25, 4157003.76, 13.92, 13.92, 1.50)	DC	
	2ND HIGHEST VALUE IS	4.57220 AT	(586982.25, 4157078.76, 14.20, 14.20, 1.50)	DC	
	3RD HIGHEST VALUE IS	4.42522 AT	(586952.25, 4157033.76, 14.08, 14.08, 1.50)	DC	
	4TH HIGHEST VALUE IS	4.27426 AT	(587012.25, 4157123.76, 14.21, 14.21, 1.50)	DC	
	5TH HIGHEST VALUE IS	4.22378 AT	(586922.25, 4156988.76, 13.98, 13.98, 1.50)	DC	
	6TH HIGHEST VALUE IS	4.00450 AT	(586967.25, 4157063.76, 14.07, 14.07, 1.50)	DC	
	7TH HIGHEST VALUE IS	3.89025 AT	(586997.25, 4157108.76, 14.36, 14.36, 1.50)	DC	
	8TH HIGHEST VALUE IS	3.83786 AT	(586937.25, 4157018.76, 14.05, 14.05, 1.50)	DC	
	9TH HIGHEST VALUE IS	3.77812 AT	(586952.25, 4157018.76, 13.95, 13.95, 1.50)	DC	
	10TH HIGHEST VALUE IS	3.72279 AT	(5869 On-site MER Location 17, 14.17, 1.50)	DC	
ONSITE	1ST HIGHEST VALUE IS	13.67682 AT	(586907.25, 4157093.76, 14.14, 14.14, 1.50)	DC	
	2ND HIGHEST VALUE IS	12.97513 AT	(586847.25, 4157078.76, 13.88, 13.88, 1.50)	DC	
	3RD HIGHEST VALUE IS	12.96507 AT	(586862.25, 4157093.76, 13.97, 13.97, 1.50)	DC	
	4TH HIGHEST VALUE IS	12.76117 AT	(586922.25, 4157108.76, 14.15, 14.15, 1.50)	DC	
	5TH HIGHEST VALUE IS	12.00690 AT	(586802.25, 4157063.76, 13.67, 13.67, 1.50)	DC	
	6TH HIGHEST VALUE IS	11.49156 AT	(586937.25, 4157138.76, 14.08, 14.08, 1.50)	DC	
	7TH HIGHEST VALUE IS	11.22510 AT	(586922.25, 4157093.76, 14.22, 14.22, 1.50)	DC	
	8TH HIGHEST VALUE IS	11.00594 AT	(586937.25, 4157123.76, 14.09, 14.09, 1.50)	DC	
	9TH HIGHEST VALUE IS	10.72740 AT	(586862.25, 4157078.76, 14.10, 14.10, 1.50)	DC	
	10TH HIGHEST VALUE IS	10.44262 AT	(586817.25, 4157063.76, 14.02, 14.02, 1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

Model Output - On-site Receptors (Thornton Jr HS)
Unit Emission Rates (1 g/s)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   0 Warning Message(s)
A Total of   13130 Informational Message(s)

A Total of   43872 Hours Were Processed

A Total of   11611 Calm Hours Identified

A Total of   1519 Missing Hours Identified (3.46 Percent)

   ******** FATAL ERROR MESSAGES ********
            *** NONE ***

   ********   WARNING MESSAGES   ********
            *** NONE ***

   ****
   *** AERMOD Finishes Successfully ***
   ****

Table C1
Residential MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MER Conc. ($\mu g/m^3$)	Total MER Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)
Residential Receptors - Unmitigated						
DPM	2020	On-Site Emissions	3.65	3.43E-02	1.25E-01	1.25E-01
		Truck Route	0.19	1.20E-05	2.26E-06	
	2021	On-Site Emissions	3.65	1.51E-02	5.52E-02	5.52E-02
		Truck Route	0.19	1.14E-05	2.16E-06	
	2022	On-Site Emissions	3.65	1.44E-02	5.25E-02	5.25E-02
		Truck Route	0.19	1.05E-05	1.99E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	3.65	3.19E-02	1.16E-01	1.16E-01
		Truck Route	0.19	1.14E-05	2.16E-06	
	2021	On-Site Emissions	3.65	1.42E-02	5.19E-02	5.19E-02
		Truck Route	0.19	1.08E-05	2.04E-06	
	2022	On-Site Emissions	3.65	1.35E-02	4.93E-02	4.93E-02
		Truck Route	0.19	9.89E-06	1.87E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.12**
Residential Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	3.65	5.74E-03	2.10E-02	2.10E-02
		Truck Route	0.19	1.20E-05	2.26E-06	
	2021	On-Site Emissions	3.65	3.26E-03	1.19E-02	1.19E-02
		Truck Route	0.19	1.14E-05	2.16E-06	
	2022	On-Site Emissions	3.65	3.01E-03	1.10E-02	1.10E-02
		Truck Route	0.19	1.05E-05	1.99E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	3.65	5.36E-03	1.96E-02	1.96E-02
		Truck Route	0.19	1.14E-05	2.16E-06	
	2021	On-Site Emissions	3.65	3.13E-03	1.14E-02	1.14E-02
		Truck Route	0.19	1.08E-05	2.04E-06	
	2022	On-Site Emissions	3.65	2.88E-03	1.05E-02	1.05E-02
		Truck Route	0.19	9.89E-06	1.87E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.02**

Maximum Exposed Receptor (MER) UTM coordinates: 786724.66E, 4157228.76N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C2
Quantification of Health Risks for Off-site Residents

Source		MER	Weight	Contaminant			Dose (by age bin)		Carcinogenic Risks (by age bin)		**Total Cancer Risk**	**Chronic Hazards [3]**	
		Conc.	Fraction		URF	CPF	3rd Trimester	0 < 2 years	3rd Trimester	0 < 2 years		Chronic REL	RESP
		($\mu g/m^3$)			$(\mu g/m^3)^{-1}$	$(mg/kg/day)^{-1}$	(mg/kg-day)	(mg/kg-day)	per million	per million	per million	($\mu g/m^3$)	
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Residential Receptors - Unmitigated													
2020	On & Off-Site	1.25E-01	1.00E+00	DPM	3.0E-04	1.1E+00	4.34E-05	1.31E-04	1.38	9.59	10.98	5.0E+00	2.51E-02
2021	On & Off-Site	5.52E-02	1.00E+00		3.0E-04	1.1E+00		5.77E-05		7.4	7.4	5.0E+00	1.10E-02
2022	On & Off-Site	5.25E-02	1.00E+00		3.0E-04	1.1E+00		5.48E-05		4.62	4.62	5.0E+00	1.05E-02
											23.0		**0.047**
Residential Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP													
2020	On & Off-Site	2.10E-02	1.00E+00	DPM	3.0E-04	1.1E+00	7.26E-06	2.19E-05	0.23	1.60	1.84	5.0E+00	4.19E-03
2021	On & Off-Site	1.19E-02	1.00E+00		3.0E-04	1.1E+00		1.25E-05		1.59	1.59	5.0E+00	2.38E-03
2022	On & Off-Site	1.10E-02	1.00E+00		3.0E-04	1.1E+00		1.15E-05		0.97	0.97	5.0E+00	2.20E-03
											4.4		**0.009**

Maximum Exposed Receptor (MER) UTM coordinates: 786724.66E, 4157228.76N

		3rd Trimester	0 < 2 years
OEHHA age bin			
exposure year(s)		2020	2020-2022
Dose Exposure Factors:	xposure frequency (days/year)	350	350
	inhalation rate (L/kg-day) [1]	361	1090
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10	10
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06
	fraction of time at home	0.85	0.85

exposure durations per age bin			exposure durations (year)	
	Construction Year	Risk Scalar [2]	3rd Trimester	0 < 2 years
	2020	0.82	0.25	0.57
	2021	1.00		1.00
	2022	0.66		0.66
	Total	2.49	0.25	2.24

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Risk scalar determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

Table C3
Day-Care MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MER Conc. ($\mu g/m^3$)	Total MER Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)
Day Care Receptors - Unmitigated						
DPM	2020	On-Site Emissions	0.109	3.43E-02	3.75E-03	3.75E-03
		Truck Route	0.078	1.20E-05	9.35E-07	
	2021	On-Site Emissions	0.109	1.51E-02	1.65E-03	1.65E-03
		Truck Route	0.078	1.14E-05	8.94E-07	
	2022	On-Site Emissions	0.109	1.44E-02	1.57E-03	1.57E-03
		Truck Route	0.078	1.19E-06	9.29E-08	
Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations						
$PM_{2.5}$	2020	On-Site Emissions	0.109	3.19E-02	3.48E-03	3.48E-03
		Truck Route	0.078	1.14E-05	8.91E-07	
	2021	On-Site Emissions	0.109	1.42E-02	1.55E-03	1.55E-03
		Truck Route	0.078	1.08E-05	8.41E-07	
	2022	On-Site Emissions	0.109	1.35E-02	1.47E-03	1.48E-03
		Truck Route	0.078	9.89E-06	7.73E-07	
				Maximum Annual $PM_{2.5}$ Concentration		**0.003**
Day Care Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	0.109	5.74E-03	6.27E-04	6.28E-04
		Truck Route	0.078	1.20E-05	9.35E-07	
	2021	On-Site Emissions	0.109	3.26E-03	3.56E-04	3.57E-04
		Truck Route	0.078	1.14E-05	8.94E-07	
	2022	On-Site Emissions	0.109	3.01E-03	3.29E-04	3.30E-04
		Truck Route	0.078	1.05E-05	8.24E-07	
Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations						
$PM_{2.5}$	2020	On-Site Emissions	0.109	5.36E-03	5.87E-04	5.87E-04
		Truck Route	0.078	1.14E-05	8.91E-07	
	2021	On-Site Emissions	0.109	3.13E-03	3.42E-04	3.43E-04
		Truck Route	0.078	1.08E-05	8.41E-07	
	2022	On-Site Emissions	0.109	2.88E-03	3.15E-04	3.16E-04
		Truck Route	0.078	9.89E-06	7.73E-07	
				Maximum Annual $PM_{2.5}$ Concentration		**0.001**

Day Care Student MER UTM coordinates: 586993.53E, 4157461.87N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C4
Quantification of Health Risks for Off-site Day Care Children

Source		MER Conc. ($\mu g/m^3$)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose 0 < 2 years (mg/kg-day)	**Total Cancer Risk** per million	**Chronic Hazards [4]** Chronic REL ($\mu g/m^3$)	RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Day Care Receptors - Unmitigated										
2020	On & Off-Site	3.75E-03	1.00E+00	DPM	3.0E-04	1.1E+00	3.08E-06	3.81E-01	5.0E+00	7.50E-04
2021	On & Off-Site	1.65E-03	1.00E+00		3.0E-04	1.1E+00	1.36E-06	2.04E-01	5.0E+00	3.30E-04
2022	On & Off-Site	1.57E-03	1.00E+00		3.0E-04	1.1E+00	1.29E-06	1.28E-01	5.0E+00	3.14E-04
							Total	**0.7**		**0.001**
Day Care Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP										
2020	On & Off-Site	6.28E-04	1.00E+00	DPM	3.0E-04	1.1E+00	5.16E-07	6.38E-02	5.0E+00	1.26E-04
2021	On & Off-Site	3.57E-04	1.00E+00		3.0E-04	1.1E+00	2.94E-07	4.40E-02	5.0E+00	7.14E-05
2022	On & Off-Site	3.30E-04	1.00E+00		3.0E-04	1.1E+00	2.71E-07	2.69E-02	5.0E+00	6.59E-05
							Total	**0.1**		**2.6E-04**

Day Care Student MER UTM coordinates: 586993.53E, 4157461.87N

	OEHHA age bin	0 < 2 years
	exposure year(s)	2020-2022
Dose Exposure Factors:	posure frequency (days/year) [1]	250
	inhalation rate (L/kg-8 hours) [2]	1200
	inhalation absorption factor	1
	conversion factor (mg/µg; m^3/L)	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10
	averaging time (years)	70
	per million	1.0E+06

exposure durations per age bin		exposure durations (year)
Construction Year	Risk Scalar [3]	0 < 2 years
2020	0.82	0.82
2021	1.00	1.00
2022	0.66	0.66
Total	2.49	2.49

[1] Office of Environmental Health Hazard Assessment. *Guidance for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(f): Guidance for Assessing Exposures and Health Risks at Existing and Proposed School Sites* . Dated February, 2004..

[2] Inhalation rate taken as the 95th percentile 8-hour breathing rate for moderate intensity activities (OEHHA, 2015).

[3] Risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[4] Chronic Hazards for DPM using the chronic reference exposure level (REL) for Respiratory Toxicological Endpoint.

Table C5
Oliveira Elementary School MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MER Conc. ($\mu g/m^3$)	Total MER Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)
Oliveira ES Receptors - Unmitigated						
DPM	2020	On-Site Emissions	0.428	3.43E-02	1.47E-02	1.47E-02
		Truck Route	0.103	1.20E-05	1.23E-06	
	2021	On-Site Emissions	0.428	1.51E-02	6.47E-03	6.47E-03
		Truck Route	0.103	1.14E-05	1.18E-06	
	2022	On-Site Emissions	0.428	1.44E-02	6.15E-03	6.15E-03
		Truck Route	0.103	1.05E-05	1.09E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	0.428	3.19E-02	1.36E-02	1.36E-02
		Truck Route	0.103	1.14E-05	1.18E-06	
	2021	On-Site Emissions	0.428	1.42E-02	6.08E-03	6.08E-03
		Truck Route	0.103	1.08E-05	1.11E-06	
	2022	On-Site Emissions	0.428	1.35E-02	5.78E-03	5.78E-03
		Truck Route	0.103	9.89E-06	1.02E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.014**
Oliveira ES Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	0.428	5.74E-03	2.46E-03	2.46E-03
		Truck Route	0.103	1.20E-05	1.23E-06	
	2021	On-Site Emissions	0.428	3.26E-03	1.40E-03	1.40E-03
		Truck Route	0.103	1.14E-05	1.18E-06	
	2022	On-Site Emissions	0.428	3.01E-03	1.29E-03	1.29E-03
		Truck Route	0.103	1.05E-05	1.09E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	0.428	5.36E-03	2.30E-03	2.30E-03
		Truck Route	0.103	1.14E-05	1.18E-06	
	2021	On-Site Emissions	0.428	3.13E-03	1.34E-03	1.34E-03
		Truck Route	0.103	1.08E-05	1.11E-06	
	2022	On-Site Emissions	0.428	2.88E-03	1.23E-03	1.24E-03
		Truck Route	0.103	9.89E-06	1.02E-06	
				Maximum Annual $PM_{2.5}$ Concentration		**0.002**

Maximum Exposed Receptor (MER) UTM coordinates: 586804.66E, 4157388.76N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C6
Quantification of Health Risks for Oliveira Elementary School

Source		MER Conc. ($\mu g/m^3$)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose (by age bin) Staff (mg/kg-day)	Dose (by age bin) Students (mg/kg-day)	**Carcinogenic Risks Staff** per million	**Carcinogenic Risks Students** per million	**Chronic Hazards** [4] Chronic REL ($\mu g/m^3$)	**Chronic Hazards** [4] RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(m)	(n)
Oliveira ES Receptors - Unmitigated												
2020	On & Off-Site	1.47E-02	1.00E+00	DPM	3.0E-04	1.1E+00	2.31E-06	4.64E-06	0.03	0.17	5.0E+00	2.94E-03
2021	On & Off-Site	6.47E-03	1.00E+00		3.0E-04	1.1E+00	1.02E-06	2.04E-06	0.02	0.09	5.0E+00	1.29E-03
2022	On & Off-Site	6.15E-03	1.00E+00		3.0E-04	1.1E+00	9.69E-07	1.94E-06	0.01	0.06	5.0E+00	1.23E-03
								Total	**0.05**	**0.3**		**0.005**
Oliveira ES Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP												
2020	On & Off-Site	2.46E-03	1.00E+00	DPM	3.0E-04	1.1E+00	3.87E-07	7.76E-07	0.00	0.03	5.0E+00	4.92E-04
2021	On & Off-Site	1.40E-03	1.00E+00		3.0E-04	1.1E+00	2.20E-07	4.41E-07	0.00	0.02	5.0E+00	2.79E-04
2022	On & Off-Site	1.29E-03	1.00E+00		3.0E-04	1.1E+00	2.03E-07	4.07E-07	0.00	0.01	5.0E+00	2.58E-04
								Total	**0.01**	**0.1**		**0.001**

Maximum Exposed Receptor (MER) UTM coordinates: 586804.66E, 4157388.76N

		Staff	Students (ES)
	OEHHA age bin	16 < 70 years	2 < 9 years
Dose Exposure Factors:	osure frequency (days/year) [1]	250	180
	inhalation rate (L/kg-8 hours) [2]	230	640
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	1	3
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06

exposure durations per age bin		exposure durations (year)	
Construction Year	Risk Scalar [3]	Staff	Students
2020	0.82	0.82	0.82
2021	1.00	1.00	1.00
2022	0.66	0.66	0.66
Total	2.49	1.82	2.49

[1] Office of Environmental Health Hazard Assessment. *Guidance for School Site Risk Assessment Pursuant to Health and Safety Code*

[2] Inhalation rate taken as the 95th percentile 8-hour breathing rate for moderate intensity activities (OEHHA, 2015).

[3] Risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction

[4] Chronic Hazards for DPM using the chronic reference exposure level (REL) for Respiratory Toxicological Endpoint.

Table C7
On-site MER Concentrations for Risk Calculations

Contaminant		Source	Model Output [1] (µg/m³)	Emission Rates [2] (g/s)	MER Conc. (µg/m³)	Total MER Conc. Annual Average (µg/m³)
(a)		(b)	(c)	(d)	(e)	(f)
On-site School Receptors - Unmitigated						
DPM	2020	On-Site Emissions	13.68	3.43E-02	4.69E-01	4.69E-01
		Truck Route	1.082	1.20E-05	1.29E-05	
	2021	On-Site Emissions	13.68	1.51E-02	2.06E-01	2.07E-01
		Truck Route	1.082	1.14E-05	1.24E-05	
	2022	On-Site Emissions	13.68	1.44E-02	1.96E-01	1.96E-01
		Truck Route	1.082	1.05E-05	1.14E-05	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	13.68	3.19E-02	4.36E-01	4.36E-01
		Truck Route	1.082	1.14E-05	1.23E-05	
	2021	On-Site Emissions	13.68	1.42E-02	1.94E-01	1.94E-01
		Truck Route	1.082	1.08E-05	1.17E-05	
	2022	On-Site Emissions	13.68	1.35E-02	1.84E-01	1.84E-01
		Truck Route	1.082	9.89E-06	1.07E-05	
				Maximum Annual $PM_{2.5}$ Concentration		**0.44**
On-site School Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP						
DPM	2020	On-Site Emissions	13.68	5.74E-03	7.84E-02	7.85E-02
		Truck Route	1.082	1.20E-05	1.29E-05	
	2021	On-Site Emissions	13.68	3.26E-03	4.46E-02	4.46E-02
		Truck Route	1.082	1.14E-05	1.24E-05	
	2022	On-Site Emissions	13.68	3.01E-03	4.11E-02	4.11E-02
		Truck Route	1.082	1.05E-05	1.14E-05	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	13.68	5.36E-03	7.34E-02	7.34E-02
		Truck Route	1.082	1.14E-05	1.23E-05	
	2021	On-Site Emissions	13.68	3.13E-03	4.28E-02	4.28E-02
		Truck Route	1.082	1.08E-05	1.17E-05	
	2022	On-Site Emissions	13.68	2.88E-03	3.94E-02	3.94E-02
		Truck Route	1.082	9.89E-06	1.07E-05	
				Maximum Annual $PM_{2.5}$ Concentration		**0.07**

Maximum Exposed Receptor (MER) UTM coordinates: 586907.25E, 4157093.76N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C8
Quantification of Health Risks for On-site Receptors

Source		MER Conc. ($\mu g/m^3$)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose (by age bin) Staff (mg/kg-day)	Dose (by age bin) Students (mg/kg-day)	**Carcinogenic Risks** Staff per million	**Carcinogenic Risks** Students per million	**Chronic Hazards** [4] Chronic REL ($\mu g/m^3$)	**Chronic Hazards** [4] RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(m)	(n)
On-site School Receptors - Unmitigated												
2020	On & Off-Site	4.69E-01	1.00E+00	DPM	3.0E-04	1.1E+00	7.39E-05	1.20E-04	0.91	4.46	5.0E+00	9.38E-02
2021	On & Off-Site	2.07E-01	1.00E+00		3.0E-04	1.1E+00	3.25E-05	5.30E-05	0.49	2.38	5.0E+00	4.13E-02
2022	On & Off-Site	1.96E-01	1.00E+00		3.0E-04	1.1E+00	3.09E-05	5.03E-05	0.31	1.50	5.0E+00	3.93E-02
								Total	**1.7**	**8.3**		**0.174**
On-site School Receptors - Mitigated Run: Level 3 DPFs for eq. > 50 HP												
2020	On & Off-Site	7.85E-02	1.00E+00	DPM	3.0E-04	1.1E+00	1.24E-05	2.01E-05	0.15	0.75	5.0E+00	1.57E-02
2021	On & Off-Site	4.46E-02	1.00E+00		3.0E-04	1.1E+00	7.02E-06	1.14E-05	0.11	0.51	5.0E+00	8.92E-03
2022	On & Off-Site	4.11E-02	1.00E+00		3.0E-04	1.1E+00	6.48E-06	1.05E-05	0.06	0.31	5.0E+00	8.23E-03
								Total	**0.3**	**1.6**		**0.033**

Maximum Exposed Receptor (MER) UTM coordinates: 586907.25E, 4157093.76N

		Staff	Students (Jr HS)
	OEHHA age bin	16 < 70 years	2 < 16 years
Dose Exposure Factors:	osure frequency (days/year) [1]	250	180
	inhalation rate (L/kg-8 hours) [2]	230	520
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	1	3
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06

exposure durations per age bin		exposure durations (year)	
Construction Year	Risk Scalar [3]	Staff	Students
2020	0.82	0.82	0.82
2021	1.00	1.00	1.00
2022	0.66	0.66	0.66
Total	2.49	1.82	2.49

[1] Office of Environmental Health Hazard Assessment. *Guidance for School Site Risk Assessment Pursuant to Health and Safety Code*

[2] Inhalation rate taken as the 95th percentile 8-hour breathing rate for moderate intensity activities (OEHHA, 2015).

[3] Risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction

[4] Chronic Hazards for DPM using the chronic reference exposure level (REL) for Respiratory Toxicological Endpoint.

APPENDIX D

GEOTECHNICAL EVALUATION AND GEOLOGIC HAZARD ASSESSMENT

APPENDIX E

PHASE I ENVIRONMENTAL SITE ASSESSMENT

March 2019 | Phase I Environmental Site Assessment

Thornton Junior High School Conversion

for Fremont Unified School District

Prepared for:

Fremont Unified School District
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Table of Contents

Section **Page**

Executive Summary ..... **v**
1. Introduction **1**
1.1 OBJECTIVE 1
1.2 SITE IDENTIFICATION 2
1.3 DETAILED SCOPE OF SERVICES 2
1.4 NON-SCOPE CONDSIDERATIONS 3
1.5 EXCEPTIONS AND DEVIATIONS 3
1.6 LIMITATIONS 3
2. Site Description **7**
2.1.1 Name of Site Owner 7
2.1.2 Site Location Map 7
2.2 SITE AND VICINITY DESCRIPTION 7
2.3 PHYSICAL SETTING 8
2.3.1 Topography 8
2.3.2 Geologic Information 8
2.3.3 Naturally Occurring Asbestos Containing Minerals 8
2.3.4 Groundwater and Surface Water Information 9
3. Site History and Background Information **11**
3.1 PREVIOUS REPORTS 11
3.2 PAST USAGE OF THE SITE 11
3.2.1 Historical Aerial Photographs 11
3.2.2 Historical Topographic Maps 12
3.2.3 Sanborn Maps 13
3.2.4 City Directory 14
3.2.5 Prior Agricultural Use 14
3.2.6 Mines 14
3.2.7 Illegal Drug Manufacturing 14
3.3 SURROUNDING PROPERTY LAND USES 15
4. Environmental Records Review **17**
4.1 STANDARD ENVIRONMENTAL RECORDS REVIEW 17
4.1.1 NPL Sites 17
4.1.2 Federal Delisted NPL Sites 18
4.1.3 CERCLIS Sites 18
4.1.4 CERCLIS-NFRAP Sites 18
4.1.5 RCRA CORRACTS Facilities 18
4.1.6 RCRA Non-CORRACTS TSD Facilities 19
4.1.7 RCRA Generators 19
4.1.8 Federal Institutional Control / Engineering Controls 19
4.1.9 Federal ERNS List 19
4.1.10 State-and Tribal- equivalent NPL 20
4.1.11 State and Tribal- equivalent CERCLIS 20
4.1.12 State and Tribal- equivalent Landfill and/or Solid Waste Disposal Sites 21
4.1.13 State and Tribal Leaking Underground Storage Tanks 21
4.1.14 State and Tribal Registered Underground Storage Tanks 26
4.1.15 State and Tribal Voluntary Cleanup Site 26

Table of Contents

Section **Page**

4.1.16 HAZNET ... 26
4.1.17 Orphan Sites ... 27
4.2 ADDITIONAL ENVIRONMENTAL RECORDS REVIEW ... 27
4.2.1 Local Brownfield Lists ... 27
4.2.2 Local Lists of Hazardous Waste Contaminated Sites ... 27
4.2.3 Local Lists of Registered Storage Tanks ... 28
4.2.4 High Risk Historical Records ... 29
4.2.5 State of California Division of Oil and Gas Records ... 29
4.2.6 Vapor Migration ... 29
4.2.7 User-Provided Information ... 30
5. Site Reconnaissance and Key Personnel Interview(s) ... 31
5.1 CURRENT USE OF THE PROPERTY ... 31
5.2 SITE VISIT OBSERVATIONS ... 31
5.2.1 General Description of Structures ... 31
5.2.2 Heating and Cooling System ... 31
5.2.3 Potable Water Supply and Sewage Disposal System or Septic Systems ... 31
5.2.4 Use of Petroleum Products and Hazardous Materials ... 31
5.2.5 Storage of Petroleum Products and Hazardous Materials (Storage Tanks, Drums) 32
5.2.6 Disposal of Petroleum Products and Hazardous Materials ... 32
5.2.7 Vehicle Maintenance Lifts ... 32
5.2.8 Emergency Generators ... 32
5.2.9 Polychlorinated Biphenyls (PCBs) Associated with Electrical or Hydraulic Equipment ... 32
5.2.10 Floor Drain and Sumps ... 32
5.2.11 Catch Basins ... 32
5.2.12 Dry Wells ... 32
5.2.13 Pits, Ponds, Lagoons, and Pools of Liquid ... 32
5.2.14 Odors ... 32
5.2.15 Stains or Corrosion on Floors, Walls, or Ceilings ... 33
5.2.16 Stained Soil or Pavement ... 33
5.2.17 Stressed Vegetation ... 33
5.2.18 Solid Waste and Evidence of Waste Filling ... 33
5.2.19 Wastewater and Stormwater Discharge ... 33
5.2.20 Monitoring, Water Supply, or Irrigation Wells ... 33
5.2.21 Non-Scope Considerations ... 33
5.2.22 Adjacent Property Inspection ... 33
5.3 INTERVIEWS ... 33
6. Data Gap Identification ... 35
7. Findings and Conclusions ... 37
8. Credentials ... 39
9. References ... 41

Table of Contents

List of Figures

Figure

Figure 1 Local Vicinity
Figure 2 Surrounding Setting
Figure 3 Aerial Photograph

List of Appendices

Appendix A. Research Documentation
Appendix B. EDR
Appendix C. Site Photographs
Appendix D. Questionnaire
Appendix E. Qualifications

Table of Contents

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Executive Summary

PlaceWorks has performed a Phase I Environmental Site Assessment (Phase I) on behalf of Fremont Unified School District (District) for the proposed conversion of Thornton Junior High School in the City of Fremont, Alameda County, California (Figures 1 and 2). The Phase I was performed in general conformance with the scope and limitations of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the United States Environmental Protection Agency's (USEPA) 2006 All Appropriate Inquiry (AAI) Rule (40 CFR Part 312). Exceptions to, or deletions from, this practice are described in Section 1 of this report. Our conclusions are intended to help the user evaluate the "environmental risk" associated with the site, as defined in the ASTM E 1527-13 Standard and discussed in the Introduction section of this report.

The Thornton School conversion project would involve construction of new buildings, reconfiguration and modernization of existing buildings, development of new parking and vehicular circulation areas, various campus site upgrades and campus-wide technology upgrades within the existing, 18-acre footprint of the Thornton Junior High School campus. The project is intended to convert the currently 7th and 8th grade junior high school to a middle school with 6th, 7th, and 8th grades. The project would increase the capacity of the school facilities from of 1,259 students to 2,176 students. The 18-acre existing school site is identified with the Assessor's Parcel Number [APN] 501-0221-085-02 and is associated with the address 4357 Thornton Avenue, within a mixed area of residential and commercial property. Regional access to the proposed project site is provided by Thornton Avenue, which is designated as State Route 84 (CA-84), located to the southeast. Figure 2 shows the surrounding setting and Figure 3 the current conditions of site.

The objective of a Phase I is to assess whether "recognized environmental conditions" (REC), historical RECs (HREC), and controlled RECs (CREC) are associated with the project site. Our conclusions are intended to help the user evaluate the "business environmental risk" associated with the project site. Our opinion regarding an REC's potential impact on the project site is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, and our experience evaluating similar sites.

RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs)

The ASTM E 1527-13 Standard defines an REC in part as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

Executive Summary

Historical use of the project site was agriculture prior to the construction of the school in 1963 is an REC. From at least 1939 to 1963 the school site was an orchard and during the early 1960s prior to the construction of the school there was a combination of row crops and an orchard.

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECs)

The ASTM E 1527-13 Standard defines an HREC as "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 (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

No HREC were identified for the site.

CONTROLLED RECS ENVIRONMENTAL CONDITIONS

The Standard also requires the identification of controlled RECs (CRECs). The ASTM Standard defines CRECs as

"a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

This assessment has revealed no evidence of CRECs in connection with the project site following the ASTM standard.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL PROTOCOL

Based on a review of historical information and a site visit; there have been structures present at the project since at least 1899 and the school has been on the site since the 1960s. Due to the age of former structures and current structures, the DTSC would require testing to assess for potential impacts to soil from lead-based paint and organochlorine pesticides from possible termiticide usage. PlaceWorks recommends soil testing to assess these issues be implemented in the PEA that is recommended due to historic agricultural usage. Soil testing should be implemented following DTSC's Interim Guidance for Evaluating School Sites with Potential Soil Contamination as a result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers dated June 2006.

SUMMARY

Based on the results of this assessment a REC and DTSC conditions for school sites were identified for the project site. Because a REC was identified a Preliminary Environmental Assessment is recommended for the

areas of the existing school site that will be eligible for state funding for new construction. CRECs and HRECs were not identified for the project site.

This executive summary does not contain all the information that is contained in the full report and the remainder of the report should be read to obtain an understanding of the information reviewed and the process. The remainder of this report contains additional information regarding the Phase I work performed, the findings summarized above, and any limitations.

Executive Summary

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1. Introduction

This Phase I Environmental Site Assessment (Phase I) was performed in general conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) E 1527-13 Standard for Fremont Unified School Districts' proposed conversion of Thornton Junior High School located at 4357 Thornton Avenue, Fremont, Alameda County, California (Figures 1 and 2). The Phase I was performed in conformance with the scope and limitations of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the United States Environmental Protection Agency's (USEPA) 2006 All Appropriate Inquiry (AAI) Rule (40 CFR Part 312). Exceptions to, or deletions from, this practice are described in Section 1 of this report. Our conclusions are intended to help the user evaluate the "environmental risk" associated with the site, as defined in the ASTM E 1527-13 Standard.

Fremont Unified School District is researching the feasibility of the proposed Thornton Middle School Conversion project. The project would involve construction of new buildings, reconfiguration and modernization of existing buildings, development of new parking and vehicular circulation areas, various campus site upgrades and campus-wide technology upgrades within the existing, 18-acre footprint of the Thornton Junior High School campus. No new land acquisition is proposed with this project. The project is intended to convert the currently 7th and 8th grade junior high school to a middle school with 6th, 7th, and 8th grades. The project would increase the capacity of the school facilities from of 1,259 students to 2,176 students, a 73 percent increase in student capacity. Figure 3 is an aerial photograph showing the current site conditions.

1.1 OBJECTIVE

The objective of this assessment was to evaluate site history, existing observable conditions, current site use, and current and historic uses of surrounding properties to identify the potential presence of Recognized Environmental Conditions (RECs) in connection with the project site. RECs are defined by ASTM as

> "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions." De minimis conditions are further defined as conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be subject to an enforcement action if brought to the attention of appropriate governmental agencies.

In addition, the Standard requires the identification of historical RECs (HRECs) and known or suspect environmental conditions in the Phase I report. The standard defines historical RECs as

> "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 (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

The Standard also requires the identification of controlled RECs (CRECs). The ASTM Standard defines CRECs as

> "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

Our conclusions are intended to help the user evaluate the "environmental risk" associated with the site, defined by ASTM as "a risk which can have a material environmental or environmentally-driven financial impact on the business associated with the current or planned use of a parcel of commercial real estate. Consideration of environmental risk issues may involve addressing one or more non-scope considerations."

1.2 SITE IDENTIFICATION

The project site is the existing 18-acre, 43-classroom Thornton Junior High School campus. The school was built in 1963 with nine permanent, wood frame buildings. A series of modular buildings was added from 1990 to 2004 to accommodate new students. The last permanent structure built on the campus was a concrete block gymnasium added in 2007. Th site is comprised of one parcel which is associated with Assessor's Parcel Number [APN] 501-0221-085-02. The project site is located at 4357 Thornton Avenue, Fremont, Alameda County.

The school is primarily surrounded by residential land uses to the north, west and east and commercial and retail uses are located directly across Thornton Avenue to the south. Several other schools are in the immediate area, including Oliveira Elementary School, which is to the northeast, as well and Cabrillo Elementary School, American High School and Fremont Christian School. Regional access to the site is primarily via north-south running Interstate 880, located about 0.75 miles west of the site, and east-west running State Route 84, renamed Thornton Avenue in the City of Fremont and on which the site is located. The Fremont BART Station is located about 2 miles east of the project site.

1.3 DETAILED SCOPE OF SERVICES

PlaceWorks performed the following detailed scope of services to complete our Phase I assessment:

1. Visual observations of site conditions, and of adjoining property use, to evaluate the nature and type of activities that have been or are being conducted at and adjacent to the site, in terms of the potential for release or threat of release of hazardous substances or petroleum products. The site

reconnaissance included the surrounding roads and observations of the surrounding properties from public rights-of-way to identify obvious potential environmental conditions on neighboring properties.

2. Review of federal and state environmental database information within the ASTM- specified radii from the project site using a database service to access records. Environmental Data Resources (EDR) prepared the environmental database report. Use of 7.5-minute topographic maps to evaluate the site's physical setting.
3. Review of federal and state environmental files, as necessary, pertaining to the project site and nearby sites with the potential to impact the project site.
4. Review of previous reports (if any) prepared for the project site.
5. Review an interpretation of historical aerial photographs, Sanborn Fire Insurance Maps, historical topographic maps and city directories to identify previous activities on and in the vicinity of the project site.
6. Contacts with state and local agencies, as necessary, regarding the site and surrounding properties and structures.
7. Interviews with the Key Site Manager and property tenant representatives (if any). Interpretation of information and data assembled as a result of the above work tasks, and formulation of conclusions regarding the potential presence and impact of RECs as defined by the ASTM E 1527-13 Standard.

1.4 NON-SCOPE CONDSIDERATIONS

The ASTM E 1527-13 Standard includes the following list of "additional issues" that are non-scope considerations outside of the scope of the ASTM Phase I practice: Asbestos-Containing Materials, Biological Agents, Radon, Lead-Based Paint, Lead in Drinking Water, Wetlands, Regulatory Compliance, Cultural and Historic Risks, Industrial Hygiene, Health and Safety, Ecological Resources, Endangered Species, Indoor Air Quality unrelated to releases of hazardous substances or petroleum products in the environment and mold.

A limited assessment of the presence of polychlorinated biphenyls (PCBs) is included in the ASTM work scope. Accordingly, the assessment of the presence of PCBs is limited to those potential sources specified in the ASTM E 1527-13 Standard as "electrical or hydraulic equipment known or likely to contain PCBs" to the extent visually and or physically observed or identified from the interview or records review.

1.5 EXCEPTIONS AND DEVIATIONS

PlaceWorks has completed this assessment in substantial conformance with ASTM E 1527-13. In our opinion, there were no exceptions, addition, deviations or deletions made to the ASTM work scope.

1.6 LIMITATIONS

Our work for this project was performed generally consistent with the ASTM E 1527-13 Standard for Phase I Environmental Site Assessments. Several organizations other than ASTM, such as professional associations

1. Introduction

(e.g. ASFE and AGWSE) have also developed "guidelines" or "standards" for environmental site assessments. The Phase I presented herein is consistent with the ASTM E 1527-13 Standard, which may vary from the specific "guidelines" or "standards" required by other organizations.

This Report was prepared pursuant to an Agreement between the District and PlaceWorks. All uses of this Report are subject to, and deemed acceptance of, the conditions and restrictions contained in the Agreement. The observations and conclusions described in this Report are based solely on the Scope of Services provided pursuant to the Agreement. PlaceWorks has not performed any additional observations, investigations, studies or other testing not specified in the Agreement. PlaceWorks shall not be liable for the existence of any condition the discovery of which would have required the performance of services not authorized under the Agreement. This report is intended to be used in its entirety. Excerpts taken from this report are not necessarily representative of the assessment findings.

This Report is prepared for the exclusive use of the District in connection with the proposed acquisition of the site. There are no intended beneficiaries other than the District. PlaceWorks shall owe no duty whatsoever to any other person or entity on account of the Agreement or the Report. Use of this Report by any person or entity other than the District for any purpose whatsoever is expressly forbidden unless such other person or entity obtains written authorization from the District and from PlaceWorks. Use of this Report by such other person or entity without the written authorization of the District and PlaceWorks shall be at such other person's or entity's sole risk, and shall be without legal exposure or liability to PlaceWorks.

Use of this Report by any person or entity, including by the District, for a purpose other than the site, is expressly prohibited unless such person or entity obtains written authorization from PlaceWorks indicating that the Report is adequate for such other use. Use of this Report by any person or entity for such other purpose without written authorization by PlaceWorks shall be at such person's or entity's sole risk and shall be without legal exposure or liability to PlaceWorks.

This Report reflects site conditions observed and described by records available to PlaceWorks as of the date of report preparation. The passage of time may result in significant changes in site conditions, technology, or economic conditions, which could alter the findings and/or recommendations of the report. Accordingly, the District and any other party to whom the report is provided recognize and agree that PlaceWorks shall bear no liability for deviations from observed conditions or available records after the time of report preparation.

The findings, conclusions, and recommendations contained in this report are based on site conditions as they existed at the time of our investigation. Our review of documents, lists, databases, and public agency files have been conducted with due diligence. However, our conclusions are based on available information and are subject to constraints imposed by public agencies on review procedures and information retrieval. As a result, PlaceWorks may have been unable to identify potential concerns. PlaceWorks assumes no responsibility for conditions that did not come to our attention despite reasonable care, or for conditions that were not generally recognizable as environmentally unacceptable at the time of this report. Opinions and judgments expressed are based on our understanding and interpretations of currently available regulatory standards and should not be construed as legal opinions or advice.

1. Introduction

This Phase I ESA update is not intended to be a definitive investigation of possible environmental impacts at the Subject Property. The purpose of this investigation was limited to determining if there is reason to suspect the possibility of RECs at the Subject Property. It should be understood that even the most comprehensive Phase I ESA update may fail to detect environmental liabilities at a particular Subject Property. Therefore, PlaceWorks cannot "insure" or "certify" that the Subject Property is free of environmental impacts. No expressed or implied representation or warranty is included or intended in this report, except that our services were performed, within the limits prescribed by our client, with the customary standard of care exercised by professionals performing similar services under similar circumstances within the same jurisdiction.

Use of this Report by any person or entity in violation of the restrictions expressed in this Report shall be deemed and accepted by the user as conclusive evidence that such use and the reliance placed on this Report, or any portions thereof, is unreasonable, and that the user accepts full and exclusive responsibility and liability for any losses, damages or other liability which may result.

1. Introduction

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2. Site Description

This section describes the site location and ownership of the site as well as other pertinent details.

2.1.1 Name of Site Owner

The site is currently owned by the Fremont Unified School District.

2.1.2 Site Location Map

The United States Geological Survey (USGS) topographic map for the site is the Newark, California Quadrangle. The USGS topographic map was used as the source for site setting information. The site is in Alameda County at approximately 37.557038 north latitude and 122.016694 west Longitude. The site is in Section 30 of Township 4 South, Range 1 West of the Mount Diablo Base Line and Meridian. Figure 1, *Local Vicinity*, provides a map depicting the general location of the site.

2.2 SITE AND VICINITY DESCRIPTION

The District proposes to convert the project site from a 6th and 7th grade Junior High School to a 6th, 7th, and 8th grade Middle School. The site is currently a developed with the Thornton Junior High School and is in a predominately residential area of Fremont, California. The address for the site is 4357 Thornton Avenue and it is associated with the APN 501-0221-085-02. Figure 1, *Local Vicinity,* provides a map depicting the general location of the site. The site is an irregular rectangle-shaped and is approximately 18- acres in size in total (Figures 2 and 3). Access to the site is from Thornton Avenue.

The school is primarily surrounded by residential land uses to the north, west and east and commercial and retail uses are located directly across Thornton Avenue to the south. Several other schools are in the immediate area, including Oliveira Elementary School, which is to the northeast, as well and Cabrillo Elementary School, American High School and Fremont Christian School .

At the time of the site inspection, PlaceWorks identified the following land uses on adjacent properties:

North: Residential, Oliveira Elementary School, and Fremont Parent Co-Op Nursery.

East: Fast food restaurants, a convenience store, a dental practice, a post office branch, and the Immanuel Presbyterian Church.

South: Residential.

West: Residential.

2.3 PHYSICAL SETTING

Geology and hydrology were evaluated based on readily-available public information or references, and/or based upon our experience and understanding of subsurface conditions in the project property area.

2.3.1 Topography

The topographic gradient of the project site is north northwest. Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Series, Newark, California Quadrangle Map (USGS 2018), surface elevation of the site is approximately 47 feet above mean sea level (msl).

2.3.2 Geologic Information

The project site sits within the northern portion of the Santa Clara Valley, within the Coast Ranges Geomorphic Province (Norris and Webb 1990). The Coast Ranges Geomorphic Province is a long region of moderate relief containing many elongate ridges and narrow valleys that are approximately parallel to the coast. The Coast Ranges Geomorphic Province extends about 600 miles from the Oregon border to the Santa Ynez River and is subdivided into the ranges north of San Francisco Bay and ranges south of the bay to Santa Barbara County. The Diablo Range is located northeast of the property and the Coyote Hills are located to the west. The property itself sits atop Holocene alluvial fan levee deposits (Knudsen et al 1997). Based on a review of the California Department of Conservation Fault Map of California (2010), no active faults are known to have been mapped within the boundaries of the project site. The Fault Map of California shows that the nearest fault to the project site is the Hayward Fault located approximately two miles northeast of the project site

The United States Department of Agriculture Natural Resources Conservation Services maps the soil beneath the site as Yolo silt loam soil (USDA, 2019). Yolo silt loam is classified as soil that has a moderate infiltration rate with moderately coarse textures. The soil is also classified as well drained. The project site is not within an earthquake fault zone, landslide zone, or a liquefaction zone based on a review of the CGS Earthquake Zones of Required Investigation.

2.3.3 Naturally Occurring Asbestos Containing Minerals

Naturally occurring serpentine rock or rock formations—which may contain significant quantities of asbestos—are located within 10 miles of the project site (Van Gosen and Clinkenbeard 2011). Additionally, based on a review of *A General Location Guide for Ultramafic Rocks in California: Areas More Likely to Contain Naturally Occurring Asbestos* (Department of Conservation, Division of Mines and Geology 2000) and Van Gosen and Clinkenbeard (2011), the site is located within a 10-mile radius of an area thought to contain naturally occurring asbestos. However, the area that may contain naturally occurring asbestos minerals is located in a different watershed, so naturally occurring asbestos minerals are unlikely to be located at the site (Alameda County Flood Control & Water Conservation District 2019). Therefore, project implementation would not result in the exposure of hazardous materials or naturally occurring hazardous materials on the school site.

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2.3.4 Groundwater and Surface Water Information

The project site lies within the Niles Cone Groundwater Basin. The Niles Cone Groundwater Basin is recharged from percolation of runoff from the Alameda Creek Watershed (ACWD, 2019). Alameda Creek, located approximately 0.9 miles north-northeast and 1.1 miles northwest of the site, is the principal surface water drainage feature in the area. Based on CGS (2016), historical groundwater is greater than 50 feet below ground surface in the site area. Hydrogeologic investigations were not performed on the site for this investigation; therefore, it is unknown to what extent localized variations in groundwater presence and flow occur on the site

The city of Fremont provides water services to the surrounding area, which is supplied from three sources: State Water Project (SWP), the San Francisco's Regional Water System, and from sixteen water wells that extract water from the groundwater basin (ACWD, 2019). From 1999 to 2010, 54% of water demands have been met by local supplies, 27% from the State Water Project, and 19% from the San Francisco Regional Water System (ACWD, 2019).

Based on the EDR report, the project site is not within a 500-year or 100-year flood zone. Looking at the FEMA Flood Map Service Center, the project site is within an area of minimal flood hazard (FEMA, 2009).

2. Site Description

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3. Site History and Background Information

3.1 PREVIOUS REPORTS

No previous reports were provided to PlaceWorks for this project.

3.2 PAST USAGE OF THE SITE

Past usage of the project site was assessed through review of historical aerial photographs, topographic maps and databases. Copies of historical information reviewed are included in Appendix A. Based on a review of historical information; the project site had structures present site 1899. From at least 1939 to 1963 the project site is utilized as an orchard with at least two structures present. From 1963 to at least 1965, the project site has row crops and an orchard. Fremont Unified School District occupies the project site starting in at least 1965.

3.2.1 Historical Aerial Photographs

Aerial photographs for the project site obtained from EDR for the years 1939, 1946, 1948, 1958, 1963, 1968, 1974, 1979, 1982, 1993, 1998, 2006, 2009, 2012 and 2016 were reviewed for the project site. Copies of the aerial photographs are included in Appendix A.

- 1939 – An orchard occupies the project site and there are two structures present within the eastern corner of the project site. The surrounding area is agricultural use land, it appears to be a mix of orchards and row crop agriculture with a few associated structures.

- 1946 – The project site and surrounding area appear relatively unchanged in comparison to the 1939 aerial photograph.

- 1948 – The project site appears relatively unchanged in comparison to the 1946 aerial photograph. More residential development is occurring east northeast of the project site. Agriculture still predominately surrounds the project site.

- 1958 – The project site appears relatively unchanged in comparison to the 1948 aerial photograph. Replacing the row crops west and southwest of the project site is residential development.

- 1963 – Row crops occupies the west-northwest portion of the project site, while the rest of the project site appears relatively unchanged in comparison to the 1958 aerial photograph. Residential development dominates the surrounding area, particularly to the west.

- 1968 – The row crops and orchard are no longer present on the project site. There are eight structures along the eastern boundary and a dirt track along the southwestern edge of the project site. There are orchards to the west and southwest of the project site and row crops to the west. The surrounding area has been built-out with residential development.

- 1974 – There are thirteen structures concentrated along the eastern and northeastern boundary of the project site. The western portion of the project site is play field with a track and baseball diamond. The agriculture that bounded the project site to the west and southwest have been developed with housing.

- 1979 – The project site and surrounding area appear relatively unchanged in comparison to the 1974 aerial photograph.

- 1982 – There are fourteen to fifteen structures on the project site. The surrounding area appears relatively unchanged in comparison to the 1979 aerial photograph.

- 1993 – The project site and surrounding area appear relatively unchanged in comparison to the 1982 aerial photograph.

- 1998 – The project site and surrounding area appear relatively unchanged in comparison to the 1993 aerial photograph.

- 2006 – The project site and surrounding area appear relatively unchanged in comparison to the 1998 aerial photograph.

- 2009 – The project site and surrounding area appear relatively unchanged in comparison to the 2006 aerial photograph.

- 2012 – The project site and surrounding area appear relatively unchanged in comparison to the 2009 aerial photograph.

- 2016 – There are sixteen to seventeen structures on the project site. The surrounding area appears relatively unchanged in comparison to the 2012 aerial photograph.

3.2.2 Historical Topographic Maps

Historical Topographic Maps obtained from EDR for the years 1899, 1915, 1947, 1948, 1959/1961, 1968, 1973, 1980, 1996, 1997 and 2012. Copies of the topographic maps are included in Appendix A.

- 1899 – There are three structures depicted along the southeastern boundary of the project site. Cerritos is labeled north of the project site, Centerville is labeled just south of the project site, and Mission San Jose is labeled further south of the project site. The Sanjon de los Alisos is flowing northwest of the project site. Development in the surrounding area of the project site appears sparse.

- 1915 – The project site and surrounding area appear relatively unchanged in comparison to the 1899 topographic map.
- 1947 – An orchard now occupies the project site. There is one structure in the southeast corner of the project site. Orchards surround the project site in all directions. The area northeast and east of the project site appear built-out. Southeast of the project site, the Spring Valley Aqueduct runs northeast/southwest. Southern Pacific Railroad appears to parallel the Spring Valley Aqueduct.
- 1948 – The project site and surrounding area appear relatively unchanged in comparison to the 1947 topographic map.
- 1959/1961 – There is an additional structure towards the western corner of the project site in the middle of the orchard. Areas around the project site are highlighted in omission tint, reflecting an increase in development, the area is also now labeled Fremont instead of Centerville. Orchards still bound the project site to the north, northwest, southwest and south. Gravel pits are northeast of the project site across Fremont Boulevard.
- 1968 – Thornton Junior High School occupies the project site with approximately eight buildings along the southeastern boundary. Orchards bound the project site to the west and northwest. More of the surrounding area is highlighted in omission tint.
- 1973 – The project site appears relatively unchanged in comparison to the 1968 topographic map. The topographic map no longer depicts the orchards bounding the project site as they are areas highlighted in omission tint.
- 1980 – The project site and surrounding area appear relatively unchanged in comparison to the 1973 topographic map.
- 1996 – The project site and surrounding area appear relatively unchanged in comparison to the 1980 topographic map.
- 1997 – The project site and surrounding area appear relatively unchanged in comparison to the 1996 topographic map.
- 2012 – Only streets are depicted on the topographic map. Recent topographic maps no longer depicted structures.

3.2.3 Sanborn Maps

Sanborn maps were not available for the project site. Certified Sanborn Search Document is included in Appendix A.

3.2.4 City Directory

EDR provided an EDR-City Directory. A copy of the EDR-City Directory is included in Appendix A. City Directory data was searched for the years spanning from 1920 through 2014. The project site is identified for the years 1965, 1970, 1976, 1979, 1982, 2002, 2010 and 2014.

- 1965 – The project site is listed as the Fremont School
- 1970 – The project site is listed as the Fremont Unified School District and (CONTTD) Elementary Schools
- 1976 – The project site is listed as the Fremont Newark Regional Occupational Program.
- 1979 – The project site is listed as the Fremont Unified School District (CONTD) High Schools.
- 1982 – The project site is listed as CUPIT C Fremont.
- 2002 – Fremont Thornton Junior High School, Robert Hageman, and Kinsley O'Hagmen.
- 2010 – The project site is listed as Fremont Unified School District and DL Falk Construction INC.
- 2014 – The project site is listed as Fremont Unified School District.

The list shows a mix of residential and commercial property in the surrounding area searched in the EDR-City Directory.

3.2.5 Prior Agricultural Use

Based on the review of historical aerial photographs and topographic maps, an orchard occupied the project site from at least 1939 and for a short time period in the early 1960s prior to the school being built portions of the site had row crops and an orchard.

3.2.6 Mines

Based on the review of historical aerial photographs and topographic maps, the project site appears to not have been a site for mining operations.

3.2.7 Illegal Drug Manufacturing

The project site was not identified by the California Hazardous Material Incident Report System (CHMIRS) which is maintained by the California Office of Emergency Services and contains information regarding hazardous material incidents such as accidental releases or spills. Clandestine Drug Laboratory Locations (CDL) database maintained by the U.S. Department of Justice was also reviewed for the presence of drug laboratories or dumpsites. Drug-related waste was not observed on the project site during the site inspection.

3.2.8 Prior U.S. Government Ownership

Based on the review of the EDR, historical aerial photographs, and topographic maps reviewed, there is no indication that the property was owned by the U.S. Government or devoted to military use or operations.

3.3 SURROUNDING PROPERTY LAND USES

Based on the review of the EDR, historical aerial photographs, topographic maps, and site visit, the adjoining properties surrounding the site are predominately residential property. East and southeast of the project site is occupied by commercial property; there are fast food restaurants, a convince store, and a dental practice. No manufacturing activities were identified on the adjacent parcels.

3. Site History and Background Information

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4. Environmental Records Review

4.1 STANDARD ENVIRONMENTAL RECORDS REVIEW

PlaceWorks utilized the electronic database service EDR to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced Agency records, located within the American Society for Testing and Materials (ASTM)-specified search radii indicated below:

Database	Approximate Search Distance	Subject Site Listed?	Number of Sites within Search Area
Federal NPL Sites	1 mile	No	0
Federal Delisted NPL Sites	0.5 mile	No	0
CERCLIS Sites	0.5 mile	No	0
CERCLIS-NFRAP Sites	0.5 mile	No	0
Federal ERNS	Site only	No	0
RCRA non-CORRACTS TSD Facilities	0.5 mile	No	0
RCRA CORRACTS Facilities	1 mile	No	0
RCRA Generators	Site and Adjoining	No	1
Federal Institutional/Engineering Control Registry	0.5 mile	No	0
State and Tribal Equivalent NPL Sites	1 mile	No	0
State and Tribal Equivalent CERCLIS Sites	1 mile	No	4
State and Tribal Registered Storage Tanks	Site and Adjoining	No	1
State and Tribal Landfills and Solid Waste Disposal Sites	0.5 mile	No	0
State and Tribal Leaking Storage Tanks	0.5 mile	No	40
State and Tribal Institutional Controls/Engineering Control	Site only	No	0
State and Tribal Voluntary Cleanup Sites	0.5 mile	No	2
State and Tribal Brownfield Sites	0.5 mile	No	0
Orphan Site List	Site and Adjoining	No	1
HAZNET	Site only	Yes	4

A review of selected regulatory agency databases for documented environmental concerns on the project site, or in close proximity to the site, was conducted by EDR. A copy of the radius report, dated March 8, 2019 is included in Appendix B. The project site was listed as a HAZNET site as discussed below.

4.1.1 NPL Sites

The National Priorities List (NPL) is a list of contaminated sites that are considered the highest priority for clean-up by the EPA.

- The project site is not listed on the NPL list.
- The database did not identify any NPL site within a mile radius of the project site.

4.1.2 Federal Delisted NPL Sites

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.

- The project site is not listed on the delisted NPL list.
- The database did not identify any delisted NPL sites within a mile radius of the project site.

4.1.3 CERCLIS Sites

The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) list identifies sites which are suspected to have contamination and require additional investigation to assess if they should be considered for inclusion on the NPL.

- The project site is not listed on the CERCLIS list.
- The database search did not identify any CERCLIS listings within a half mile radius of the project site.

4.1.4 CERCLIS-NFRAP Sites

CERCLIS-NFRAP status indicates that a site was once on the CERCLIS List but has No Further Response Actions Planned (NFRAP). Sites on the CERCLIS-NFRAP List were removed from the CERCLIS List in February 1995 because, after an initial investigation was performed, no contamination was found, contamination was removed quickly, or the contamination was not significant enough to warrant NPL status.

- The project site is not listed on the CERCLIS-NFRAP list.
- The database search did not identify any CERCLIS-NFRAP Sites within a half mile radius of the project site.

4.1.5 RCRA CORRACTS Facilities

The RCRA CORRACTS Facilities list catalogues facilities that treat, store, or dispose of hazardous waste and have been associated with corrective action activity.

- The project site is not listed as a RCRA CORRACTS TSD Facility.
- The database search did not identify any RCRA CORRACTS TSD facility within a one-mile radius of the project site.

4.1.6 RCRA Non-CORRACTS TSD Facilities

The Resource Conservation and Recovery Act (RCRA) non-CORRACTS TSD Facilities List tracks facilities which treat, store, or dispose of hazardous waste and are not associated with corrective action activity.

- The project site is not listed as a RCRA non-CORRACTS TSD facility.
- The database search did not identify any RCRA non-CORRACTS TSD facilities within a one-half mile radius of the project site.

4.1.7 RCRA Generators

The RCRA Generator list is maintained by the EPA to track facilities that generate hazardous waste.

- The project site is not listed as a RCRA Generator facility.
- The database identified one RCRA Generator within a quarter mile radius of the project site.
    - Cabrillo Cleaner at 4673 Thornton Avenue, approximately 0.197-miles southwest of the project site, is a facility that generates small quantities of hazardous waste. The facility is listed as having no history of violations and the facility's EPA ID is CAD981580988. This facility is not expected to have impacted the site based on the regulatory agency status and distance.

4.1.8 Federal Institutional Control / Engineering Controls

A listing of sites with institutional and or engineering controls in place is maintained by the EPA. 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. 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.

- The project site is not listed as having an institutional or engineering control.

4.1.9 Federal ERNS List

The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The list is maintained by the National Response Center United States Coast Guard.

- The project site is not listed on the Federal ERNs list.

4. Environmental Records Review

4.1.10 State-and Tribal- equivalent NPL

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.

- The project site is not listed on state- and tribal-equivalent NPL.
- The database search did not identify any state-and tribal equivalent NPL facility within a one-mile radius of the project site.

4.1.11 State and Tribal- equivalent CERCLIS

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies 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.

- The project site is not listed on the state-and tribal-equivalent CERCLIS.
- The database identified four state-and tribal-equivalent CERCLIS facilities within a mile radius of the project site.
    - Alder Avenue at 4325 Alder Avenue, approximately 0.080-miles west northwest of the project site, is a vacant 1.47-acre area investigated for a potential residential development. The site received a No Further Action notice from the DTSC on January 15, 2015.
    - Henry Miller at 4133 Peralta Boulevard, approximately 0.353-miles east of the project site, is a site actively undergoing remediation as a result of contamination from a former dry cleaner. The current status of the site is active as of December 11, 2015. Based on DTSC oversight and distance from the project site, this facility is not expected to have impacted the project site.
    - Central Commons at 4369 Central Avenue, approximately 0.507-miles southeast of the project site, is a 1.13-acre site undergoing residential development that was investigated due to the site's past use as an orchard and then a truck yard. The site received a No Further Action notice from the DTSC on December 24, 2015.
    - Pacific Cement and Aggregates at 35171 Sequoia Road, approximately 0.796-miles northeast of the project site, is a historical site and the status was referred to another agency as of June

27, 1994. Based on the distance from the project site, this facility is not expected to have impacted the project site.

4.1.12 State and Tribal- equivalent Landfill and/or Solid Waste Disposal Sites

The database search did not identify any State Landfills or Solid Waste Disposal Sites within a one-half mile radius of the project site.

- The project site is not listed on state- and tribal- equivalent landfill and/or solid waste disposal site lists.
- The database search did not identify any state-and tribal equivalent Landfill and/or Solid Waste Disposal sites within a half mile radius of the project site.

4.1.13 State and Tribal Leaking Underground Storage Tanks

The State Water Resources Control Board Leaking Underground Storage Tank Information System contains an inventory of Leaking Underground Storage Tank (LUST) Incident Reports.

- The project site is not listed on state- and tribal leaking underground storage tanks.
- The database identified forty LUST facilities within a half-mile radius of the project site.
    - Tidewater Service Station at 4362 Thornton Avenue, approximately 0.028-miles east southeast of the project site, is listed because of a leak of gasoline reported February 25, 2003. The case is currently listed as completed case closed as of April 7, 2011. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
    - U.S. Post Office at 37010 Dusterberry Way, approximately 0.091-miles east southeast of the project site, is listed because of a leak of gasoline reported on February 25, 1994. The case is currently listed as completed case closed as of April 15, 1996. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
    - J.G Dutra & Son at 4568 Thornton Avenue, approximately 0.167-miles southwest of the project site, is listed because of a leak of gasoline reported on April 28, 1994. The case is currently listed as completed case closed as of October 20, 1994. Based on current regulatory status and downgradient location from the project site, this facility is not expected to have had an impact on the project site.
    - Cabrillo Cleaners at 4673 Thornton Avenue, approximately 0.197-miles southwest of the project site, is listed because the site has active groundwater monitoring as of August 7, 2003. Based on regulatory oversight of the case by the Alameda County Water District and the San Francisco Bay RWQCB, this facility is not expected to have had an impact on the project site.

4. Environmental Records Review

- Mobil 10-GYP (Thornton) at 4088 Thornton Avenue, approximately 0.220-miles northeast of the project site, is listed because of a leak of gasoline reported on September 21, 1989. The case is currently listed as completed case closed as of February 3, 1998. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
    - Thornton Mobil is the same case as Mobil 10-GYP (Thornton). It is listed twice in the EDR report.
- Autobrite Car Wash at 37063 Fremont Boulevard, approximately 0.242-miles northeast of the project site, is listed because a tank was discovered leaking during a tank closure on September 2, 1998.
- Cabrillo Shell at 4695 Thornton Avenue, approximately 0.250-miles southwest of the project site, is listed because of a leak of gasoline reported on October 3, 1991. The case is currently listed as completed case closed as of March 16, 2017. Based on current regulatory status and downgradient location from the project site, this facility is not expected to have had an impact on the project site.
- Food & Liquor #5 at 4050 Alder Avenue, approximately 0.251-miles north of the project site, is listed because of a leak of gasoline reported on March 3, 1989. The case is currently listed as completed case closed as of January 14, 2002. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
- Unocal 4002 at 36979 Fremont Boulevard, approximately 0.252-miles north northeast of the project site, is listed because of a leak of gasoline reported on January 11, 1989. The case is currently listed as completed case closed as of October 3, 1995. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
- Chevron #9-7526 at 37011 Fremont Boulevard, approximately 0.258-miles northeast of the project site, is listed because of a leak of gasoline reported on October 6, 1992. The case is currently listed as completed case closed as of April 28, 1997. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
    - Chevron No. 7526 is the same case as Chevron #9-7526. It is listed twice in the EDR report.
- Arco FAC # 5369 at 36974 Fremont Boulevard, approximately 0.29-miles northeast of the project site, is listed because of a leak of gasoline reported March 21, 1985. The case is currently listed as completed case closed as of August 7, 2014. Based on current regulatory status, this facility is not expected to have had an impact on the project site.
    - Arco #05369 is the same case as Arco FAC # 5369. It is listed twice in the EDR report.

- Centerville Rents at 36660 Fremont Boulevard, approximately 0.295-miles north northeast of the project site, is listed because of a leak of gasoline reported October 20, 1992. The case is currently listed as completed case closed as of July 25, 1994. Based on current regulatory status, this facility is not expected to have had an impact on the project site.

- Discount Tire Center at 36656 Fremont Boulevard, approximately 0.297-miles north northeast of the project site, is listed because of a release of hydrocarbons at the site. The case is currently listed as completed case closed as of July 29, 1997. Based on current regulatory status, this facility is not expected to have had an impact on the project site.

- Santos Brothers at 37149 Fremont Boulevard, approximately 0.300-miles east of the project site, is listed because of a leak of gasoline, waste oil / motor / hydraulic / lubricating oil reported on October 17, 2001. The case is currently listed as completed case closed as of September 9, 2013. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Moran Oldsmobile, INC. at 4343 Peralta Boulevard, approximately 0.302-miles east southeast of the project site, is listed because of a leak of gasoline reported on September 9, 1995. The case is currently listed as completed case closed as of September 21, 1995. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Bridges Management at 37156 Fremont Boulevard, approximately 0.321-miles northeast of the project site, is listed because of a leak of gasoline reported on May 31, 1986. The case is currently listed as completed case closed as of April 22, 1994. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

    - King Arthur Toyota is the same case as Bridges Management. It is listed twice in the EDR report.

- Fremont Dodge at 3909 Thornton Avenue, approximately 0.335-miles north northeast of the project site, is listed because of a leak of gasoline reported on October 24, 1988. The case is currently listed as completed case closed as of June 27, 1996. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Center Square Cleaners at 37070 Fremont Boulevard, approximately 0.339-miles from the project site, is listed because the site is undergoing site assessment from potential contamination from a dry cleaner. The case is currently listed as open and undergoing site assessment as of July 1, 2010. Based on agency oversight from the Alameda County Water District and the San Francisco Bay RWQCB and overall distance from the project site, this facility is not expected to have had an impact on the project site.

4. Environmental Records Review

- Union Oil SS #5923 at 4200 Peralta Boulevard, approximately 0.339-miles east of the project site, is listed because of a leak of gasoline reported on March 31, 1987. The case is currently listed as completed case closed as of June 28, 1991. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Fremont Pontiac-Oldsmobile-GMC Truck at 4411 Peralta Boulevard, approximately 0.354-miles southeast of the project site, is listed because of a leak of gasoline reported on May 6, 1994. The case is currently listed as eligible for closure as of June 6, 2014. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Shuck's Transmission (Former Arco) at 37247 Fremont Boulevard, approximately 0.360-miles east of the project site, is listed because a tank was discovered leaking during a tank closure on December 2, 1996.

- Centerville Train Station at 37260 Fremont Boulevard, approximately 0.369-miles east of the project site, is listed because of a leak of waste oil/motor/hydraulic/lubricating oil reported on September 2, 1998. The case is currently listed as completed case closed as of July 22, 2008. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Shell (Former) at 37236 Fremont Boulevard, approximately 0.369-miles east of the project site, is listed because of a leak of gasoline reported on June 15, 1995. The case is currently listed as completed case closed as of September 5, 1995. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

    - Shell (Former)-37236 Fremont Boulevard is the same case as Shell (Former). It is listed twice in the EDR report.

- Fremont Mazda/VW at 4450 Peralta Avenue, approximately 0.382-miles southeast of the project site, is listed because of a leak of gasoline reported on July 10, 1990. The case is currently listed as completed case closed as of June 25, 1997. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Union Sanitary District at 37532 Dusterberry Way, approximately 0.402-miles east southeast of the project site, is listed because of a leak of a solvent or non-petroleum hydrocarbon reported on April 18, 1989. The case is currently listed as completed case closed as of April 30, 2001. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

    - Union Sanitary District Corp. Yard is the same case as Union Sanitary District. It is listed twice in the EDR.

- Felder Jennings Property at 37312 Fremont Boulevard, approximately 0.420-miles east of the project site, is listed because of a leak of diesel reported on February 2, 1994. The case is currently listed as completed case closed as of November 28, 1994. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- U-Haul at 4833 Thornton Avenue, approximately 0.438-miles south southwest of the project site, is listed because of a leak of gasoline reported on September 20, 1994. The case is currently listed as completed case closed as of April 20, 1995. Based on current regulatory status and downgradient location from the project site, this facility is not expected to have had an impact on the project site.

    - U-Haul (4833 Thornton) is the same case as U-Haul. It is listed twice in the EDR.

- AMMCO Transmissions at 3670 Thornton Avenue, approximately 0.442-miles northeast of the project site, is listed because of a leak of gasoline reported on October 16, 1990. The case is currently listed as completed case closed as of November 26, 1996. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- Sabraw Enterprises at 37555 Dusterberry Way, approximately 0.445-miles southeast of the project site, is listed because of a leak of gasoline reported on June 20, 1991. The case is currently listed as completed case closed as of March 28, 2012. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

- PG&E Fremont Service Center at 37465 Joseph Street, approximately 0.484-miles east of the project site, is listed because of a leak of gasoline reported on May 4, 1988. The case is currently listed as completed case closed as of January 10, 1996. Based on current regulatory status and overall distance from the project site, this facility is not expected to have had an impact on the project site.

    - PG&E Old Service Station is the same case as PG&E Fremont Service Center. It is listed twice in the EDR.

- Automotive and Autobody Service Center at 37169 Moraine Street, approximately 0.497-miles east northeast of the project site, is listed because of a leak of Chlorinated Hydrocarbons/Other Solvent or Non-Petroleum Hydrocarbon, Waste Oil/Motor/Hydraulic/Lubricating oil reported on April 8, 1993. The case is currently listed as completed case closed as of May 28, 1996. Based on current regulatory status and overall

distance from the project site, this facility is not expected to have had an impact on the project site.

- Automotive & Autobody SVC CTR is the same case as Automotive and Autobody Service Center. It is listed twice in the EDR.

4.1.14 State and Tribal Registered Underground Storage Tanks

The State Water Resources Control Board's Hazardous Substance Storage Container Database maintains a list of USTs regulated by the Resource Conservation and Recovery Act.

- The project site is not listed on the registered UST list.
- The database identified one registered UST facility within a quarter mile radius of the project site.
    - Oil Changers #618 at 4088 Thornton Avenue, approximately 0.220-miles north northeast of the project site, is an automotive repair facility with a used oil recycling system. According to the EPA Enforcement and Compliance History website (ECHO), the facility does not have a history of violations. The Facility ID is 110017952795.

4.1.15 State and Tribal Voluntary Cleanup Site

The DTSC maintains a list of 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.

- The project site is not listed on the state and tribal voluntary cleanup program.
- The database identified two state and tribal voluntary cleanup program sites within a half mile radius of the project site that are not expected to have impacted the site.
    - Alder Avenue is discussed in section 4.1.11.
    - Henry Miller is discussed in section 4.1.11.

4.1.16 HAZNET

HAZNET contains the data obtained from hazardous waste manifests received by the DTSC for lawful disposal of hazardous materials. A listing on the HAZNET database does not indicate that an environmental concern exists, only that a lawful disposal of materials has occurred.

- The project site is listed on the HAZNET database.
    - In 1996, the project site generated 0.0842 tons of asbestos containing waste. The waste is noted as being transported to a landfill for disposal. No violations are noted.

- In 2001, the project site generated 3.37 tons of asbestos containing waste. The waste is noted as being transported to a landfill for disposal. No violations are noted.
- In 2002, the project site generated 0.2 tons of an aqueous solution with less than 10% organic residue and 0.1251 tons of an unspecified solvent mixture. The waste is noted as being transported to a recycler and a transfer station, respectively. No violations are noted.
- In 2003, the project site generated 0.84 tons of asbestos containing waste. The waste is noted as being transported to a landfill for disposal. No violations are noted.

4.1.17 Orphan Sites

The EDR database identified one site that is indicated as being potentially in the area and was not mapped due to incomplete address information.

- Union Pacific Railroad Train Derailment at Upper Alameda Creek Overpass. This site is located over 2.5-miles northeast of the project site.

Based on a review of the orphan site location the project site is not expected to have been impacted.

4.2 ADDITIONAL ENVIRONMENTAL RECORDS REVIEW

In conformance with ASTM inquiry was made with the additional agencies described below.

4.2.1 Local Brownfield Lists

The DTSC's Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. There were no brownfield sites identified on the EnviroStor database in the radius searched for the site.

4.2.2 Local Lists of Hazardous Waste Contaminated Sites

A record search was done on the following databases: Clandestine Drug Labs, HIST Cal-Sites Historical CalSites Database, Toxic Pits Cleanup Act Sites, School Property Evaluation Program records, US Historical Clandestine Laboratory Register, and CERS HAZ Waste records were searched.

- The project site was not identified on the above databases.
- The database identified two CERS HAZ Waste facilities within a half-mile radius of the project site.
  - Oil Changer #618 at 4088 Thornton Avenue, approximately 0.220-miles northeast of the project site, has two violations on record with the Fremont City Fire Department. On May 15, 2013 Oil Changer was cited for failure to include an adequate training program, they returned to compliance on July 30, 2013. On May 5, 2016 Oil Changer was cited for failure to properly handle, manage, label, and recycle used oil and fuel filters, they returned to

compliance on May 19, 2016. As noted in section 4.1.14, Oil Changer has no known releases of hazardous waste and is in compliance with the EPA according to the EPA ECHO website.

- Midas Auto Service at 4045 Thornton Avenue, approximately 0.229-miles northeast of the project site, has six violations on record with the Fremont City Fire Department. On February 22, 2013 Midas Auto Service was cited for failure to train employees on handling hazardous waste, failure to properly manage, store, and label a damaged lead acid battery, failure to maintain uniform hazardous waste manifest, and failure to properly label hazardous waste accumulation containers. They returned to compliance on April 10, 2013. On April 26, 2016 Midas Auto Service was cited for failure to inspect hazardous waste storage at least weekly and failure to properly label hazardous waste accumulation containers. They returned to compliance on April 26, 2016. Midas Auto Service has no known releases of hazardous waste and is in compliance with the EPA according to the EPA ECHO website.

4.2.3 Local Lists of Registered Storage Tanks

A record search was done of the local lists of registered storage tanks. Twelve registered UST facilities were identified with 0.25 miles of the project site.

- Gasco Service Station #783 at 4390 Thornton Avenue, approximately 0.025-miles east of the project site, has four registered underground storage tanks. Two tanks contain unleaded regular gasoline, one tank is for premium, and the fourth tank is for waste oil.
    - This facility is listed three times in the EDR.
- Quik Stop #43 at 4342 Thornton Avenue, approximately 0.028-miles east of the project site, has two registered underground storage tanks. One is for regular unleaded gasoline and the other is for premium.
    - This facility is listed twice in the EDR.
- Fremont Post Office at 37010 Dusterberry Way, approximately 0.091-miles east southeast of the project site, has one underground storage tank for regular unleaded gasoline.
    - This facility is listed twice in the EDR.
- J G Dutra & Sons at 4568 Thornton Avenue, approximately 0.167-miles south of the project site, has one underground storage tank for leaded motor vehicle fuel.
- Oil Changer #618 at 4088 Thornton Avenue, approximately 0.220-miles north northeast of the project site, has two tanks listed. One is for chemical storage and the other is for Aboveground Petroleum Storage.

- Thornton Mobil at 4088 Thornton Avenue, approximately 0.220-miles northeast of the project site, has five underground storage tanks. One tank is for waste oil, one tank is for premium gasoline, two tanks are for unleaded gasoline, and one tank is for unleaded gasoline.
    - This facility is listed twice in the EDR.
- Autobrite Car Wash Systems at 37063 Fremont Boulevard, approximately 0.242-miles northeast of the project site, has three underground storage tanks. Two tanks are for unleaded gasoline and the third tank is for diesel fuel.

4.2.4 High Risk Historical Records

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, and dry cleaners. There are two historical facilities identified.

- Super Cleaners at 4366 Thornton Avenue, approximately 0.025-miles east of the project site is listed as having been a drycleaner from 1998 to 2010 and from 2011 to 2014 they were a building and office cleaning service. They are now a cleaners and alternation shop with no violations.
- Wise Auto Repair at 4390 Thornton Avenue, approximately 0.025-miles east of the project site is listed as having been a gasoline service station in the year 1975, from 1978 to 1979 they were an auto and home supply store, and from 1980 to 1985 they were a general automotive repair shop.

4.2.5 State of California Division of Oil and Gas Records

A review of California Division of Oil and Geothermal Resources (DOGGR) Well Finder indicates that there are no oil wells or oil fields within the property boundary of the project site. The closest oil well is over 3.5 miles southeast of the project site. The well is identified as a plugged and abandoned well that was advanced by R. Y. Hanlon.

4.2.6 Vapor Migration

The ASTM 1527-13 standard states that "for the purposes of this practice, "migrate" and "migration" refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface". Thus, this section specifies whether or not we perceive a risk of vapor migration to the project site.

To assess vapor migration risk, a review and analysis of the site-specific environmental database report and other reasonably ascertainable records was implemented to assess whether:

1. Off-site properties have documented chlorinated volatile organic compound (VOC) contamination located within 100 feet of the project property, or

2. Off-site properties have documented volatile petroleum hydrocarbon contamination within 30 feet of the project property.

Based on the records review, it is unlikely that a potential source of vapor migration currently exists beneath the site from off-site properties. No chlorinated VOC contamination was identified, and underground storage tanks were not identified adjacent or within 100 feet of the project site.

4.2.7 User-Provided Information

The ASTM Standard requires disclosure in the Phase I report whether the user of the report has specialized knowledge about previous ownership or uses of the property that may be material to identifying RECs or HRECs, or whether the user has determined that the property's Title contains environmental liens or other information related to environmental condition of the property, including engineering and institutional controls and Activity and Use Limitations, as defined by ASTM. In addition, we are required by the ASTM Standard to inquire whether the user of the report has prior knowledge that the price of the property has been reduced for environmentally-related reasons.

PlaceWorks was informed by the user that to their knowledge there are no liens or other information about the environmental condition of the property in the Title. In addition, the user was not aware of specialized knowledge about previous ownership or uses of the property that may be material to identifying RECs with the exception of the information provided above and has not indicated that the price of the property has been reduced for environmentally-related reasons.

5. Site Reconnaissance and Key Personnel Interview(s)

A site visit to observe site conditions was conducted by PlaceWorks on March 18, 2019. No weather-related conditions or other conditions that would limit our ability to observe the site occurred during our site reconnaissance. PlaceWorks personnel observed the exterior portions of the property, including the property boundaries. Site photographs are included in Appendix C.

ASTM requires that the current site owner or Key Site Manager and user, if different from the current owner or Key Site Manager, be asked if there are any helpful documents or information that can be made available for review. These consist of environmental site assessment reports, audits, permits, tank registrations, Material Safety Data Sheets, Community Right-to-Know plans, safety plans, hydrogeologic or geotechnical reports, or hazardous waste generator reports.

5.1 CURRENT USE OF THE PROPERTY

The site is current developed with the Thornton Junior High School campus. Classrooms buildings are located on the southeast side of the site near Thornton Avenue and playfields are located on the northwestern area of the site.

5.2 SITE VISIT OBSERVATIONS

5.2.1 General Description of Structures

The school was built in 1963 with nine single-story permanent, wood frame buildings. Modular buildings were added from 1990 to 2004 on the northern and eastern areas of the site. The buildings are well maintained by the District.

5.2.2 Heating and Cooling System

The onsite buildings have central heating and air conditioning.

5.2.3 Potable Water Supply and Sewage Disposal System or Septic Systems

Potable water is supplied by the City of Fremont. Sewage disposal systems are also provided by the City of Fremont.

5.2.4 Use of Petroleum Products and Hazardous Materials

Use of hazardous materials and petroleum products was not observed at the project site.

5.2.5 Storage of Petroleum Products and Hazardous Materials (Storage Tanks, Drums)

No storage of petroleum products or hazardous materials was observed at the project site.

5.2.6 Disposal of Petroleum Products and Hazardous Materials

No evidence of disposal of petroleum products or hazardous materials was observed at the project site.

5.2.7 Vehicle Maintenance Lifts

No vehicle maintenance lifts were observed at the project site.

5.2.8 Emergency Generators

Emergency generators were not observed at the project site. The District indicated that they do not have any emergency generators.

5.2.9 Polychlorinated Biphenyls (PCBs) Associated with Electrical or Hydraulic Equipment

Electrical equipment was labeled as not having PCBs. Four pad-mounted transformers were observed on the school site. In the areas of new construction there are no transformers. Based on the age of the structures and lack of staining or leaking near the transformers; PCBs are not expected to have impacted the existing school site.

5.2.10 Floor Drain and Sumps

No outdoor sumps were observed at the project site.

5.2.11 Catch Basins

No catch basins were observed at the project site.

5.2.12 Dry Wells

No dry wells were observed at the project site.

5.2.13 Pits, Ponds, Lagoons, and Pools of Liquid

No pits, ponds, lagoons, or pools of liquid were observed at the project site.

5.2.14 Odors

Petroleum hydrocarbon odors were not noted at the project site.

5.2.15 Stains or Corrosion on Floors, Walls, or Ceilings

No unusual staining or corrosion was observed on the project site.

5.2.16 Stained Soil or Pavement

No stained soil or pavement was observed at the project site. Rust stains were noted a few locations.

5.2.17 Stressed Vegetation

No stressed vegetation was observed at the project site.

5.2.18 Solid Waste and Evidence of Waste Filling

No solid waste disposal or evidence of waste filling was observed on the project site.

5.2.19 Wastewater and Stormwater Discharge

No wastewater discharge was observed on the project site. Stormwater is expected to exit the project site via overland flow to local roadways and creeks.

5.2.20 Monitoring, Water Supply, or Irrigation Wells

No monitoring, water supply or irrigation wells were observed at the project site.

5.2.21 Non-Scope Considerations

One railroad track easement is located approximately 1,420 feet southeast of the school site.

5.2.22 Adjacent Property Inspection

Adjacent property inspections consisted of observing the properties from the public right of ways. The properties to the north ,west and south are residential properties with no ASTs, USTs, or storage of hazardous material observed. The property to the east across Thornton Avenue consists of a strip mall, restaurants, church and post office. The strip mall has a dry cleaners and alteration shop with no violations or known leaks or spills.

5.3 INTERVIEWS

A questionnaire was completed by John Chwastyk, Facilities Manager of Fremont Unified School District, on March 08, 2019. Mr. Chwastyk was not aware of any leaks, spills or discharges of hazardous materials to the project site. He was not aware of any environmental cleanup liens against the properties nor was he aware of any land use limitations due to environmental issues. He was also not aware of any environmental cleanups, spills, or chemical releases that may have occurred on the project site. The questionnaire is included in Appendix D.

5. Site Reconnaissance and Key Personnel Interview(s)

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6. Data Gap Identification

Adjacent land owners were not interviewed for this Phase I Environmental Site Assessment. Chain-of-title documentation was not reviewed so it could not be ascertained if the complete title report contains environmental liens or other information related to environmental condition of the property. However, the database search contained in Appendix B indicates that the site is not on the Recorded Environmental Cleanup Liens database which is maintained by the DTSC and contains a listing of liens placed upon real properties. The site is also not listed on the DTSC's Deed Restriction database which lists sites with DTSC with restricted land use. The site is not listed on NPL Liens, a database the EPA maintains on real property, in order to recover remedial action expenditures when the property owner has received notification of potential liability.

6. Data Gap Identification

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7. Findings and Conclusions

School District (District) for the proposed conversion of Thornton Junior High School in the City of Fremont, Alameda County, California (Figures 1 and 2). The Phase I was performed in general conformance with the scope and limitations of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the United States Environmental Protection Agency's (USEPA) 2006 All Appropriate Inquiry (AAI) Rule (40 CFR Part 312). Exceptions to, or deletions from, this practice are described in Section 1 of this report. Our conclusions are intended to help the user evaluate the "environmental risk" associated with the site, as defined in the ASTM E 1527-13 Standard and discussed in the Introduction section of this report.

The Thornton School conversion project would involve construction of new buildings, reconfiguration and modernization of existing buildings, development of new parking and vehicular circulation areas, various campus site upgrades and campus-wide technology upgrades within the existing, 18-acre footprint of the Thornton Junior High School campus. The project is intended to convert the currently 7th and 8th grade junior high school to a middle school with 6th, 7th, and 8th grades. The project would increase the capacity of the school facilities from of 1,259 students to 2,176 students. The 18-acre existing school site is identified with the Assessor's Parcel Number [APN] 501-0221-085-02 and is associated with the address 4357 Thornton Avenue, within a mixed area of residential and commercial property. Regional access to the proposed project site is provided by Thornton Avenue, which is designated as State Route 84 (CA-84), located to the southeast. Figure 2 shows the surrounding setting and Figure 3 the current conditions of site.

The objective of a Phase I is to assess whether "recognized environmental conditions" (REC), historical RECs (HREC), and controlled RECs (CREC) are associated with the project site. Our conclusions are intended to help the user evaluate the "business environmental risk" associated with the project site. Our opinion regarding an REC's potential impact on the project site is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, and our experience evaluating similar sites.

RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs)

The ASTM E 1527-13 Standard defines an REC in part as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

Historical use of the project site was agriculture prior to the construction of the school in 1963 is an REC. From at least 1939 to 1963 the school site was an orchard and during the early 1960s prior to the construction of the school there was a combination of row crops and an orchard.

8. Credentials

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECs)

The ASTM E 1527-13 Standard defines an HREC as "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 (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

No HREC were identified for the site.

CONTROLLED RECS ENVIRONMENTAL CONDITIONS

The Standard also requires the identification of controlled RECs (CRECs). The ASTM Standard defines CRECs as

"a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

This assessment has revealed no evidence of CRECs in connection with the project site following the ASTM standard.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL PROTOCOL

Based on a review of historical information and a site visit; there have been structures present at the project since at least 1899 and the school has been on the site since the 1960s. Due to the age of former structures and current structures, the DTSC would require testing to assess for potential impacts to soil from lead-based paint and organochlorine pesticides from possible termiticide usage. PlaceWorks recommends soil testing to assess these issues be implemented in the PEA that is recommended due to historic agricultural usage. Soil testing should be implemented following DTSC's Interim Guidance for Evaluating School Sites with Potential Soil Contamination as a result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers dated June 2006.

SUMMARY

Based on the results of this assessment a REC and DTSC conditions for school sites were identified for the project site. Because a REC was identified a Preliminary Environmental Assessment is recommended for the areas of the existing school site that will be eligible for state funding for new construction. CRECs and HRECs were not identified for the project site.

8. Credentials

PlaceWorks has performed a Phase I Environmental Site Assessment of the project site located at 4357 Thornton Avenue in Fremont, California. By signing below PlaceWorks declares to the best of our professional knowledge and belief, that the undersigned meets the definition of Environmental Professional as defined in the ASTM Standard. The undersigned has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the project property. The undersigned has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Qualifications information for the project personnel is provided in Appendix E.

Denise Clendening

Denise Clendening, Ph.D.
Associate Principal

8. Credentials

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9. References

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Figures

Figures

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Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Figure 1

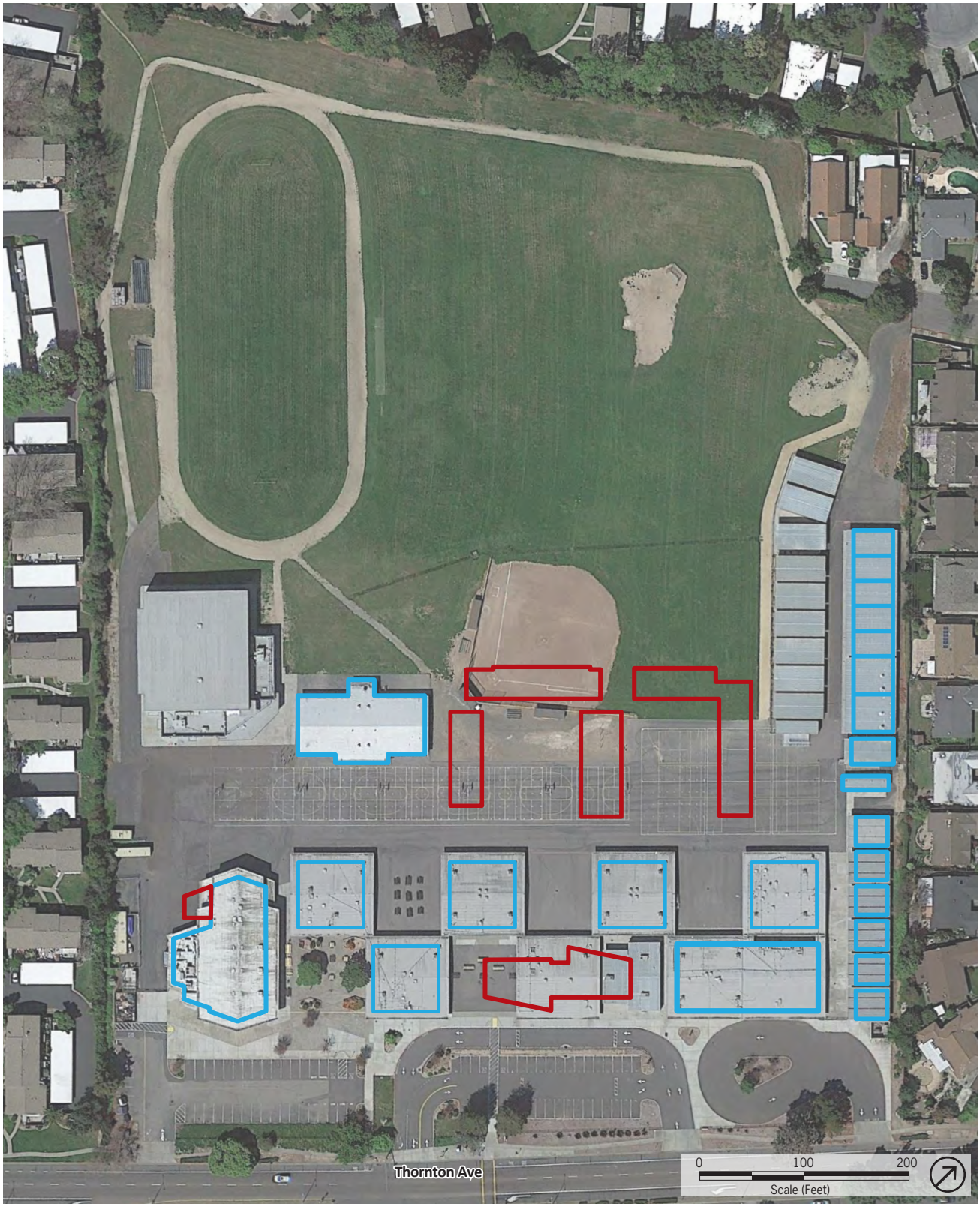
Local Vicinity



Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Figure 2
Surrounding Setting



Source: Quattrocchi Kwok Architects, 2019. PlaceWorks, 2019.

New Construction

Modernized/Updated

Figure 3

Overlay of Site Plan on Aerial Photograph

Appendix A. Research Documentation

Appendix

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Thornton Junior High School Expansion

4357 Thornton Avenue

Fremont, CA 94536

Inquiry Number: 5584380.8

March 08, 2019

The EDR Aerial Photo Decade Package

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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/08/19

Site Name:

Thornton Junior High School E
4357 Thornton Avenue
Fremont, CA 94536
EDR Inquiry # 5584380.8

Client Name:

PlaceWorks
3 MacArthur Place Suite 1100
Santa Ana, CA 92707
Contact: Denise Clendening

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Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: August 27, 1998	USDA
1993	1"=500'	Acquisition Date: July 10, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1974	1"=500'	Flight Date: October 14, 1974	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: July 08, 1963	EDR Proprietary Aerial Viewpoint
1958	1"=500'	Flight Date: July 21, 1958	USGS
1948	1"=500'	Flight Date: September 26, 1948	USDA
1946	1"=500'	Flight Date: July 29, 1946	USGS
1939	1"=500'	Flight Date: July 26, 1939	USDA

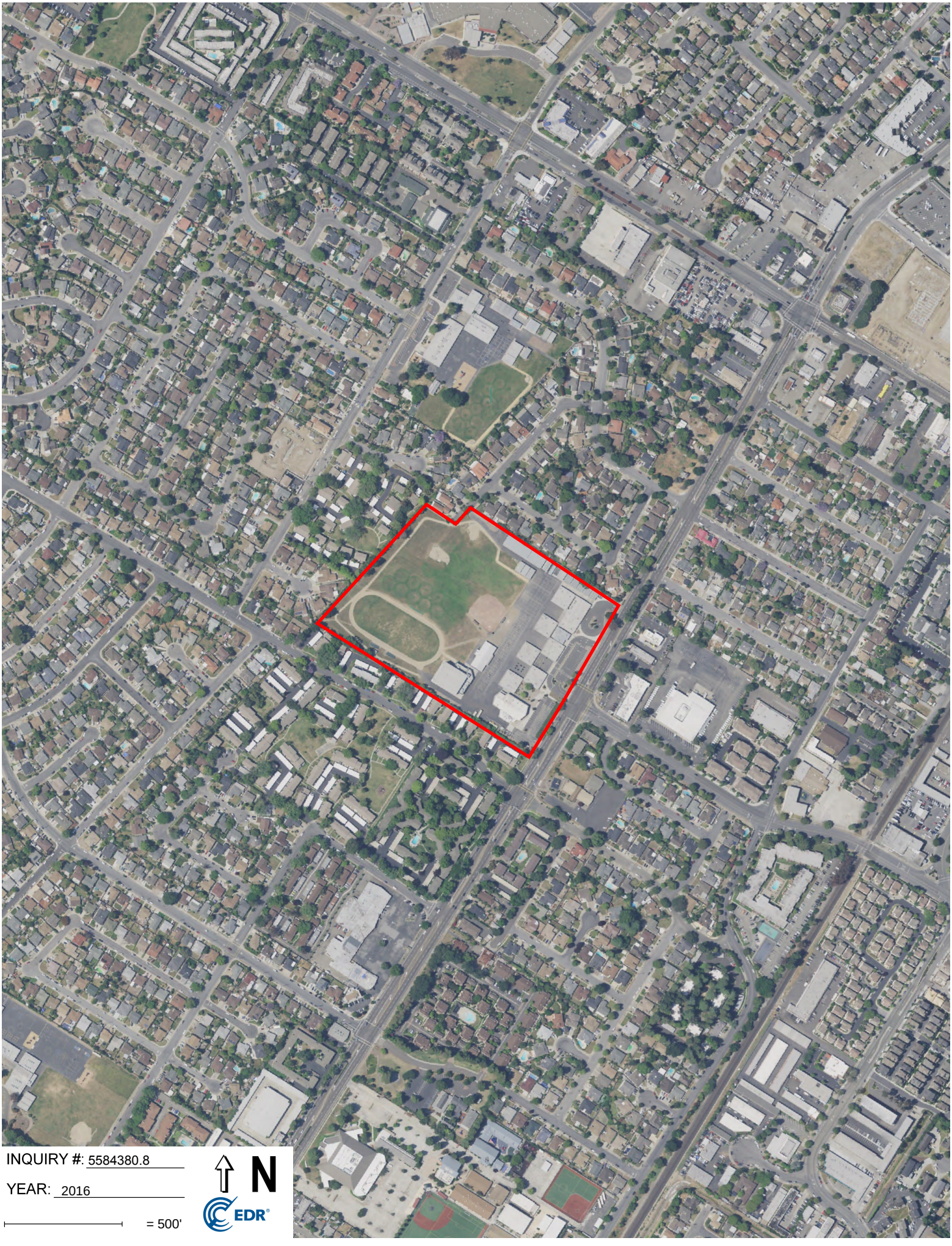
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INQUIRY #: 5584380.8
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 5584380.8
YEAR: 2012
= 500'
N
EDR



INQUIRY #: 5584380.8

YEAR: 2009

= 500'

N

EDR


INQUIRY #: 5584380.8
YEAR: 2006
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EDR



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YEAR: 1998

= 500'

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EDR


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EDR



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= 500'
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EDR

Thornton Junior High School Expansion

4357 Thornton Avenue

Fremont, CA 94536

Inquiry Number: 5584380.4

March 08, 2019

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/08/19

Site Name:	Client Name:
Thornton Junior High School E	PlaceWorks
4357 Thornton Avenue	3 MacArthur Place Suite 1100
Fremont, CA 94536	Santa Ana, CA 92707
EDR Inquiry # 5584380.4	Contact: Denise Clendening

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by PlaceWorks were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		*Coordinates:*	
P.O.#	FREM-01.0	**Latitude:**	37.557038 37° 33' 25" North
Project:	Thornton Junior High School	**Longitude:**	-122.016694 -122° 1' 0" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	586849.44
		UTM Y Meters:	4157123.61
		Elevation:	47.00' above sea level

Maps Provided:

2012	1947
1997	1915
1996	1899
1980	
1973	
1968	
1959, 1961	
1948	

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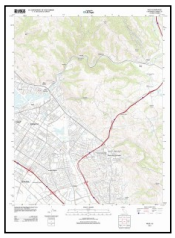
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Topo Sheet Key

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2012 Source Sheets

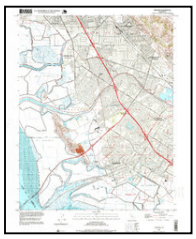


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2012
7.5-minute, 24000



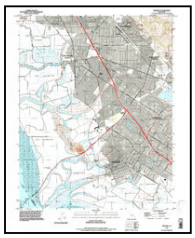
Newark
2012
7.5-minute, 24000

1997 Source Sheets



Newark
1997
7.5-minute, 24000
Aerial Photo Revised 1997

1996 Source Sheets



Newark
1996
7.5-minute, 24000
Aerial Photo Revised 1993

1980 Source Sheets



Newark
1980
7.5-minute, 24000
Aerial Photo Revised 1979



Niles
1980
7.5-minute, 24000
Aerial Photo Revised 1978

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1973 Source Sheets

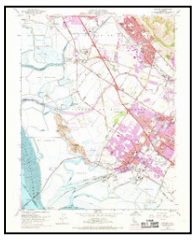


Newark
1973
7.5-minute, 24000
Aerial Photo Revised 1973

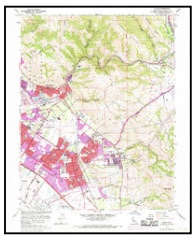


Niles
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets

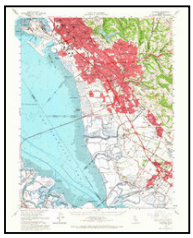


Newark
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Niles
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1959, 1961 Source Sheets



Hayward
1959
15-minute, 62500
Aerial Photo Revised 1958



Livermore
1961
15-minute, 62500

1948 Source Sheets

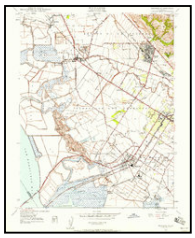


Newark
1948
7.5-minute, 24000
Aerial Photo Revised 1946

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets



Newark
1947
7.5-minute, 24000
Aerial Photo Revised 1946

1915 Source Sheets



Haywards
1915
15-minute, 62500



Hayward
1915
15-minute, 62500

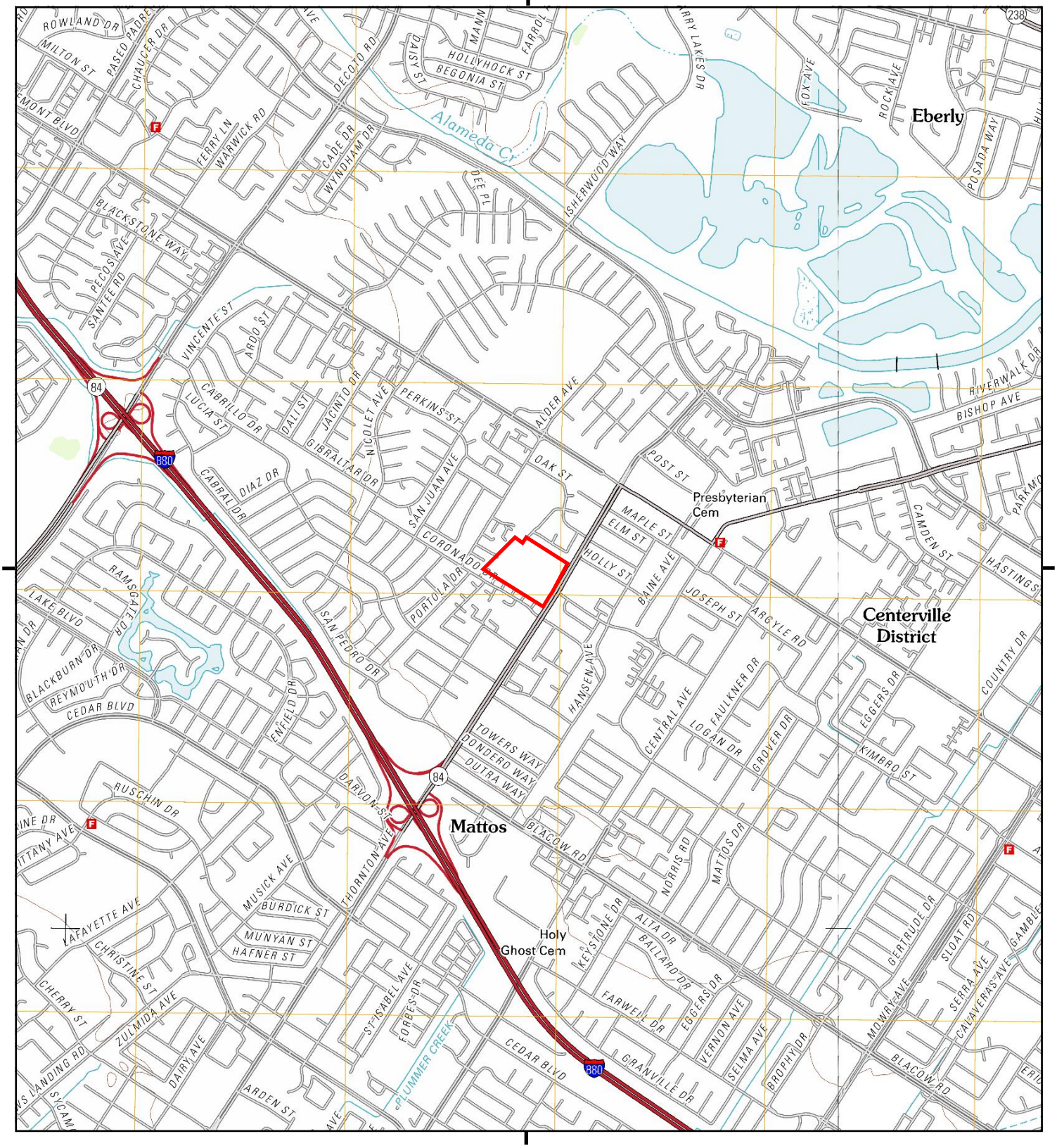
1899 Source Sheets



Haywards
1899
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

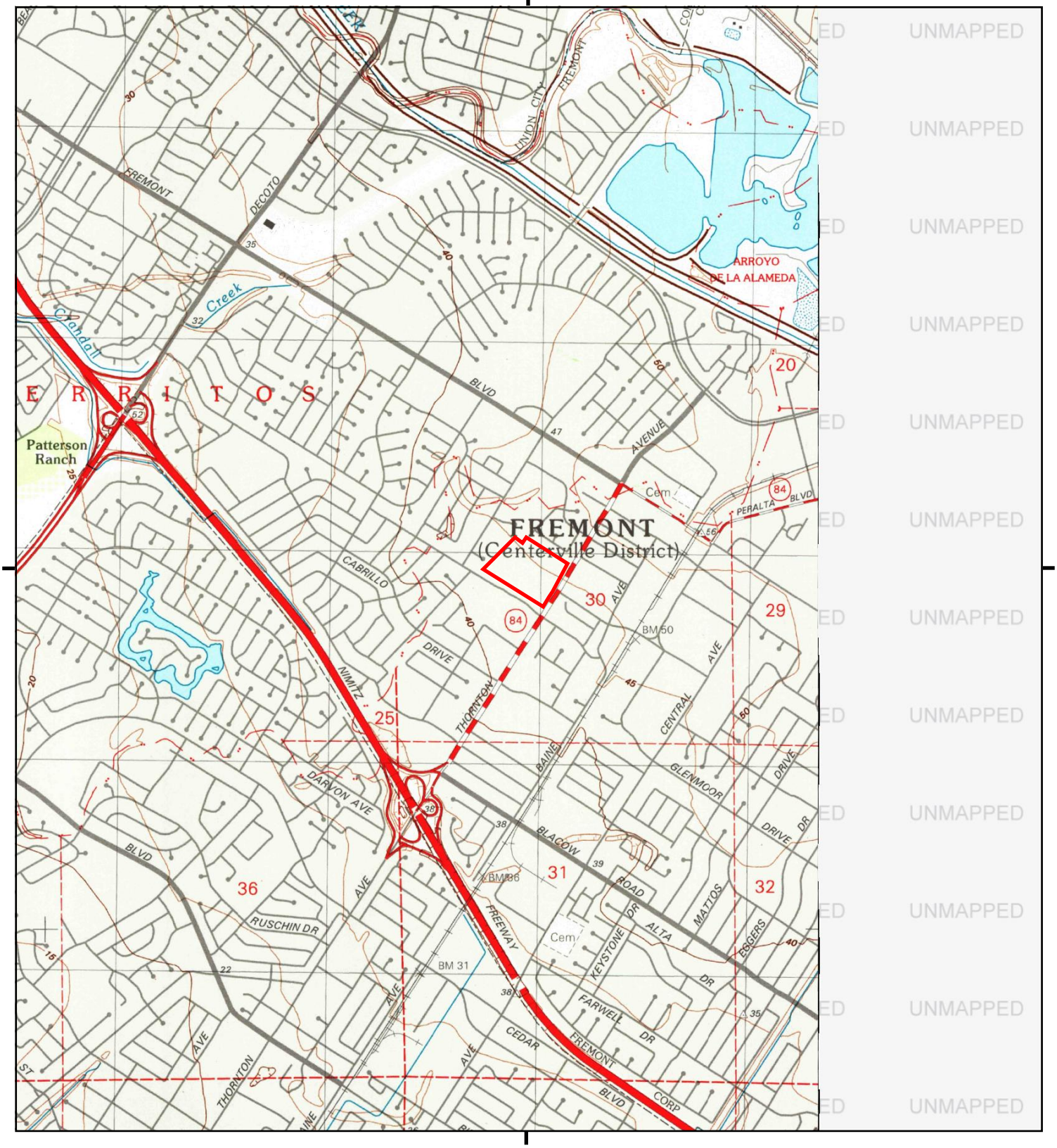
TP, Newark, 2012, 7.5-minute
E, Niles, 2012, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N

Historical Topo Map

1997



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

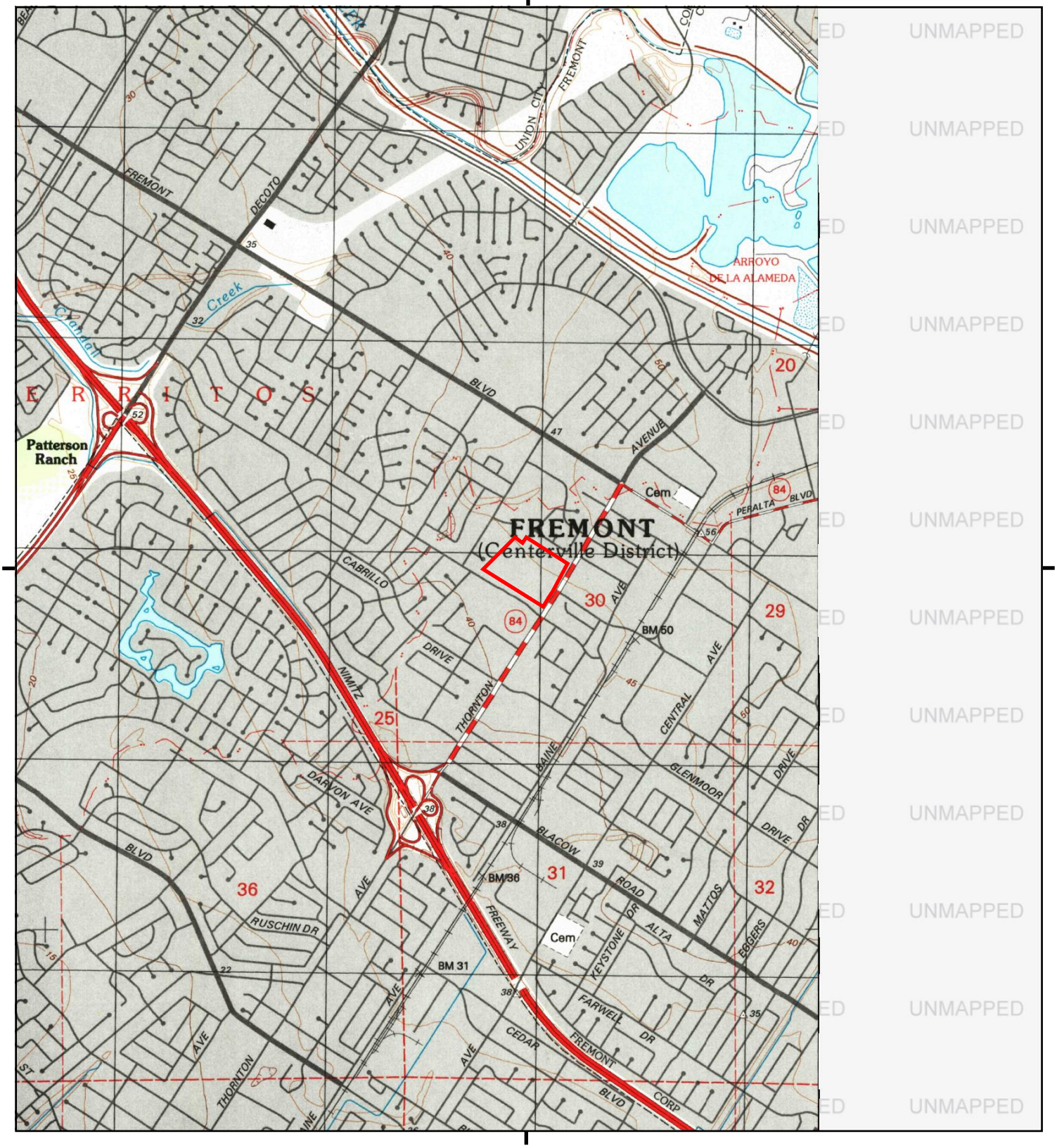
TP, Newark, 1997, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N

Historical Topo Map

1996



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

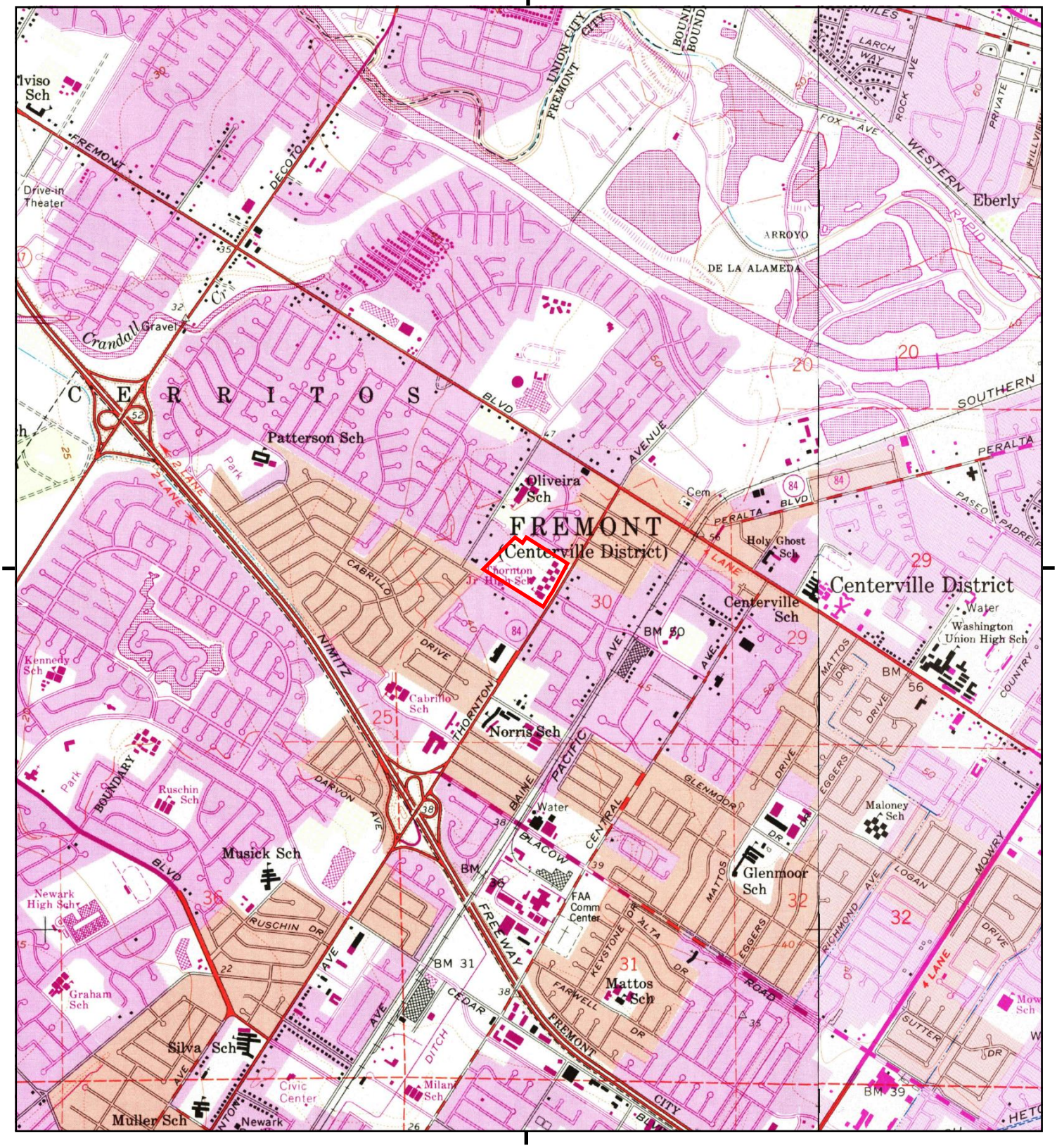
TP, Newark, 1996, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N

Historical Topo Map

1980



This report includes information from the following map sheet(s).

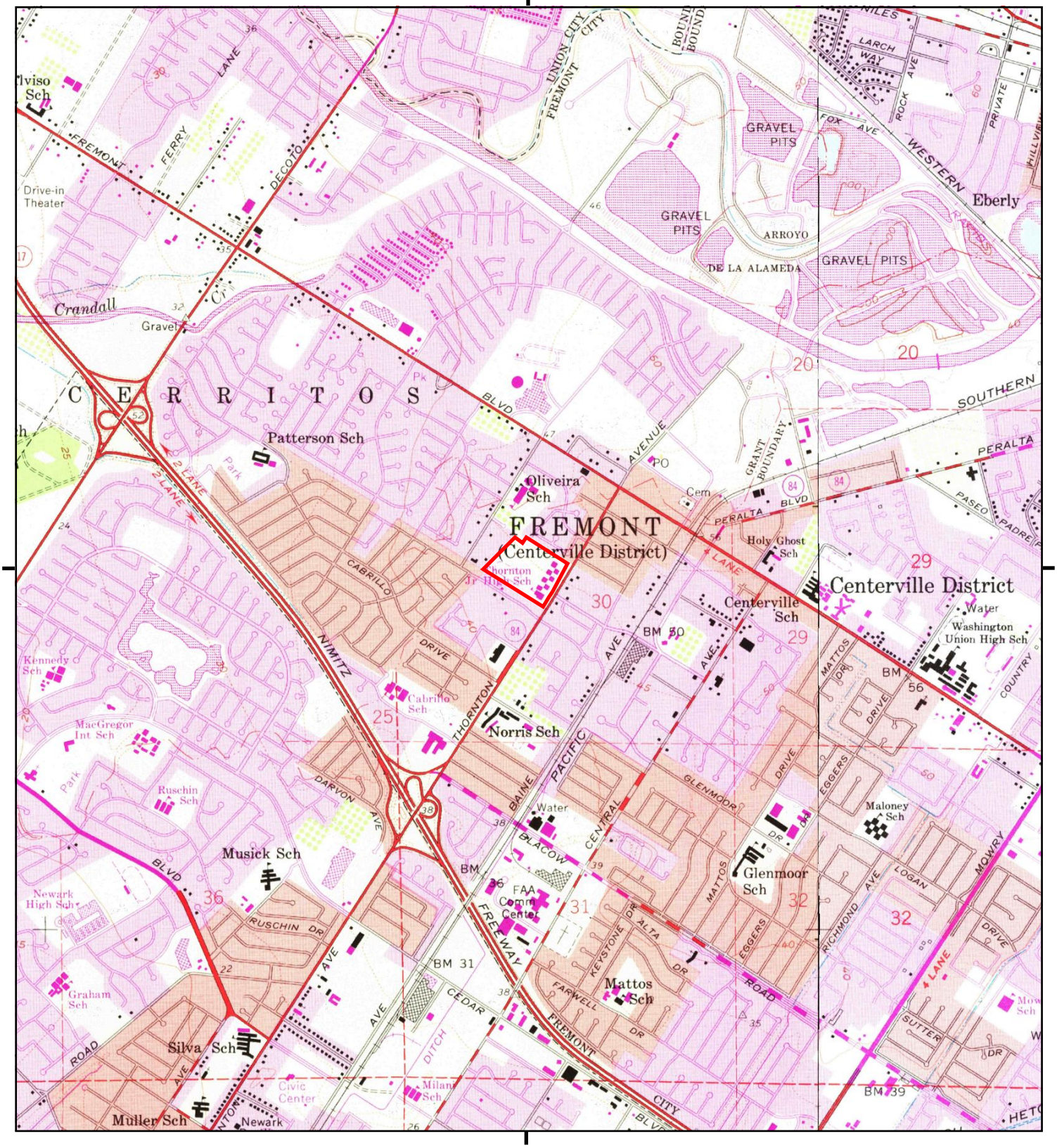
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Newark, 1980, 7.5-minute
E, Niles, 1980, 7.5-minute

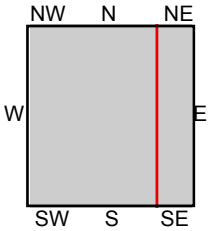
SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N



This report includes information from the following map sheet(s).

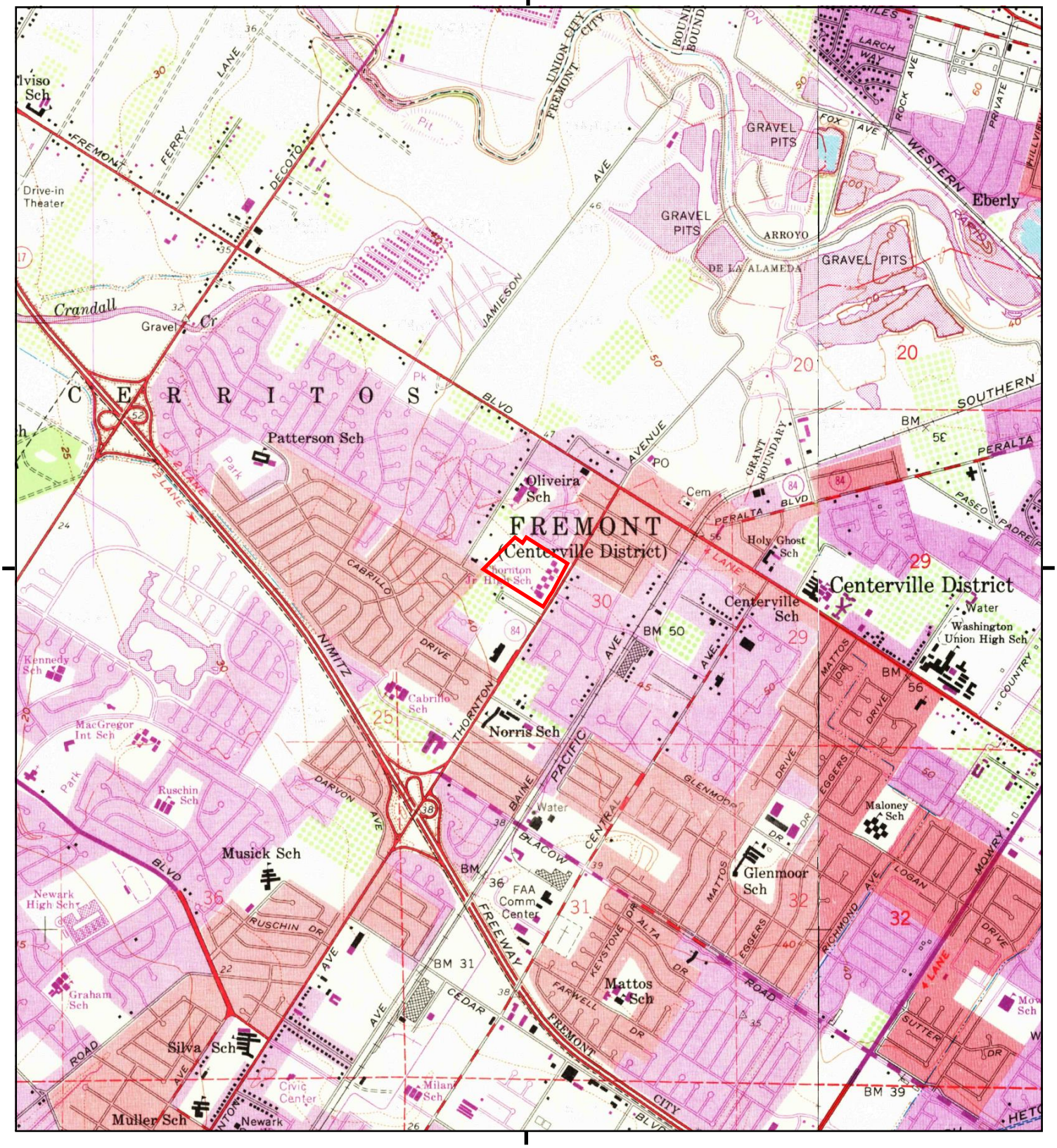
0 Miles 0.25 0.5 1 1.5



TP, Newark, 1973, 7.5-minute
E, Niles, 1973, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

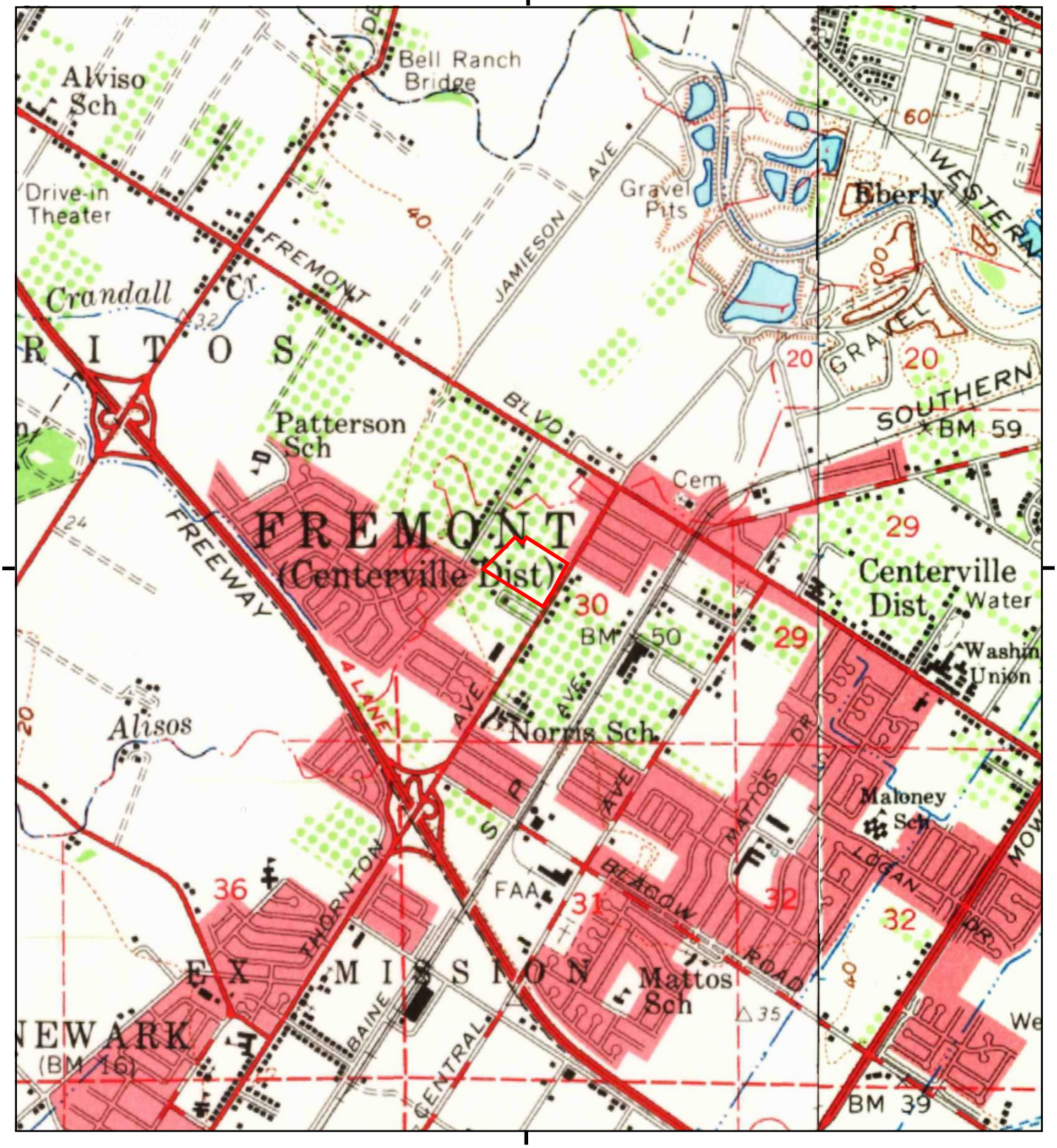
TP, Newark, 1968, 7.5-minute
E, Niles, 1968, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N

Historical Topo Map

1959, 1961



This report includes information from the following map sheet(s).

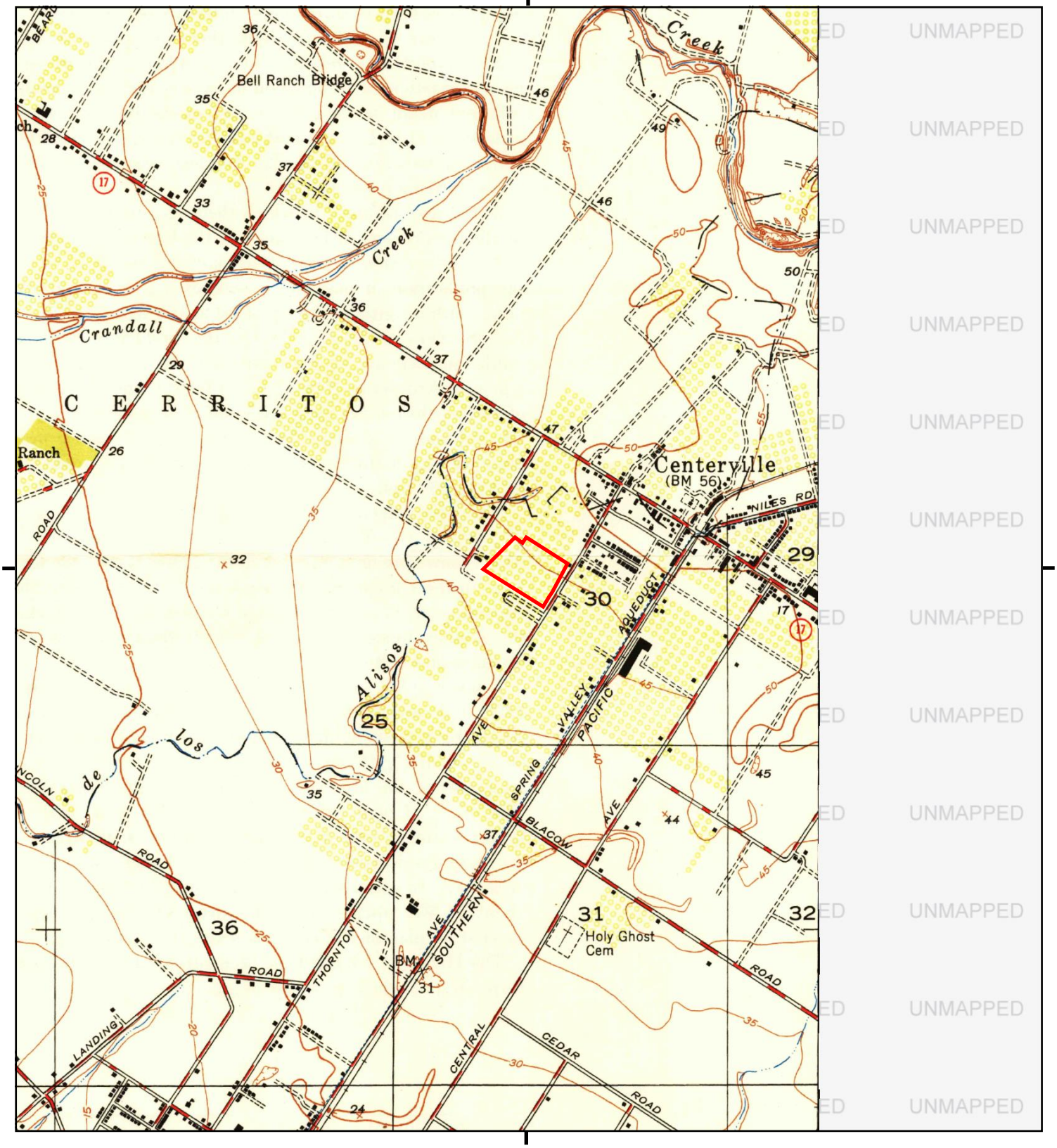
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Hayward, 1959, 15-minute
NE, Livermore, 1961, 15-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

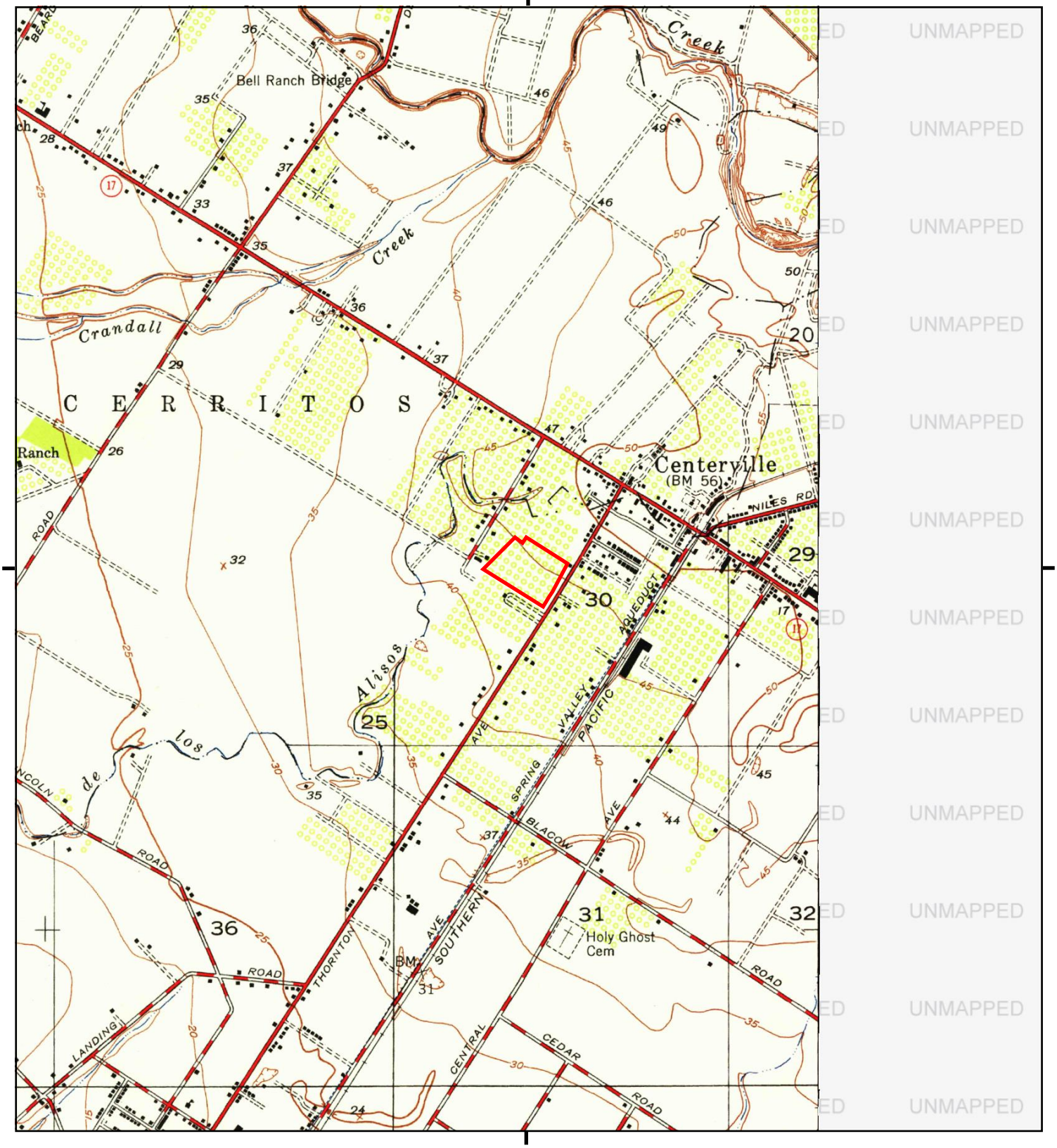
TP, Newark, 1948, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

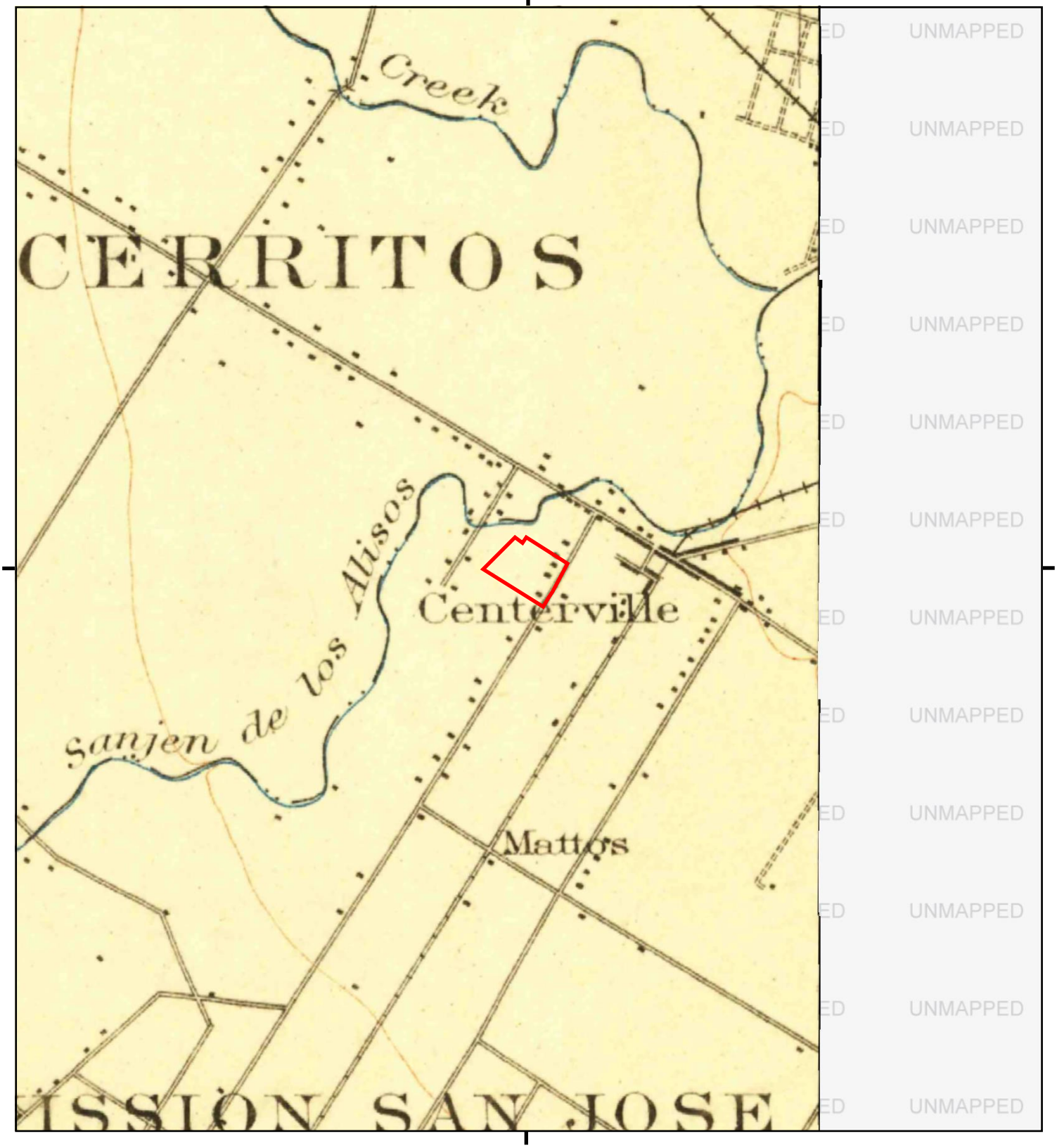
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Newark, 1947, 7.5-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N



This report includes information from the following map sheet(s).

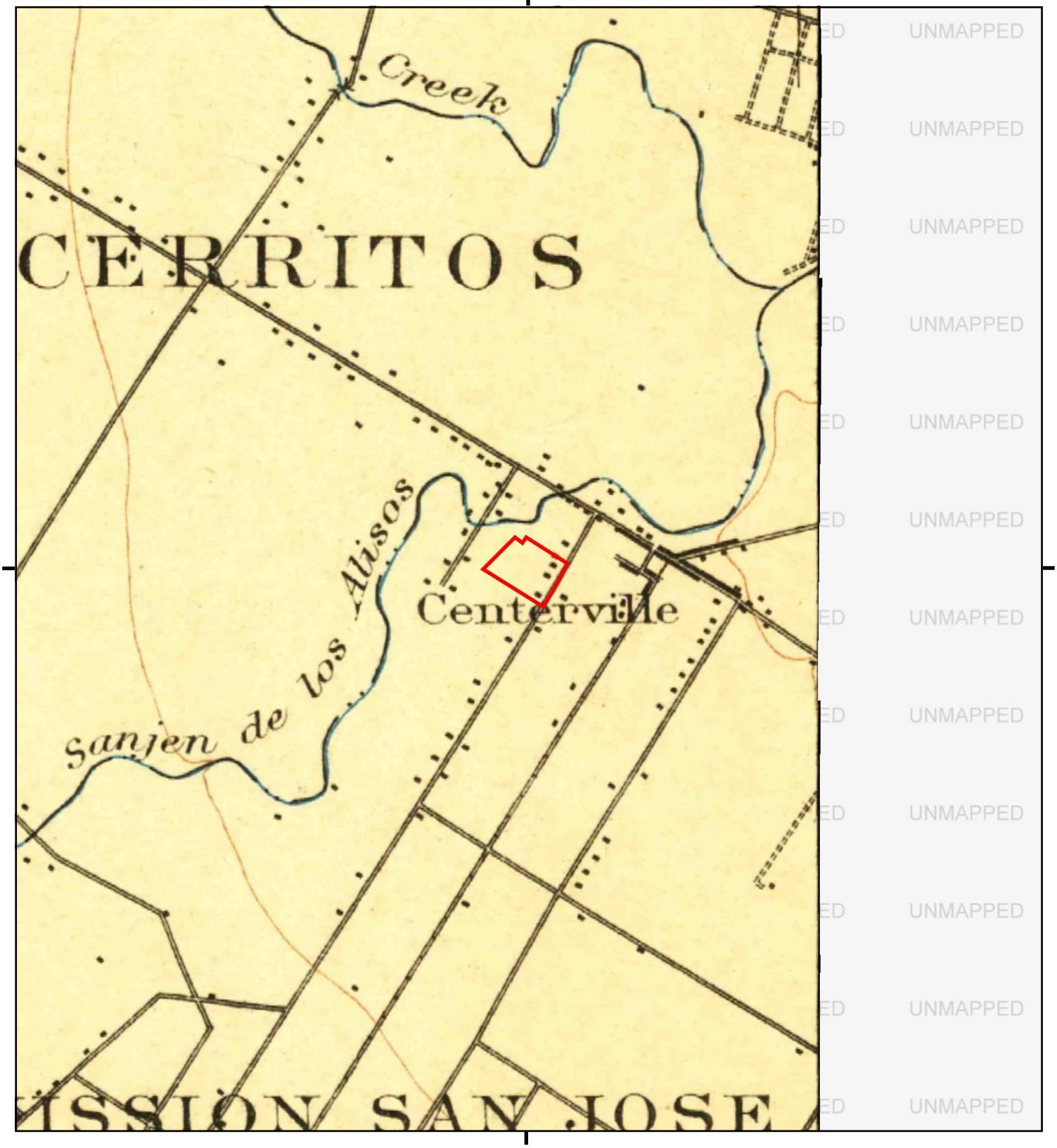
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Haywards, 1915, 15-minute
TP, Hayward, 1915, 15-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Haywards, 1899, 15-minute

SITE NAME: Thornton Junior High School Expansion
ADDRESS: 4357 Thornton Avenue
Fremont, CA 94536
CLIENT: PlaceWorks

N

Thornton Junior High School Expansion

4357 Thornton Avenue

Fremont, CA 94536

Inquiry Number: 5584380.3

March 08, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/08/19

Site Name:

Thornton Junior High School E:
4357 Thornton Avenue
Fremont, CA 94536
EDR Inquiry # 5584380.3

Client Name:

PlaceWorks
3 MacArthur Place Suite 1100
Santa Ana, CA 92707
Contact: Denise Clendening

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by PlaceWorks 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.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 116E-47EB-9F5B

PO # FREM-01.0

Project Thornton Junior High School

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: 116E-47EB-9F5B

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Thornton Junior High School Expansion
4357 Thornton Avenue
Fremont, CA 94536

Inquiry Number: 5584380.5
March 08, 2019

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract 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 Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

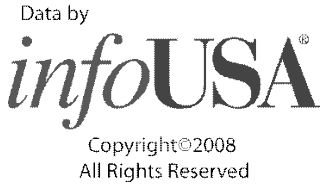
Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2014. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2014	EDR Digital Archive	X	X	X	-
2010	EDR Digital Archive	X	X	X	-
2006	Haines Company, Inc.	-	-	-	-
2002	Haines & Company	-	X	X	-
	Haines & Company	X	X	X	-
	R. L. Polk & Co.	-	X	X	-
	R. L. Polk & Co.	X	X	X	-
2000	Pacific Bell	-	-	-	-
1996	PACIFIC BELL DIRECTORY	-	-	-	-
1993	Pacific Bell	-	-	-	-
1992	PACIFIC BELL DIRECTORY	-	X	X	-
1991	PACIFIC BELL WHITE PAGES	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1986	Pacific Bell	-	-	-	-
1984	Pacific Bell	-	-	-	-
1982	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1980	Pacific Telephone	-	-	-	-
1979	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1976	R. L. Polk & Co.	-	X	X	-
	R. L. Polk & Co.	X	X	X	-
1975	Pacific Telephone	-	-	-	-
1973	Pacific Telephone	-	X	X	-
1970	Pacific Telephone and Telegraph Co	-	X	X	-
	Pacific Telephone and Telegraph Co	X	X	X	-
1967	R. L. Polk Co.	-	-	-	-
1965	R. L. Polk & Co.	-	X	X	-
	R. L. Polk & Co.	X	X	X	-
1962	Pacific Telephone	-	-	-	-
1960	Pacific Telephone	-	X	X	-
1959	R. L. Polk & Co.	-	-	-	-
1956	Pacific Telephone	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co. of California	-	-	-	-
1951	R. L. Polk & Co.	-	-	-	-
1950	The Pacific Telephone & Telegraph Co.	-	-	-	-
1946	R. L. Polk & Co.	-	-	-	-
1945	The Pacific Telephone & Telegraph Co.	-	-	-	-
1943	R. L. Polk & Co.	-	-	-	-
1940	R. L. Polk & Co.	-	-	-	-
1938	Pacific Telephone	-	-	-	-
1933	R. L. Polk & Co.	-	-	-	-
1932	R. L. Polk & Co. of California	-	-	-	-
1928	R. L. Polk Co. of California	-	-	-	-
1926	R. L. Polk & Co.	-	-	-	-
1925	R. L. Polk & Co. of California	-	-	-	-
1920	R. L. Polk & Co. of California	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

4357 Thornton Avenue
Fremont, CA 94536

FINDINGS DETAIL

Target Property research detail.

Thornton Ave

4357 Thornton Ave

Year	Uses	Source
2014	FREMONT UNIFIED SCHOOL DST	EDR Digital Archive
2010	DL FALK CONSTRUCTION INC	EDR Digital Archive
	FREMONT UNIFIED SCHOOL DST	EDR Digital Archive

THORNTON AVE

4357 THORNTON AVE

Year	Uses	Source
2002	FREMNTSCJRHI	Haines & Company
	HAGEMAN Robedt	Haines & Company
	HAGEMAN Robert	Haines & Company
	OHAGMANKnsly	Haines & Company
	THORNTON	Haines & Company
	FREMNTSCJRHI	R. L. Polk & Co.
	HAGEMAN Robedt	R. L. Polk & Co.
	OHAGMANKnsly	R. L. Polk & Co.
	THORNTON HAGEMAN Robert	R. L. Polk & Co.
1982	CUPIT C FREMONT	Pacific Telephone
	FREMONT UNIFIED SCHOOL DISTRICT	Pacific Telephone
1979	FREMONT UNIFIED SCHOOL DISTRICT (CONTD) HIGH SCHOOLS (CONTA)	Pacific Telephone
1976	FRERNONT NEWARK REGIONAL OCCUPATIONAL PROGRAM	R. L. Polk & Co.
1970	FREMONT UNIFIED SCHOOL DISTRICT (CONTTD) ELEMENTARY SCHOOLS (CONTD)	Pacific Telephone and Telegraph Co
1965	FREMONT SCHOOL	R. L. Polk & Co.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BEAUMONT AVE

4232 BEAUMONT AVE

Year	Uses	Source
1979	ARTSIGNS AND PLASTIC CO	Pacific Telephone
	HUGHES ARTHUR H	Pacific Telephone
1976	HUGHES ARTHIUR H	R. L. Polk & Co.
1970	ARTSIGNS AND PLASTIC CO	Pacific Telephone and Telegraph Co

4264 BEAUMONT AVE

Year	Uses	Source
1976	MC DONNELL ORLEL	R. L. Polk & Co.

BEAUMONT ST

4232 BEAUMONT ST

Year	Uses	Source
2002	HUGHESAKhur H	R. L. Polk & Co.
	HUGHESAKhur H	Haines & Company
1992	HUGHES ARTHUR H	PACIFIC BELL DIRECTORY
1982	HUGHES ARTHUR H FREMONT	Pacific Telephone
	ARTSIGNS AND PLASTIC CO FREMONT	Pacific Telephone
1976	ARTSIGNS AND PLASTIC CO	R. L. Polk & Co.
1973	ARTSIGNS AND PLASTIC CO	Pacific Telephone
	HUGHES ARTHUR H	Pacific Telephone
1970	HUGHES ARTHUR H	Pacific Telephone and Telegraph Co
1965	HUGHES ARTHUR H	R. L. Polk & Co.

4240 BEAUMONT ST

Year	Uses	Source
1979	HARRIS JACK M	Pacific Telephone

FINDINGS

Beaumont St

4243 Beaumont St

Year	Uses	Source
2014	S&K EAST BAY VENDING	EDR Digital Archive

BEAUMONT ST

4243 BEAUMONT ST

Year	Uses	Source
2002	ESCOTOT	R. L. Polk & Co.
	ESCOTOT	Haines & Company
1992	PRYOR N H	PACIFIC BELL DIRECTORY
	HASS LORRAINE	PACIFIC BELL DIRECTORY
1982	PRYOR JAS A FREMONT	Pacific Telephone
1965	PRYOR JAS A	R. L. Polk & Co.

4248 BEAUMONT ST

Year	Uses	Source
2002	SCAMBONECarol	Haines & Company
	SCAMBONECarol	R. L. Polk & Co.
1982	HARRIS JACK M FREMONT	Pacific Telephone
1976	HARRIS JACK M	R. L. Polk & Co.
1973	HARRIS JACK M	Pacific Telephone
1970	HARRIS JACK M	Pacific Telephone and Telegraph Co
1965	HAIRRIS JACK MI	R. L. Polk & Co.

Beaumont St

4264 Beaumont St

Year	Uses	Source
2014	MYRNA MCDONNELL VIOLIN & PNO	EDR Digital Archive
2010	MYRNA MCDONNELL VIOLIN & PNO	EDR Digital Archive

BEAUMONT ST

4264 BEAUMONT ST

Year	Uses	Source
2002	SMCDONNELLMyrna	R. L. Polk & Co.
	SMCDONNELLMyrna	Haines & Company
1982	MCDONNELL ORNIE H FREMONT	Pacific Telephone

FINDINGS

Year	Uses	Source
1982	ORNIE S DRYWALL INC FREMONT	Pacific Telephone
1979	ORNIE S DRYWALL INC	Pacific Telephone
	MC DONNELL OMRNIE H	Pacific Telephone
1976	ORNELOS JOE S	R. L. Polk & Co.
1973	MC DONNELL ORNIE H	Pacific Telephone
	ORNIE S DRYWALL CO	Pacific Telephone
1970	MC DONNELL ORNIE H	Pacific Telephone and Telegraph Co
1965	MC DONNELL ORNIE H	R. L. Polk & Co.

4280 BEAUMONT ST

Year	Uses	Source
2002	MERRICKSKennelh	R. L. Polk & Co.
	MERRICKSKennelh	Haines & Company
1979	FISHER DANIEL & DARLENE	Pacific Telephone

4296 BEAUMONT ST

Year	Uses	Source
2002	KOVALIKWilam	R. L. Polk & Co.
	KOVALIKWilam	Haines & Company
1965	BURGDORF JOHN	R. L. Polk & Co.

CONTRA COSTA AVE

37001 CONTRA COSTA AVE

Year	Uses	Source
2002	SHAIFERPaul	Haines & Company
	SHAIFERPaul	R. L. Polk & Co.

37003 CONTRA COSTA AVE

Year	Uses	Source
2002	GDURANIAbdul B	R. L. Polk & Co.
	GDURANIAbdul B	Haines & Company

DALLAS CT

4250 DALLAS CT

Year	Uses	Source
2002	CARSON Craig	Haines & Company
	CARSON Craig	R. L. Polk & Co.
1982	LEWIS REGINALD J FREMONT	Pacific Telephone

Year	Uses	Source
1979	LEWIS REGINALD J	Pacific Telephone
1976	LEWIS RE INA ID J	R. L. Polk & Co.
1973	JENSEN TED	Pacific Telephone
1970	JENSEN TED	Pacific Telephone and Telegraph Co

4263 DALLAS CT

Year	Uses	Source
2002	SELNESSCara	R. L. Polk & Co.
	SELNESSCara	Haines & Company
1976	MC ELROY DONALD R	R. L. Polk & Co.
1973	MC ELROY DONALD R	Pacific Telephone
1970	COYLE WM D	Pacific Telephone and Telegraph Co
1965	COYLE WM D	R. L. Polk & Co.

4266 DALLAS CT

Year	Uses	Source
1982	NUANEZ VERN JR FREMONT	Pacific Telephone
1973	ANTENNA EXPERTS	Pacific Telephone
	NUANEZ J	Pacific Telephone

4275 DALLAS CT

Year	Uses	Source
1979	MORROW BRENT	Pacific Telephone
	NEW LIFE CHRISTIAN FELLOWSHIP	Pacific Telephone

Dallas Ct

4287 Dallas Ct

Year	Uses	Source
2014	NAL INC	EDR Digital Archive

DALLAS CT

4287 DALLAS CT

Year	Uses	Source
1970	ELLISERTN DON L	Pacific Telephone and Telegraph Co
1965	KNEPPER MAXINE	R. L. Polk & Co.

4448 DALLAS CT

Year	Uses	Source
2002	WEALTHCODE	Haines & Company

FINDINGS

DAUPHINE AVE

36816 DAUPHINE AVE

Year	Uses		Source
2002	DIMSSJosaeph		Haines & Company
	DIMSSJosaeph		R. L. Polk & Co.
1982	DUNN RICHARD M	FREMONT	Pacific Telephone
1979	DUNN RICHARD M		Pacific Telephone
1976	DUNN RICHARD M		R. L. Polk & Co.
1965	DUNN RICHARD M		R. L. Polk & Co.

36827 DAUPHINE AVE

Year	Uses	Source
1979	MOORE L A	Pacific Telephone
1976	MOORE L A	R. L. Polk & Co.
1973	MOORE BILL E	Pacific Telephone
1970	MOORE BILLY J	Pacific Telephone and Telegraph Co

36835 DAUPHINE AVE

Year	Uses	Source
2002	TAN Harrs	R. L. Polk & Co.
	4 TAN Harrs	Haines & Company
1965	RITCHIE VICTOR F	R. L. Polk & Co.

36843 DAUPHINE AVE

Year	Uses		Source
1982	PARR DOUGLAS R	FREMONT	Pacific Telephone
1979	PARR DOUGLAS R		Pacific Telephone
1976	PARR DOUGLAS R		R. L. Polk & Co.
1973	PARR DOUGLAS R		Pacific Telephone
1965	PARR DOUGLAS R		R. L. Polk & Co.

36850 DAUPHINE AVE

Year	Uses		Source
2002	ARNETTJess		Haines & Company
	ARNETTJess		R. L. Polk & Co.
1982	SMOAK ALFRED M REV	FREMONT	Pacific Telephone
1965	CASS PAUL		R. L. Polk & Co.

FINDINGS

Dauphine Ave

36851 Dauphine Ave

Year	Uses	Source
2014	DIAMONDTIP INC	EDR Digital Archive
2010	DIAMONDTIP INC	EDR Digital Archive

DAUPHINE AVE

36851 DAUPHINE AVE

Year	Uses	Source
2002	ASSEFA Eskinder	Haines & Company
	COOPERBRO	Haines & Company
	COOPERBROWNGma	R. L. Polk & Co.
	COOPERBRO	R. L. Polk & Co.
	ASSEFA Eskinder	R. L. Polk & Co.
	COOPERBROWNGma	Haines & Company
1973	ISAKSON WALTON L	Pacific Telephone
1970	ISAKSON WALTON L	Pacific Telephone and Telegraph Co
1965	ISAKSON WALTON L	R. L. Polk & Co.

36858 DAUPHINE AVE

Year	Uses	Source
1970	KOLLEWE D B	Pacific Telephone and Telegraph Co
1965	KOLLEWE D B	R. L. Polk & Co.

36859 DAUPHINE AVE

Year	Uses	Source
1965	CASTLE PHYLLIS MRS	R. L. Polk & Co.

36866 DAUPHINE AVE

Year	Uses	Source
1973	DEWEY ORVILLE L	Pacific Telephone
1970	DEWEY ORVILLE L	Pacific Telephone and Telegraph Co
1965	DEWEY ORVILLE L	R. L. Polk & Co.

36867 DAUPHINE AVE

Year	Uses	Source
2002	MANZADav Cd	Haines & Company
	MANZADav Cd	R. L. Polk & Co.
1973	HOWE WILLI AM R	Pacific Telephone

Year	Uses	Source
1965	FOSTER NANNETTE	R. L. Polk & Co.

Dauphine Ave

36875 Dauphine Ave

Year	Uses	Source
2014	RYERSON CONSTRUCTION	EDR Digital Archive
2010	RYERSON CONSTRUCTION	EDR Digital Archive

DAUPHINE AVE

36875 DAUPHINE AVE

Year	Uses	Source
2002	RYERSON Wrlliam	Haines & Company
	RYERSON Wrlliam	R. L. Polk & Co.
1982	LAFFERTY COLIN & PATTI FREMONT	Pacific Telephone
1976	BIRON FRED M	R. L. Polk & Co.
1973	BIRON FRED M	Pacific Telephone
1970	BIRON FRED M	Pacific Telephone and Telegraph Co
1965	BISON FRED N	R. L. Polk & Co.

Dusterberry Way

37010 Dusterberry Way

Year	Uses	Source
2014	R&B FURNITURE LLC	EDR Digital Archive
2010	EUROPEAN TRAIN ENTHUSIASTS	EDR Digital Archive
	ZIGNS	EDR Digital Archive

ESCALA TER

4428 ESCALA TER

Year	Uses	Source
2002	AHMAD	R. L. Polk & Co.
	OKOESTANIWall	Haines & Company
	AHMAD	Haines & Company
	OKOESTANIWall	R. L. Polk & Co.
1979	GOERSS JON A	Pacific Telephone
1976	GOERSS JON A	R. L. Polk & Co.
1973	GOERSS JON A	Pacific Telephone

FINDINGS

4429 ESCALA TER

Year	Uses	Source
2002	MCHENRYLOm	R. L. Polk & Co.
	MCHENRYLOm	Haines & Company
1976	BECKER JOHN J	R. L. Polk & Co.

4430 ESCALA TER

Year	Uses	Source
2002	FONEKellh	R. L. Polk & Co.
	FONEKellh	Haines & Company
1982	MURPHY JOHN P FREMONT	Pacific Telephone
1979	GOERSS DANIEL F	Pacific Telephone
1976	MC LAUGHLIN TIM	R. L. Polk & Co.
1973	HAND DAVID M	Pacific Telephone

4431 ESCALA TER

Year	Uses	Source
2002	NEUKAMAmy	R. L. Polk & Co.
	NEUKAMAmy	Haines & Company
1976	JONES L	R. L. Polk & Co.
1973	JONES L	Pacific Telephone

4432 ESCALA TER

Year	Uses	Source
2002	ULLOAMynna	R. L. Polk & Co.
	ULLOAMynna	Haines & Company

HOLLY CIR

37088 HOLLY CIR

Year	Uses	Source
1965	BAUER CARL H	R. L. Polk & Co.

HOLLY CT

37072 HOLLY CT

Year	Uses	Source
1960	MEASE RICHARD R	Pacific Telephone

FINDINGS

37091 HOLLY CT

Year	Uses	Source
1960	FEELY ELDCEIL	Pacific Telephone

HOLLY PL

37072 HOLLY PL

Year	Uses	Source
1976	NEASE RICHARD R	R. L. Polk & Co.

37083 HOLLY PL

Year	Uses	Source
1970	NUANEZ JOSEPHINE	Pacific Telephone and Telegraph Co

HOLLY ST

37064 HOLLY ST

Year	Uses	Source
2002	SABBANIsrael	Haines & Company
	HORTON Shannon M	Haines & Company
	SABBANIsrael	R. L. Polk & Co.
	HORTON Shannon M	R. L. Polk & Co.
1970	HORTON NICK	Pacific Telephone and Telegraph Co
1965	AUGUSTINE DANL J	R. L. Polk & Co.
1960	AUGUSTINE DAN I J	Pacific Telephone

37067 HOLLY ST

Year	Uses	Source
2002	DEPORCELNicolas	Haines & Company
	DEPORCELNicolas	R. L. Polk & Co.
1982	CATHEY C FREMONT	Pacific Telephone
1979	CATHEY C	Pacific Telephone
1976	CATHEY C	R. L. Polk & Co.
1973	CATHEY C	Pacific Telephone
1965	CATHEY CARROLL	R. L. Polk & Co.
1960	BOWERS WALLACE E	Pacific Telephone

FINDINGS

Holly St

37072 Holly St

Year	Uses	Source
2010	LIN RESEARCH	EDR Digital Archive

HOLLY ST

37072 HOLLY ST

Year	Uses	Source
2002	KOHSE Eresl	Haines & Company
	KOHSE Eresl	R. L. Polk & Co.
1982	NEASE RICHARD R FREMONT	Pacific Telephone
1979	NEASE RICHARD R	Pacific Telephone
1973	NEASE RICHARD R	Pacific Telephone

37075 HOLLY ST

Year	Uses	Source
2002	MARTIN Robert	R. L. Polk & Co.
	MARTIN Robert	Haines & Company
1970	BROSKI ADOLPH	Pacific Telephone and Telegraph Co
1965	JACKSON DANI	R. L. Polk & Co.

37080 HOLLY ST

Year	Uses	Source
2002	ESCALONA Sonny L	Haines & Company
	ESCALONA Sonny L	R. L. Polk & Co.
1973	LEDESMA PABLO G	Pacific Telephone
1970	LEDESMA PABLO G	Pacific Telephone and Telegraph Co
1965	LEDESMA PABLO G	R. L. Polk & Co.
1960	LEDESMA PABLO G	Pacific Telephone

37083 HOLLY ST

Year	Uses	Source
2002	MERRILLBi II	R. L. Polk & Co.
	TRAIN	R. L. Polk & Co.
	MERRILLBi II	Haines & Company
	TRAIN	Haines & Company
1982	NUANEZ VERN FREMONT	Pacific Telephone
1965	NUANEZ JOYCE	R. L. Polk & Co.

FINDINGS

37088 HOLLY ST

Year	Uses		Source
2002	BROSKI Agnes		Haines & Company
	BROSKI Agnes		R. L. Polk & Co.
1982	BROSKI ADOLPH	FREMONT	Pacific Telephone
1976	BROSKI ADOLPH		R. L. Polk & Co.

37091 HOLLY ST

Year	Uses	Source
2002	ORR Jack	Haines & Company
	ORR Jack	R. L. Polk & Co.

LASSEN

37020 LASSEN

Year	Uses	Source
2002	CLEVELAND Ga 0y	R. L. Polk & Co.
	AVILALeo	R. L. Polk & Co.

37033 LASSEN

Year	Uses	Source
2002	TURNER Paul	R. L. Polk & Co.

37036 LASSEN

Year	Uses	Source
2002	ALVEY Gregory	R. L. Polk & Co.

37041 LASSEN

Year	Uses	Source
2002	IRVINGThomas	R. L. Polk & Co.

37044 LASSEN

Year	Uses	Source
2002	FOCHTOonald	R. L. Polk & Co.

37049 LASSEN

Year	Uses	Source
2002	KELLYMichael	R. L. Polk & Co.

37052 LASSEN

Year	Uses	Source
2002	SMUNRODuncan	R. L. Polk & Co.

FINDINGS

37057 LASSEN

Year	Uses	Source
2002	BELLMERMel Vrn	R. L. Polk & Co.

37060 LASSEN

Year	Uses	Source
2002	STIVERS Ba	R. L. Polk & Co.
	STIVERS Ba	R. L. Polk & Co.

37065 LASSEN

Year	Uses	Source
2002	SAUNarfor	R. L. Polk & Co.

LASSEN RD

37028 LASSEN RD

Year	Uses	Source
1973	AVILA ELIZA A	Pacific Telephone

37033 LASSEN RD

Year	Uses	Source
1979	ELROD BILLY	Pacific Telephone
1970	ELROD BILLY J	Pacific Telephone and Telegraph Co
1965	ELROD BILLY J	R. L. Polk & Co.

37052 LASSEN RD

Year	Uses	Source
1970	BOYCE LEWIS E	Pacific Telephone and Telegraph Co

37060 LASSEN RD

Year	Uses	Source
1976	LA BARGE MICHAEL A	R. L. Polk & Co.

37061 LASSEN RD

Year	Uses	Source
1973	CORBETT TERRY	Pacific Telephone

LASSEN ST

37020 LASSEN ST

Year	Uses	Source
2002	AVILALeo	Haines & Company

Year	Uses	Source
2002	CLEVELAND Ga 0y	Haines & Company

Lassen St

37028 Lassen St

Year	Uses	Source
2010	BOTTOM LINE CAPITAL SVCS LLC	EDR Digital Archive

LASSEN ST

37028 LASSEN ST

Year	Uses	Source
1982	AVILA ROBERT FREMONT	Pacific Telephone
1979	GALVAN DANIEL & THERESA	Pacific Telephone
	EL BALLET FOLKLORICO DE FREMONT INC	Pacific Telephone
1973	AVILA LEO JR	Pacific Telephone
1970	AVILA LEO JR	Pacific Telephone and Telegraph Co
	AVILA ELIZA A	Pacific Telephone and Telegraph Co
1965	AVILLA ELIZA A	R. L. Polk & Co.

Lassen St

37033 Lassen St

Year	Uses	Source
2014	SHARIF GROUP UPS STORE INC	EDR Digital Archive
2010	SHARIF GROUP UPS STORE INC	EDR Digital Archive

LASSEN ST

37033 LASSEN ST

Year	Uses	Source
2002	TURNER Paul	Haines & Company
1982	ELROD BILLY J FREMONT	Pacific Telephone
1973	ELROD BILLY J	Pacific Telephone
1965	ELROD BILLY J	R. L. Polk & Co.

37036 LASSEN ST

Year	Uses	Source
2002	ALVEY Gregory	Haines & Company
1982	NEVES RICK FREMONT	Pacific Telephone

FINDINGS

Year	Uses	Source
1982	NEVES RICK CONSTRUCTION FREMONT	Pacific Telephone
1979	NEVES RICK	Pacific Telephone
1976	NEVES RICK	R. L. Polk & Co.
1973	NEVES RICK	Pacific Telephone
1970	BRANNON LEWIS	Pacific Telephone and Telegraph Co
1965	BRANNON LEWIS	R. L. Polk & Co.

37041 LASSEN ST

Year	Uses	Source
2002	IRVINGThomas	Haines & Company
1970	BURT BOYD L	Pacific Telephone and Telegraph Co
1965	FLATMAN ROBT E	R. L. Polk & Co.

37044 LASSEN ST

Year	Uses	Source
2002	FOCHTOonald	Haines & Company
1982	SANDHOLDT ROBT L FREMONT	Pacific Telephone
1965	SANDHOLDT ROHT L	R. L. Polk & Co.

37049 LASSEN ST

Year	Uses	Source
2002	KELLYMichael	Haines & Company
1982	ROWLAND ERIC J FREMONT	Pacific Telephone
	ROWLAND RAY & JANIS FREMONT	Pacific Telephone

37052 LASSEN ST

Year	Uses	Source
2002	SMUNRODuncan	Haines & Company
1982	HILSINGER RUSS FREMONT	Pacific Telephone
1965	BOYCE LEWIS E	R. L. Polk & Co.

37057 LASSEN ST

Year	Uses	Source
2002	BELLMERMel Vrn	Haines & Company
1965	BOWEN GLENDA	R. L. Polk & Co.
	BOWEN BOBBY C	R. L. Polk & Co.

37060 LASSEN ST

Year	Uses	Source
2002	STIVERS Ba	Haines & Company

Year	Uses	Source
2002	STIVERS Ba	Haines & Company
1976	LA BARGE BARBARA J	R. L. Polk & Co.
1973	LA BARGE MICHAEL A	Pacific Telephone
	LA BARGE BARBARA J	Pacific Telephone
1965	GORDON SIDNEY W JR	R. L. Polk & Co.

37065 LASSEN ST

Year	Uses	Source
2002	SAUNarfor	Haines & Company
1970	GLISPIN TOM	Pacific Telephone and Telegraph Co
1965	CORBETT JAS M MRS	R. L. Polk & Co.

ROSOLI TER

4433 ROSOLI TER

Year	Uses	Source
2002	HANSEN Dolores	Haines & Company
	HANSEN Dolores	R. L. Polk & Co.
1976	BRITT MIKE	R. L. Polk & Co.

4434 ROSOLI TER

Year	Uses	Source
2002	STANGERSamna	R. L. Polk & Co.
	STANGERSamna	Haines & Company

4435 ROSOLI TER

Year	Uses	Source
2002	LAMTrung	R. L. Polk & Co.
	TRUNGLam	R. L. Polk & Co.
	GREATER LAND	Haines & Company
	LAMTrung	Haines & Company
	GREATER LAND	R. L. Polk & Co.
1979	ADAM J P	Pacific Telephone
1976	BAPTISTA GEO M	R. L. Polk & Co.
1973	BRACKETT CHAS P	Pacific Telephone

4436 ROSOLI TER

Year	Uses	Source
2002	EISHO Edason	Haines & Company
	EISHO Edason	R. L. Polk & Co.

Year	Uses	Source
1982	LOCHTE JOSEPH K FREMONT	Pacific Telephone

4437 ROSOLI TER

Year	Uses	Source
2002	FOSTER Ali Ce	R. L. Polk & Co.
	FOSTER Ali Ce	Haines & Company
1973	FOSTER STANLEY E	Pacific Telephone

4438 ROSOLI TER

Year	Uses	Source
2002	FARHANGMohammad	R. L. Polk & Co.
	FARHANGMohammad	Haines & Company
1982	CHAFFIN LYNDELL R FREMONT	Pacific Telephone
1979	CHAFFIN LYNDELL R	Pacific Telephone
1973	CHAFFIN LYNDELL R	Pacific Telephone

4440 ROSOLI TER

Year	Uses	Source
2002	KHEDER Joseph	R. L. Polk & Co.
	KHEDER Joseph	Haines & Company
1982	SHUPE GARY FREMONT	Pacific Telephone

THORNTON AVE

4216 THORNTON AVE

Year	Uses	Source
2002	KEENEMargery C	R. L. Polk & Co.
	KEENEMargery 00 C	Haines & Company
1982	NOVARA JOHN FREMONT	Pacific Telephone
1979	NOVARA JOHN	Pacific Telephone
1976	NOVARA JOHN	R. L. Polk & Co.
1970	NOVARA JOHN	Pacific Telephone and Telegraph Co

4228 THORNTON AVE

Year	Uses	Source
1976	PHILLIPPI ANDREW M	R. L. Polk & Co.
1973	PHILLIPPI ANDREW M	Pacific Telephone
1970	PHILLIPPI ANDREW M	Pacific Telephone and Telegraph Co
1965	PHILLIPPI ANDREW M	R. L. Polk & Co.

FINDINGS

Thornton Ave

4240 Thornton Ave

Year	Uses	Source
2014	TOP RANKED TRADING CORP	EDR Digital Archive

THORNTON AVE

4240 THORNTON AVE

Year	Uses	Source
2002	LEESook	R. L. Polk & Co.
	LEESook	Haines & Company
1982	TORGERSON LESTER FREMONT	Pacific Telephone
1976	MC CREADY EDMUND	R. L. Polk & Co.
1970	BROOKE BILL	Pacific Telephone and Telegraph Co
1960	ABREU JOS A	Pacific Telephone

4252 THORNTON AVE

Year	Uses	Source
2002	MOODY Eugene	R. L. Polk & Co.
	MOODY Eugene	Haines & Company
1982	MOODY EUGENE FREMONT	Pacific Telephone
1979	MOODY EUGENE	Pacific Telephone
1976	MOODY EUGENE	R. L. Polk & Co.
1973	MOODY EUGENE	Pacific Telephone
1970	MOODY EUGENE	Pacific Telephone and Telegraph Co

4264 THORNTON AVE

Year	Uses	Source
2002	FPARAN Dennis	R. L. Polk & Co.
	FPARAN Dennis	Haines & Company
1982	ALLAN WM T FREMONT	Pacific Telephone
1979	ALLAN WM T	Pacific Telephone
1976	ALLAN WM T	R. L. Polk & Co.
1970	ALLAN WM T	Pacific Telephone and Telegraph Co
1965	ALLAN WM T	R. L. Polk & Co.

4276 THORNTON AVE

Year	Uses	Source
2002	SCHNEIDERJamiel	R. L. Polk & Co.
	BROLIN Carol	R. L. Polk & Co.

FINDINGS

Year	Uses	Source
2002	BROLIN Carol	Haines & Company
	SCHNEIDERJamiel	Haines & Company
1970	FITCH JOHN	Pacific Telephone and Telegraph Co

Thornton Ave

4318 Thornton Ave

Year	Uses	Source
2014	MC DONALDS OF FREMONT	EDR Digital Archive
2010	MC DONALDS OF FREMONT	EDR Digital Archive
	1 24 HOUR 7 DAY A LOCK A LOCKS	EDR Digital Archive

THORNTON AVE

4318 THORNTON AVE

Year	Uses	Source
2002	MCDONALDSREST	Haines & Company
	MCDONALDSREST	R. L. Polk & Co.
1982	MCDONALD S RESTAURANTS FREMONT	Pacific Telephone
1979	MC DONALD S RESTAURANTS	Pacific Telephone
1973	MC DONALD S RESTAURANTS	Pacific Telephone
1970	MC DONALD S HAMBURGERS	Pacific Telephone and Telegraph Co
1965	FLOWER- BASKET NUR-SERY	R. L. Polk & Co.

4326 THORNTON AVE

Year	Uses	Source
1960	MARKS GEO S	Pacific Telephone

Thornton Ave

4342 Thornton Ave

Year	Uses	Source
2014	PK MARKET	EDR Digital Archive
	WALIA SURENDERPAL S	EDR Digital Archive
2010	WALIA SURENDERPAL S	EDR Digital Archive
	CAFE GYROS	EDR Digital Archive
	ARIANA CORP	EDR Digital Archive
	PK MARKET	EDR Digital Archive

FINDINGS

THORNTON AVE

4342 THORNTON AVE

Year	Uses	Source
2002	DAIRY BELLE FREEZE	R. L. Polk & Co.
	DAIRY BELLE FREEZE	Haines & Company
1982	DANDY DOGS FREMONT	Pacific Telephone
	QUIK STOP CONVENIENCE STORES	Pacific Telephone
1979	DANDY DOGS	Pacific Telephone
1976	DANDY DOGS	R. L. Polk & Co.
1965	NOBRIGA ERNEST R	R. L. Polk & Co.
1960	NOBRIGA ERNEST R	Pacific Telephone

4350 THORNTON AVE

Year	Uses	Source
1965	SILVA MARIE MRS	R. L. Polk & Co.

4358 THORNTON AVE

Year	Uses	Source
1965	PEDERSEN FRANKLIN E	R. L. Polk & Co.
1960	SILVA MARIE MIRS	Pacific Telephone

Thornton Ave

4362 Thornton Ave

Year	Uses	Source
2010	ALL WIRELESS	EDR Digital Archive
	PK BAZAAR	EDR Digital Archive

THORNTON AVE

4362 THORNTON AVE

Year	Uses	Source
2002	INTU WIRELESS	R. L. Polk & Co.
	CHIU Gabriel	R. L. Polk & Co.
	INTU WIRELESS	Haines & Company
	5 CHIU Gabriel	Haines & Company

FINDINGS

Thornton Ave

4364 Thornton Ave

Year	Uses	Source
2014	TRINIDAD ESTRELLA C DMD	EDR Digital Archive
2010	TRINIDAD ESTRELLA C DMD	EDR Digital Archive
	BSA SALES USA INC	EDR Digital Archive

THORNTON AVE

4364 THORNTON AVE

Year	Uses	Source
2002	TRINIDADESTRELLAC	R. L. Polk & Co.
	TRINIDADESTRELLAC 510 793 8121 I	Haines & Company
	THORNTON DENTAL	Haines & Company
	THORNTON DENTAL	R. L. Polk & Co.

Thornton Ave

4366 Thornton Ave

Year	Uses	Source
2014	DEEP CLEANERS	EDR Digital Archive
2010	SUPER CLEANERS	EDR Digital Archive

THORNTON AVE

4366 THORNTON AVE

Year	Uses	Source
2002	DELIAS CLEANERS	Haines & Company
	DELIAS CLEANERS	R. L. Polk & Co.
1965	CLINE JESS J	R. L. Polk & Co.

Thornton Ave

4368 Thornton Ave

Year	Uses	Source
2014	MOBILE WORLD	EDR Digital Archive
2010	FRIENDLY SATELLITE & WIRELESS	EDR Digital Archive

FINDINGS

THORNTON AVE

4368 THORNTON AVE

Year	Uses	Source
2002	VITAMINS&NUTRITION	Haines & Company
	BRYANS 510 818 9093 I	Haines & Company
	BRYANS	R. L. Polk & Co.
	VITAMINS&NUTRITION	R. L. Polk & Co.

Thornton Ave

4370 Thornton Ave

Year	Uses	Source
2014	PALACE CHEF	EDR Digital Archive
	WANG TSUO SHAN	EDR Digital Archive
2010	PALACE CHEF	EDR Digital Archive
	WANG TSUO SHAN	EDR Digital Archive

THORNTON AVE

4370 THORNTON AVE

Year	Uses	Source
2002	PALACECHEF	R. L. Polk & Co.
	PALACECHEF	Haines & Company

Thornton Ave

4372 Thornton Ave

Year	Uses	Source
2014	HAIR & NAILS BY MARY	EDR Digital Archive
2010	HAIR & NAILS BY MARY	EDR Digital Archive

THORNTON AVE

4372 THORNTON AVE

Year	Uses	Source
2002	HAIRENAILSBYMARY	Haines & Company
	HAIRENAILSBYMARY	R. L. Polk & Co.

FINDINGS

Thornton Ave

4374 Thornton Ave

Year	Uses	Source
2014	FRANCIS DONUTS	EDR Digital Archive
2010	FRANCIS DONUTS	EDR Digital Archive

THORNTON AVE

4374 THORNTON AVE

Year	Uses	Source
2002	FRANCIS DONUTS	Haines & Company
	FRANCIS DONUTS	R. L. Polk & Co.
1960	JONES I D	Pacific Telephone

Thornton Ave

4376 Thornton Ave

Year	Uses	Source
2014	WALIN ENTERPRISES INC	EDR Digital Archive
2010	WALIN ENTERPRISES INC	EDR Digital Archive

THORNTON AVE

4376 THORNTON AVE

Year	Uses	Source
2002	LITTLE CAESARS PZZ	R. L. Polk & Co.
	LITTLE CAESARS PZZA	Haines & Company

Thornton Ave

4378 Thornton Ave

Year	Uses	Source
2014	YOGURT DELITE	EDR Digital Archive
2010	YOGURT DELITE	EDR Digital Archive

THORNTON AVE

4378 THORNTON AVE

Year	Uses	Source
2002	YOGURTDELIGHT	R. L. Polk & Co.
	YOGURTDELIGHT 510 790 6060 I	Haines & Company

FINDINGS

Thornton Ave

4380 Thornton Ave

Year	Uses	Source
2014	SUBWAY SANDWICHES SALADS 1301	EDR Digital Archive
2010	SUBWAY SANDWICHES SALADS 1301	EDR Digital Archive

THORNTON AVE

4380 THORNTON AVE

Year	Uses	Source
2002	SANDWICHESESALADS	R. L. Polk & Co.
	SUBWAY	Haines & Company
	SANDWICHESESALADS	Haines & Company
	SUBWAY	R. L. Polk & Co.

4382 THORNTON AVE

Year	Uses	Source
2002	XXXX	Haines & Company
	XXXX	R. L. Polk & Co.
1973	JOHNSON RAYMOND E	Pacific Telephone
1970	HIGUERA CLYDE	Pacific Telephone and Telegraph Co
1965	CARLTON ALBERT E	R. L. Polk & Co.
1960	SCHILLER ELMER G MRS	Pacific Telephone
	SCHILLER E G DR CHIRPRCTR	Pacific Telephone

4386 THORNTON AVE

Year	Uses	Source
1965	KINNEY SHOES	R. L. Polk & Co.

4390 THORNTON AVE

Year	Uses	Source
2002	XXXX	R. L. Polk & Co.
	XXXX	Haines & Company
1982	JIFFY STN FREMONT	Pacific Telephone
	DON S VW & PORSCHE SERVICE FREMONT	Pacific Telephone
1979	JIFFY STN	Pacific Telephone
	ART WISE AUTO & TIRE SERVICE	Pacific Telephone
1976	ART S AUTOMOTIVE SERVICE	R. L. Polk & Co.
1970	PHILLIPS PETROLEUM	Pacific Telephone and Telegraph Co

FINDINGS

Thornton Ave

4400 Thornton Ave

Year	Uses	Source
2010	SMALLBIT SOLUTIONS	EDR Digital Archive
	AL SABEEL INSTITUTE LLC	EDR Digital Archive

THORNTON AVE

4400 THORNTON AVE

Year	Uses	Source
2002	HALL Donald	Haines & Company
	HALL Donald	R. L. Polk & Co.
1982	LIU CHEN-FOUN FREMONT	Pacific Telephone
	PROCTOR D FREMONT	Pacific Telephone
1976	HUMMER JIMMY E	R. L. Polk & Co.
	ACEITUNO CARLOS REV	R. L. Polk & Co.
1973	HUMPERL GERALD	Pacific Telephone
	MY HRE P J	Pacific Telephone

4458 THORNTON AVE

Year	Uses	Source
1960	ASAKAWA KIMIYO	Pacific Telephone

Thornton Ave

4500 Thornton Ave

Year	Uses	Source
2014	STRYD PATRICIA MFCC	EDR Digital Archive
	TELUGU CHURCH	EDR Digital Archive
	PATHWAY COMMUNITY CHURCH	EDR Digital Archive
2010	TELUGU CHURCH	EDR Digital Archive
	THORNTON AVE BAPTIST CHURCH	EDR Digital Archive
	STRYD PATRICIA MFCC	EDR Digital Archive
	CTC NETWORK	EDR Digital Archive

THORNTON AVE

4500 THORNTON AVE

Year	Uses	Source
2002	THORNTON AVBAPT	Haines & Company

FINDINGS

Year	Uses	Source
2002	STRYD PATRICIA MFCC	R. L. Polk & Co.
	THORNTON AVBAPT	R. L. Polk & Co.
	STRYD PATRICIA MFCC	Haines & Company
1982	THORNTON AVE AMERICAN BAPTIST CHURCH FREMONT	Pacific Telephone
1970	FREITAS M FRUIT GROWRS	Pacific Telephone and Telegraph Co

4502 THORNTON AVE

Year	Uses	Source
2002	GHIBANESCU Danela	R. L. Polk & Co.
	GHIBANESCU Danela	Haines & Company

4504 THORNTON AVE

Year	Uses	Source
2002	LIUJil	R. L. Polk & Co.
	LIUJil	Haines & Company

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
36816 DAUPHINE AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36827 DAUPHINE AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1975, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36835 DAUPHINE AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36843 DAUPHINE AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36850 DAUPHINE AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36851 DAUPHINE AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36851 Dauphine Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36858 DAUPHINE AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36859 DAUPHINE AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36866 DAUPHINE AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36867 DAUPHINE AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36875 DAUPHINE AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36875 Dauphine Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37001 CONTRA COSTA AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37003 CONTRA COSTA AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
37010 Dusterberry Way	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37020 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37020 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37028 LASSEN RD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37028 LASSEN ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1976, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37028 Lassen St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37033 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37033 LASSEN RD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37033 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37033 Lassen St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37036 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37036 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37041 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37041 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37044 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37044 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37049 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
37049 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37052 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37052 LASSEN RD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37052 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37057 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37057 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37060 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37060 LASSEN RD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37060 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37061 LASSEN RD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37064 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37065 LASSEN	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37065 LASSEN ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37067 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1970, 1967, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37072 HOLLY CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37072 HOLLY PL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37072 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
37072 Holly St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37075 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37080 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1967, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37083 HOLLY PL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37083 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37088 HOLLY CIR	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37088 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37091 HOLLY CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
37091 HOLLY ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4216 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4228 THORNTON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4232 BEAUMONT AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4232 BEAUMONT ST	2014, 2010, 2006, 2000, 1996, 1993, 1991, 1986, 1984, 1980, 1979, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4240 BEAUMONT ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4240 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1975, 1973, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4240 Thornton Ave	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4243 Beaumont St	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
4243 BEAUMONT ST	2014, 2010, 2006, 2000, 1996, 1993, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4248 BEAUMONT ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4250 DALLAS CT	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4252 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4263 DALLAS CT	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4264 BEAUMONT AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4264 BEAUMONT ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4264 Beaumont St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4264 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4266 DALLAS CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4275 DALLAS CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4276 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4280 BEAUMONT ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4287 DALLAS CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4287 Dallas Ct	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4296 BEAUMONT ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4318 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1976, 1975, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
4318 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4326 THORNTON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4342 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1973, 1970, 1967, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4342 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4350 THORNTON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4358 THORNTON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4362 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4362 Thornton Ave	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4364 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4364 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4366 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4366 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4368 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4368 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4370 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4370 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4372 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
4372 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4374 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4374 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4376 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4376 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4378 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4378 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4380 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4380 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4382 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1967, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4386 THORNTON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4390 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4400 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4400 Thornton Ave	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4428 ESCALA TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4429 ESCALA TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4430 ESCALA TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
4431 ESCALA TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4432 ESCALA TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4433 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4434 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4435 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4436 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4437 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4438 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4440 ROSOLI TER	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4448 DALLAS CT	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4458 THORNTON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4500 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4500 Thornton Ave	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4502 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
4504 THORNTON AVE	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
4357 Thornton Avenue	2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1975, 1973, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

Appendix B. EDR

Appendix

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Thornton Junior High School Expansion
4357 Thornton Avenue
Fremont, CA 94536

Inquiry Number: 5584380.2s
March 08, 2019

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

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	191
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-6
Physical Setting Source Map	A-8
Physical Setting Source Map Findings	A-10
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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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

4357 THORNTON AVENUE
FREMONT, CA 94536

COORDINATES

Latitude (North):	37.5570380 - 37° 33' 25.33''
Longitude (West):	122.0166940 - 122° 1' 0.09''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	586851.6
UTM Y (Meters):	4156919.0
Elevation:	47 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5641108 NEWARK, CA
Version Date:	2012
East Map:	5640408 NILES, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
4357 THORNTON AVENUE
FREMONT, CA 94536

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	FREMONT USD/THORNTON	4357 THORNTON AVE	HAZNET		TP
A2	FUS/THORNTON JR HIGH	4357 THORNTON AVE	HAZNET		TP
A3	FUSD THORNTON JR HIG	4357 THORNTON AVE	HAZNET		TP
A4	FREMONT USD/THORNTON	4357 THORNTON AVE	HAZNET		TP
B5	SUPER CLEANERS	4366 THORNTON AVE	EDR Hist Cleaner	Higher	131, 0.025, ESE
B6	GASCO SERVICE STATIO	4390 THORTON AVENUE	HIST UST	Higher	132, 0.025, ESE
B7	GASCO SERVICE STATIO	4390 THORNTON AVE	SWEEPS UST, CA FID UST	Higher	132, 0.025, ESE
B8	GASCO SERVICE STATIO	4390 THORNTON AVE	HIST UST	Higher	132, 0.025, ESE
B9	WISE AUTO REPAIR	4390 THORNTON AVE	EDR Hist Auto	Higher	132, 0.025, ESE
B10	QUIK STOP #43	4342 THORNTON AVE	SWEEPS UST, CA FID UST	Higher	146, 0.028, ESE
B11	QUIK STOP 43	4342 THORNTON AVE	HIST UST	Higher	146, 0.028, ESE
B12	TIDEWATER SERVICE ST	4362 THORNTON AVENUE	LUST, CERS	Higher	148, 0.028, ESE
13	ALDER AVENUE	ALDER AVENUE 4325 AL	ENVIROSTOR, VCP	Higher	423, 0.080, NW
C14	FREMONT POST OFFICE	37010 DUSTERBERRY WA	HIST UST	Higher	482, 0.091, ESE
C15	US POST OFFICE	37010 DUSTERBERRY WA	LUST, SWEEPS UST, CA FID UST, HIST CORTESE, CERS	Higher	482, 0.091, ESE
D16	J G DUTRA & SON	4568 THORNTON AVE	LUST, SWEEPS UST, CA FID UST, HIST CORTESE, CERS	Lower	884, 0.167, South
D17	CABRILLO CLEANER	4673 THORNTON	RCRA-SQG, CPS-SLIC, FINDS, ECHO, CERS	Lower	1041, 0.197, SSW
E18	OIL CHANGER #618	4088 THORNTON AVE.	CERS HAZ WASTE, CERS TANKS, CERS	Higher	1163, 0.220, NE
E19	THORNTON MOBIL	4088 THORNTON AVE	HIST UST	Higher	1163, 0.220, NE
E20	MOBIL 10-GYP (THORNT	4088 THORNTON AVE	LUST	Higher	1163, 0.220, NE
E21	OIL CHANGER #618	4088 THORNTON AVE.	AST	Higher	1163, 0.220, NE
E22	THORNTON MOBIL	4088 THORNTON AVE	LUST, SWEEPS UST, CA FID UST, HIST CORTESE, CERS	Higher	1163, 0.220, NE
E23	MIDAS AUTO SERVICE	4045 THORNTON AVE.	CERS HAZ WASTE, CERS	Higher	1207, 0.229, NE
24	PAYNE TRUCKING	4519 SAN JUAN AVE	RCRA NonGen / NLR, FINDS, ECHO	Lower	1273, 0.241, WNW
E25	AUTOBRITE CAR WASH	37063 FREMONT BLVD	LUST	Higher	1280, 0.242, ENE
E26	AUTOBRITE CAR WASH S	37063 FREMONT BLVD	HIST UST, HIST CORTESE	Higher	1280, 0.242, ENE
E27	AUTOBRITE CAR WASH	37063 FREMONT BOULEV	Notify 65	Higher	1280, 0.242, ENE
28	CABRILLO SHELL	4695 THORNTON AVE	LUST, SWEEPS UST, CA FID UST, HAZNET, HIST...	Lower	1321, 0.250, SSW
29	FOOD & LIQUOR #5	4050 ALDER AVE	LUST, SWEEPS UST, CA FID UST, HIST CORTESE	Higher	1328, 0.252, North
F30	UNOCAL 4002	36979 FREMONT BLVD	LUST, SWEEPS UST, HIST UST, HIST CORTESE, CERS	Higher	1331, 0.252, NE
E31	CHEVRON #9-7526	37011 FREMONT BLVD	LUST, CA FID UST, HIST CORTESE, CERS	Higher	1361, 0.258, NE
E32	CHEVRON NO. 7526	37011 FREMONT BOULEV	LUST	Higher	1361, 0.258, NE
F33	ARCO FAC# 5369	36974 FREMONT BLVD	LUST, SWEEPS UST, CA FID UST, HAZNET, HIST...	Higher	1531, 0.290, NE
F34	ARCO # 05369	36974 FREMONT BLVD	LUST	Higher	1531, 0.290, NE
G35	CENTERVILLE RENTS	36660 FREMONT BLVD	LUST, CA FID UST, HAZNET, HIST CORTESE, CERS	Higher	1560, 0.295, NNE
G36	DISCOUNT TIRE CENTER	36656 FREMONT BLVD	CPS-SLIC, CERS	Higher	1568, 0.297, NNE
H37	SANTOS BROTHERS	37149 FREMONT BOULEV	LUST, CERS	Higher	1584, 0.300, ENE
38	MORAN OLDSMOBILE, IN	4343 PERALTA BLVD	LUST, SWEEPS UST, CA FID UST, HAZNET, HIST...	Higher	1592, 0.302, ESE
H39	BRIDGES MANAGEMENT	37156 FREMONT BLVD	LUST, CA FID UST, HIST CORTESE, CERS	Higher	1694, 0.321, ENE

MAPPED SITES SUMMARY

Target Property Address:
4357 THORNTON AVENUE
FREMONT, CA 94536

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
H40	KING ARTHUR TOYOTA	37156 FREMONT BLVD	LUST, SWEEPS UST, HIST UST	Higher	1694, 0.321, ENE
I41	FREMONT DODGE	3909 THORNTON AVENUE	Notify 65	Higher	1771, 0.335, NE
I42	FREMONT DODGE	3909 THORNTON AVE	RCRA-SQG, LUST, FINDS, ECHO, HAZNET, HIST CORTESE,...	Higher	1771, 0.335, NE
43	CENTER SQUARE CLEANE	37070 FREMONT BOULEV	CPS-SLIC, CERS	Higher	1791, 0.339, NE
J44	UNOCAL	4200 PERALTA &JOSEPH	HIST CORTESE	Higher	1797, 0.340, East
J45	UNION OIL SS #5923	4200 PERALTA BLVD	LUST, SWEEPS UST, HIST UST, CA FID UST, CERS	Higher	1836, 0.348, ESE
46	HENRY MILLER	4133 PERALTA BLVD	RCRA-SQG, ENVIROSTOR, VCP, FINDS, ECHO, EMI,...	Higher	1863, 0.353, East
K47	FREMONT PONTIAC OLDS	4411 PERALTA BLVD	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA FID UST,...	Higher	1870, 0.354, SE
L48	SCHUCK'S TRANSMISSIO	37247 FREMONT BLVD	LUST, HIST CORTESE	Higher	1902, 0.360, ENE
L49	CENTERVILLE TRAIN ST	37260 FREMONT BLVD	LUST, HIST CORTESE, CERS	Higher	1948, 0.369, ENE
L50	SHELL (FORMER)-37236	37236 FREMONT BOULEV	LUST, HIST CORTESE, CERS	Higher	1949, 0.369, ENE
L51	SHELL (FORMER)-37236	37236 FREMONT BLVD	LUST	Higher	1949, 0.369, ENE
K52	FREMONT MAZDA/VW	4450 PERALTA BLVD	LUST, SWEEPS UST, CA FID UST, HAZNET, HIST...	Higher	2019, 0.382, SE
M53	UNION SANITORY DISTR	37532 DUSTERBERRY WY	RCRA-SQG, LUST, UST, SWEEPS UST, CA FID UST,...	Higher	2121, 0.402, ESE
M54	UNION SANITARY DISTR	37532 DUSTERBERRY WA	LUST, HIST UST	Higher	2121, 0.402, ESE
55	FELDER JENNINGS PROP	37312 FREMONT	LUST, SWEEPS UST, HIST CORTESE, CERS	Higher	2220, 0.420, East
N56	U-HAUL (4833 THORNTO	4833 THORNTON AVE	LUST	Lower	2315, 0.438, SSW
N57	U-HAUL	4833 THORNTON AVE	LUST, SWEEPS UST, CA FID UST, HIST CORTESE, CERS	Lower	2315, 0.438, SSW
58	AAMCO TRANSMISSIONS	3670 THORNTON AVE	LUST, CERS HAZ WASTE, SWEEPS UST, HAZNET, HIST...	Higher	2333, 0.442, NE
59	SABRAW ENTERPRISES	37555 DUSTERBERRY WY	LUST, HIST CORTESE, CERS	Higher	2351, 0.445, SE
O60	P G & E FREMONT SERV	37465 JOSEPH	LUST, SWEEPS UST, CA FID UST, HIST CORTESE, CERS	Higher	2557, 0.484, ESE
O61	PG & E OLD SERVICE C	37465 JOSEPH ST	LUST	Higher	2557, 0.484, ESE
P62	AUTOMOTIVE & AUTOBOD	37169 MORAINE	LUST, HIST CORTESE, CERS	Higher	2624, 0.497, ENE
P63	AUTOMOTIVE & AUTO BO	37169 MORAINE ST	LUST, SWEEPS UST	Higher	2624, 0.497, ENE
64	CENTRAL COMMONS	4369 CENTRAL AVENUE	ENVIROSTOR, VCP, HAZNET	Higher	2678, 0.507, SE
Q65	DESERET INDUSTRIES/T	37541 BLACOW ROAD	CPS-SLIC, EMI, Notify 65, CERS	Lower	3964, 0.751, South
Q66		37541 BLACOW RD.	Notify 65	Lower	3964, 0.751, South
Q67		37541 BLACOW ROAD	Notify 65	Lower	3964, 0.751, South
68	PACIFIC CEMENT & AGG	35171 SEQUOIA ROAD	ENVIROSTOR	Higher	4204, 0.796, ENE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
FREMONT USD/THORNTON 4357 THORNTON AVE FREMONT, CA 94536	HAZNET GEPAID: CAC000734584	N/A
FUS/THORNTON JR HIGH 4357 THORNTON AVE FREMONT, CA 94536	HAZNET GEPAID: CAL000014213	N/A
FUSD THORNTON JR HIG 4357 THORNTON AVE FREMONT, CA 94536	HAZNET GEPAID: CAL000009845	N/A
FREMONT USD/THORNTON 4357 THORNTON AVE FREMONT, CA 94536	HAZNET GEPAID: CAC002567320	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-CESQG RCRA - Conditionally Exempt Small Quantity Generator

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
Alameda County CS Contaminated Sites

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
UST Active UST 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

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

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

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

EXECUTIVE SUMMARY

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
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
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
EMI	Emissions Inventory Data
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
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
WIP	Well Investigation Program Case List
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)

EXECUTIVE SUMMARY

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
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 03/01/2018 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CABRILLO CLEANER	***4673 THORNTON***	***SSW 1/8 - 1/4 (0.197 mi.)***	***D17***	***26***
EPA ID:: CAD981580988				

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 01/28/2019 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALDER AVENUE	***ALDER AVENUE 4325 AL***	***NW 0 - 1/8 (0.080 mi.)***	***13***	***18***
Facility Id: 60002106				
Status: No Further Action				
HENRY MILLER	***4133 PERALTA BLVD***	***E 1/4 - 1/2 (0.353 mi.)***	***46***	***109***
Facility Id: 60002284				
Status: Active				
CENTRAL COMMONS	***4369 CENTRAL AVENUE***	***SE 1/2 - 1 (0.507 mi.)***	***64***	***185***
Facility Id: 60002248				
Status: No Further Action				
PACIFIC CEMENT & AGG	35171 SEQUOIA ROAD	ENE 1/2 - 1 (0.796 mi.)	68	190
Facility Id: 1320001				
Status: Refer: Other Agency				

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 37 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TIDEWATER SERVICE ST	***4362 THORNTON AVENUE***	***ESE 0 - 1/8 (0.028 mi.)***	***B12***	***15***
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Status: Preliminary site assessment workplan submitted				
Global Id: T0600121449				
US POST OFFICE	***37010 DUSTERBERRY WA***	***ESE 0 - 1/8 (0.091 mi.)***	***C15***	***21***
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				

Facility Id: 01-2010
Facility Status: Case Closed
Global Id: T0600101857
date9: 4/15/1996

MOBIL 10-GYP (THORNT	4088 THORNTON AVE	NE 1/8 - 1/4 (0.220 mi.)	E20	40

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-1472
Facility Status: Case Closed
date9: 2/3/1998

THORNTON MOBIL	***4088 THORNTON AVE***	***NE 1/8 - 1/4 (0.220 mi.)***	***E22***	***41***

Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600101359

AUTOBRITE CAR WASH	37063 FREMONT BLVD	ENE 1/8 - 1/4 (0.242 mi.)	E25	56

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-2373
Facility Status: Leak being confirmed

FOOD & LIQUOR #5	***4050 ALDER AVE***	***N 1/4 - 1/2 (0.252 mi.)***	***29***	***65***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-0965
Facility Status: Case Closed
Global Id: T0600100889
date9: 1/14/2002

UNOCAL 4002	***36979 FREMONT BLVD***	***NE 1/4 - 1/2 (0.252 mi.)***	***F30***	***68***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-1593
Facility Status: Case Closed
Global Id: T0600101468
date9: 10/3/1995

CHEVRON #9-7526	***37011 FREMONT BLVD***	***NE 1/4 - 1/2 (0.258 mi.)***	***E31***	***71***

Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600100335

CHEVRON NO. 7526	37011 FREMONT BOULEV	NE 1/4 - 1/2 (0.258 mi.)	E32	74

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-0364
Facility Status: Case Closed
date9: 4/28/1997

ARCO FAC# 5369	***36974 FREMONT BLVD***	***NE 1/4 - 1/2 (0.290 mi.)***	***F33***	***74***

Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600100098

ARCO # 05369	36974 FREMONT BLVD	NE 1/4 - 1/2 (0.290 mi.)	F34	81

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-0106
Facility Status: Remedial action (cleanup) Underway

CENTERVILLE RENTS	***36660 FREMONT BLVD***	***NNE 1/4 - 1/2 (0.295 mi.)***	***G35***	***82***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018

Status: Completed - Case Closed
Facility Id: 01-2033
Facility Status: Case Closed
Global Id: T0600101878
date9: 7/25/1994

SANTOS BROTHERS ***37149 FREMONT BOULEV*** ***ENE 1/4 - 1/2 (0.300 mi.)*** ***H37*** ***87***
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600111305

MORAN OLDSMOBILE, IN ***4343 PERALTA BLVD*** ***ESE 1/4 - 1/2 (0.302 mi.)*** ***38*** ***90***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-2114
Facility Status: Case Closed
Global Id: T0600101940
date9: 9/21/1995

BRIDGES MANAGEMENT ***37156 FREMONT BLVD*** ***ENE 1/4 - 1/2 (0.321 mi.)*** ***H39*** ***95***
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600100132

KING ARTHUR TOYOTA ***37156 FREMONT BLVD*** ***ENE 1/4 - 1/2 (0.321 mi.)*** ***H40*** ***97***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-0142
Facility Status: Case Closed
date9: 4/22/1994

FREMONT DODGE ***3909 THORNTON AVE*** ***NE 1/4 - 1/2 (0.335 mi.)*** ***I42*** ***99***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-0663
Facility Status: Case Closed
Global Id: T0600100613
date9: 6/27/1996

UNION OIL SS #5923 ***4200 PERALTA BLVD*** ***ESE 1/4 - 1/2 (0.348 mi.)*** ***J45*** ***105***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-1598
Facility Status: Case Closed
Global Id: T0600101473
date9: 6/28/1991

FREMONT PONTIAC OLDS ***4411 PERALTA BLVD*** ***SE 1/4 - 1/2 (0.354 mi.)*** ***K47*** ***121***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Open - Eligible for Closure
Facility Id: 01-2023
Facility Status: Preliminary site assessment underway
Global Id: T0600101869

SCHUCK'S TRANSMISSIO ***37247 FREMONT BLVD*** ***ENE 1/4 - 1/2 (0.360 mi.)*** ***L48*** ***129***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-2200

Facility Status: Leak being confirmed

CENTERVILLE TRAIN ST ***37260 FREMONT BLVD*** ***ENE 1/4 - 1/2 (0.369 mi.)*** ***L49*** ***129***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-2374
Facility Status: Leak being confirmed
Global Id: T0600102184

SHELL (FORMER)-37236 ***37236 FREMONT BOULEV*** ***ENE 1/4 - 1/2 (0.369 mi.)*** ***L50*** ***132***
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600101896

SHELL (FORMER)-37236 37236 FREMONT BLVD ENE 1/4 - 1/2 (0.369 mi.) L51 134
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-2053
Facility Status: Case Closed
date9: 9/5/1995

FREMONT MAZDA/VW ***4450 PERALTA BLVD*** ***SE 1/4 - 1/2 (0.382 mi.)*** ***K52*** ***134***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-2207
Facility Status: Case Closed
Global Id: T0600102026
date9: 6/25/1997

UNION SANITORY DISTR ***37532 DUSTERBERRY WY*** ***ESE 1/4 - 1/2 (0.402 mi.)*** ***M53*** ***145***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-2558
Facility Status: No Action

UNION SANITARY DISTR ***37532 DUSTERBERRY WA*** ***ESE 1/4 - 1/2 (0.402 mi.)*** ***M54*** ***150***
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600110509

FELDER JENNINGS PROP ***37312 FREMONT*** ***E 1/4 - 1/2 (0.420 mi.)*** ***55*** ***152***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-2005
Facility Status: Case Closed
Global Id: T0600101852
date9: 11/28/1994

AAMCO TRANSMISSIONS ***3670 THORNTON AVE*** ***NE 1/4 - 1/2 (0.442 mi.)*** ***58*** ***158***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-0018
Facility Status: Case Closed
Global Id: T0600100014
date9: 11/26/1996

SABRAW ENTERPRISES ***37555 DUSTERBERRY WY*** ***SE 1/4 - 1/2 (0.445 mi.)*** ***59*** ***174***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018

Status: Completed - Case Closed
Facility Id: 01-1279
Facility Status: Preliminary site assessment underway
Global Id: T0600101176

P G & E FREMONT SERV	***37465 JOSEPH***	***ESE 1/4 - 1/2 (0.484 mi.)***	***O60***	***177***

Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600101080

PG & E OLD SERVICE C	37465 JOSEPH ST	ESE 1/4 - 1/2 (0.484 mi.)	O61	180

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-1171
Facility Status: Case Closed
date9: 1/10/1996

AUTOMOTIVE & AUTOBOD	***37169 MORAINE***	***ENE 1/4 - 1/2 (0.497 mi.)***	***P62***	***181***

Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600100566

AUTOMOTIVE & AUTO BO	***37169 MORAINE ST***	***ENE 1/4 - 1/2 (0.497 mi.)***	***P63***	***183***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-0614
Facility Status: Case Closed
date9: 5/28/1996

Lower Elevation	Address	Direction / Distance	Map ID	Page
J G DUTRA & SON	***4568 THORNTON AVE***	***S 1/8 - 1/4 (0.167 mi.)***	***D16***	***23***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-1991
Facility Status: Case Closed
Global Id: T0600101839
date9: 10/20/1994

CABRILLO SHELL	***4695 THORNTON AVE***	***SSW 1/4 - 1/2 (0.250 mi.)***	***28***	***58***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 01-1369
Facility Status: Pollution Characterization
Global Id: T0600101264

U-HAUL (4833 THORNTO	4833 THORNTON AVE	SSW 1/4 - 1/2 (0.438 mi.)	N56	155

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Id: 01-1511
Facility Status: Case Closed
date9: 4/20/1995

U-HAUL	***4833 THORNTON AVE***	***SSW 1/4 - 1/2 (0.438 mi.)***	***N57***	***155***

Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Global Id: T0600101395

EXECUTIVE SUMMARY

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 3 CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DISCOUNT TIRE CENTER	***36656 FREMONT BLVD***	***NNE 1/4 - 1/2 (0.297 mi.)***	***G36***	***86***
Database: SLIC REG 2, Date of Government Version: 09/30/2004 Database: CPS-SLIC, Date of Government Version: 12/10/2018 Facility Status: Completed - Case Closed Global Id: SL0600169807				
CENTER SQUARE CLEANE	***37070 FREMONT BOULEV***	***NE 1/4 - 1/2 (0.339 mi.)***	***43***	***103***
Database: SLIC REG 2, Date of Government Version: 09/30/2004 Database: CPS-SLIC, Date of Government Version: 12/10/2018 Facility Status: Open - Site Assessment Global Id: SL0600138427				

Lower Elevation	Address	Direction / Distance	Map ID	Page
CABRILLO CLEANER	***4673 THORNTON***	***SSW 1/8 - 1/4 (0.197 mi.)***	***D17***	***26***
Database: SLIC REG 2, Date of Government Version: 09/30/2004 Database: CPS-SLIC, Date of Government Version: 12/10/2018 Facility Status: Open - Verification Monitoring Global Id: SL0600133592				

State and tribal registered storage tank lists

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OIL CHANGER #618	4088 THORNTON AVE.	NE 1/8 - 1/4 (0.220 mi.)	E21	41
Database: AST, Date of Government Version: 07/06/2016				

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 01/28/2019 has revealed that there are 2 VCP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALDER AVENUE	***ALDER AVENUE 4325 AL***	***NW 0 - 1/8 (0.080 mi.)***	***13***	***18***

Status: No Further Action
Facility Id: 60002106

HENRY MILLER	***4133 PERALTA BLVD***	***E 1/4 - 1/2 (0.353 mi.)***	***46***	***109***

Status: Active
Facility Id: 60002284

ADDITIONAL ENVIRONMENTAL RECORDS

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 10/22/2018 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OIL CHANGER #618	***4088 THORNTON AVE.***	***NE 1/8 - 1/4 (0.220 mi.)***	***E18***	***29***
MIDAS AUTO SERVICE	***4045 THORNTON AVE.***	***NE 1/8 - 1/4 (0.229 mi.)***	***E23***	***45***

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.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GASCO SERVICE STATIO	***4390 THORNTON AVE***	***ESE 0 - 1/8 (0.025 mi.)***	***B7***	***11***
Comp Number: 9427				
QUIK STOP #43	***4342 THORNTON AVE***	***ESE 0 - 1/8 (0.028 mi.)***	***B10***	***13***
Comp Number: 6265				
US POST OFFICE	***37010 DUSTERBERRY WA***	***ESE 0 - 1/8 (0.091 mi.)***	***C15***	***21***
Comp Number: 37432				
THORNTON MOBIL	***4088 THORNTON AVE***	***NE 1/8 - 1/4 (0.220 mi.)***	***E22***	***41***
Comp Number: 56450				

Lower Elevation	Address	Direction / Distance	Map ID	Page
J G DUTRA & SON	***4568 THORNTON AVE***	***S 1/8 - 1/4 (0.167 mi.)***	***D16***	***23***

Status: A
Tank Status: A
Comp Number: 379

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 6 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GASCO SERVICE STATIO	4390 THORTON AVENUE	ESE 0 - 1/8 (0.025 mi.)	B6	10
GASCO SERVICE STATIO Facility Id: 00000009427	4390 THORNTON AVE	ESE 0 - 1/8 (0.025 mi.)	B8	12
QUIK STOP 43 Facility Id: 00000006265	4342 THORNTON AVE	ESE 0 - 1/8 (0.028 mi.)	B11	15
FREMONT POST OFFICE Facility Id: 00000037432	37010 DUSTERBERRY WA	ESE 0 - 1/8 (0.091 mi.)	C14	20
THORNTON MOBIL Facility Id: 00000056450	4088 THORNTON AVE	NE 1/8 - 1/4 (0.220 mi.)	E19	39
AUTOBRITE CAR WASH S Facility Id: 00000035191	***37063 FREMONT BLVD***	***ENE 1/8 - 1/4 (0.242 mi.)***	***E26***	***57***

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 are 5 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GASCO SERVICE STATIO Facility Id: 01002434 Status: I	***4390 THORNTON AVE***	***ESE 0 - 1/8 (0.025 mi.)***	***B7***	***11***
QUIK STOP #43 Facility Id: 01002431 Status: I	***4342 THORNTON AVE***	***ESE 0 - 1/8 (0.028 mi.)***	***B10***	***13***
US POST OFFICE Facility Id: 01003083 Status: A	***37010 DUSTERBERRY WA***	***ESE 0 - 1/8 (0.091 mi.)***	***C15***	***21***
THORNTON MOBIL Facility Id: 01001591 Status: I	***4088 THORNTON AVE***	***NE 1/8 - 1/4 (0.220 mi.)***	***E22***	***41***

Lower Elevation	Address	Direction / Distance	Map ID	Page
J G DUTRA & SON Facility Id: 01003033 Status: A	***4568 THORNTON AVE***	***S 1/8 - 1/4 (0.167 mi.)***	***D16***	***23***

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 10/22/2018 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OIL CHANGER #618	***4088 THORNTON AVE.***	***NE 1/8 - 1/4 (0.220 mi.)***	***E18***	***29***

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 03/01/2018 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PAYNE TRUCKING EPA ID:: CAD982484461	***4519 SAN JUAN AVE***	***WNW 1/8 - 1/4 (0.241 mi.)***	***24***	***54***

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 25 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
US POST OFFICE Reg Id: 01-2010	***37010 DUSTERBERRY WA***	***ESE 0 - 1/8 (0.091 mi.)***	***C15***	***21***
THORNTON MOBIL Reg Id: 01-1472	***4088 THORNTON AVE***	***NE 1/8 - 1/4 (0.220 mi.)***	***E22***	***41***
AUTOBRITE CAR WASH S Reg Id: 01-2373	***37063 FREMONT BLVD***	***ENE 1/8 - 1/4 (0.242 mi.)***	***E26***	***57***
FOOD & LIQUOR #5 Reg Id: 01-0965	***4050 ALDER AVE***	***N 1/4 - 1/2 (0.252 mi.)***	***29***	***65***
UNOCAL 4002 Reg Id: 01-1593	***36979 FREMONT BLVD***	***NE 1/4 - 1/2 (0.252 mi.)***	***F30***	***68***
CHEVRON #9-7526 Reg Id: 01-0364	***37011 FREMONT BLVD***	***NE 1/4 - 1/2 (0.258 mi.)***	***E31***	***71***
ARCO FAC# 5369 Reg Id: 01-0106	***36974 FREMONT BLVD***	***NE 1/4 - 1/2 (0.290 mi.)***	***F33***	***74***
CENTERVILLE RENTS Reg Id: 01-2033	***36660 FREMONT BLVD***	***NNE 1/4 - 1/2 (0.295 mi.)***	***G35***	***82***
MORAN OLDSMOBILE, IN	***4343 PERALTA BLVD***	***ESE 1/4 - 1/2 (0.302 mi.)***	***38***	***90***

Reg Id: 01-2114				
BRIDGES MANAGEMENT Reg Id: 01-0142	***37156 FREMONT BLVD***	***ENE 1/4 - 1/2 (0.321 mi.)***	***H39***	***95***
FREMONT DODGE Reg Id: 01-0663	***3909 THORNTON AVE***	***NE 1/4 - 1/2 (0.335 mi.)***	***I42***	***99***
UNOCAL Reg Id: 01-1598	4200 PERALTA &JOSEPH	E 1/4 - 1/2 (0.340 mi.)	J44	105
FREMONT PONTIAC OLDS Reg Id: 01-2023	***4411 PERALTA BLVD***	***SE 1/4 - 1/2 (0.354 mi.)***	***K47***	***121***
SCHUCK'S TRANSMISSIO Reg Id: 01-2200	***37247 FREMONT BLVD***	***ENE 1/4 - 1/2 (0.360 mi.)***	***L48***	***129***
CENTERVILLE TRAIN ST Reg Id: 01-2374	***37260 FREMONT BLVD***	***ENE 1/4 - 1/2 (0.369 mi.)***	***L49***	***129***
SHELL (FORMER)-37236 Reg Id: 01-2053	***37236 FREMONT BOULEV***	***ENE 1/4 - 1/2 (0.369 mi.)***	***L50***	***132***
FREMONT MAZDA/VW Reg Id: 01-2207	***4450 PERALTA BLVD***	***SE 1/4 - 1/2 (0.382 mi.)***	***K52***	***134***
FELDER JENNINGS PROP Reg Id: 01-2005	***37312 FREMONT***	***E 1/4 - 1/2 (0.420 mi.)***	***55***	***152***
AAMCO TRANSMISSIONS Reg Id: 01-0018	***3670 THORNTON AVE***	***NE 1/4 - 1/2 (0.442 mi.)***	***58***	***158***
SABRAW ENTERPRISES Reg Id: 01-1279	***37555 DUSTERBERRY WY***	***SE 1/4 - 1/2 (0.445 mi.)***	***59***	***174***
P G & E FREMONT SERV Reg Id: 01-1171	***37465 JOSEPH***	***ESE 1/4 - 1/2 (0.484 mi.)***	***O60***	***177***
AUTOMOTIVE & AUTOBOD Reg Id: 01-0614	***37169 MORAINE***	***ENE 1/4 - 1/2 (0.497 mi.)***	***P62***	***181***

Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
J G DUTRA & SON Reg Id: 01-1991	***4568 THORNTON AVE***	***S 1/8 - 1/4 (0.167 mi.)***	***D16***	***23***
CABRILLO SHELL Reg Id: 01-1369	***4695 THORNTON AVE***	***SSW 1/4 - 1/2 (0.250 mi.)***	***28***	***58***
U-HAUL Reg Id: 01-1511	***4833 THORNTON AVE***	***SSW 1/4 - 1/2 (0.438 mi.)***	***N57***	***155***

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 09/19/2018 has revealed that there are 5 Notify 65 sites within approximately 1 mile of the target property.

Equal/Higher Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
AUTOBRITE CAR WASH	37063 FREMONT BOULEV	ENE 1/8 - 1/4 (0.242 mi.)	E27	58
FREMONT DODGE	3909 THORNTON AVENUE	NE 1/4 - 1/2 (0.335 mi.)	I41	99

Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
DESERET INDUSTRIES/T	***37541 BLACOW ROAD***	***S 1/2 - 1 (0.751 mi.)***	***Q65***	***188***

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	37541 BLACOW RD.	S 1/2 - 1 (0.751 mi.)	Q66	189
Not reported	37541 BLACOW ROAD	S 1/2 - 1 (0.751 mi.)	Q67	189

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 is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WISE AUTO REPAIR	4390 THORNTON AVE	ESE 0 - 1/8 (0.025 mi.)	B9	13

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 is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

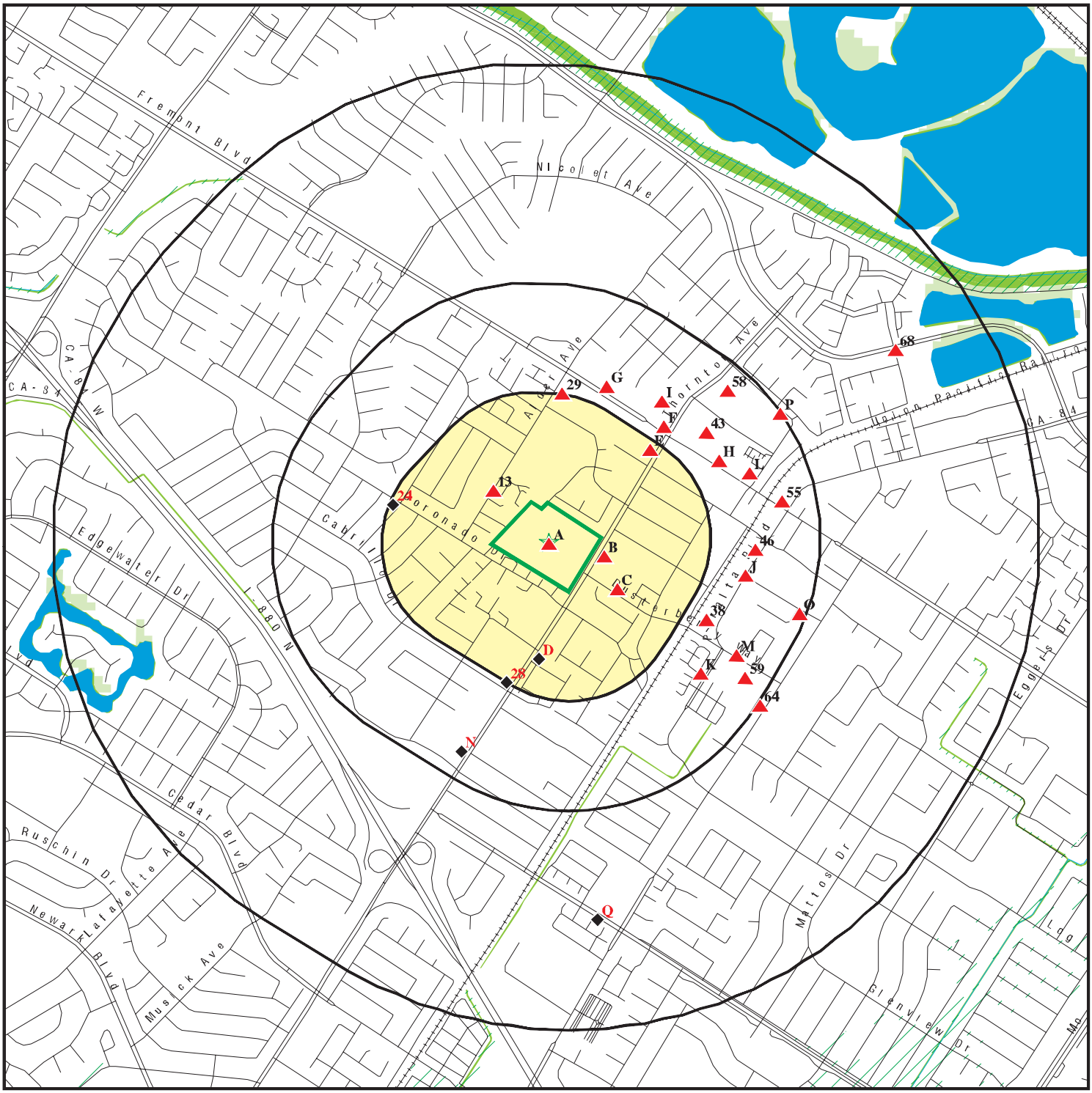
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SUPER CLEANERS	4366 THORNTON AVE	ESE 0 - 1/8 (0.025 mi.)	B5	10

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
UNION PACIFIC RAILROAD TRAIN DERAI	CPS-SLIC

OVERVIEW MAP - 5584380.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

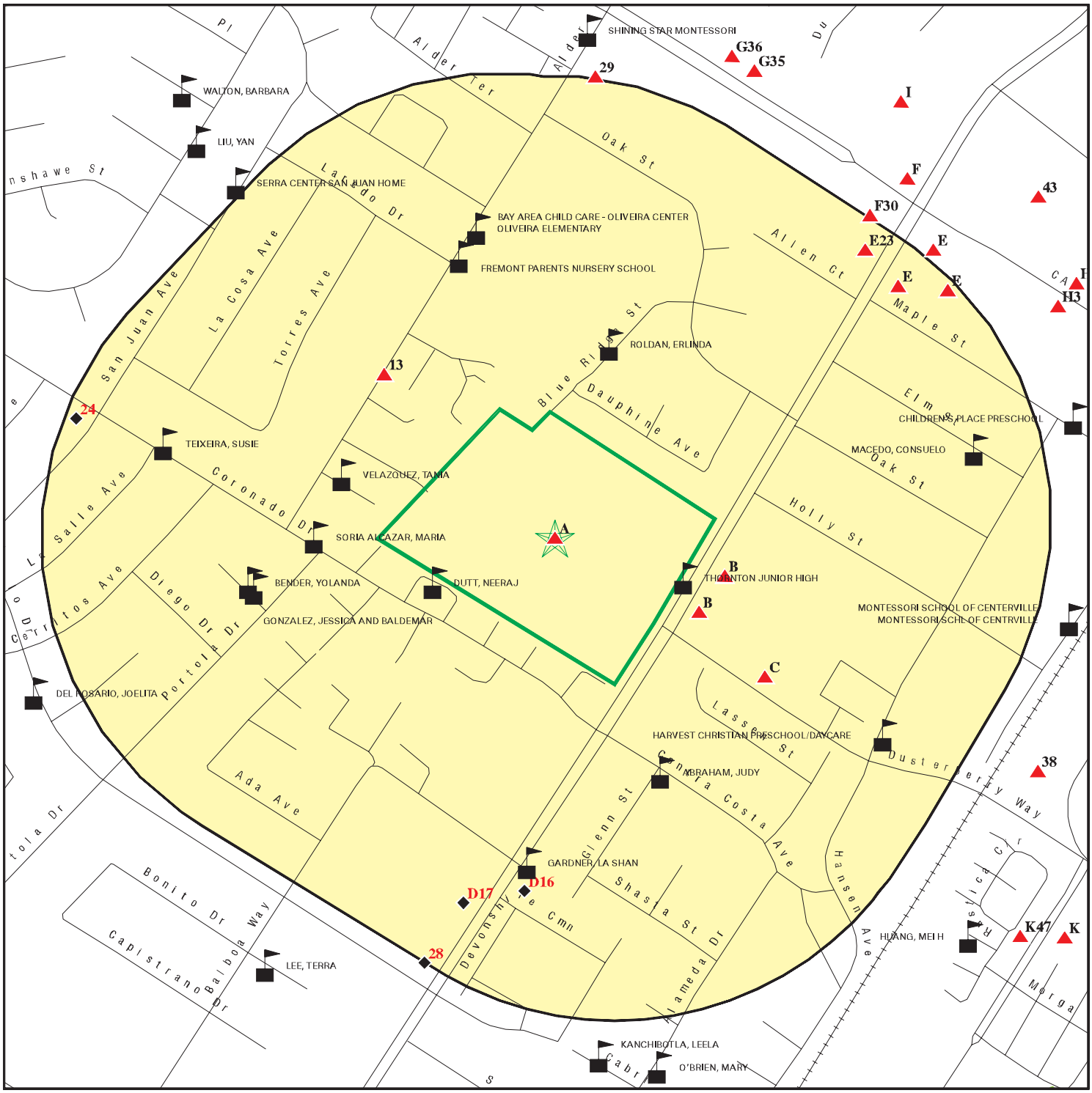
Areas of Concern

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:	Thornton Junior High School Expansion	CLIENT:	PlaceWorks
ADDRESS:	4357 Thornton Avenue Fremont CA 94536	CONTACT:	Denise Clendening
LAT/LONG:	37.557038 / 122.016694	INQUIRY #:	5584380.2s
		DATE:	March 08, 2019 12:56 pm

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DETAIL MAP - 5584380.2S



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

100-year flood zone

500-year flood zone

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:	Thornton Junior High School Expansion	CLIENT:	PlaceWorks
ADDRESS:	4357 Thornton Avenue Fremont CA 94536	CONTACT:	Denise Clendening
LAT/LONG:	37.557038 / 122.016694	INQUIRY #:	5584380.2s
		DATE:	March 08, 2019 12:57 pm

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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	0.001		0	NR	NR	NR	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		0	1	NR	NR	NR	1
RCRA-CESQG	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	0.001		0	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		1	0	1	2	NR	4
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		2	4	31	NR	NR	37

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	1	2	NR	NR	3
Alameda County CS	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		1	0	1	NR	NR	2
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		0	0	0	NR	NR	0
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	0.001		0	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	0.001		0	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	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	2	NR	NR	NR	2
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		3	2	NR	NR	NR	5
HIST UST	0.250		4	2	NR	NR	NR	6
CA FID UST	0.250		3	2	NR	NR	NR	5
CERS TANKS	0.250		0	1	NR	NR	NR	1
Local Land Records								
LIENS	0.001		0	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	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
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	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	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
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	4	0	NR	NR	NR	NR	4
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		1	3	21	NR	NR	25
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	1	1	3	NR	5
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	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		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		4	17	21	57	5	0	104

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **FREMONT USD/THORNTON JR HIGH SCHOOL** **HAZNET** **S112841353**
Target **4357 THORNTON AVE** **N/A**
Property **FREMONT, CA 94536**

Site 1 of 4 in cluster A

Actual: **47 ft.**

HAZNET:

Facility Name:	FREMONT USD/THORNTON JR HIGH SCHOOL
envid:	S112841353
Year:	1996
GEPAID:	CAC000734584
Contact:	FREMONT USD/THORNTON JR HS
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	4210 TECHNOLOGY DRIVE
Mailing City,St,Zip:	FREMONT, CA 945380000
Gen County:	Not reported
TSD EPA ID:	CAL000027741
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	.0842
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	1

A2 **FUS/THORNTON JR HIGH** **HAZNET** **S113026543**
Target **4357 THORNTON AVE** **N/A**
Property **FREMONT, CA 94536**

Site 2 of 4 in cluster A

Actual: **47 ft.**

HAZNET:

Facility Name:	FUS/THORNTON JR HIGH
envid:	S113026543
Year:	2001
GEPAID:	CAL000014213
Contact:	KURT J BANKS
Telephone:	5106592588
Mailing Name:	Not reported
Mailing Address:	4210 TECHNOLOGY DR
Mailing City,St,Zip:	FREMONT, CA 945386337
Gen County:	Not reported
TSD EPA ID:	CAL000190080
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	3.37
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Alameda

A3 FUSD THORNTON JR HIGH HAZNET S113025035
Target 4357 THORNTON AVE N/A
Property FREMONT, CA 94536

Site 3 of 4 in cluster A

Actual: 47 ft.

HAZNET:

Facility Name:	FUSD THORNTON JR HIGH
envid:	S113025035
Year:	2002
GEPAID:	CAL000009845
Contact:	KURT J BANKS
Telephone:	--
Mailing Name:	Not reported
Mailing Address:	4210 TECHNOLOGY DR
Mailing City,St,Zip:	FREMONT, CA 945386337
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	0.2
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Alameda

envid:	S113025035
Year:	1996
GEPAID:	CAL000009845
Contact:	FRE UNIFIED SCHOOLS
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	4210 TECHNOLOGY DR
Mailing City,St,Zip:	FREMONT, CA 945386337
Gen County:	Not reported
TSD EPA ID:	CAD000088252
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Transfer Station
Tons:	.1251
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	1

A4 FREMONT USD/THORNTON JR HIGH SCHOOL HAZNET S112931106
Target 4357 THORNTON AVE N/A
Property FREMONT, CA 94536

Site 4 of 4 in cluster A

Actual: 47 ft.

HAZNET:

Facility Name:	FREMONT USD/THORNTON JR HIGH SCHOOL
envid:	S112931106
Year:	2003
GEPAID:	CAC002567320
Contact:	JACK TOWNSLEY
Telephone:	5106592588
Mailing Name:	Not reported
Mailing Address:	4210 TECHNOLOGY DRIVE
Mailing City,St,Zip:	FREMONT, CA 945380000

FREMONT USD/THORNTON JR HIGH SCHOOL (Continued) **S112931106**

Gen County:	Not reported
TSD EPA ID:	CAD981382732
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	0.84
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Alameda

B5 **SUPER CLEANERS** **EDR Hist Cleaner** **1018553609**
ESE **4366 THORNTON AVE** **N/A**
< 1/8 **FREMONT, CA 94536**
0.025 mi.
131 ft. **Site 1 of 8 in cluster B**

Relative: EDR Hist Cleaner
Higher

Actual: **47 ft.**

Year:	Name:	Type:
1998	SUPER CLEANERS/THORNTON A	Drycleaning Plants, Except Rugs, NEC
1999	SUPER CLEANERS/THORNTON A	Drycleaning Plants, Except Rugs, NEC
2000	SUPER CLEANERS/THORNTON A	Drycleaning Plants, Except Rugs, NEC
2001	SUPER CLEANERS/THORNTON A	Drycleaning Plants, Except Rugs, NEC
2002	SUPER CLEANERS/THORNTON A	Drycleaning Plants, Except Rugs, NEC
2003	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2004	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2005	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2006	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2007	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2008	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2009	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2010	SUPER CLEANERS	Garment Pressing And Cleaners' Agents
2011	DEEP CLEANERS	Building And Office Cleaning Services
2012	DEEP CLEANERS	Building And Office Cleaning Services
2013	DEEP CLEANERS	Building And Office Cleaning Services
2014	DEEP CLEANERS	Building And Office Cleaning Services

B6 **GASCO SERVICE STATION 783** **HIST UST** **S118410501**
ESE **4390 THORTON AVENUE** **N/A**
< 1/8 **FREMONT, CA 94536**
0.025 mi.
132 ft. **Site 2 of 8 in cluster B**

Relative: HIST UST:
Higher

Actual: **47 ft.**

File Number:	00035F05
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035F05.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported

GASCO SERVICE STATION 783 (Continued) **S118410501**

Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

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B7 **GASCO SERVICE STATION #783** **SWEEPS UST** **S101623625**
ESE **4390 THORNTON AVE** **CA FID UST** **N/A**
< 1/8 **FREMONT, CA 94536**
0.025 mi.
132 ft. **Site 3 of 8 in cluster B**

Relative: **Higher**
Actual: **47 ft.**

SWEEPS UST:

Status:	Not reported
Comp Number:	9427
Number:	Not reported
Board Of Equalization:	44-001270
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	01-009-009427-000001
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	3

Status:	Not reported
Comp Number:	9427
Number:	Not reported
Board Of Equalization:	44-001270
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	01-009-009427-000002
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	ETHYL
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	9427
Number:	Not reported
Board Of Equalization:	44-001270
Referral Date:	Not reported
Action Date:	Not reported

GASCO SERVICE STATION #783 (Continued) **S101623625**

Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-009427-000003
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01002434
Regulated By: UTNKI
Regulated ID: 00009427
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107919596
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

B8 **GASCO SERVICE STATION #783** **HIST UST** **U001596846**
ESE **4390 THORNTON AVE** **N/A**
< 1/8 **FREMONT, CA 94536**
0.025 mi.
132 ft. **Site 4 of 8 in cluster B**

Relative:
Higher

Actual:
47 ft.

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000009427
Facility Type: Gas Station
Other Type: Not reported
Contact Name: ARCHULETA, NEDDIE
Telephone: 4157919596
Owner Name: DESERT PETROLEUM, INC.
Owner Address: POST OFFICE BOX 1601
Owner City,St,Zip: OXNARD, CA 93032
Total Tanks: 0004

Tank Num: 001
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4

GASCO SERVICE STATION #783 (Continued) **U001596846**

Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	#2
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	#3
Year Installed:	Not reported
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	#4
Year Installed:	Not reported
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	1/4
Leak Detection:	None

B9 **WISE AUTO REPAIR** **EDR Hist Auto** **1021167790**
ESE **4390 THORNTON AVE** **N/A**
< 1/8 **FREMONT, CA 94536**
0.025 mi.
132 ft. **Site 5 of 8 in cluster B**

Relative: EDR Hist Auto
Higher

Actual:
47 ft.

Year:	Name:	Type:
1975	WISES ART PHILLIPS 66	Gasoline Service Stations
1978	WISE ART AUTO & TIRE	Auto And Home Supply Stores
1979	WISE ART AUTO & TIRE	Auto And Home Supply Stores
1980	WISE AUTO REPAIR	General Automotive Repair Shops
1982	WISE AUTO REPAIR	General Automotive Repair Shops
1983	WISE AUTO REPAIR	General Automotive Repair Shops
1985	WISE AUTO REPAIR	General Automotive Repair Shops

B10 **QUIK STOP #43** **SWEEPS UST** **S101623627**
ESE **4342 THORNTON AVE** **CA FID UST** **N/A**
< 1/8 **FREMONT, CA 94536**
0.028 mi.
146 ft. **Site 6 of 8 in cluster B**

Relative: SWEEPS UST:
Higher

Actual:
48 ft.

Status:	Not reported
Comp Number:	6265
Number:	Not reported

QUIK STOP #43 (Continued) **S101623627**

Board Of Equalization: 44-001261
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-006265-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 6265
Number: Not reported
Board Of Equalization: 44-001261
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-006265-000002
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01002431
Regulated By: UTNKI
Regulated ID: 00006265
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4157925555
Mail To: Not reported
Mailing Address: 4567 ENTERPRISE ST
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

B11 **QUIK STOP 43** **HIST UST** **U001596861**
ESE **4342 THORNTON AVE** **N/A**
< 1/8 **FREMONT, CA 94536**
0.028 mi.
146 ft. **Site 7 of 8 in cluster B**

Relative: HIST UST:
Higher

File Number:	00036283
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036283.pdf
Region:	STATE
Facility ID:	00000006265
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	PETER YI
Telephone:	4157925555
Owner Name:	QUIK STOP MARKETS INC
Owner Address:	4567 ENTERPRISE ST
Owner City,St,Zip:	FREMONT, CA 94538
Total Tanks:	0002
Tank Num:	001
Container Num:	18
Year Installed:	1972
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	19
Year Installed:	1972
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

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B12 **TIDEWATER SERVICE STATION** **LUST** **S106117753**
ESE **4362 THORNTON AVENUE** **CERS** **N/A**
< 1/8 **FREMONT, CA 94538**
0.028 mi.
148 ft. **Site 8 of 8 in cluster B**

Relative: LUST:
Higher

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600121449
Global Id:	T0600121449
Latitude:	37.5561725
Longitude:	-122.0145761
Status:	Completed - Case Closed
Status Date:	04/07/2011
Case Worker:	RS
RB Case Number:	01-3516
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Local Agency
Local Case Number:	0747

TIDEWATER SERVICE STATION (Continued) **S106117753**

Potential Media Affect: Soil
Potential Contaminants of Concern: Xylene, Gasoline
Site History: Not reported

LUST:
Global Id: T0600121449
Contact Type: Local Agency Caseworker
Contact Name: RANGARAJAN SAMPATH
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD
City: FREMONT
Email: rangarajan.sampath@acwd.com
Phone Number: Not reported

Global Id: T0600121449
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: T0600121449
Action Type: Other
Date: 02/25/2003
Action: Leak Reported

Global Id: T0600121449
Action Type: ENFORCEMENT
Date: 09/23/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0600121449
Action Type: ENFORCEMENT
Date: 07/30/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0600121449
Action Type: ENFORCEMENT
Date: 04/07/2011
Action: Closure/No Further Action Letter

Global Id: T0600121449
Action Type: ENFORCEMENT
Date: 03/23/2011
Action: LOP Case Closure Summary to RB

Global Id: T0600121449
Action Type: REMEDIATION
Date: 02/23/2009
Action: Other (Use Description Field)

Global Id: T0600121449
Action Type: Other
Date: 02/25/2003

TIDEWATER SERVICE STATION (Continued) **S106117753**

Action: Leak Discovery

LUST:
Global Id: T0600121449
Status: Completed - Case Closed
Status Date: 04/07/2011

Global Id: T0600121449
Status: Open - Case Begin Date
Status Date: 02/25/2003

Global Id: T0600121449
Status: Open - Site Assessment
Status Date: 07/01/2003

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Preliminary site assessment workplan submitted
Case Number: 0747
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: UNK
Date Leak Confirmed: 7/1/2003
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 7/1/2003
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

CERS TANKS:
Site ID: 258617
CERS ID: T0600121449
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: RANGARAJAN SAMPATH - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported

TIDEWATER SERVICE STATION (Continued) **S106117753**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

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13 **ALDER AVENUE** **ENVIROSTOR** **S117333353**
NW **ALDER AVENUE 4325 ALDER AVENUE** **VCP** **N/A**
< 1/8 **FREMONT, CA 94538**
0.080 mi.
423 ft.

Relative: Higher

Actual: 47 ft.

ENVIROSTOR:

Facility ID:	60002106
Status:	No Further Action
Status Date:	01/15/2015
Site Code:	202020
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	1.47
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Juanita (Nina) Bacey
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	20
Senate:	10
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.55903
Longitude:	-122.0193
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	Chlordane Lead
Confirmed COC:	Chlordane Lead
Potential Description:	SOIL
Alias Name:	202020
Alias Type:	Project Code (Site Code)
Alias Name:	60002106
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	09/19/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	10/29/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report

ALDER AVENUE (Continued) **S117333353**

Completed Date:	01/16/2015
Comments:	No COCs exceeding screening level goals remain on site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	11/14/2011
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	03/30/2012
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

VCP:

Facility ID:	60002106
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.47
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Juanita (Nina) Bacey
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Site Code:	202020
Assembly:	20
Senate:	10
Special Programs Code:	Not reported
Status:	No Further Action
Status Date:	01/15/2015
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	37.55903 / -122.0193
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	30004, 30013
Confirmed COC:	30004,30013
Potential Description:	SOIL
Alias Name:	202020
Alias Type:	Project Code (Site Code)
Alias Name:	60002106
Alias Type:	Envirostor ID Number

ALDER AVENUE (Continued) **S117333353**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	09/19/2014
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	10/29/2014
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	01/16/2015
Comments:	No COCs exceeding screening level goals remain on site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	11/14/2011
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	03/30/2012
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

C14 **FREMONT POST OFFICE** **HIST UST** **U001596874**
ESE **37010 DUSTERBERRY WAY** **N/A**
< 1/8 **FREMONT, CA 94536**
0.091 mi.
482 ft. **Site 1 of 2 in cluster C**

Relative:
Higher

Actual:
47 ft.

HIST UST:

File Number:	0003641F
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0003641F.pdf
Region:	STATE
Facility ID:	00000037432
Facility Type:	Other
Other Type:	U.S. POSTAL SERVICE
Contact Name:	RALPH GARCIA
Telephone:	4158748462
Owner Name:	U.S. POSTAL SERVICE

FREMONT POST OFFICE (Continued) **U001596874**

Owner Address: 37010 DUSTERBERRY WAY
Owner City,St,Zip: FREMONT, CA 94536
Total Tanks: 0001

Tank Num: 001
Container Num: 031
Year Installed: 1980
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

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C15 **US POST OFFICE** **LUST** **S101580539**
ESE **37010 DUSTERBERRY WAY** **SWEEPS UST** **N/A**
< 1/8 **FREMONT, CA 94536** **CA FID UST**
0.091 mi. **HIST CORTESE**
482 ft. **Site 2 of 2 in cluster C** **CERS**

Relative: Higher
Actual: 47 ft.

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101857
Global Id: T0600101857
Latitude: 37.5558174
Longitude: -122.0135252
Status: Completed - Case Closed
Status Date: 04/15/1996
Case Worker: Not reported
RB Case Number: 01-2010
Local Agency: Not reported
File Location: Not reported
Local Case Number: 0240
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600101857
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: T0600101857
Action Type: Other
Date: 02/25/1994
Action: Leak Reported

Global Id: T0600101857
Action Type: Other
Date: 03/11/1994

US POST OFFICE (Continued) **S101580539**

Action: Leak Discovery

Global Id: T0600101857
Action Type: Other
Date: 02/24/1994
Action: Leak Stopped

LUST:
Global Id: T0600101857
Status: Completed - Case Closed
Status Date: 04/15/1996

Global Id: T0600101857
Status: Open - Case Begin Date
Status Date: 02/24/1994

Global Id: T0600101857
Status: Open - Site Assessment
Status Date: 09/27/1994

Global Id: T0600101857
Status: Open - Site Assessment
Status Date: 04/09/1995

LUST REG 2:
Region: 2
Facility Id: 01-2010
Facility Status: Case Closed
Case Number: 0240
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 9/27/1994
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 4/9/1995
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:
Status: Not reported
Comp Number: 37432
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: 01-009-037432-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL

US POST OFFICE (Continued) **S101580539**

STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

CA FID UST:
Facility ID: 01003083
Regulated By: UTNKA
Regulated ID: 00037432
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107928654
Mail To: Not reported
Mailing Address: 1675 007TH ST
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 945369998
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2010

CERS TANKS:
Site ID: 212245
CERS ID: T0600101857
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

D16 **J G DUTRA & SON** **LUST** **S101580499**
South **4568 THORNTON AVE** **SWEEPS UST** **N/A**
1/8-1/4 **FREMONT, CA 94538** **CA FID UST**
0.167 mi. **HIST CORTESE**
884 ft. **Site 1 of 2 in cluster D** **CERS**

Relative: LUST:
Lower Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Actual: Case Type: LUST Cleanup Site
44 ft. Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101839
Global Id: T0600101839

J G DUTRA & SON (Continued) **S101580499**

Latitude:	37.553103
Longitude:	-122.016859
Status:	Completed - Case Closed
Status Date:	10/20/1994
Case Worker:	SDI
RB Case Number:	01-1991
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0381
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600101839
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:	T0600101839
Contact Type:	Local Agency Caseworker
Contact Name:	STEVEN D. INN
Organization Name:	ALAMEDA COUNTY WATER DISTRICT
Address:	43885 SOUTH GRIMMER BOULEVARD
City:	FREMONT
Email:	steven.inn@acwd.com
Phone Number:	Not reported

LUST:

Global Id:	T0600101839
Action Type:	Other
Date:	04/28/1994
Action:	Leak Reported

Global Id:	T0600101839
Action Type:	REMEDIATION
Date:	05/05/1994
Action:	Not reported

Global Id:	T0600101839
Action Type:	Other
Date:	04/28/1994
Action:	Leak Discovery

Global Id:	T0600101839
Action Type:	Other
Date:	04/28/1994
Action:	Leak Stopped

LUST:

Global Id:	T0600101839
Status:	Completed - Case Closed
Status Date:	10/20/1994

J G DUTRA & SON (Continued) **S101580499**

Global Id: T0600101839
Status: Open - Case Begin Date
Status Date: 04/28/1994

Global Id: T0600101839
Status: Open - Site Assessment
Status Date: 10/12/1994

LUST REG 2:
Region: 2
Facility Id: 01-1991
Facility Status: Case Closed
Case Number: 0381
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 10/12/1994
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:
Status: Active
Comp Number: 379
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-19-91
Action Date: 09-19-91
Created Date: 09-19-91
Owner Tank Id: 1
SWRCB Tank Id: 01-009-000379-000001
Tank Status: A
Capacity: 550
Active Date: 09-19-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 1

CA FID UST:
Facility ID: 01003033
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 4568 THORNTON AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94538
Contact: Not reported

J G DUTRA & SON (Continued) **S101580499**

Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1991

CERS TANKS:
Site ID: 212037
CERS ID: T0600101839
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

D17 **CABRILLO CLEANER** **RCRA-SQG** **1000361996**
SSW **4673 THORNTON** **CPS-SLIC** **CAD981580988**
1/8-1/4 **FREMONT, CA 94536** **FINDS**
0.197 mi. **ECHO**
1041 ft. **Site 2 of 2 in cluster D** **CERS**

Relative:
Lower

Actual:
43 ft.

RCRA-SQG:
Date form received by agency: 11/25/1986
Facility name: CABRILLO CLEANER
Facility address: 4673 THORNTON
FREMONT, CA 94536
EPA ID: CAD981580988
Mailing address: THORNTON
FREMONT, CA 94536
Contact: ENVIRONMENTAL MANAGER
Contact address: 4673 THORNTON
FREMONT, CA 94536

CABRILLO CLEANER (Continued) **1000361996**

Contact country: US
Contact telephone: 415-793-3546
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: CHO BROWHART
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: 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

Violation Status: No violations found

CABRILLO CLEANER (Continued) **1000361996**

CPS-SLIC:

Region:	STATE
Facility Status:	**Open - Verification Monitoring**
Status Date:	08/07/2003
Global Id:	SL0600133592
Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Lead Agency Case Number:	0640
Latitude:	37.553415
Longitude:	-122.0184273
Case Type:	Cleanup Program Site
Case Worker:	EC
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
RB Case Number:	01S0617
File Location:	Not reported
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:

Region:	2
Facility ID:	Not reported
Facility Status:	Not reported
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Confirmed:	Not reported
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

FINDS:

Registry ID: 110002722340

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.

CABRILLO CLEANER (Continued) **1000361996**

ECHO:
Envid: 1000361996
Registry ID: 110002722340
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002722340

CERS TANKS:
Site ID: 218966
CERS ID: SL0600133592
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET, 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: EILEEN CHEN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD.
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

E18 **OIL CHANGER #618** **CERS HAZ WASTE** **S121744365**
NE **4088 THORNTON AVE.** **CERS TANKS** **N/A**
1/8-1/4 **FREMONT, CA 94536** **CERS**
0.220 mi.
1163 ft. **Site 1 of 11 in cluster E**

Relative: Higher
Actual: 54 ft.

CERS HAZ WASTE:
Site ID: 139739
CERS ID: 10003108
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 139739
Site Name: Oil Changer #618
Violation Date: 05-15-2013
Citation: HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Description: Failure to include an adequate training program in the business plan, which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled.
Violation Notes: Returned to compliance on 07/30/2013.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139739

OIL CHANGER #618 (Continued) **S121744365**

Site Name:	Oil Changer #618
Violation Date:	05-05-2016
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.
Violation Notes:	Returned to compliance on 05/19/2016. Hazardous wastes drums must identify all contents, start date, EPA ID# etc. Labels given in field.
Violation Division:	Fremont City Fire Department
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	139739
Site Name:	Oil Changer #618
Violation Date:	05-15-2013
Citation:	HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description:	Business Plan Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 07/30/2013. Alternate means (daily inspection) has been accepted in lieu of secondary containment for 55 gallon drum washing fluid
Violation Division:	Fremont City Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-15-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fremont City Fire Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-05-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fremont City Fire Department
Eval Program:	APSA
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-15-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fremont City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-05-2016
Violations Found:	No
Eval Type:	Routine done by local agency

OIL CHANGER #618 (Continued) **S121744365**

Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HWLQG
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Michael Steven Chilberto
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: Michael Steven Chilberto
Entity Title: Compliance Officer
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: OIL CHANGER, INC.
Entity Title: Not reported
Affiliation Address: PO Box 9037
Affiliation City: Pleasanton
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94566
Affiliation Phone: (925) 734-5800

Affiliation Type Desc: Operator
Entity Name: OIL CHANGER, 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: (925) 734-5800

Affiliation Type Desc: CUPA District
Entity Name: Fremont City Fire Department

OIL CHANGER #618 (Continued) **S121744365**

Entity Title:	Not reported
Affiliation Address:	P.O. Box 5006
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94537-5006
Affiliation Phone:	(510) 494-4279
Affiliation Type Desc:	Environmental Contact
Entity Name:	Michael Chilberto
Entity Title:	Not reported
Affiliation Address:	P.O. Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94566
Affiliation Phone:	(925) 201-9378
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94566
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	OIL CHANGER, 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:	Property Owner
Entity Name:	Joseph and Marcia Riggio
Entity Title:	Not reported
Affiliation Address:	108 Kennedy Knolls Lane
Affiliation City:	Los Gatos
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95032
Affiliation Phone:	(408) 267-4656

CERS TANKS:

Site ID:	139739
CERS ID:	10003108
CERS Description:	Aboveground Petroleum Storage

Violations:

Site ID:	139739
Site Name:	Oil Changer #618

OIL CHANGER #618 (Continued) **S121744365**

Violation Date: 05-15-2013
Citation: HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Description: Failure to include an adequate training program in the business plan, which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled.
Violation Notes: Returned to compliance on 07/30/2013.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139739
Site Name: Oil Changer #618
Violation Date: 05-05-2016
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.
Violation Notes: Returned to compliance on 05/19/2016. Hazardous wastes drums must identify all contents, start date, EPA ID# etc. Labels given in field.
Violation Division: Fremont City Fire Department
Violation Program: HWLQG
Violation Source: CERS

Site ID: 139739
Site Name: Oil Changer #618
Violation Date: 05-15-2013
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 07/30/2013. Alternate means (daily inspection) has been accepted in lieu of secondary containment for 55 gallon drum washing fluid
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-15-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

OIL CHANGER #618 (Continued) **S121744365**

Eval Date: 05-15-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HWLQG
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Michael Steven Chilberto
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: Michael Steven Chilberto
Entity Title: Compliance Officer
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: OIL CHANGER, INC.
Entity Title: Not reported
Affiliation Address: PO Box 9037
Affiliation City: Pleasanton
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94566
Affiliation Phone: (925) 734-5800

OIL CHANGER #618 (Continued) **S121744365**

Affiliation Type Desc:	Operator
Entity Name:	OIL CHANGER, 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:	(925) 734-5800

Affiliation Type Desc:	CUPA District
Entity Name:	Fremont City Fire Department
Entity Title:	Not reported
Affiliation Address:	P.O. Box 5006
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94537-5006
Affiliation Phone:	(510) 494-4279

Affiliation Type Desc:	Environmental Contact
Entity Name:	Michael Chilberto
Entity Title:	Not reported
Affiliation Address:	P.O. Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94566
Affiliation Phone:	(925) 201-9378

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94566
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	OIL CHANGER, 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:	Property Owner
Entity Name:	Joseph and Marcia Riggio
Entity Title:	Not reported
Affiliation Address:	108 Kennedy Knolls Lane
Affiliation City:	Los Gatos
Affiliation State:	CA
Affiliation Country:	United States

OIL CHANGER #618 (Continued) **S121744365**

Affiliation Zip: 95032
Affiliation Phone: (408) 267-4656

CERS TANKS:
Site ID: 139739
CERS ID: 10003108
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 139739
Site Name: Oil Changer #618
Violation Date: 05-15-2013
Citation: HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Description: Failure to include an adequate training program in the business plan, which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled.
Violation Notes: Returned to compliance on 07/30/2013.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139739
Site Name: Oil Changer #618
Violation Date: 05-05-2016
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.
Violation Notes: Returned to compliance on 05/19/2016. Hazardous wastes drums must identify all contents, start date, EPA ID# etc. Labels given in field.
Violation Division: Fremont City Fire Department
Violation Program: HWLQG
Violation Source: CERS

Site ID: 139739
Site Name: Oil Changer #618
Violation Date: 05-15-2013
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 07/30/2013. Alternate means (daily inspection) has been accepted in lieu of secondary containment for 55 gallon drum washing fluid
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-15-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW

OIL CHANGER #618 (Continued) **S121744365**

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-15-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-05-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HWLQG
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Michael Steven Chilberto
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: Michael Steven Chilberto
Entity Title: Compliance Officer
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported

OIL CHANGER #618 (Continued) **S121744365**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	OIL CHANGER, INC.
Entity Title:	Not reported
Affiliation Address:	PO Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94566
Affiliation Phone:	(925) 734-5800
Affiliation Type Desc:	Operator
Entity Name:	OIL CHANGER, 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:	(925) 734-5800
Affiliation Type Desc:	CUPA District
Entity Name:	Fremont City Fire Department
Entity Title:	Not reported
Affiliation Address:	P.O. Box 5006
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94537-5006
Affiliation Phone:	(510) 494-4279
Affiliation Type Desc:	Environmental Contact
Entity Name:	Michael Chilberto
Entity Title:	Not reported
Affiliation Address:	P.O. Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94566
Affiliation Phone:	(925) 201-9378
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO Box 9037
Affiliation City:	Pleasanton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94566
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	OIL CHANGER, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported

OIL CHANGER #618 (Continued) **S121744365**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Joseph and Marcia Riggio
Entity Title:	Not reported
Affiliation Address:	108 Kennedy Knolls Lane
Affiliation City:	Los Gatos
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95032
Affiliation Phone:	(408) 267-4656

E19 **THORNTON MOBIL** **HIST UST** **U001596938**
NE **4088 THORNTON AVE** **N/A**
1/8-1/4 **FREMONT, CA 94538**
0.220 mi.
1163 ft. **Site 2 of 11 in cluster E**

Relative: **Higher**

Actual: **54 ft.**

HIST UST:

File Number:	0003628E
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0003628E.pdf
Region:	STATE
Facility ID:	00000056450
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	RICHARD A. HIRSCH
Telephone:	4082876500
Owner Name:	R&B ASSOCIATES
Owner Address:	4088 THORNTON AVE.
Owner City,St,Zip:	FREMONT, CA 94538
Total Tanks:	0005
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00004000

THORNTON MOBIL (Continued) **U001596938**

Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor
Tank Num:	005
Container Num:	5
Year Installed:	Not reported
Tank Capacity:	00000200
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

E20 **MOBIL 10-GYP (THORNTON)** **LUST** **S103472241**
NE **4088 THORNTON AVE** **N/A**
1/8-1/4 **FREMONT, CA 94536**
0.220 mi.
1163 ft. **Site 3 of 11 in cluster E**

Relative: **Higher**

Actual: **54 ft.**

LUST REG 2:

Region:	2
Facility Id:	01-1472
Facility Status:	Case Closed
Case Number:	0292
How Discovered:	Tank Closure
Leak Cause:	Structure Failure
Leak Source:	Tank
Date Leak Confirmed:	4/28/1989
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	1/22/1990
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

E21
NE
1/8-1/4
0.220 mi.
1163 ft.

OIL CHANGER #618
4088 THORNTON AVE.
FREMONT, CA 94536

Site 4 of 11 in cluster E

AST **A100422937**
N/A

Relative:
Higher

Actual:
54 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Oil Changer, Inc.
Total Gallons:	Not reported
CERSID:	10003108
Facility ID:	C90006855
Business Name:	Oil Changer, Inc.
Phone:	5105059413
Fax:	Not reported
Mailing Address:	PO Box 9037
Mailing Address City:	Pleasanton
Mailing Address State:	CA
Mailing Address Zip Code:	94566
Operator Name:	Oil Changer, Inc.
Operator Phone:	9257345800
Owner Phone:	9257345800
Owner Mail Address:	PO Box 9037
Owner State:	CA
Owner Zip Code:	94566
Owner Country:	United States
Property Owner Name:	Joseph and Marcia Riggio
Property Owner Phone:	408-267-4656
Property Owner Mailing Address:	108 Kennedy Knolls Lane
Property Owner City:	Los Gatos
Property Owner Stat :	CA
Property Owner Zip Code:	95032
Property Owner Country:	United States
EPAID:	CAL000177385

E22
NE
1/8-1/4
0.220 mi.
1163 ft.

THORNTON MOBIL
4088 THORNTON AVE
FREMONT, CA 94538

Site 5 of 11 in cluster E

LUST **S101623639**
SWEEPS UST **N/A**
CA FID UST
HIST CORTESE
CERS

Relative:
Higher

Actual:
54 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101359
Global Id:	T0600101359
Latitude:	37.5597793
Longitude:	-122.0119985
Status:	Completed - Case Closed
Status Date:	02/03/1998
Case Worker:	Not reported
RB Case Number:	01-1472
Local Agency:	Not reported
File Location:	Not reported
Local Case Number:	0292
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

THORNTON MOBIL (Continued) **S101623639**

Global Id: T0600101359
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: T0600101359
Action Type: Other
Date: 09/21/1989
Action: Leak Reported

Global Id: T0600101359
Action Type: Other
Date: 09/21/1989
Action: Leak Discovery

Global Id: T0600101359
Action Type: Other
Date: 09/21/1989
Action: Leak Stopped

LUST:
Global Id: T0600101359
Status: Completed - Case Closed
Status Date: 02/03/1998

Global Id: T0600101359
Status: Open - Case Begin Date
Status Date: 04/28/1989

Global Id: T0600101359
Status: Open - Site Assessment
Status Date: 04/28/1989

Global Id: T0600101359
Status: Open - Site Assessment
Status Date: 01/22/1990

SWEEPS UST:
Status: Not reported
Comp Number: 56450
Number: Not reported
Board Of Equalization: 44-001344
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-056450-000001
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported

THORNTON MOBIL (Continued) **S101623639**

Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 5

Status: Not reported
Comp Number: 56450
Number: Not reported
Board Of Equalization: 44-001344
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-056450-000002
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 56450
Number: Not reported
Board Of Equalization: 44-001344
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-056450-000003
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 56450
Number: Not reported
Board Of Equalization: 44-001344
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-056450-000004
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported

THORNTON MOBIL (Continued) **S101623639**

Comp Number: 56450
Number: Not reported
Board Of Equalization: 44-001344
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-056450-000005
Tank Status: Not reported
Capacity: 200
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01001591
Regulated By: UTNKI
Regulated ID: 00056450
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4082876500
Mail To: Not reported
Mailing Address: 4088 THORNTON AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94538
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1472

CERS TANKS:
Site ID: 235809
CERS ID: T0600101359
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

E23
NE
1/8-1/4
0.229 mi.
1207 ft.

MIDAS AUTO SERVICE
4045 THORNTON AVE.
FREMONT, CA 94536

Site 6 of 11 in cluster E

CERS HAZ WASTE **S121743384**
CERS **N/A**

Relative:
Higher

Actual:
54 ft.

CERS HAZ WASTE:
Site ID: 135066
CERS ID: 10168659
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 02-22-2013
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.
Violation Notes: Returned to compliance on 04/10/2013.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 02-22-2013
Citation: 22 CCR 16 66266.81(b) - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.81(b)
Violation Description: Failure to properly manage, store, and label a damaged lead acid battery so as to minimize the release of acid and lead and to protect the environment.
Violation Notes: Returned to compliance on 04/10/2013. Batteries marked with date received
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 02-22-2013
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22,

MIDAS AUTO SERVICE (Continued) **S121743384**

Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 04/10/2013. New owner - maintain waste receipts/manifests for three years
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 04-26-2016
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 04/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 04-26-2016
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 04/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 02-22-2013
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 04/10/2013. all containers have been properly labeled
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP

MIDAS AUTO SERVICE (Continued) **S121743384**

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-27-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: FORMER BUSINESS OWNER LEFT WITHOUT PROPER CLOSURE/NOTIFICATION. NEW OWNERS AS OF 2013
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Non-RCRA LQG
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Non-RCRA LQG
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: New owner as of 2013
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

MIDAS AUTO SERVICE (Continued) **S121743384**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: LQG non rcra
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: PACIFIC MANAGEMENT SERVICES
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: Fremont City Fire Department
Entity Title: Not reported
Affiliation Address: P.O. Box 5006
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94537-5006
Affiliation Phone: (510) 494-4279

Affiliation Type Desc: Property Owner
Entity Name: Bruno O & Delma R. Buti
Entity Title: Not reported
Affiliation Address: P.O. Box 304
Affiliation City: Cloverdale
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95425
Affiliation Phone: (707) 894-5875

Affiliation Type Desc: Environmental Contact
Entity Name: Amandeep Singh
Entity Title: Not reported
Affiliation Address: 4045 Thornton Ave
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94536

MIDAS AUTO SERVICE (Continued) **S121743384**

Affiliation Phone: (510) 796-4111

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4045 Thornton Ave.
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94536
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Israr Refai
Entity Title: President
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: Bhangu Corporation Inc.
Entity Title: Not reported
Affiliation Address: 4045 Thornton Ave.
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94536
Affiliation Phone: (510) 796-4111

Affiliation Type Desc: Operator
Entity Name: Amandeep Singh
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: (510) 796-4111

Affiliation Type Desc: Parent Corporation
Entity Name: Midas/SpeeDee
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

CERS TANKS:
Site ID: 135066
CERS ID: 10168659
CERS Description: Chemical Storage Facilities

MIDAS AUTO SERVICE (Continued) **S121743384**

Violations:

Site ID:	135066
Site Name:	Midas Auto Service
Violation Date:	02-22-2013
Citation:	22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description:	Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.
Violation Notes:	Returned to compliance on 04/10/2013.
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	135066
Site Name:	Midas Auto Service
Violation Date:	02-22-2013
Citation:	22 CCR 16 66266.81(b) - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.81(b)
Violation Description:	Failure to properly manage, store, and label a damaged lead acid battery so as to minimize the release of acid and lead and to protect the environment.
Violation Notes:	Returned to compliance on 04/10/2013. Batteries marked with date received
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	135066
Site Name:	Midas Auto Service
Violation Date:	02-22-2013
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes:	Returned to compliance on 04/10/2013. New owner - maintain waste receipts/manifests for three years
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS

MIDAS AUTO SERVICE (Continued) **S121743384**

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 04-26-2016
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 04/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 04-26-2016
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 04/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 135066
Site Name: Midas Auto Service
Violation Date: 02-22-2013
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 04/10/2013. all containers have been properly labeled
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-27-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: FORMER BUSINESS OWNER LEFT WITHOUT PROPER CLOSURE/NOTIFICATION. NEW OWNERS AS OF 2013
Eval Division: Fremont City Fire Department

MIDAS AUTO SERVICE (Continued) **S121743384**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Non-RCRA LQG
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Non-RCRA LQG
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: New owner as of 2013
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-22-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: LQG non rcra
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

MIDAS AUTO SERVICE (Continued) **S121743384**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-13-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fremont City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	PACIFIC MANAGEMENT SERVICES
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:	Fremont City Fire Department
Entity Title:	Not reported
Affiliation Address:	P.O. Box 5006
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94537-5006
Affiliation Phone:	(510) 494-4279

Affiliation Type Desc:	Property Owner
Entity Name:	Bruno O & Delma R. Buti
Entity Title:	Not reported
Affiliation Address:	P.O. Box 304
Affiliation City:	Cloverdale
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95425
Affiliation Phone:	(707) 894-5875

Affiliation Type Desc:	Environmental Contact
Entity Name:	Amandeep Singh
Entity Title:	Not reported
Affiliation Address:	4045 Thornton Ave
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94536
Affiliation Phone:	(510) 796-4111

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	4045 Thornton Ave.
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported

MIDAS AUTO SERVICE (Continued) **S121743384**

Affiliation Zip:	94536
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Israr Refai
Entity Title:	President
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:	Bhangu Corporation Inc.
Entity Title:	Not reported
Affiliation Address:	4045 Thornton Ave.
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94536
Affiliation Phone:	(510) 796-4111
Affiliation Type Desc:	Operator
Entity Name:	Amandeep Singh
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:	(510) 796-4111
Affiliation Type Desc:	Parent Corporation
Entity Name:	Midas/SpeeDee
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

24
WNW
1/8-1/4
0.241 mi.
1273 ft.

PAYNE TRUCKING
4519 SAN JUAN AVE
FREMONT, CA 94536

RCRA NonGen / NLR **1000311823**
FINDS **CAD982484461**
ECHO

Relative:
Lower

Actual:
43 ft.

RCRA NonGen / NLR:

Date form received by agency:	03/22/1990
Facility name:	PAYNE TRUCKING
Facility address:	4519 SAN JUAN AVE FREMONT, CA 94536
EPA ID:	CAD982484461
Mailing address:	SAN JUAN AVE FREMONT, CA 94536

PAYNE TRUCKING (Continued) **1000311823**

Contact:	ENVIRONMENTAL MANAGER
Contact address:	4519 SAN JUAN AVE FREMONT, CA 94536
Contact country:	US
Contact telephone:	415-487-7222
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	RICHARD A PAYNE
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:	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:	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

PAYNE TRUCKING (Continued) **1000311823**

Evaluation Action Summary:
Evaluation date: 11/14/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110002826853

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: 1000311823
Registry ID: 110002826853
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002826853

E25
ENE
1/8-1/4
0.242 mi.
1280 ft.

AUTOBRITE CAR WASH **LUST** **S105034611**
37063 FREMONT BLVD **N/A**
FREMONT, CA 94536

Site 7 of 11 in cluster E

Relative:
Higher

Actual:
54 ft.

LUST REG 2:
Region: 2
Facility Id: 01-2373
Facility Status: Leak being confirmed
Case Number: 0245
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 9/2/1998
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

E26
ENE
1/8-1/4
0.242 mi.
1280 ft.

AUTOBRITE CAR WASH SYSTEMS
37063 FREMONT BLVD
FREMONT, CA 94536

Site 8 of 11 in cluster E

HIST UST **U001596830**
HIST CORTESE **N/A**

Relative:
Higher

Actual:
54 ft.

HIST UST:

File Number:	00035D91
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035D91.pdf
Region:	STATE
Facility ID:	00000035191
Facility Type:	Gas Station
Other Type:	CAR WASH
Contact Name:	BERT W. COYLE
Telephone:	4157972332
Owner Name:	BERT W. COYLE & S.L. FRIED
Owner Address:	37063 FREMONT BLVD.
Owner City,St,Zip:	FREMONT, CA 94536
Total Tanks:	0003
Tank Num:	001
Container Num:	1
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1978
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

HIST CORTESE:

Region:	CORTESE
Facility County Code:	1
Reg By:	LTNKA
Reg Id:	01-2373

E27
ENE
1/8-1/4
0.242 mi.
1280 ft.

AUTOBRITE CAR WASH
37063 FREMONT BOULEVARD
FREMONT, CA 92507

Site 9 of 11 in cluster E

Database(s): Notify 65
EDR ID Number: U000054950
EPA ID Number: N/A

Relative:
Higher

Actual:
54 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

28
SSW
1/4-1/2
0.250 mi.
1321 ft.

CABRILLO SHELL
4695 THORNTON AVE
FREMONT, CA 94536

Database(s): LUST, SWEEPS UST, CA FID UST, HAZNET, HIST CORTESE, CERS
EDR ID Number: S101623622
EPA ID Number: N/A

Relative:
Lower

Actual:
43 ft.

LUST:

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=T0600101264
Global Id:	T0600101264
Latitude:	37.552504
Longitude:	-122.018556
Status:	Completed - Case Closed
Status Date:	03/16/2017
Case Worker:	REL
RB Case Number:	01-1369
Local Agency:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Local Case Number:	TT0100
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	The subject site is located on the northern corner of the Thornton Avenue and Cabrillo Drive intersection in a mixed residential and commercial area of Fremont, California. Operation of the Shell-branded service station at the site was discontinued on December 22, 1998. Subsequently, Shell sold the station and property to Mr. James Hardwick. The property is currently occupied by a convenience store building. All underground storage tanks (USTs) and fuel dispensing equipment have been removed. The previous station layout included four USTs, three dispenser islands, and a station building. Soil samples collected after UST removal in 2003 had up to 210 milligram per kilograms of total petroleum hydrocarbons as diesel (TPHd), 0.032 mg/kg benzene, and 3.6 mg/kg MtBE. Periodic groundwater monitoring has been conducted at the site since May 1985.

LUST:

Global Id:	T0600101264
Contact Type:	Regional Board Caseworker
Contact Name:	RALPH LAMBERT
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST. SUITE 1500
City:	OAKLAND
Email:	ralambert@waterboards.ca.gov

CABRILLO SHELL (Continued) **S101623622**

Phone Number: Not reported

LUST:

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 03/16/2017
Action: Closure/No Further Action Letter

Global Id: T0600101264
Action Type: Other
Date: 10/03/1991
Action: Leak Reported

Global Id: T0600101264
Action Type: RESPONSE
Date: 01/08/2013
Action: Request for Closure - Regulator Responded

Global Id: T0600101264
Action Type: RESPONSE
Date: 05/15/2013
Action: Request for Closure - Regulator Responded

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 06/28/2016
Action: File review

Global Id: T0600101264
Action Type: RESPONSE
Date: 08/15/2013
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

Global Id: T0600101264
Action Type: RESPONSE
Date: 08/15/2013
Action: Well Installation Workplan - Regulator Responded

Global Id: T0600101264
Action Type: RESPONSE
Date: 06/26/2015
Action: Soil and Water Investigation Report - Regulator Responded

Global Id: T0600101264
Action Type: RESPONSE
Date: 01/15/2015
Action: Site Investigation Workplan - Regulator Responded

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 06/26/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 03/02/2017
Action: LOP Case Closure Summary to RB

CABRILLO SHELL (Continued) **S101623622**

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 07/30/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 02/26/2016
Action: Notification - Public Notice of Case Closure

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 03/07/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 03/16/2010
Action: File review

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 04/01/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 08/01/2012
Action: Meeting

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 08/02/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 07/31/2014
Action: 13267 Requirement

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 06/12/2014
Action: File review

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 09/20/2004
Action: Site Visit / Inspection / Sampling

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 10/24/2013
Action: Meeting

Global Id: T0600101264
Action Type: REMEDIATION

CABRILLO SHELL (Continued) **S101623622**

Date: 09/01/2004
Action: Excavation

Global Id: T0600101264
Action Type: Other
Date: 10/03/1991
Action: Leak Discovery

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 02/10/2015
Action: 13267 Requirement

Global Id: T0600101264
Action Type: ENFORCEMENT
Date: 07/07/2003
Action: * No Action

Global Id: T0600101264
Action Type: Other
Date: 10/03/1991
Action: Leak Stopped

LUST:
Global Id: T0600101264
Status: Completed - Case Closed
Status Date: 03/16/2017

Global Id: T0600101264
Status: Open - Case Begin Date
Status Date: 05/30/1985

Global Id: T0600101264
Status: Open - Eligible for Closure
Status Date: 11/14/2013

Global Id: T0600101264
Status: Open - Eligible for Closure
Status Date: 06/29/2016

Global Id: T0600101264
Status: Open - Site Assessment
Status Date: 05/30/1985

Global Id: T0600101264
Status: Open - Site Assessment
Status Date: 01/24/1989

Global Id: T0600101264
Status: Open - Site Assessment
Status Date: 10/03/1991

Global Id: T0600101264
Status: Open - Site Assessment
Status Date: 07/31/2014

CABRILLO SHELL (Continued) **S101623622**

LUST REG 2:
Region: 2
Facility Id: 01-1369
Facility Status: Pollution Characterization
Case Number: 0100
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 5/30/1985
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 1/24/1989
Pollution Characterization Began: 10/3/1991
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SWEEPS UST:
Status: Active
Comp Number: 5905
Number: 9
Board Of Equalization: 44-001257
Referral Date: 08-17-92
Action Date: 08-26-92
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 01-009-005905-000001
Tank Status: A
Capacity: 8000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 5905
Number: 9
Board Of Equalization: 44-001257
Referral Date: 08-17-92
Action Date: 08-26-92
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 01-009-005905-000002
Tank Status: A
Capacity: 10000
Active Date: 09-20-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 5905
Number: 9
Board Of Equalization: 44-001257

CABRILLO SHELL (Continued) **S101623622**

Referral Date: 08-17-92
Action Date: 08-26-92
Created Date: 02-29-88
Owner Tank Id: 3
SWRCB Tank Id: 01-009-005905-000003
Tank Status: A
Capacity: 5000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 5905
Number: 9
Board Of Equalization: 44-001257
Referral Date: 08-17-92
Action Date: 08-26-92
Created Date: 02-29-88
Owner Tank Id: 4
SWRCB Tank Id: 01-009-005905-000004
Tank Status: A
Capacity: 5000
Active Date: 09-20-91
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01001482
Regulated By: UTNKA
Regulated ID: 00005905
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107974266
Mail To: Not reported
Mailing Address: 4695 THORNTON AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HAZNET:
Facility Name: 10060150 - EQUILON ENTERPRISES LLC DBA SHELL OIL PRODUCTS US
envid: S101623622
Year: 2016
GEPAID: CAP000264804
Contact: ANDREA WING
Telephone: 7147311050

CABRILLO SHELL (Continued) **S101623622**

Mailing Name: Not reported
Mailing Address: 20945 S WILMINGTON AVE
Mailing City,St,Zip: CARSON, CA 908101039
Gen County: Alameda
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other inorganic solid waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.0125
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101623622
Year: 2016
GEPAID: CAP000264804
Contact: ANDREA WING
Telephone: 7147311050
Mailing Name: Not reported
Mailing Address: 20945 S WILMINGTON AVE
Mailing City,St,Zip: CARSON, CA 908101039
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.27105
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1369

CERS TANKS:
Site ID: 248589
CERS ID: T0600101264
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: RALPH LAMBERT - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST. SUITE 1500
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

29
North
1/4-1/2
0.252 mi.
1328 ft.

FOOD & LIQUOR #5
4050 ALDER AVE
FREMONT, CA 94538

LUST **S101580084**
SWEEPS UST **N/A**
CA FID UST
HIST CORTESE

Relative:
Higher

Actual:
49 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100889
Global Id:	T0600100889
Latitude:	37.5620565
Longitude:	-122.0160921
Status:	Completed - Case Closed
Status Date:	01/14/2002
Case Worker:	SZ
RB Case Number:	01-0965
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0051
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600100889
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:	T0600100889
Contact Type:	Local Agency Caseworker
Contact Name:	SELIM ZEYREK
Organization Name:	ALAMEDA COUNTY WATER DISTRICT
Address:	43885 SOUTH GRIMMER BLVD
City:	FREMONT
Email:	selim.zeyrek@acwd.com
Phone Number:	Not reported

LUST:

Global Id:	T0600100889
Action Type:	Other
Date:	03/03/1989
Action:	Leak Reported

Global Id:	T0600100889
Action Type:	ENFORCEMENT
Date:	09/20/1999
Action:	Staff Letter

Global Id:	T0600100889
Action Type:	ENFORCEMENT
Date:	10/17/1995
Action:	Staff Letter

FOOD & LIQUOR #5 (Continued) **S101580084**

Global Id: T0600100889
Action Type: ENFORCEMENT
Date: 03/18/2010
Action: Staff Letter

Global Id: T0600100889
Action Type: Other
Date: 03/03/1989
Action: Leak Discovery

Global Id: T0600100889
Action Type: RESPONSE
Date: 09/09/1999
Action: Correspondence

Global Id: T0600100889
Action Type: Other
Date: 03/03/1989
Action: Leak Stopped

LUST:
Global Id: T0600100889
Status: Completed - Case Closed
Status Date: 01/14/2002

Global Id: T0600100889
Status: Open - Case Begin Date
Status Date: 03/03/1989

Global Id: T0600100889
Status: Open - Site Assessment
Status Date: 04/26/1989

LUST REG 2:
Region: 2
Facility Id: 01-0965
Facility Status: Case Closed
Case Number: 0051
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 4/26/1989
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:
Status: Active
Comp Number: 1717
Number: 2
Board Of Equalization: 44-005309

FOOD & LIQUOR #5 (Continued) **S101580084**

Referral Date: 07-07-93
Action Date: 11-09-93
Created Date: 09-18-91
Owner Tank Id: 1
SWRCB Tank Id: 01-009-001717-000001
Tank Status: A
Capacity: 10000
Active Date: 07-07-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 2

Status: Active
Comp Number: 1717
Number: 2
Board Of Equalization: 44-005309
Referral Date: 07-07-93
Action Date: 11-09-93
Created Date: 09-18-91
Owner Tank Id: 2
SWRCB Tank Id: 01-009-001717-000002
Tank Status: A
Capacity: 10000
Active Date: 07-07-93
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01001088
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 4050 ALDER AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94538
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0965

F30 **UNOCAL 4002** **LUST** **1000167214**
NE **36979 FREMONT BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94536** **HIST UST**
0.252 mi. **HIST CORTESE**
1331 ft. **Site 1 of 3 in cluster F** **CERS**

Relative:
Higher

Actual:
54 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101468
Global Id:	T0600101468
Latitude:	37.5605803
Longitude:	-122.0124459
Status:	Completed - Case Closed
Status Date:	10/03/1995
Case Worker:	Not reported
RB Case Number:	01-1593
Local Agency:	Not reported
File Location:	Not reported
Local Case Number:	0228
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600101468
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:	T0600101468
Action Type:	Other
Date:	01/11/1989
Action:	Leak Reported

Global Id:	T0600101468
Action Type:	Other
Date:	01/11/1989
Action:	Leak Discovery

Global Id:	T0600101468
Action Type:	Other
Date:	01/11/1989
Action:	Leak Stopped

LUST:

Global Id:	T0600101468
Status:	Completed - Case Closed
Status Date:	10/03/1995

Global Id:	T0600101468
Status:	Open - Case Begin Date
Status Date:	01/11/1989

UNOCAL 4002 (Continued) **1000167214**

Global Id: T0600101468
Status: Open - Site Assessment
Status Date: 08/01/1989

Global Id: T0600101468
Status: Open - Site Assessment
Status Date: 02/12/1991

Global Id: T0600101468
Status: Open - Site Assessment
Status Date: 04/09/1991

LUST REG 2:
Region: 2
Facility Id: 01-1593
Facility Status: Case Closed
Case Number: 0228
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 8/1/1989
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 2/12/1991
Preliminary Site Assesment Began: 4/9/1991
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

SWEEPS UST:
Status: Active
Comp Number: 6056
Number: 2
Board Of Equalization: 44-000051
Referral Date: 01-18-92
Action Date: 08-20-92
Created Date: 02-29-88
Owner Tank Id: 4002-RU-1-1
SWRCB Tank Id: 01-009-006056-000001
Tank Status: A
Capacity: 12000
Active Date: 01-18-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 2

Status: Active
Comp Number: 6056
Number: 2
Board Of Equalization: 44-000051
Referral Date: 01-18-92
Action Date: 08-20-92
Created Date: 02-29-88
Owner Tank Id: 4002-SU-1-1

UNOCAL 4002 (Continued) **1000167214**

SWRCB Tank Id: 01-009-006056-000002
Tank Status: A
Capacity: 12000
Active Date: 01-18-92
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 6056
Number: Not reported
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-006056-000003
Tank Status: Not reported
Capacity: 550
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 1

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000006056
Facility Type: Gas Station
Other Type: Not reported
Contact Name: JAMES C. MCDANIEL
Telephone: 4157918016
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: 4002-1-1
Year Installed: 1979
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 4002-2-1
Year Installed: 1979
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

UNOCAL 4002 (Continued) **1000167214**

Tank Num: 003
Container Num: 4002-4-1
Year Installed: Not reported
Tank Capacity: 00000550
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1593

CERS TANKS:
Site ID: 219909
CERS ID: T0600101468
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

E31 **CHEVRON #9-7526** **LUST** **S101580003**
NE **37011 FREMONT BLVD** **CA FID UST** **N/A**
1/4-1/2 **FREMONT, CA 94536** **HIST CORTESE**
0.258 mi. **CERS**
1361 ft. **Site 10 of 11 in cluster E**

Relative: Higher
Actual: 54 ft.

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100335
Global Id: T0600100335
Latitude: 37.560144
Longitude: -122.011571
Status: Completed - Case Closed
Status Date: 04/28/1997
Case Worker: MH
RB Case Number: 01-0364
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Local Agency
Local Case Number: 0312
Potential Media Affect: Well used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600100335

CHEVRON #9-7526 (Continued) **S101580003**

Contact Type: Local Agency Caseworker
Contact Name: MIKEL HALLIWELL
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD
City: FREMONT
Email: mike.halliwell@acwd.com
Phone Number: Not reported

Global Id: T0600100335
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: T0600100335
Action Type: Other
Date: 10/06/1992
Action: Leak Reported

Global Id: T0600100335
Action Type: ENFORCEMENT
Date: 04/28/1997
Action: Closure/No Further Action Letter

Global Id: T0600100335
Action Type: ENFORCEMENT
Date: 07/11/2002
Action: 13267 Requirement

Global Id: T0600100335
Action Type: Other
Date: 10/06/1992
Action: Leak Discovery

Global Id: T0600100335
Action Type: Other
Date: 10/06/1992
Action: Leak Stopped

Global Id: T0600100335
Action Type: ENFORCEMENT
Date: 01/03/2003
Action: * No Action

LUST:
Global Id: T0600100335
Status: Completed - Case Closed
Status Date: 04/28/1997

Global Id: T0600100335
Status: Open - Case Begin Date
Status Date: 09/12/1991

CHEVRON #9-7526 (Continued) **S101580003**

Global Id: T0600100335
Status: Open - Site Assessment
Status Date: 09/12/1991

Global Id: T0600100335
Status: Open - Site Assessment
Status Date: 10/04/1991

Global Id: T0600100335
Status: Open - Site Assessment
Status Date: 09/08/1992

CA FID UST:
Facility ID: 01000495
Regulated By: UTNKA
Regulated ID: 00063003
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107933293
Mail To: Not reported
Mailing Address: 37011 FREMONT BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0364

CERS TANKS:
Site ID: 214165
CERS ID: T0600100335
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: MIKEL HALLIWELL - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)

CHEVRON #9-7526 (Continued) **S101580003**

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

E32 **CHEVRON NO. 7526** **LUST** **S105030498**
NE **37011 FREMONT BOULEVARD** **N/A**
1/4-1/2 **FREMONT, CA 94536**
0.258 mi.
1361 ft. **Site 11 of 11 in cluster E**

Relative:
Higher

Actual:
54 ft.

LUST REG 2:

Region:	2
Facility Id:	01-0364
Facility Status:	Case Closed
Case Number:	0312
How Discovered:	Tank Closure
Leak Cause:	Structure Failure
Leak Source:	Tank
Date Leak Confirmed:	9/12/1991
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	10/4/1991
Preliminary Site Assesment Began:	9/8/1992
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

F33 **ARCO FAC# 5369** **LUST** **S101579949**
NE **36974 FREMONT BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94536** **CA FID UST**
0.290 mi. **HAZNET**
1531 ft. **Site 2 of 3 in cluster F** **HIST CORTESE**
CERS

Relative:
Higher

Actual:
54 ft.

LUST:

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=T0600100098
Global Id:	T0600100098
Latitude:	37.561249
Longitude:	-122.0117315
Status:	Completed - Case Closed
Status Date:	08/07/2014
Case Worker:	SZ
RB Case Number:	01-0106
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	TT0246
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	ARCO Service Station #05369 is an active gas station located at 36974

ARCO FAC# 5369 (Continued) **S101579949**

Fremont Blvd in Fremont.

LUST:
Global Id: T0600100098
Contact Type: Regional Board Caseworker
Contact Name: BARBARA SIEMINSKI
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET, SUITE 1400
City: OAKLAND
Email: bsieminski@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0600100098
Contact Type: Local Agency Caseworker
Contact Name: SELIM ZEYREK
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD
City: FREMONT
Email: selim.zeyrek@acwd.com
Phone Number: Not reported

LUST:
Global Id: T0600100098
Action Type: Other
Date: 03/21/1985
Action: Leak Reported

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 12/18/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 08/28/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 02/07/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 07/29/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 06/20/2011
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 03/08/2012
Action: Technical Correspondence / Assistance / Other

ARCO FAC# 5369 (Continued) **S101579949**

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 12/19/2011
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 03/28/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 10/24/2012
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100098
Action Type: REMEDIATION
Date: 01/10/1994
Action: Soil Vapor Extraction (SVE)

Global Id: T0600100098
Action Type: REMEDIATION
Date: 03/28/1994
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 08/07/2014
Action: Closure/No Further Action Letter

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 02/19/2013
Action: Notification - Public Notice of Case Closure

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 07/08/2014
Action: LOP Case Closure Summary to RB

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 06/12/2014
Action: File review

Global Id: T0600100098
Action Type: REMEDIATION
Date: 04/25/1993
Action: Excavation

Global Id: T0600100098
Action Type: REMEDIATION
Date: 05/30/1996
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600100098
Action Type: Other

ARCO FAC# 5369 (Continued) **S101579949**

Date: 03/21/1985
Action: Leak Discovery

Global Id: T0600100098
Action Type: ENFORCEMENT
Date: 06/08/2010
Action: File review

Global Id: T0600100098
Action Type: Other
Date: 03/21/1985
Action: Leak Stopped

LUST:
Global Id: T0600100098
Status: Completed - Case Closed
Status Date: 08/07/2014

Global Id: T0600100098
Status: Open - Case Begin Date
Status Date: 03/21/1985

Global Id: T0600100098
Status: Open - Eligible for Closure
Status Date: 03/28/2013

Global Id: T0600100098
Status: Open - Remediation
Status Date: 01/01/1994

Global Id: T0600100098
Status: Open - Site Assessment
Status Date: 07/14/1990

Global Id: T0600100098
Status: Open - Site Assessment
Status Date: 11/02/1990

Global Id: T0600100098
Status: Open - Site Assessment
Status Date: 06/01/1991

Global Id: T0600100098
Status: Open - Verification Monitoring
Status Date: 08/31/2012

SWEEPS UST:
Status: Active
Comp Number: 12455
Number: 1
Board Of Equalization: 44-000506
Referral Date: 11-09-92
Action Date: 04-29-93
Created Date: 02-29-88
Owner Tank Id: 12455001

ARCO FAC# 5369 (Continued) **S101579949**

SWRCB Tank Id: 01-009-012455-000001
Tank Status: A
Capacity: 10000
Active Date: 11-09-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 12455
Number: 1
Board Of Equalization: 44-000506
Referral Date: 11-09-92
Action Date: 04-29-93
Created Date: 02-29-88
Owner Tank Id: 12455002
SWRCB Tank Id: 01-009-012455-000002
Tank Status: A
Capacity: 10000
Active Date: 11-09-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 12455
Number: 1
Board Of Equalization: 44-000506
Referral Date: 11-09-92
Action Date: 04-29-93
Created Date: 02-29-88
Owner Tank Id: 12455003
SWRCB Tank Id: 01-009-012455-000003
Tank Status: A
Capacity: 10000
Active Date: 11-09-92
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01000222
Regulated By: UTNKA
Regulated ID: 00012455
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107137814
Mail To: Not reported
Mailing Address: 17315 STUDEBAKER RD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported

ARCO FAC# 5369 (Continued) **S101579949**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HAZNET:
Facility Name: HONG HAI WONG DBA FD GAS
envid: S101579949
Year: 2017
GEPAID: CAL000395318
Contact: HONG WANG
Telephone: 4086559374
Mailing Name: Not reported
Mailing Address: 36974 FREMONT BLVD
Mailing City,St,Zip: FREMONT, CA 945360000
Gen County: Alameda
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.025
Cat Decode: Other organic solids
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Alameda

envid: S101579949
Year: 2017
GEPAID: CAR000265256
Contact: SARAH SAMUELS
Telephone: 3603718111
Mailing Name: Not reported
Mailing Address: 600 SW 39TH ST #275
Mailing City,St,Zip: RENTON, CA 98057
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.084
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Alameda

envid: S101579949
Year: 2016
GEPAID: CAL000395318
Contact: HONG WANG
Telephone: 4086559374
Mailing Name: Not reported
Mailing Address: 36974 FREMONT BLVD
Mailing City,St,Zip: FREMONT, CA 945360000
Gen County: Alameda
TSD EPA ID: NVT330010000

ARCO FAC# 5369 (Continued) **S101579949**

TSD County: 99
Waste Category: Other organic solids
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.0375
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101579949
Year: 2016
GEPAID: CAR000265256
Contact: SARAH SAMUELS
Telephone: 3605263917
Mailing Name: Not reported
Mailing Address: PO BOX 80249
Mailing City,St,Zip: RANCHO SANTA MARGARI, CA 926880249
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.84
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101579949
Year: 2016
GEPAID: CAL000415466
Contact: SARAH SAMUELS
Telephone: 3603711500
Mailing Name: Not reported
Mailing Address: PO BOX 80249
Mailing City,St,Zip: RANCHO SANTA MARGARI, CA 926880249
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.294
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0106

ARCO FAC# 5369 (Continued) **S101579949**

CERS TANKS:
Site ID: 194933
CERS ID: T0600100098
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: BARBARA SIEMINSKI - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET, 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: SELIM ZEYREK - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

F34 **ARCO # 05369** **LUST** **S101293484**
NE **36974 FREMONT BLVD** **N/A**
1/4-1/2 **FREMONT, CA 94536**
0.290 mi.
1531 ft. **Site 3 of 3 in cluster F**

Relative: **Higher**
Actual: **54 ft.**

LUST REG 2:
Region: 2
Facility Id: 01-0106
Facility Status: Remedial action (cleanup) Underway
Case Number: 0246
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 7/14/1990
Preliminary Site Assesment Began: 11/2/1990
Pollution Characterization Began: 6/1/1991
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 1/1/1994
Date Post Remedial Action Monitoring Began: Not reported

G35 **CENTERVILLE RENTS** **LUST** **S101580508**
NNE **36660 FREMONT BLVD** **CA FID UST** **N/A**
1/4-1/2 **FREMONT, CA 94538** **HAZNET**
0.295 mi. **HIST CORTESE**
1560 ft. **Site 1 of 2 in cluster G** **CERS**

Relative:
Higher

Actual:
53 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101878
Global Id:	T0600101878
Latitude:	37.5622483
Longitude:	-122.0138827
Status:	Completed - Case Closed
Status Date:	07/25/1994
Case Worker:	SDI
RB Case Number:	01-2033
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0177
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600101878
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:	T0600101878
Contact Type:	Local Agency Caseworker
Contact Name:	STEVEN D. INN
Organization Name:	ALAMEDA COUNTY WATER DISTRICT
Address:	43885 SOUTH GRIMMER BOULEVARD
City:	FREMONT
Email:	steven.inn@acwd.com
Phone Number:	Not reported

LUST:

Global Id:	T0600101878
Action Type:	Other
Date:	10/20/1992
Action:	Leak Reported

Global Id:	T0600101878
Action Type:	REMEDIATION
Date:	10/20/1992
Action:	Excavation

Global Id:	T0600101878
Action Type:	Other
Date:	10/20/1992
Action:	Leak Discovery

CENTERVILLE RENTS (Continued) **S101580508**

Global Id: T0600101878
Action Type: Other
Date: 10/20/1992
Action: Leak Stopped

LUST:
Global Id: T0600101878
Status: Completed - Case Closed
Status Date: 07/25/1994

Global Id: T0600101878
Status: Open - Case Begin Date
Status Date: 09/22/1992

Global Id: T0600101878
Status: Open - Site Assessment
Status Date: 09/22/1992

LUST REG 2:
Region: 2
Facility Id: 01-2033
Facility Status: Case Closed
Case Number: 0177
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 9/22/1992
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

CA FID UST:
Facility ID: 01003042
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 36660 FREMONT BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94538
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

CENTERVILLE RENTS (Continued) **S101580508**

HAZNET:

Facility Name:	NORCAL RENTAL GROUP LLC DBA CRESCO EQUIPMENT RENTALS
envid:	S101580508
Year:	2017
GEPAID:	CAL000274970
Contact:	LANCE TRACY
Telephone:	9259610130
Mailing Name:	Not reported
Mailing Address:	318 STEALTH CT
Mailing City,St,Zip:	LIVERMORE, CA 945510000
Gen County:	Alameda
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.289
Cat Decode:	Unspecified organic liquid mixture
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Alameda

envid:	S101580508
Year:	2017
GEPAID:	CAL000274970
Contact:	LANCE TRACY
Telephone:	9259610130
Mailing Name:	Not reported
Mailing Address:	318 STEALTH CT
Mailing City,St,Zip:	LIVERMORE, CA 945510000
Gen County:	Alameda
TSD EPA ID:	CAD097030993
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.225
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Alameda

envid:	S101580508
Year:	2016
GEPAID:	CAL000274970
Contact:	LANCE TRACY
Telephone:	9255807836
Mailing Name:	Not reported
Mailing Address:	318 STEALTH CT
Mailing City,St,Zip:	LIVERMORE, CA 945510000
Gen County:	Alameda
TSD EPA ID:	CAD097030993
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.06

CENTERVILLE RENTS (Continued) **S101580508**

Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101580508
Year: 2015
GEPAID: CAL000274970
Contact: NANCI MCCORMICK
Telephone: 9259610130
Mailing Name: Not reported
Mailing Address: 318 STEALTH CT
Mailing City,St,Zip: LIVERMORE, CA 945510000
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified organic liquid mixture
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.068
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101580508
Year: 2015
GEPAID: CAL000274970
Contact: NANCI MCCORMICK
Telephone: 9259610130
Mailing Name: Not reported
Mailing Address: 318 STEALTH CT
Mailing City,St,Zip: LIVERMORE, CA 945510000
Gen County: Alameda
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

Click this hyperlink while viewing on your computer to access
13 additional CA_HAZNET: record(s) in the EDR Site Report.

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2033

CERS TANKS:
Site ID: 237411
CERS ID: T0600101878
CERS Description: Leaking Underground Storage Tank Cleanup Site

CENTERVILLE RENTS (Continued) **S101580508**

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:	STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title:	Not reported
Affiliation Address:	43885 SOUTH GRIMMER BOULEVARD
Affiliation City:	FREMONT
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

G36 **DISCOUNT TIRE CENTER** **CPS-SLIC S102362550**
NNE **36656 FREMONT BLVD** **CERS N/A**
1/4-1/2 **FREMONT, CA 94536**
0.297 mi.
1568 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
52 ft.

CPS-SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	07/29/1997
Global Id:	SL0600169807
Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Lead Agency Case Number:	0319
Latitude:	37.562347
Longitude:	-122.014175
Case Type:	Cleanup Program Site
Case Worker:	SZ
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
RB Case Number:	01S0460
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:

Region:	2
Facility ID:	Not reported
Facility Status:	Case Closed
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported

DISCOUNT TIRE CENTER (Continued) **S102362550**

Date Confirmed: Not reported
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

CERS TANKS:
Site ID: 198951
CERS ID: SL0600169807
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: SELIM ZEYREK - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

H37 **SANTOS BROTHERS** **LUST S102813962**
ENE **37149 FREMONT BOULEVARD** **CERS N/A**
1/4-1/2 **FREMONT, CA 95436**
0.300 mi.
1584 ft. **Site 1 of 3 in cluster H**

Relative: **Higher**

Actual: **55 ft.**

LUST:
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=T0600111305
Global Id: T0600111305
Latitude: 37.5594361
Longitude: -122.0104017
Status: Completed - Case Closed
Status Date: 09/09/2013
Case Worker: UUU
RB Case Number: 01-3590
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Local Agency
Local Case Number: TT0714
Potential Media Affect: Aquifer used for drinking water supply, Soil
Potential Contaminants of Concern: Gasoline, Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

SANTOS BROTHERS (Continued) **S102813962**

LUST:
Global Id: T0600111305
Contact Type: Local Agency Caseworker
Contact Name: EILEEN CHEN
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD.
City: FREMONT
Email: eileen.chen@acwd.com
Phone Number: Not reported

Global Id: T0600111305
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: T0600111305
Action Type: Other
Date: 10/19/2001
Action: Leak Reported

Global Id: T0600111305
Action Type: ENFORCEMENT
Date: 10/25/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0600111305
Action Type: ENFORCEMENT
Date: 03/09/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0600111305
Action Type: ENFORCEMENT
Date: 04/02/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0600111305
Action Type: RESPONSE
Date: 12/07/2012
Action: Other Report / Document

Global Id: T0600111305
Action Type: ENFORCEMENT
Date: 04/14/2010
Action: File review

Global Id: T0600111305
Action Type: ENFORCEMENT
Date: 08/06/2013
Action: LOP Case Closure Summary to RB

Global Id: T0600111305

SANTOS BROTHERS (Continued) **S102813962**

Action Type: ENFORCEMENT
Date: 12/21/2011
Action: Technical Correspondence / Assistance / Other

Global Id: T0600111305
Action Type: ENFORCEMENT
Date: 09/09/2013
Action: Closure/No Further Action Letter

Global Id: T0600111305
Action Type: REMEDIATION
Date: 10/17/2001
Action: Excavation

Global Id: T0600111305
Action Type: REMEDIATION
Date: 04/07/2008
Action: Excavation

Global Id: T0600111305
Action Type: RESPONSE
Date: 11/15/2005
Action: Other Report / Document

Global Id: T0600111305
Action Type: Other
Date: 10/17/2001
Action: Leak Discovery

Global Id: T0600111305
Action Type: Other
Date: 10/17/2001
Action: Leak Stopped

LUST:
Global Id: T0600111305
Status: Completed - Case Closed
Status Date: 09/09/2013

Global Id: T0600111305
Status: Open - Case Begin Date
Status Date: 10/17/2001

Global Id: T0600111305
Status: Open - Eligible for Closure
Status Date: 10/30/2012

Global Id: T0600111305
Status: Open - Site Assessment
Status Date: 09/30/2005

Global Id: T0600111305
Status: Open - Verification Monitoring
Status Date: 10/30/2012

SANTOS BROTHERS (Continued) **S102813962**

CERS TANKS:
Site ID: 243532
CERS ID: T0600111305
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: EILEEN CHEN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD.
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

38
ESE
1/4-1/2
0.302 mi.
1592 ft.

Relative:
Higher

Actual:
49 ft.

MORAN OLDSMOBILE, INC. **LUST** **S101580289**
4343 PERALTA BLVD **SWEEPS UST** **N/A**
FREMONT, CA 94536 **CA FID UST**
HAZNET
HIST CORTESE
CERS

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101940
Global Id: T0600101940
Latitude: 37.554524
Longitude: -122.010158
Status: Completed - Case Closed
Status Date: 09/21/1995
Case Worker: MH
RB Case Number: 01-2114
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Not reported
Local Case Number: 0356
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600101940
Contact Type: Local Agency Caseworker
Contact Name: MIKEL HALLIWELL
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD

MORAN OLDSMOBILE, INC. (Continued) **S101580289**

City: FREMONT
Email: mike.halliwell@acwd.com
Phone Number: Not reported

Global Id: T0600101940
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: T0600101940
Action Type: Other
Date: 09/19/1995
Action: Leak Reported

Global Id: T0600101940
Action Type: ENFORCEMENT
Date: 09/21/1995
Action: Closure/No Further Action Letter

Global Id: T0600101940
Action Type: Other
Date: 09/19/1995
Action: Leak Discovery

Global Id: T0600101940
Action Type: Other
Date: 09/19/1995
Action: Leak Stopped

LUST:
Global Id: T0600101940
Status: Completed - Case Closed
Status Date: 09/21/1995

Global Id: T0600101940
Status: Open - Case Begin Date
Status Date: 09/19/1995

Global Id: T0600101940
Status: Open - Site Assessment
Status Date: 09/19/1995

LUST REG 2:
Region: 2
Facility Id: 01-2114
Facility Status: Case Closed
Case Number: 0356
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK

MORAN OLDSMOBILE, INC. (Continued) **S101580289**

Date Leak Confirmed: 9/19/1995
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:
Status: Not reported
Comp Number: 27239
Number: Not reported
Board Of Equalization: 44-001315
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-027239-000001
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 6

Status: Not reported
Comp Number: 27239
Number: Not reported
Board Of Equalization: 44-001315
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-027239-000002
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: PETROLEUM
STG: PRODUCT
Content: ATF
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 27239
Number: Not reported
Board Of Equalization: 44-001315
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-027239-000003
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL

MORAN OLDSMOBILE, INC. (Continued) **S101580289**

STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 27239
Number: Not reported
Board Of Equalization: 44-001315
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-027239-000004
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 27239
Number: Not reported
Board Of Equalization: 44-001315
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-027239-000005
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 27239
Number: Not reported
Board Of Equalization: 44-001315
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-027239-000006
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01002438

MORAN OLDSMOBILE, INC. (Continued) **S101580289**

Regulated By: UTNKI
Regulated ID: 00027239
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107976144
Mail To: Not reported
Mailing Address: 4343 PERALTA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HAZNET:
Facility Name: AKK INVESTMENTS INC DBA JAY AUTO REPAIR
envid: S101580289
Year: 2015
GEPAID: CAL000402791
Contact: JAYMIN PATEL
Telephone: 5109679913
Mailing Name: Not reported
Mailing Address: 4343 PERALTA BLVD STE D
Mailing City,St,Zip: FREMONT, CA 945364865
Gen County: Alameda
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified organic liquid mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.102
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2114

CERS TANKS:
Site ID: 246530
CERS ID: T0600101940
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

MORAN OLDSMOBILE, INC. (Continued) **S101580289**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	MIKEL HALLIWELL - ALAMEDA COUNTY WATER DISTRICT
Entity Title:	Not reported
Affiliation Address:	43885 SOUTH GRIMMER BLVD
Affiliation City:	FREMONT
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

H39 **BRIDGES MANAGEMENT** **LUST** **S101579958**
ENE **37156 FREMONT BLVD** **CA FID UST** **N/A**
1/4-1/2 **FREMONT, CA 94536** **HIST CORTESE**
0.321 mi. **CERS**
1694 ft. **Site 2 of 3 in cluster H**

Relative: Higher
Actual: 56 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100132
Global Id:	T0600100132
Latitude:	37.560218
Longitude:	-122.009296
Status:	Completed - Case Closed
Status Date:	04/22/1994
Case Worker:	SDI
RB Case Number:	01-0142
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0132
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600100132
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:	T0600100132
Contact Type:	Local Agency Caseworker
Contact Name:	STEVEN D. INN
Organization Name:	ALAMEDA COUNTY WATER DISTRICT
Address:	43885 SOUTH GRIMMER BOULEVARD
City:	FREMONT
Email:	steven.inn@acwd.com
Phone Number:	Not reported

BRIDGES MANAGEMENT (Continued) **S101579958**

LUST:
Global Id: T0600100132
Action Type: Other
Date: 05/31/1986
Action: Leak Reported

Global Id: T0600100132
Action Type: RESPONSE
Date: 06/27/1996
Action: Other Report / Document

Global Id: T0600100132
Action Type: ENFORCEMENT
Date: 04/22/1994
Action: State Water Board Closure Order

Global Id: T0600100132
Action Type: REMEDIATION
Date: 11/30/1993
Action: Excavation

Global Id: T0600100132
Action Type: Other
Date: 05/31/1986
Action: Leak Discovery

Global Id: T0600100132
Action Type: Other
Date: 05/31/1986
Action: Leak Stopped

LUST:
Global Id: T0600100132
Status: Completed - Case Closed
Status Date: 04/22/1994

Global Id: T0600100132
Status: Open - Case Begin Date
Status Date: 05/31/1986

Global Id: T0600100132
Status: Open - Site Assessment
Status Date: 05/31/1986

CA FID UST:
Facility ID: 01000259
Regulated By: UTNKA
Regulated ID: 00004083
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107932490
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536

BRIDGES MANAGEMENT (Continued) **S101579958**

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0142

CERS TANKS:
Site ID: 212133
CERS ID: T0600100132
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: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

H40 **KING ARTHUR TOYOTA** **LUST** **U001596851**
ENE **37156 FREMONT BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94536** **HIST UST**
0.321 mi.
1694 ft. **Site 3 of 3 in cluster H**

Relative:
Higher

Actual:
56 ft.

LUST REG 2:
Region: 2
Facility Id: 01-0142
Facility Status: Case Closed
Case Number: 0132
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 5/31/1986
Oversight Program: LUST

KING ARTHUR TOYOTA (Continued) **U001596851**

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:
Status: Not reported
Comp Number: 4083
Number: Not reported
Board Of Equalization: 44-001252
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-004083-000001
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 4083
Number: Not reported
Board Of Equalization: 44-001252
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-004083-000002
Tank Status: Not reported
Capacity: 300
Active Date: Not reported
Tank Use: EMPTY
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:
File Number: 000360C0
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000360C0.pdf
Region: STATE
Facility ID: 00000004083
Facility Type: Other
Other Type: AUTO & TRUCK DEALER
Contact Name: DEALER
Telephone: 4157932490
Owner Name: KING ARTHUR TOYOTA, INC.
Owner Address: 37156 FREMONT BLVD.
Owner City,St,Zip: FREMONT, CA 94536
Total Tanks: 0002

KING ARTHUR TOYOTA (Continued) **U001596851**

Tank Num:	001
Container Num:	1
Year Installed:	1972
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor

Tank Num:	002
Container Num:	2
Year Installed:	1958
Tank Capacity:	00000250
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

I41 **FREMONT DODGE** **Notify 65** **S100226449**
NE **3909 THORNTON AVENUE** **N/A**
1/4-1/2 **FREMONT, CA 92507**
0.335 mi.
1771 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
53 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

I42 **FREMONT DODGE** **RCRA-SQG** **1000301780**
NE **3909 THORNTON AVE** **LUST** **CAD982469348**
1/4-1/2 **FREMONT, CA 94536** **FINDS**
0.335 mi. **ECHO**
1771 ft. **Site 2 of 2 in cluster I** **HAZNET**
HIST CORTESE
CERS

Relative:
Higher

Actual:
53 ft.

RCRA-SQG:

Date form received by agency:	02/07/1989
Facility name:	FREMONT DODGE
Facility address:	3909 THORNTON AVE FREMONT, CA 94536
EPA ID:	CAD982469348
Mailing address:	THORNTON AVE FREMONT, CA 94536
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3909 THORNTON AVE FREMONT, CA 94536
Contact country:	US
Contact telephone:	415-792-0600

FREMONT DODGE (Continued) **1000301780**

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: DEE BARNES
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: 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

Violation Status: No violations found

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT

FREMONT DODGE (Continued) **1000301780**

Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100613
Global Id:	T0600100613
Latitude:	37.561776
Longitude:	-122.0113283
Status:	Completed - Case Closed
Status Date:	06/27/1996
Case Worker:	Not reported
RB Case Number:	01-0663
Local Agency:	Not reported
File Location:	Not reported
Local Case Number:	0278
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600100613
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:	T0600100613
Action Type:	Other
Date:	10/24/1988
Action:	Leak Reported
Global Id:	T0600100613
Action Type:	ENFORCEMENT
Date:	07/01/1996
Action:	Closure/No Further Action Letter
Global Id:	T0600100613
Action Type:	Other
Date:	10/24/1988
Action:	Leak Discovery
Global Id:	T0600100613
Action Type:	Other
Date:	10/24/1988
Action:	Leak Stopped

LUST:

Global Id:	T0600100613
Status:	Completed - Case Closed
Status Date:	06/27/1996
Global Id:	T0600100613
Status:	Open - Case Begin Date
Status Date:	09/27/1988
Global Id:	T0600100613

FREMONT DODGE (Continued) **1000301780**

Status: Open - Site Assessment
Status Date: 09/27/1988

Global Id: T0600100613
Status: Open - Site Assessment
Status Date: 10/29/1990

LUST REG 2:
Region: 2
Facility Id: 01-0663
Facility Status: Case Closed
Case Number: 0278
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 9/27/1988
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 10/29/1990
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

FINDS:

Registry ID: 110002819175

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: 1000301780
Registry ID: 110002819175
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002819175

HAZNET:
Facility Name: FREMONT DODGE
envid: 1000301780
Year: 2016
GEPAID: CAL000009493
Contact: NON-DELIVERABLE 11/94 SURVEY
Telephone: --

FREMONT DODGE (Continued) **1000301780**

Mailing Name: Not reported
Mailing Address: 3909 THORNTON AVE
Mailing City,St,Zip: FREMONT, CA 945360000
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.06
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0663

CERS TANKS:
Site ID: 220517
CERS ID: T0600100613
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

43
NE
1/4-1/2
0.339 mi.
1791 ft.

CENTER SQUARE CLEANERS
37070 FREMONT BOULEVARD
FREMONT, CA 94536

CPS-SLIC **S106446498**
CERS **N/A**

Relative:
Higher

Actual:
55 ft.

CPS-SLIC:
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 07/01/2010
Global Id: SL0600138427
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Lead Agency Case Number: 0707
Latitude: 37.560714
Longitude: -122.010152
Case Type: Cleanup Program Site
Case Worker: RS
Local Agency: ALAMEDA COUNTY WATER DISTRICT
RB Case Number: 01S0627
File Location: Local Agency

CENTER SQUARE CLEANERS (Continued) **S106446498**

Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:
Region: 2
Facility ID: Not reported
Facility Status: Not reported
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
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

CERS TANKS:
Site ID: 189615
CERS ID: SL0600138427
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET, 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: RANGARAJAN SAMPATH - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

J44 **UNOCAL** **HIST CORTESE** **S105023819**
East **4200 PERALTA &JOSEPH** **N/A**
1/4-1/2 **FREMONT, CA**
0.340 mi.
1797 ft. **Site 1 of 2 in cluster J**

Relative: **Higher**
Actual: **52 ft.**

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1598

J45 **UNION OIL SS #5923** **LUST** **1000167360**
ESE **4200 PERALTA BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94537** **HIST UST**
0.348 mi. **CA FID UST**
1836 ft. **Site 2 of 2 in cluster J** **CERS**

Relative: **Higher**
Actual: **51 ft.**

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101473
Global Id: T0600101473
Latitude: 37.5555321
Longitude: -122.0083679
Status: Completed - Case Closed
Status Date: 06/28/1991
Case Worker: Not reported
RB Case Number: 01-1598
Local Agency: Not reported
File Location: Not reported
Local Case Number: 0126
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600101473
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: T0600101473
Action Type: Other
Date: 03/31/1987
Action: Leak Reported

Global Id: T0600101473
Action Type: Other
Date: 03/31/1987
Action: Leak Discovery

Global Id: T0600101473
Action Type: Other
Date: 03/31/1987

UNION OIL SS #5923 (Continued) **1000167360**

Action: Leak Stopped

LUST:
Global Id: T0600101473
Status: Completed - Case Closed
Status Date: 06/28/1991

Global Id: T0600101473
Status: Open - Case Begin Date
Status Date: 02/26/1987

Global Id: T0600101473
Status: Open - Site Assessment
Status Date: 02/26/1987

LUST REG 2:
Region: 2
Facility Id: 01-1598
Facility Status: Case Closed
Case Number: 0126
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 2/26/1987
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:
Status: Not reported
Comp Number: 30797
Number: Not reported
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-030797-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 4

Status: Not reported
Comp Number: 30797
Number: Not reported
Board Of Equalization: 44-000051
Referral Date: Not reported

UNION OIL SS #5923 (Continued) **1000167360**

Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-030797-000002
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 30797
Number: Not reported
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-030797-000003
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 30797
Number: Not reported
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-030797-000004
Tank Status: Not reported
Capacity: 280
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:
File Number: 0003644E
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0003644E.pdf
Region: STATE
Facility ID: 00000030797
Facility Type: Gas Station
Other Type: Not reported
Contact Name: SIMON YUN NAM MUI
Telephone: 4157937676
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST. SUITE 2700

UNION OIL SS #5923 (Continued) **1000167360**

Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0004

Tank Num: 001
Container Num: 5923-1-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 5923-2-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 5923-3-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 5923-4-1
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

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 01002440
Regulated By: UTNKI
Regulated ID: 00030797
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4157937676
Mail To: Not reported
Mailing Address: 4200 PERALTA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94537
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

UNION OIL SS #5923 (Continued) **1000167360**

Comments: Not reported
Status: Inactive

CERS TANKS:
Site ID: 241036
CERS ID: T0600101473
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

46
East
1/4-1/2
0.353 mi.
1863 ft.

Relative:
Higher

Actual:
53 ft.

HENRY MILLER **RCRA-SQG** **1000372474**
4133 PERALTA BLVD **ENVIROSTOR** **CAD981581051**
FREMONT, CA 94536 **VCP**
FINDS
ECHO
EMI
HAZNET

RCRA-SQG:
Date form received by agency: 11/25/1986
Facility name: HENRY MILLER
Facility address: 4133 PERALTA BLVD
FREMONT, CA 94536
EPA ID: CAD981581051
Mailing address: PERALTA BLVD
FREMONT, CA 94536
Contact: ENVIRONMENTAL MANAGER
Contact address: 4133 PERALTA BLVD
FREMONT, CA 94536
Contact country: US
Contact telephone: 415-793-3883
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: MILLER HENRY
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

HENRY MILLER (Continued) **1000372474**

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

Violation Status: No violations found

ENVIROSTOR:
Facility ID: 60002284
Status: Active
Status Date: 12/11/2015
Site Code: 202073
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 2.3
NPL: NO
Regulatory Agencies: SMBRP, ALAMEDA COUNTY WATER DISTRICT
Lead Agency: SMBRP
Program Manager: Jessica Tibor
Supervisor: Julie Pettijohn
Division Branch: Cleanup Berkeley
Assembly: , 20
Senate: , 10
Special Program: Voluntary Cleanup Program
Restricted Use: NO

HENRY MILLER (Continued) **1000372474**

Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.55694
Longitude: -122.0082
APN: 501 053600108, 501 053600202
Past Use: DRY CLEANING
Potential COC: Tetrachloroethylene (PCE
Confirmed COC: Tetrachloroethylene (PCE
Potential Description: SV
Alias Name: Peralta Crossing
Alias Type: Alternate Name
Alias Name: Renato
Alias Type: Alternate Name
Alias Name: 501 053600108
Alias Type: APN
Alias Name: 501 053600202
Alias Type: APN
Alias Name: 202073
Alias Type: Project Code (Site Code)
Alias Name: 60002284
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 04/12/2016
Comments: Signed CLRRA Agreement between DTSC and project proponent, CV Fremont Investment, LLC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/27/2017
Comments: Scope of Work summary submitted to Alameda County Water District as part of a drilling application for a soil vapor sampling permit.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/20/2017
Comments: Annual Cost Estimate letter for activities occurring between July 1, 2017 and June 30, 2018 with DTSC oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/16/2017
Comments: DTSC letter approving proposed area for Land Use Restriction. Land Use Covenant will be recorded for the north west corner of the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/21/2018
Comments: The Pulte Home Company (Pulte) has entered into a voluntary clean up agreement (VCA; Docket Number HSA-FY18/19-021) with the Department of

HENRY MILLER (Continued) **1000372474**

Toxic Substances Control (DTSC) as a responsible party for the Peralta Crossing Site in Fremont, California.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 12/14/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 09/16/2015
Comments: Document was not prepared under DTSC oversight. This report documents the collection and analysis of soil samples for petroleum, metals, and pesticides and soil vapor sampling for PCE, TCE, and other VOCs.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 11/12/2015
Comments: Document was not prepared under DTSC oversight. Report outlines the installation of soil vapor probes and the collection of soil samples to further characterize the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 04/25/2016
Comments: Peralta Crossing community profile describing community demographics and outreach efforts.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: AB 389 Response Plan
Completed Date: 06/03/2016
Comments: Approval Letter for Response Plan and Responsiveness summary following close of public comment period.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 04/12/2016
Comments: Phase I Report for AAI approved as part of entry into CLRRA agreement. Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 04/25/2016
Comments: Public notice published in the San Jose Mercury News April 25, 2016 announcing the opening of the comment period for the Draft Response Plan for the Peralta Crossing Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets

HENRY MILLER (Continued) **1000372474**

Completed Date:	04/25/2016
Comments:	Fact sheet sent to mailing list notifying the public of the start of the public comment period for the Draft Response Plan.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	09/12/2016
Comments:	Field work as described in the RAW began mid October beginning with the discovery and abandonment of an onsite well.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Work Notice
Completed Date:	08/23/2016
Comments:	Work notice to inform neighborhood that clean-up activities at the Peralta Crossing site will occur in the last quarter of 2016.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	04/25/2017
Comments:	DTSC approved the Soil Completion Report from the removal of a small area of lead and petroleum impacted soil at the Site. A second completion report will be submitted after the tetrachoroethylene (PCE) mitigation measures are implemented as described in the Response Plan.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	01/11/2018
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Workplan
Completed Date:	09/27/2018
Comments:	DTSC has reviewed and approved the Workplan For Additional Soil Vapor Sampling prepared under the voluntary clean up agreement (VCA; Docket Number HSA-FY18/19-021). The soil vapor sampling is being conducted to characterize soil vapor concentrations of the chlorinated solvent tetrachloroethylene (PCE or perc) remaining post removal of the former sewer line. The sampling is being conducted with a mobile analytical laboratory and scheduled for October 2018. DTSC will review and approve a subsequent data Report.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	10/01/2018
Comments:	DTSC has not reviewed or approved this submittal.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Pre-HARP Form
Completed Date:	06/20/2016

HENRY MILLER (Continued) **1000372474**

Comments:	Hazard appraisal form reviewed by DTSC's Industrial Hygienists. Evaluates potential on-site hazards in preparation for DTSC field visits.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Pre-HARP Form
Completed Date:	10/11/2018
Comments:	Internal health and safety form for DTSC staff to conduct field oversight.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	09/26/2016
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Post HARP Form
Completed Date:	07/05/2016
Comments:	Post-Harp after first field visit to site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Responsible Agency Review
Completed Date:	06/01/2016
Comments:	CEQA documents including the Addendum, Statement of Findings, and Notice of Determination have been finalized following the close of the public comment period.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	01/07/2016
Comments:	Letter notifying interested agencies of DTSC's intention to enter into a CLRRA agreement with RP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	04/14/2016
Comments:	Letter approving the Site Assessment reports for the Peralta Crossing site as a condition of a CLRRA Agreement.
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Land Use Restriction
Future Due Date:	2020
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Public Notice
Future Due Date:	2020
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Removal Action Completion Report
Future Due Date:	2020

HENRY MILLER (Continued) **1000372474**

Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Plan
Future Due Date:	2020
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Design/Implementation Workplan
Schedule Due Date:	06/15/2019
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Site Characterization Report
Schedule Due Date:	05/01/2019
Schedule Revised Date:	Not reported

VCP:

Facility ID:	60002284
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2.3
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP, ALAMEDA COUNTY WATER DISTRICT
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jessica Tibor
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Site Code:	202073
Assembly:	, 20
Senate:	, 10
Special Programs Code:	Voluntary Cleanup Program
Status:	Active
Status Date:	12/11/2015
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	37.55694 / -122.0082
APN:	501 053600108, 501 053600202
Past Use:	DRY CLEANING
Potential COC:	30022
Confirmed COC:	30022
Potential Description:	SV
Alias Name:	Peralta Crossing
Alias Type:	Alternate Name
Alias Name:	Renato
Alias Type:	Alternate Name
Alias Name:	501 053600108
Alias Type:	APN
Alias Name:	501 053600202
Alias Type:	APN
Alias Name:	202073
Alias Type:	Project Code (Site Code)
Alias Name:	60002284
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE

HENRY MILLER (Continued) **1000372474**

Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 04/12/2016
Comments: Signed CLRRA Agreement between DTSC and project proponent, CV Fremont Investment, LLC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/27/2017
Comments: Scope of Work summary submitted to Alameda County Water District as part of a drilling application for a soil vapor sampling permit.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
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Completed Date: 09/20/2017
Comments: Annual Cost Estimate letter for activities occurring between July 1, 2017 and June 30, 2018 with DTSC oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/16/2017
Comments: DTSC letter approving proposed area for Land Use Restriction. Land Use Covenant will be recorded for the north west corner of the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/21/2018
Comments: The Pulte Home Company (Pulte) has entered into a voluntary clean up agreement (VCA; Docket Number HSA-FY18/19-021) with the Department of Toxic Substances Control (DTSC) as a responsible party for the Peralta Crossing Site in Fremont, California.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 12/14/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 09/16/2015
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Completed Sub Area Name: Not reported
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HENRY MILLER (Continued) **1000372474**

to further characterize the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 04/25/2016
Comments: Peralta Crossing community profile describing community demographics and outreach efforts.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: AB 389 Response Plan
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Comments: Approval Letter for Response Plan and Responsiveness summary following close of public comment period.

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Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 09/12/2016
Comments: Field work as described in the RAW began mid October beginning with the discovery and abandonment of an onsite well.

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Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 08/23/2016
Comments: Work notice to inform neighborhood that clean-up activities at the Peralta Crossing site will occur in the last quarter of 2016.

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HENRY MILLER (Continued) **1000372474**

area of lead and petroleum impacted soil at the Site. A second completion report will be submitted after the tetrachoroethylene (PCE) mitigation measures are implemented as described in the Response Plan.

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Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/11/2018
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Completed Sub Area Name: Not reported
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Completed Sub Area Name: Not reported
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Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/26/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Post HARP Form
Completed Date: 07/05/2016
Comments: Post-Harp after first field visit to site.

HENRY MILLER (Continued) **1000372474**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Responsible Agency Review
Completed Date:	06/01/2016
Comments:	CEQA documents including the Addendum, Statement of Findings, and Notice of Determination have been finalized following the close of the public comment period.
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Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	01/07/2016
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Completed Sub Area Name:	Not reported
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Future Sub Area Name:	Not reported
Future Document Type:	Land Use Restriction
Future Due Date:	2020
Future Area Name:	PROJECT WIDE
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Future Document Type:	Removal Action Completion Report
Future Due Date:	2020
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Plan
Future Due Date:	2020
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Design/Implementation Workplan
Schedule Due Date:	06/15/2019
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Site Characterization Report
Schedule Due Date:	05/01/2019
Schedule Revised Date:	Not reported

FINDS:

Registry ID: 110001174899

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,

HENRY MILLER (Continued) **1000372474**

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:	1000372474
Registry ID:	110001174899
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110001174899

EMI:

Year:	1990
County Code:	1
Air Basin:	SF
Facility ID:	4654
Air District Name:	BA
SIC Code:	7216
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:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

HAZNET:

Facility Name:	PULTE GROUP
envid:	1000372474
Year:	2016
GEPAID:	CAC002868849
Contact:	AARON HEAD
Telephone:	9252507608
Mailing Name:	Not reported
Mailing Address:	4511 WILLOW RD STE 8
Mailing City,St,Zip:	PLEASANTON, CA 945882735
Gen County:	Yolo
TSD EPA ID:	CAD982042475
TSD County:	Solano
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	39.1
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Yolo

K47
SE
1/4-1/2
0.354 mi.
1870 ft.

Relative:
Higher

Actual:
48 ft.

FREMONT PONTIAC OLDSMOBILE GMC
4411 PERALTA BLVD
FREMONT, CA 94536

Site 1 of 2 in cluster K

Database(s):
RCRA-SQG
LUST
SWEEPS UST
HIST UST
CA FID UST
FINDS
ECHO
EMI
HIST CORTESE
CERS

EDR ID Number: **1000265047**
EPA ID Number: **CAD981417496**

RCRA-SQG:

Date form received by agency:	05/04/1992
Facility name:	FREMONT PONTIAC OLDSMOBILE GMC
Facility address:	4411 PERALTA BLVD FREMONT, CA 94536
EPA ID:	CAD981417496
Contact:	ED FOX
Contact address:	4411 PERALTA BLVD FREMONT, CA 94536
Contact country:	US
Contact telephone:	510-793-7711
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:	DI GIULIO ENTERPRISES
Owner/operator address:	P O BOX 2807 FREMONT, CA 94536
Owner/operator country:	Not reported
Owner/operator telephone:	510-793-5758
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

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

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

LUST:
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=T0600101869
Global Id: T0600101869
Latitude: 37.5534521146836
Longitude: -122.010847693324
Status: Open - Eligible for Closure
Status Date: 06/06/2014
Case Worker: MAM
RB Case Number: 01-2023
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Not reported
Local Case Number: TT0384
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: The subject property (Site) is located on the west side of Peralta Blvd, south of Dusterberry Way in Fremont, Ca. Formerly, the Site operated as a recreational vehicle sales and service facility occupying four structures. Prior operations included an auto dealership. Currently, the Site is composed of existing buildings for residential housing. Three (3) USTs were used by the former auto dealer and related services, including a 1,000-gal gasoline storage tank, 2,000-gal diesel, and a third storage tank of 35,000-gal capacity for waste-oil (WOT). The third, larger tank was composed of concrete structure. In April and May of 1994 the gasoline UST and WOT were removed and residual concentrations of petroleum hydrocarbons were discovered beneath both USTs.

LUST:
Global Id: T0600101869
Contact Type: Local Agency Caseworker
Contact Name: MICHELLE A. MYERS
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BOULEVARD
City: FREMONT
Email: michelle.myers@acwd.com
Phone Number: Not reported

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

Global Id: T0600101869
Contact Type: Regional Board Caseworker
Contact Name: SIMERPREET MATHARU
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 151 clay atreet
City: OAKLAND
Email: simerpreet.matharu@waterboards.ca.gov
Phone Number: 5106222339

LUST:
Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 06/27/2016
Action: File review

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 08/25/2016
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101869
Action Type: Other
Date: 05/06/1994
Action: Leak Reported

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 12/08/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 05/24/2016
Action: Clean Up Fund - Case Closure Review Summary Report (RSR)

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 07/31/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 08/03/2017
Action: Email Correspondence

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 06/07/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 06/04/2012
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101869
Action Type: ENFORCEMENT

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

Date: 01/06/2017
Action: Email Correspondence

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 08/14/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 06/06/2014
Action: File review

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 03/25/2015
Action: File Review - Closure

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 05/22/2015
Action: Notification - Public Notice of Case Closure

Global Id: T0600101869
Action Type: ENFORCEMENT
Date: 09/13/2016
Action: Email Correspondence

Global Id: T0600101869
Action Type: REMEDIATION
Date: 04/28/1994
Action: Excavation

Global Id: T0600101869
Action Type: REMEDIATION
Date: 04/28/1994
Action: Excavation

Global Id: T0600101869
Action Type: RESPONSE
Date: 07/20/2015
Action: Correspondence

Global Id: T0600101869
Action Type: Other
Date: 05/06/1994
Action: Leak Discovery

Global Id: T0600101869
Action Type: RESPONSE
Date: 07/18/2015
Action: Email Correspondence

Global Id: T0600101869
Action Type: Other
Date: 05/06/1994
Action: Leak Stopped

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

Global Id: T0600101869
Action Type: RESPONSE
Date: 07/13/2015
Action: Email Correspondence

LUST:
Global Id: T0600101869
Status: Open - Case Begin Date
Status Date: 01/21/1994

Global Id: T0600101869
Status: Open - Eligible for Closure
Status Date: 06/06/2014

Global Id: T0600101869
Status: Open - Site Assessment
Status Date: 01/21/1994

Global Id: T0600101869
Status: Open - Site Assessment
Status Date: 05/01/1995

Global Id: T0600101869
Status: Open - Site Assessment
Status Date: 07/21/1995

LUST REG 2:
Region: 2
Facility Id: 01-2023
Facility Status: Preliminary site assessment underway
Case Number: 0384
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 1/21/1994
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 5/1/1995
Preliminary Site Assesment Began: 7/21/1995
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:
Status: Not reported
Comp Number: 4482
Number: Not reported
Board Of Equalization: 44-001254
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-004482-000002
Tank Status: Not reported
Capacity: 4000

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

Status: Active
Comp Number: 4482
Number: 9
Board Of Equalization: 44-001254
Referral Date: 08-17-92
Action Date: 08-26-92
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 01-009-004482-000001
Tank Status: A
Capacity: 1
Active Date: 09-20-91
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: 2

Status: Active
Comp Number: 4482
Number: 9
Board Of Equalization: 44-001254
Referral Date: 08-17-92
Action Date: 08-26-92
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 01-009-004482-000003
Tank Status: A
Capacity: 1000
Active Date: 09-20-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

HIST UST:
File Number: 00035F0E
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035F0E.pdf
Region: STATE
Facility ID: 00000004482
Facility Type: Other
Other Type: DEALER
Contact Name: C DIGIULIO
Telephone: 4157937711
Owner Name: DIGIULIO PONTIAC/GMC INC
Owner Address: 4411 PERALTA BLVD.
Owner City,St,Zip: FREMONT, CA 94536
Total Tanks: 0003

Tank Num: 001
Container Num: 1
Year Installed: Not reported

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 3
Year Installed: 1970
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 2
Year Installed: 1964
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: None

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 01003057
Regulated By: UTNKA
Regulated ID: 00004482
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107937711
Mail To: Not reported
Mailing Address: 4411 PERALTA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110001193636

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.

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000265047
Registry ID:	110001193636
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110001193636

EMI:

Year:	1990
County Code:	1
Air Basin:	SF
Facility ID:	5980
Air District Name:	BA
SIC Code:	7532
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:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

HIST CORTESE:

Region:	CORTESE
Facility County Code:	1
Reg By:	LTNKA
Reg Id:	01-2023

CERS TANKS:

Site ID:	187783
CERS ID:	T0600101869
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	SIMERPREET MATHARU - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	151 clay atreet
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	5106222339

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT
Entity Title:	Not reported
Affiliation Address:	43885 SOUTH GRIMMER BOULEVARD
Affiliation City:	FREMONT

FREMONT PONTIAC OLDSMOBILE GMC (Continued) **1000265047**

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

L48 **SCHUCK'S TRANSMISSION (FORMER ARCO)** **LUST** **S102436589**
ENE **37247 FREMONT BLVD** **HIST CORTESE** **N/A**
1/4-1/2 **FREMONT, CA 94537**
0.360 mi.
1902 ft. **Site 1 of 4 in cluster L**

Relative:
Higher

Actual:
58 ft.

LUST REG 2:
Region: 2
Facility Id: 01-2200
Facility Status: Leak being confirmed
Case Number: 0304
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: 12/2/1996
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

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2200

L49 **CENTERVILLE TRAIN STATION** **LUST** **S103655931**
ENE **37260 FREMONT BLVD** **HIST CORTESE** **N/A**
1/4-1/2 **FREMONT, CA 94536** **CERS**
0.369 mi.
1948 ft. **Site 2 of 4 in cluster L**

Relative:
Higher

Actual:
58 ft.

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102184
Global Id: T0600102184
Latitude: 37.5590744
Longitude: -122.0074016
Status: Completed - Case Closed
Status Date: 07/22/2008
Case Worker: EC
RB Case Number: 01-2374
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Not reported
Local Case Number: 0546
Potential Media Affect: Soil

CENTERVILLE TRAIN STATION (Continued) **S103655931**

Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

LUST:
Global Id: T0600102184
Contact Type: Local Agency Caseworker
Contact Name: EILEEN CHEN
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD.
City: FREMONT
Email: eileen.chen@acwd.com
Phone Number: Not reported

Global Id: T0600102184
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: T0600102184
Action Type: Other
Date: 09/02/1998
Action: Leak Reported

Global Id: T0600102184
Action Type: ENFORCEMENT
Date: 07/22/2008
Action: Closure/No Further Action Letter - #01-2374

Global Id: T0600102184
Action Type: REMEDIATION
Date: 03/07/1997
Action: Excavation

Global Id: T0600102184
Action Type: Other
Date: 09/02/1998
Action: Leak Discovery

Global Id: T0600102184
Action Type: Other
Date: 09/02/1998
Action: Leak Stopped

LUST:
Global Id: T0600102184
Status: Completed - Case Closed
Status Date: 07/22/2008

Global Id: T0600102184
Status: Open - Case Begin Date
Status Date: 09/02/1998

CENTERVILLE TRAIN STATION (Continued) **S103655931**

Global Id: T0600102184
Status: Open - Site Assessment
Status Date: 09/20/1998

LUST REG 2:
Region: 2
Facility Id: 01-2374
Facility Status: Leak being confirmed
Case Number: 0546
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 9/20/1998
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

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2374

CERS TANKS:
Site ID: 210018
CERS ID: T0600102184
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: EILEEN CHEN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD.
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

L50 **SHELL (FORMER)-37236 FREMONT BLVD** **LUST** **S110060307**
ENE **37236 FREMONT BOULEVARD** **HIST CORTESE** **N/A**
1/4-1/2 **FREMONT, CA 94537** **CERS**
0.369 mi.
1949 ft. **Site 3 of 4 in cluster L**

Relative:
Higher

Actual:
57 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101896
Global Id:	T0600101896
Latitude:	37.5593198
Longitude:	-122.0085602
Status:	Completed - Case Closed
Status Date:	09/05/1995
Case Worker:	SDI
RB Case Number:	01-2053
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0328
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600101896
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:	T0600101896
Contact Type:	Local Agency Caseworker
Contact Name:	STEVEN D. INN
Organization Name:	ALAMEDA COUNTY WATER DISTRICT
Address:	43885 SOUTH GRIMMER BOULEVARD
City:	FREMONT
Email:	steven.inn@acwd.com
Phone Number:	Not reported

LUST:

Global Id:	T0600101896
Action Type:	Other
Date:	06/15/1995
Action:	Leak Reported

Global Id:	T0600101896
Action Type:	REMEDIATION
Date:	10/22/1992
Action:	Excavation

Global Id:	T0600101896
Action Type:	Other
Date:	06/15/1995
Action:	Leak Discovery

SHELL (FORMER)-37236 FREMONT BLVD (Continued) **S110060307**

Global Id: T0600101896
Action Type: Other
Date: 06/15/1995
Action: Leak Stopped

LUST:
Global Id: T0600101896
Status: Completed - Case Closed
Status Date: 09/05/1995

Global Id: T0600101896
Status: Open - Case Begin Date
Status Date: 03/16/1995

Global Id: T0600101896
Status: Open - Site Assessment
Status Date: 03/16/1995

Global Id: T0600101896
Status: Open - Site Assessment
Status Date: 06/16/1995

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2053

CERS TANKS:
Site ID: 237044
CERS ID: T0600101896
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

L51 **SHELL (FORMER)-37236 FREMONT BLVD** **LUST** **S106610963**
ENE **37236 FREMONT BLVD** **N/A**
1/4-1/2 **FREMONT, CA 94537**
0.369 mi.
1949 ft. **Site 4 of 4 in cluster L**

Relative: Higher

Actual: 57 ft.

LUST REG 2:

Region:	2
Facility Id:	01-2053
Facility Status:	Case Closed
Case Number:	0328
How Discovered:	OM
Leak Cause:	UNK
Leak Source:	UNK
Date Leak Confirmed:	3/16/1995
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	6/16/1995
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

K52 **FREMONT MAZDA/VW** **LUST** **S101580051**
SE **4450 PERALTA BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94538** **CA FID UST**
0.382 mi. **HAZNET**
2019 ft. **Site 2 of 2 in cluster K** **HIST CORTESE**
NPDES

Relative: Higher

CIWQS
CERS

Actual: 49 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102026
Global Id:	T0600102026
Latitude:	37.552669
Longitude:	-122.009676
Status:	Completed - Case Closed
Status Date:	06/25/1997
Case Worker:	SDI
RB Case Number:	01-2207
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0426
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0600102026
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

FREMONT MAZDA/VW (Continued) **S101580051**

Global Id: T0600102026
Contact Type: Local Agency Caseworker
Contact Name: STEVEN D. INN
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BOULEVARD
City: FREMONT
Email: steven.inn@acwd.com
Phone Number: Not reported

LUST:
Global Id: T0600102026
Action Type: Other
Date: 07/10/1990
Action: Leak Reported

Global Id: T0600102026
Action Type: REMEDIATION
Date: 06/22/1990
Action: Excavation

Global Id: T0600102026
Action Type: REMEDIATION
Date: 06/22/1990
Action: Excavation

Global Id: T0600102026
Action Type: Other
Date: 06/22/1990
Action: Leak Discovery

Global Id: T0600102026
Action Type: Other
Date: 06/22/1990
Action: Leak Stopped

LUST:
Global Id: T0600102026
Status: Completed - Case Closed
Status Date: 06/25/1997

Global Id: T0600102026
Status: Open - Case Begin Date
Status Date: 06/22/1990

Global Id: T0600102026
Status: Open - Site Assessment
Status Date: 06/22/1990

LUST REG 2:
Region: 2
Facility Id: 01-2207
Facility Status: Case Closed
Case Number: 0426
How Discovered: Tank Closure
Leak Cause: Structure Failure

FREMONT MAZDA/VW (Continued) **S101580051**

Leak Source: Tank
Date Leak Confirmed: 6/22/1990
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:
Status: Active
Comp Number: 268
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-18-91
Action Date: 09-18-91
Created Date: 09-18-91
Owner Tank Id: 1
SWRCB Tank Id: 01-009-000268-000001
Tank Status: A
Capacity: 500
Active Date: 09-18-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 1

CA FID UST:
Facility ID: 01000789
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 4450 PERALTA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94538
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HAZNET:
Facility Name: ALL-WAYS TOWING
envid: S101580051
Year: 2015
GEPAID: CAC002796732
Contact: JOE SORDI
Telephone: 9252497946
Mailing Name: Not reported
Mailing Address: 2400 CAMINO RAMON STE 234

FREMONT MAZDA/VW (Continued) **S101580051**

Mailing City,St,Zip: SAN RAMON, CA 945834350
Gen County: Alameda
TSD EPA ID: CAD982042475
TSD County: Solano
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 4.14
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101580051
Year: 2015
GEPAID: CAC002804936
Contact: ERIC WAYNE
Telephone: 9252497949
Mailing Name: Not reported
Mailing Address: 2400 CAMINO RAMON STE 234
Mailing City,St,Zip: SAN RAMON, CA 945834350
Gen County: Alameda
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.3
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S101580051
Year: 2015
GEPAID: CAC002804936
Contact: ERIC WAYNE
Telephone: 9252497949
Mailing Name: Not reported
Mailing Address: 2400 CAMINO RAMON STE 234
Mailing City,St,Zip: SAN RAMON, CA 945834350
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified organic liquid mixture
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.187
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2207

FREMONT MAZDA/VW (Continued) **S101580051**

NPDES:

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 01C371468
Regulatory Measure Type:	Construction
Program Type:	Not reported
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:	11/17/2016
Operator Name:	Warmington Residential Calfornia
Operator Address:	2400 Camino Ramon Suite 234
Operator City:	San Ramon
Operator State:	California
Operator Zip:	94583

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	450784
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 01C371468
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:	11/17/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	11/04/2014
Processed Date:	11/17/2014
Status:	Terminated
Status Date:	11/17/2016
Place Size:	1.1
Place Size Unit:	Acres
Contact:	Greg Mix
Contact Title:	Not reported
Contact Phone:	925-866-6700

FREMONT MAZDA/VW (Continued) **S101580051**

Contact Phone Ext:	Not reported
Contact Email:	greg.mix@warmingtongroup.com
Operator Name:	Warmington Residential Calfornia
Operator Address:	2400 Camino Ramon Suite 234
Operator City:	San Ramon
Operator State:	California
Operator Zip:	94583
Operator Contact:	Greg Mix
Operator Contact Title:	Not reported
Operator Contact Phone:	925-866-6700
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	greg.mix@warmingtongroup.com
Operator Type:	Private Business
Developer:	Warmington Residential Calfornia
Developer Address:	2400 Camino Ramon Suite 234
Developer City:	San Ramon
Developer State:	California
Developer Zip:	94583
Developer Contact:	Greg Mix
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:	Y
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:	Plummer Creek
Certifier:	Ryan Gerding
Certifier Title:	Division President
Certification Date:	15-APR-16
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:	450784
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C371468

FREMONT MAZDA/VW (Continued) **S101580051**

Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/17/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/17/2016
Discharge Name:	Warmington Residential Calfornia
Discharge Address:	2400 Camino Ramon Suite 234
Discharge City:	San Ramon
Discharge State:	California
Discharge Zip:	94583
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
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

FREMONT MAZDA/VW (Continued) **S101580051**

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

Facility Status:	Terminated
NPDES Number:	CAS000002
Region:	2
Agency Number:	0
Regulatory Measure ID:	450784
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	2 01C371468
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/17/2014
Termination Date Of Regulatory Measure:	11/17/2016
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	2400 Camino Ramon Suite 234
Discharge Name:	Warmington Residential Calfornia
Discharge City:	San Ramon
Discharge State:	California
Discharge Zip:	94583
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
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:	450784
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 01C371468
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:	11/17/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported

FREMONT MAZDA/VW (Continued) **S101580051**

Received Date:	11/04/2014
Processed Date:	11/17/2014
Status:	Terminated
Status Date:	11/17/2016
Place Size:	1.1
Place Size Unit:	Acres
Contact:	Greg Mix
Contact Title:	Not reported
Contact Phone:	925-866-6700
Contact Phone Ext:	Not reported
Contact Email:	greg.mix@warmingtongroup.com
Operator Name:	Warmington Residential Calfornia
Operator Address:	2400 Camino Ramon Suite 234
Operator City:	San Ramon
Operator State:	California
Operator Zip:	94583
Operator Contact:	Greg Mix
Operator Contact Title:	Not reported
Operator Contact Phone:	925-866-6700
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	greg.mix@warmingtongroup.com
Operator Type:	Private Business
Developer:	Warmington Residential Calfornia
Developer Address:	2400 Camino Ramon Suite 234
Developer City:	San Ramon
Developer State:	California
Developer Zip:	94583
Developer Contact:	Greg Mix
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:	Y
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:	Plummer Creek
Certifier:	Ryan Gerding
Certifier Title:	Division President
Certification Date:	15-APR-16
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

FREMONT MAZDA/VW (Continued) **S101580051**

NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	450784
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C371468
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/17/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/17/2016
Discharge Name:	Warmington Residential Calfornia
Discharge Address:	2400 Camino Ramon Suite 234
Discharge City:	San Ramon
Discharge State:	California
Discharge Zip:	94583
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
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

FREMONT MAZDA/VW (Continued) **S101580051**

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

CIWQS:

Agency:	Warmington Residential Calfornia
Agency Address:	2400 Camino Ramon Suite 234, San Ramon, CA 94583
Place/Project Type:	Construction - Residential
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 01C371468
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	11/17/2014
Termination Date:	11/17/2016
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:	37.552572
Longitude:	-122.00985

CERS TANKS:

Site ID:	199795
CERS ID:	T0600102026
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

FREMONT MAZDA/VW (Continued) **S101580051**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title:	Not reported
Affiliation Address:	43885 SOUTH GRIMMER BOULEVARD
Affiliation City:	FREMONT
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

M53 **UNION SANITORY DISTRICT** **RCRA-SQG** **1000337812**
ESE **37532 DUSTERBERRY WY** **LUST** **CAD076544964**
1/4-1/2 **FREMONT, CA 94536** **UST**
0.402 mi. **SWEEPS UST**
2121 ft. **Site 1 of 2 in cluster M** **CA FID UST**
FINDS
Relative: Higher **ECHO**
WDS
Actual: 49 ft. **CERS**

RCRA-SQG:

Date form received by agency:	03/20/2002
Facility name:	UNION SANITORY DISTRICT
Facility address:	37532 DUSTERBERRY WY FREMONT, CA 94536
EPA ID:	CAD076544964
Contact:	DAVID STOOPS
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	510-477-7563
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
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

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

UNION SANITORY DISTRICT (Continued) **1000337812**

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: 03/20/2002
Site name: UNION SANITORY DISTRICT
Classification: Small Quantity Generator

Date form received by agency: 08/21/2000
Site name: UNION SANITARY DISTRICT
Classification: Large Quantity Generator

. Waste code: P092
. Waste name: MERCURY, (ACETATO-O)PHENYL-

Date form received by agency: 09/01/1996
Site name: UNION SANITARY DISTRICT
Classification: Small Quantity Generator

Date form received by agency: 02/12/1992
Site name: UNION SANITARY DISTRICT
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 02/01/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

LUST REG 2:
Region: 2
Facility Id: 01-2558
Facility Status: No Action
Case Number: 0290
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

UST:
Facility ID: 300730
Permitting Agency: FREMONT, CITY OF
Latitude: 37.55315

UNION SANITORY DISTRICT (Continued) **1000337812**

Longitude: -122.00863

SWEEPS UST:
Status: Active
Comp Number: 21273
Number: 4
Board Of Equalization: 44-001219
Referral Date: 07-06-93
Action Date: 05-05-94
Created Date: 02-29-88
Owner Tank Id: 21273001
SWRCB Tank Id: 01-009-021273-000001
Tank Status: A
Capacity: 500
Active Date: 07-06-93
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: 4

Status: Active
Comp Number: 21273
Number: 4
Board Of Equalization: 44-001219
Referral Date: 07-06-93
Action Date: 05-05-94
Created Date: 02-29-88
Owner Tank Id: 21273002
SWRCB Tank Id: 01-009-021273-000002
Tank Status: A
Capacity: 6000
Active Date: 07-06-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 21273
Number: 4
Board Of Equalization: 44-001219
Referral Date: 07-06-93
Action Date: 05-05-94
Created Date: 02-29-88
Owner Tank Id: 21273003
SWRCB Tank Id: 01-009-021273-000003
Tank Status: A
Capacity: 6000
Active Date: 07-06-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 21273
Number: 4

UNION SANITORY DISTRICT (Continued) **1000337812**

Board Of Equalization: 44-001219
Referral Date: 07-06-93
Action Date: 05-05-94
Created Date: 02-29-88
Owner Tank Id: 21273004
SWRCB Tank Id: 01-009-021273-000004
Tank Status: A
Capacity: 6000
Active Date: 07-06-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01003076
Regulated By: UTNKA
Regulated ID: 00021273
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5107900140
Mail To: Not reported
Mailing Address: 37532 DUSTERBERRY WAY
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110002658669

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.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000337812
Registry ID: 110002658669
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002658669

UNION SANITORY DISTRICT (Continued) **1000337812**

WDS:

Facility ID:	San Francisco Bay 019060001
Facility Type:	Municipal/Domestic - Facility that treats sewage or a mixture of predominantly sewage and other waste from districts, municipalities, communities, hospitals, schools, and publicly or privately owned systems (excluding individual subsurface leaching systems disposing of less than 1,000 gallons per day).
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAB037869 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	5104777561
Facility Contact:	JIM CHEN
Agency Name:	UNION SANITARY DISTRICT
Agency Address:	5072 Benson Road
Agency City,St,Zip:	Union City 94587
Agency Contact:	David Livingston PlantManager
Agency Telephone:	5104777500
Agency Type:	Special District (Includes districts established under general acts, sanitary districts, water districts irrigation districts, etc.)
SIC Code:	4952
SIC Code 2:	Not reported
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Primary Waste:	DOMIND
Waste Type2:	Not reported
Waste2:	Domestic Sewage combined with Industrial Waste
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	33
Baseline Flow:	1
Reclamation:	No reclamation requirements associated with this facility.
POTW:	POTW has a local pretreatment program that has been approved by the U.S. EPA (or the regional board if the state is delegated the Federal Pretreatment Program) as being in conformance with federal prtreatment regulations [40CFR Part 403].
Treat To Water:	Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Complexity:	Category A - Any major NPDES facility, any non-NPDES facility (particularly those with toxic wastes) that would be a major if discharge was made to surface or ground waters, or any Class I disposal site. Includes any small-volume complex facility (particularly those with toxicwastes) with numerous discharge points, leak detection systems or ground water monitoring wells.

UNION SANITORY DISTRICT (Continued) **1000337812**

CERS TANKS:
Site ID: 243591
CERS ID: T0600110509
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: MICHELLE A. MYERS - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

M54 **UNION SANITARY DISTRICT CORP. YARD** **LUST** **U001596827**
ESE **37532 DUSTERBERRY WAY** **HIST UST** **N/A**
1/4-1/2 **FREMONT, CA 94536**
0.402 mi.
2121 ft. **Site 2 of 2 in cluster M**

Relative:
Higher

Actual:
49 ft.

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600110509
Global Id: T0600110509
Latitude: 37.5524936
Longitude: -122.0072312
Status: Completed - Case Closed
Status Date: 04/30/2001
Case Worker: MAM
RB Case Number: 01-2558
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Not reported
Local Case Number: 0290
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: Not reported

LUST:
Global Id: T0600110509
Contact Type: Local Agency Caseworker
Contact Name: MICHELLE A. MYERS
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BOULEVARD
City: FREMONT

UNION SANITARY DISTRICT CORP. YARD (Continued) **U001596827**

Email: michelle.myers@acwd.com
Phone Number: Not reported

Global Id: T0600110509
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: T0600110509
Action Type: Other
Date: 04/18/1989
Action: Leak Reported

Global Id: T0600110509
Action Type: REMEDIATION
Date: 04/18/1989
Action: Not reported

Global Id: T0600110509
Action Type: Other
Date: 04/18/1989
Action: Leak Discovery

LUST:
Global Id: T0600110509
Status: Completed - Case Closed
Status Date: 04/30/2001

Global Id: T0600110509
Status: Open - Case Begin Date
Status Date: 04/18/1989

HIST UST:
File Number: 00036499
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036499.pdf
Region: STATE
Facility ID: 00000021273
Facility Type: Other
Other Type: DISTRICT OFFICES
Contact Name: ROGER HAM-SUPERINTENDENT
Telephone: 4157900140
Owner Name: UNION SANITARY DISTRICT
Owner Address: 37532 DUSTERBERRY
Owner City,St,Zip: FREMONT, CA 94536
Total Tanks: 0004

Tank Num: 001
Container Num: 5
Year Installed: 1980
Tank Capacity: 00000500

UNION SANITARY DISTRICT CORP. YARD (Continued) **U001596827**

Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	002
Container Num:	6
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	003
Container Num:	7
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	004
Container Num:	8
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

55
East
1/4-1/2
0.420 mi.
2220 ft.

FELDER JENNINGS PROPERTY **LUST** **S102429851**
37312 FREMONT **SWEEPS UST** **N/A**
FREMONT, CA 94538 **HIST CORTESE**
CERS

Relative:
Higher

Actual:
58 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101852
Global Id:	T0600101852
Latitude:	37.558469
Longitude:	-122.006991
Status:	Completed - Case Closed
Status Date:	11/28/1994
Case Worker:	SDI
RB Case Number:	01-2005
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0372
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

FELDER JENNINGS PROPERTY (Continued) **S102429851**

LUST:
Global Id: T0600101852
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: T0600101852
Contact Type: Local Agency Caseworker
Contact Name: STEVEN D. INN
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BOULEVARD
City: FREMONT
Email: steven.inn@acwd.com
Phone Number: Not reported

LUST:
Global Id: T0600101852
Action Type: Other
Date: 02/02/1994
Action: Leak Reported

Global Id: T0600101852
Action Type: REMEDIATION
Date: 02/02/1994
Action: Excavation

Global Id: T0600101852
Action Type: Other
Date: 02/02/1994
Action: Leak Discovery

Global Id: T0600101852
Action Type: Other
Date: 02/02/1994
Action: Leak Stopped

LUST:
Global Id: T0600101852
Status: Completed - Case Closed
Status Date: 11/28/1994

Global Id: T0600101852
Status: Open - Case Begin Date
Status Date: 02/02/1994

Global Id: T0600101852
Status: Open - Site Assessment
Status Date: 02/02/1994

LUST REG 2:

FELDER JENNINGS PROPERTY (Continued) **S102429851**

Region: 2
Facility Id: 01-2005
Facility Status: Case Closed
Case Number: 0372
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 2/2/1994
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:
Status: Not reported
Comp Number: 9834
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: 01-009-009834-000001
Tank Status: Not reported
Capacity: 1750
Active Date: Not reported
Tank Use: PETROLEUM
STG: PRODUCT
Content: PETROLEUM/FU
Number Of Tanks: 1

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2005

CERS TANKS:
Site ID: 237173
CERS ID: T0600101852
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

FELDER JENNINGS PROPERTY (Continued) **S102429851**

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

N56 **U-HAUL (4833 THORNTON)** **LUST** **1000160028**
SSW **4833 THORNTON AVE** **N/A**
1/4-1/2 **FREMONT, CA 94536**
0.438 mi.
2315 ft. **Site 1 of 2 in cluster N**

Relative: **Lower**
Actual: **42 ft.**

LUST REG 2:

Region:	2
Facility Id:	01-1511
Facility Status:	Case Closed
Case Number:	0382
How Discovered:	Tank Closure
Leak Cause:	UNK
Leak Source:	D
Date Leak Confirmed:	1/21/1994
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

N57 **U-HAUL** **LUST** **S101580538**
SSW **4833 THORNTON AVE** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94538** **CA FID UST**
0.438 mi. **HIST CORTESE**
2315 ft. **Site 2 of 2 in cluster N** **CERS**

Relative: **Lower**
Actual: **42 ft.**

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101395
Global Id:	T0600101395
Latitude:	37.55043
Longitude:	-122.0206045
Status:	Completed - Case Closed
Status Date:	04/20/1995
Case Worker:	SDI
RB Case Number:	01-1511
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Not reported
Local Case Number:	0382
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline

U-HAUL (Continued) **S101580538**

Site History: Not reported

LUST:
Global Id: T0600101395
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: T0600101395
Contact Type: Local Agency Caseworker
Contact Name: STEVEN D. INN
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BOULEVARD
City: FREMONT
Email: steven.inn@acwd.com
Phone Number: Not reported

LUST:
Global Id: T0600101395
Action Type: Other
Date: 09/20/1994
Action: Leak Reported

Global Id: T0600101395
Action Type: REMEDIATION
Date: 01/26/1995
Action: Excavation

Global Id: T0600101395
Action Type: Other
Date: 09/20/1994
Action: Leak Discovery

Global Id: T0600101395
Action Type: Other
Date: 09/20/1994
Action: Leak Stopped

LUST:
Global Id: T0600101395
Status: Completed - Case Closed
Status Date: 04/20/1995

Global Id: T0600101395
Status: Open - Case Begin Date
Status Date: 01/21/1994

Global Id: T0600101395
Status: Open - Site Assessment
Status Date: 01/21/1994

U-HAUL (Continued) **S101580538**

SWEEPS UST:

Status:	Active
Comp Number:	21744
Number:	1
Board Of Equalization:	44-001306
Referral Date:	06-24-93
Action Date:	05-05-94
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	01-009-021744-000001
Tank Status:	A
Capacity:	10000
Active Date:	06-24-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2

Status:	Active
Comp Number:	21744
Number:	1
Board Of Equalization:	44-001306
Referral Date:	06-24-93
Action Date:	05-05-94
Created Date:	02-29-88
Owner Tank Id:	2
SWRCB Tank Id:	01-009-021744-000002
Tank Status:	A
Capacity:	500
Active Date:	06-24-93
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	01003079
Regulated By:	UTNKA
Regulated ID:	00021744
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	5107963151
Mail To:	Not reported
Mailing Address:	4833 THORNTON AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	FREMONT 94538
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

HIST CORTESE:

Region:	CORTESE

U-HAUL (Continued) **S101580538**

Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1511

CERS TANKS:
Site ID: 190751
CERS ID: T0600101395
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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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58 **AAMCO TRANSMISSIONS** **LUST** **S101306448**
NE **3670 THORNTON AVE** **CERS HAZ WASTE** **N/A**
1/4-1/2 **FREMONT, CA 94536** **SWEEPS UST**
0.442 mi. **HAZNET**
2333 ft. **HIST CORTESE**
CERS

Relative:
Higher

Actual:
53 ft.

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100014
Global Id: T0600100014
Latitude: 37.5621708
Longitude: -122.0092272
Status: Completed - Case Closed
Status Date: 11/26/1996
Case Worker: Not reported
RB Case Number: 01-0018
Local Agency: Not reported
File Location: Local Agency Warehouse
Local Case Number: 0352
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600100014

AAMCO TRANSMISSIONS (Continued) **S101306448**

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: T0600100014
Action Type: Other
Date: 10/16/1990
Action: Leak Reported

Global Id: T0600100014
Action Type: RESPONSE
Date: 06/27/1996
Action: Correspondence

Global Id: T0600100014
Action Type: ENFORCEMENT
Date: 10/17/1995
Action: Closure/No Further Action Letter

Global Id: T0600100014
Action Type: ENFORCEMENT
Date: 10/17/1995
Action: Staff Letter

Global Id: T0600100014
Action Type: Other
Date: 10/16/1990
Action: Leak Discovery

Global Id: T0600100014
Action Type: Other
Date: 10/16/1990
Action: Leak Stopped

LUST:
Global Id: T0600100014
Status: Completed - Case Closed
Status Date: 11/26/1996

Global Id: T0600100014
Status: Open - Case Begin Date
Status Date: 10/16/1990

Global Id: T0600100014
Status: Open - Site Assessment
Status Date: 12/06/1990

LUST REG 2:
Region: 2
Facility Id: 01-0018

AAMCO TRANSMISSIONS (Continued) **S101306448**

Facility Status: Case Closed
Case Number: 0352
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 12/6/1990
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

CERS HAZ WASTE:
Site ID: 2496
CERS ID: 10167431
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 06/08/2016. CLOSED DURING INSPECTION
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 10/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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 and look for leaking and deteriorating containers.
Violation Notes: Returned to compliance on 10/25/2016.

AAMCO TRANSMISSIONS (Continued) **S101306448**

Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to 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 10/25/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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 that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 09/29/2016. TRAINING DONE BY STACEY BRUENER
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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 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 10/25/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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

AAMCO TRANSMISSIONS (Continued) **S101306448**

subject to the business plan program and has complied with its provisions.
Violation Notes: Returned to compliance on 10/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-25-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-25-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Operator
Entity Name: Randeep Sidhu

AAMCO TRANSMISSIONS (Continued) **S101306448**

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:	(510) 684-4990
Affiliation Type Desc:	Environmental Contact
Entity Name:	Randeep Sidhu
Entity Title:	Not reported
Affiliation Address:	3670 Thornton Ave.
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94536
Affiliation Phone:	(510) 796-7990
Affiliation Type Desc:	CUPA District
Entity Name:	Fremont City Fire Department
Entity Title:	Not reported
Affiliation Address:	P.O. Box 5006
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94537-5006
Affiliation Phone:	(510) 494-4279
Affiliation Type Desc:	Legal Owner
Entity Name:	Randeep Sidhu
Entity Title:	Not reported
Affiliation Address:	3670 Thornton Ave Ste A
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94536
Affiliation Phone:	(510) 796-7990
Affiliation Type Desc:	Property Owner
Entity Name:	Jianmin Lee
Entity Title:	Not reported
Affiliation Address:	1684 Decoto Rd # 234
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94587
Affiliation Phone:	(408) 394-2727
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

AAMCO TRANSMISSIONS (Continued) **S101306448**

Affiliation Type Desc:	Document Preparer
Entity Name:	Randeep Sidhu
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:	3670 Thornton Ave Ste A
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94536
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Randeep Sidhu
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:	Parent Corporation
Entity Name:	AAMCO Transmissions
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

SWEEPS UST:

Status:	Not reported
Comp Number:	54305
Number:	Not reported
Board Of Equalization:	44-001338
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	01-009-054305-000001
Tank Status:	Not reported
Capacity:	750
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	WASTE OIL

AAMCO TRANSMISSIONS (Continued) **S101306448**

Number Of Tanks: 2

Status: Not reported
Comp Number: 54305
Number: Not reported
Board Of Equalization: 44-001338
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-054305-000002
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

HAZNET:
Facility Name: SUPREME AUTO CARE AND TRANSMISSIONS INC
envid: S101306448
Year: 2017
GEPAID: CAL000420675
Contact: RANDEEP SIDHU
Telephone: 5107967990
Mailing Name: Not reported
Mailing Address: 3670 THORNTON AVE
Mailing City,St,Zip: FREMONT, CA 94536
Gen County: Alameda
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified oil-containing waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.075
Cat Decode: Unspecified oil-containing waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Alameda

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0018

CERS TANKS:
Site ID: 2496
CERS ID: T0600100014
CERS Description: Leaking Underground Storage Tank Cleanup Site

Violations:
Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016

AAMCO TRANSMISSIONS (Continued) **S101306448**

Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	Returned to compliance on 06/08/2016. CLOSED DURING INSPECTION
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	2496
Site Name:	Aamco Transmissions
Violation Date:	06-08-2016
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 10/26/2016.
Violation Division:	Fremont City Fire Department
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	2496
Site Name:	Aamco Transmissions
Violation Date:	06-08-2016
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 and look for leaking and deteriorating containers.
Violation Notes:	Returned to compliance on 10/25/2016.
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	2496
Site Name:	Aamco Transmissions
Violation Date:	06-08-2016
Citation:	22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description:	Failure to 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 10/25/2016.
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS

AAMCO TRANSMISSIONS (Continued) **S101306448**

Site ID:	2496
Site Name:	Aamco Transmissions
Violation Date:	06-08-2016
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 that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 09/29/2016. TRAINING DONE BY STACEY BRUENER
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	2496
Site Name:	Aamco Transmissions
Violation Date:	06-08-2016
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 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 10/25/2016.
Violation Division:	Fremont City Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	2496
Site Name:	Aamco Transmissions
Violation Date:	06-08-2016
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:	Returned to compliance on 10/26/2016.
Violation Division:	Fremont City Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-08-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fremont City Fire Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-25-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Fremont City Fire Department

AAMCO TRANSMISSIONS (Continued) **S101306448**

Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-25-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Operator
Entity Name: Randeep Sidhu
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: (510) 684-4990

Affiliation Type Desc: Environmental Contact
Entity Name: Randeep Sidhu
Entity Title: Not reported
Affiliation Address: 3670 Thornton Ave.
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94536
Affiliation Phone: (510) 796-7990

Affiliation Type Desc: CUPA District
Entity Name: Fremont City Fire Department
Entity Title: Not reported
Affiliation Address: P.O. Box 5006
Affiliation City: Fremont
Affiliation State: CA

AAMCO TRANSMISSIONS (Continued) **S101306448**

Affiliation Country: Not reported
Affiliation Zip: 94537-5006
Affiliation Phone: (510) 494-4279

Affiliation Type Desc: Legal Owner
Entity Name: Randeep Sidhu
Entity Title: Not reported
Affiliation Address: 3670 Thornton Ave Ste A
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94536
Affiliation Phone: (510) 796-7990

Affiliation Type Desc: Property Owner
Entity Name: Jianmin Lee
Entity Title: Not reported
Affiliation Address: 1684 Decoto Rd # 234
Affiliation City: Union City
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94587
Affiliation Phone: (408) 394-2727

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: Document Preparer
Entity Name: Randeep Sidhu
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: 3670 Thornton Ave Ste A
Affiliation City: Fremont
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94536
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Randeep Sidhu
Entity Title: Not reported

AAMCO TRANSMISSIONS (Continued) **S101306448**

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: AAMCO Transmissions
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

Site ID: 2496
CERS ID: 10167431
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 06/08/2016. CLOSED DURING INSPECTION
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 10/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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 and

AAMCO TRANSMISSIONS (Continued) **S101306448**

look for leaking and deteriorating containers.
Violation Notes: Returned to compliance on 10/25/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to 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 10/25/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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 that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 09/29/2016. TRAINING DONE BY STACEY BRUENER
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
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 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 10/25/2016.
Violation Division: Fremont City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 2496
Site Name: Aamco Transmissions
Violation Date: 06-08-2016
Citation: HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95,

AAMCO TRANSMISSIONS (Continued) **S101306448**

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: Returned to compliance on 10/26/2016.
Violation Division: Fremont City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-25-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-25-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-08-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fremont City Fire Department
Eval Program: HW
Eval Source: CERS

Affiliation:

AAMCO TRANSMISSIONS (Continued) **S101306448**

Affiliation Type Desc:	Operator
Entity Name:	Randeep Sidhu
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:	(510) 684-4990

Affiliation Type Desc:	Environmental Contact
Entity Name:	Randeep Sidhu
Entity Title:	Not reported
Affiliation Address:	3670 Thornton Ave.
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94536
Affiliation Phone:	(510) 796-7990

Affiliation Type Desc:	CUPA District
Entity Name:	Fremont City Fire Department
Entity Title:	Not reported
Affiliation Address:	P.O. Box 5006
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94537-5006
Affiliation Phone:	(510) 494-4279

Affiliation Type Desc:	Legal Owner
Entity Name:	Randeep Sidhu
Entity Title:	Not reported
Affiliation Address:	3670 Thornton Ave Ste A
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94536
Affiliation Phone:	(510) 796-7990

Affiliation Type Desc:	Property Owner
Entity Name:	Jianmin Lee
Entity Title:	Not reported
Affiliation Address:	1684 Decoto Rd # 234
Affiliation City:	Union City
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94587
Affiliation Phone:	(408) 394-2727

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

AAMCO TRANSMISSIONS (Continued) **S101306448**

Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Randeep Sidhu
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:	3670 Thornton Ave Ste A
Affiliation City:	Fremont
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94536
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Randeep Sidhu
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:	Parent Corporation
Entity Name:	AAMCO Transmissions
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

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59 **SABRAW ENTERPRISES** **LUST** **S100945011**
SE **37555 DUSTERBERRY WY** **HIST CORTESE** **N/A**
1/4-1/2 **FREMONT, CA 94536** **CERS**
0.445 mi.
2351 ft.

Relative: **Higher**
Actual: **49 ft.**

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101176
Global Id:	T0600101176
Latitude:	37.5526
Longitude:	-122.008548
Status:	Completed - Case Closed

SABRAW ENTERPRISES (Continued) **S100945011**

Status Date: 03/28/2012
Case Worker: DY
RB Case Number: 01-1279
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Local Agency
Local Case Number: 0325
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600101176
Contact Type: Local Agency Caseworker
Contact Name: DOUG YOUNG
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BLVD
City: FREMONT
Email: douglas.young@acwd.com
Phone Number: Not reported

Global Id: T0600101176
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: T0600101176
Action Type: Other
Date: 06/20/1991
Action: Leak Reported

Global Id: T0600101176
Action Type: ENFORCEMENT
Date: 04/23/2001
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101176
Action Type: ENFORCEMENT
Date: 02/27/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0600101176
Action Type: ENFORCEMENT
Date: 04/14/2010
Action: Meeting

Global Id: T0600101176
Action Type: ENFORCEMENT
Date: 05/05/2010
Action: File review

Global Id: T0600101176
Action Type: ENFORCEMENT

SABRAW ENTERPRISES (Continued) **S100945011**

Date: 03/28/2012
Action: Closure/No Further Action Letter

Global Id: T0600101176
Action Type: ENFORCEMENT
Date: 02/27/2012
Action: LOP Case Closure Summary to RB

Global Id: T0600101176
Action Type: Other
Date: 06/20/1991
Action: Leak Discovery

Global Id: T0600101176
Action Type: Other
Date: 06/20/1991
Action: Leak Stopped

LUST:
Global Id: T0600101176
Status: Completed - Case Closed
Status Date: 03/28/2012

Global Id: T0600101176
Status: Open - Case Begin Date
Status Date: 06/20/1991

Global Id: T0600101176
Status: Open - Inactive
Status Date: 02/27/2003

Global Id: T0600101176
Status: Open - Site Assessment
Status Date: 08/16/1991

Global Id: T0600101176
Status: Open - Site Assessment
Status Date: 12/05/1991

LUST REG 2:
Region: 2
Facility Id: 01-1279
Facility Status: Preliminary site assessment underway
Case Number: 0325
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 8/16/1991
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 12/5/1991
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

SABRAW ENTERPRISES (Continued) **S100945011**

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1279

CERS TANKS:
Site ID: 187576
CERS ID: T0600101176
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: DOUG YOUNG - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BLVD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

O60 **P G & E FREMONT SERVICE CENTER** **LUST** **S101580110**
ESE **37465 JOSEPH** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94536** **CA FID UST**
0.484 mi. **HIST CORTESE**
2557 ft. **Site 1 of 2 in cluster O** **CERS**

Relative:
Higher

Actual:
51 ft.

LUST:
Lead Agency: ALAMEDA COUNTY WATER DISTRICT
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101080
Global Id: T0600101080
Latitude: 37.5547711
Longitude: -122.0060637
Status: Completed - Case Closed
Status Date: 01/10/1996
Case Worker: SDI
RB Case Number: 01-1171
Local Agency: ALAMEDA COUNTY WATER DISTRICT
File Location: Not reported
Local Case Number: 0089
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

P G & E FREMONT SERVICE CENTER (Continued) **S101580110**

LUST:
Global Id: T0600101080
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: T0600101080
Contact Type: Local Agency Caseworker
Contact Name: STEVEN D. INN
Organization Name: ALAMEDA COUNTY WATER DISTRICT
Address: 43885 SOUTH GRIMMER BOULEVARD
City: FREMONT
Email: steven.inn@acwd.com
Phone Number: Not reported

LUST:
Global Id: T0600101080
Action Type: Other
Date: 05/04/1988
Action: Leak Reported

Global Id: T0600101080
Action Type: REMEDIATION
Date: 08/27/1992
Action: Excavation

Global Id: T0600101080
Action Type: Other
Date: 05/04/1988
Action: Leak Discovery

Global Id: T0600101080
Action Type: Other
Date: 05/04/1988
Action: Leak Stopped

LUST:
Global Id: T0600101080
Status: Completed - Case Closed
Status Date: 01/10/1996

Global Id: T0600101080
Status: Open - Case Begin Date
Status Date: 04/26/1988

Global Id: T0600101080
Status: Open - Remediation
Status Date: 05/04/1994

Global Id: T0600101080
Status: Open - Site Assessment
Status Date: 04/26/1988

P G & E FREMONT SERVICE CENTER (Continued) **S101580110**

Global Id: T0600101080
Status: Open - Site Assessment
Status Date: 04/28/1988

SWEEPS UST:
Status: Not reported
Comp Number: 24829
Number: Not reported
Board Of Equalization: 44-001310
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-024829-000001
Tank Status: Not reported
Capacity: 3000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 24829
Number: Not reported
Board Of Equalization: 44-001310
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-009-024829-000002
Tank Status: Not reported
Capacity: 550
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01001287
Regulated By: UTNKI
Regulated ID: 00024829
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4157961727
Mail To: Not reported
Mailing Address: 37465 JOSEPH
Mailing Address 2: Not reported
Mailing City,St,Zip: FREMONT 94536
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

P G & E FREMONT SERVICE CENTER (Continued) **S101580110**

Comments: Not reported
Status: Inactive

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1171

CERS TANKS:
Site ID: 249523
CERS ID: T0600101080
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: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

O61 **PG & E OLD SERVICE CENTER** **LUST** **S102435157**
ESE **37465 JOSEPH ST** **N/A**
1/4-1/2 **FREMONT, CA 94536**
0.484 mi.
2557 ft. **Site 2 of 2 in cluster O**

Relative:
Higher

Actual:
51 ft.

LUST REG 2:
Region: 2
Facility Id: 01-1171
Facility Status: Case Closed
Case Number: 0089
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 4/28/1988
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 4/26/1988
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: 5/4/1994
Date Remediation Action Underway: Not reported

PG & E OLD SERVICE CENTER (Continued) **S102435157**

Date Post Remedial Action Monitoring Began: Not reported

P62 **AUTOMOTIVE & AUTOBODY SER** **LUST** **S100852253**
ENE **37169 MORAINE** **HIST CORTESE** **N/A**
1/4-1/2 **FREMONT, CA 94536** **CERS**
0.497 mi.
2624 ft. **Site 1 of 2 in cluster P**

Relative:
Higher

Actual:
55 ft.

LUST:

Lead Agency:	ALAMEDA COUNTY WATER DISTRICT
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100566
Global Id:	T0600100566
Latitude:	37.5618454
Longitude:	-122.0075495
Status:	Completed - Case Closed
Status Date:	05/28/1996
Case Worker:	SDI
RB Case Number:	01-0614
Local Agency:	ALAMEDA COUNTY WATER DISTRICT
File Location:	Local Agency
Local Case Number:	0345
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon, Waste Oil / Motor / Hydraulic / Lubricating, Other Chlo
Site History:	Not reported

LUST:

Global Id:	T0600100566
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:	T0600100566
Contact Type:	Local Agency Caseworker
Contact Name:	STEVEN D. INN
Organization Name:	ALAMEDA COUNTY WATER DISTRICT
Address:	43885 SOUTH GRIMMER BOULEVARD
City:	FREMONT
Email:	steven.inn@acwd.com
Phone Number:	Not reported

LUST:

Global Id:	T0600100566
Action Type:	Other
Date:	04/08/1993
Action:	Leak Reported

Global Id:	T0600100566
Action Type:	ENFORCEMENT
Date:	05/28/1996
Action:	Closure/No Further Action Letter

Global Id:	T0600100566
Action Type:	REMEDIATION

AUTOMOTIVE & AUTOBODY SER (Continued) **S100852253**

Date: 04/19/1993
Action: Excavation

Global Id: T0600100566
Action Type: Other
Date: 03/19/1993
Action: Leak Discovery

Global Id: T0600100566
Action Type: Other
Date: 03/19/1993
Action: Leak Stopped

LUST:
Global Id: T0600100566
Status: Completed - Case Closed
Status Date: 05/28/1996

Global Id: T0600100566
Status: Open - Case Begin Date
Status Date: 03/09/1993

Global Id: T0600100566
Status: Open - Site Assessment
Status Date: 03/09/1993

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0614

CERS TANKS:
Site ID: 251529
CERS ID: T0600100566
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: STEVEN D. INN - ALAMEDA COUNTY WATER DISTRICT
Entity Title: Not reported
Affiliation Address: 43885 SOUTH GRIMMER BOULEVARD
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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

AUTOMOTIVE & AUTOBODY SER (Continued) **S100852253**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

P63 **AUTOMOTIVE & AUTO BODY SVC CTR** **LUST** **S103472229**
ENE **37169 MORAINE ST** **SWEEPS UST** **N/A**
1/4-1/2 **FREMONT, CA 94536**
0.497 mi.
2624 ft. **Site 2 of 2 in cluster P**

Relative:
Higher

Actual:
55 ft.

LUST REG 2:
Region: 2
Facility Id: 01-0614
Facility Status: Case Closed
Case Number: 0345
How Discovered: Tank Test
Leak Cause: Structure Failure
Leak Source: D,
Date Leak Confirmed: 3/9/1993
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:
Status: Not reported
Comp Number: 8586
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: 01-009-008586-000001
Tank Status: Not reported
Capacity: 150
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 5

Status: Not reported
Comp Number: 8586
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: 01-009-008586-000002
Tank Status: Not reported
Capacity: 150
Active Date: Not reported

AUTOMOTIVE & AUTO BODY SVC CTR (Continued) **S103472229**

Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 8586
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: 01-009-008586-000003
Tank Status: Not reported
Capacity: 150
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 8586
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: 01-009-008586-000004
Tank Status: Not reported
Capacity: 150
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 8586
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: 01-009-008586-000005
Tank Status: Not reported
Capacity: 150
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

64
SE
1/2-1
0.507 mi.
2678 ft.

CENTRAL COMMONS
4369 CENTRAL AVENUE
FREMONT, CA 94536

ENVIROSTOR
VCP
HAZNET

S118353732
N/A

Relative:
Higher

Actual:
48 ft.

ENVIROSTOR:

Facility ID:	60002248
Status:	No Further Action
Status Date:	12/24/2015
Site Code:	202056
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	1.13
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	, 20
Senate:	, 10
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.55219
Longitude:	-122.0072
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	Lead
Confirmed COC:	Lead
Potential Description:	SOIL
Alias Name:	202056
Alias Type:	Project Code (Site Code)
Alias Name:	60002248
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	10/07/2015
Comments:	DTSC identified as the lead agency.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	12/24/2015
Comments:	The Preliminary Endangerment Assessment found that no contaminants remain on site above unrestricted standards.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	11/04/2015
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported

CENTRAL COMMONS (Continued) **S118353732**

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:
Facility ID: 60002248
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.13
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Karen Toth
Division Branch: Cleanup Berkeley
Site Code: 202056
Assembly: , 20
Senate: , 10
Special Programs Code: Not reported
Status: No Further Action
Status Date: 12/24/2015
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.55219 / -122.0072
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD
Potential COC: 30013
Confirmed COC: 30013
Potential Description: SOIL
Alias Name: 202056
Alias Type: Project Code (Site Code)
Alias Name: 60002248
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 10/07/2015
Comments: DTSC identified as the lead agency.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/24/2015
Comments: The Preliminary Endangerment Assessment found that no contaminants remain on site above unrestricted standards.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement

CENTRAL COMMONS (Continued) **S118353732**

Completed Date: 11/04/2015
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

HAZNET:
Facility Name: HABITAT FOR HUMANITY EAST BAY SILLICON VALLEY
envid: S118353732
Year: 2015
GEPAID: CAL000401736
Contact: HAMID TAEB
Telephone: 5108033355
Mailing Name: Not reported
Mailing Address: 2619 BROADWAY
Mailing City,St,Zip: OAKLAND, CA 94612
Gen County: Alameda
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Contaminated soil from site clean-up
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 156.51
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S118353732
Year: 2015
GEPAID: CAL000401736
Contact: HAMID TAEB
Telephone: 5108033355
Mailing Name: Not reported
Mailing Address: 2619 BROADWAY
Mailing City,St,Zip: OAKLAND, CA 94612
Gen County: Alameda
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Contaminated soil from site clean-up
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.41
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

Q65 **DESERET INDUSTRIES/THRIFT STORE** **CPS-SLIC** **S100179673**
South **37541 BLACOW ROAD** **EMI** **N/A**
1/2-1 **FREMONT, CA 94538** **Notify 65**
0.751 mi. **CERS**
3964 ft. **Site 1 of 3 in cluster Q**

Relative:
Lower

Actual:
40 ft.

SLIC REG 2:
Region: 2
Facility ID: Not reported
Facility Status: Post remedial action monitoring
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
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

EMI:
Year: 1987
County Code: 1
Air Basin: SF
Facility ID: 1248
Air District Name: BA
SIC Code: 2033
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
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

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

CERS TANKS:
Site ID: 193584
CERS ID: SL0600144536
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: RANGARAJAN SAMPATH - ALAMEDA COUNTY WATER DISTRICT

DESERET INDUSTRIES/THRIFT STORE (Continued) **S100179673**

Entity Title:	Not reported
Affiliation Address:	43885 SOUTH GRIMMER BLVD
Affiliation City:	FREMONT
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY STREET, SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Q66 **Notify 65** **S100179672**
South **37541 BLACOW RD.** **N/A**
1/2-1 **FREMONT, CA 92507**
0.751 mi.
3964 ft. **Site 2 of 3 in cluster Q**

Relative: **Lower**

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

Q67 **Notify 65** **S100179680**
South **37541 BLACOW ROAD** **N/A**
1/2-1 **FREMONT, CA 92507**
0.751 mi.
3964 ft. **Site 3 of 3 in cluster Q**

Relative: **Lower**

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

68
ENE
1/2-1
0.796 mi.
4204 ft.

PACIFIC CEMENT & AGGREGATES
35171 SEQUOIA ROAD
FREMONT, CA 94536

ENVIROSTOR **S102008184**
N/A

Relative:
Higher

Actual:
50 ft.

ENVIROSTOR:

Facility ID:	1320001
Status:	Refer: Other Agency
Status Date:	06/27/1994
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:	20
Senate:	10
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.56345
Longitude:	-122.0023
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
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

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FREMONT	S106446521	UNION PACIFIC RAILROAD TRAIN DERAI	UPRR'S ALAMEDA CREEK OVERPASS	94536	CPS-SLIC

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: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
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 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

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: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
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: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
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: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 04/15/2019
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: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/29/2019
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: 12/13/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/29/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - 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). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
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: 10/17/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 43

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
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: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
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: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
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: 09/24/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 04/08/2019
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: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
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: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
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: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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 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: Varies

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

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 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 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 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 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 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: Quarterly

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: 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: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

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: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: Quarterly

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: Semi-Annually

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: Varies

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: Semi-Annually

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: Semi-Annually

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: Semi-Annually

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: Annually

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: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

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: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Quarterly

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: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

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: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Varies

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: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

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: 12/20/2018
Date Data Arrived at EDR: 12/21/2018
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
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: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/18/2018
Next Scheduled EDR Contact: 04/01/2019
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: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 09/28/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
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: 01/29/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

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: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: No Update Planned

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

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: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

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: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
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: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
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: 12/31/2017
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 04/22/2019
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: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
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: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

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: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
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: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 10/11/2018
Number of Days to Update: 29

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

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: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

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

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: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
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: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37
Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
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: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 04/08/2019
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: 10/24/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 40
Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
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: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
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: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
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: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
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: 02/15/2019
Next Scheduled EDR Contact: 05/27/2019
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: 08/31/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 04/08/2019
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: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
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: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
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: 12/21/2018
Next Scheduled EDR Contact: 04/01/2019
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: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
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: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 03/18/2019
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: 10/26/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
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: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 36
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 05/20/2019
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: 09/14/2018
Date Data Arrived at EDR: 10/11/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 57
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
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: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
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: Quarterly

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: Quarterly

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: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 06/17/2019
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: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
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: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
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: 10/02/2018
Date Data Arrived at EDR: 10/03/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/03/2019
Next Scheduled EDR Contact: 04/15/2019
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: 10/01/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
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: 09/30/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 56

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
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: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
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: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
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: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
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

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: 08/01/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 37

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
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: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
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: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
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: 09/10/2018
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 Interior
Telephone: 202-208-2609
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 03/25/2019
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: 11/15/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

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: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 87
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

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: 08/22/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/03/2019
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: 12/20/2018
Date Data Arrived at EDR: 12/21/2018
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 69
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
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: 08/28/2018
Date Data Arrived at EDR: 08/30/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 63
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/26/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 7
Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
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: 10/04/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 27

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 06/10/2019
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: 11/13/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 42

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
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: 12/13/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 47

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
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: 06/20/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 47

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/01/2019
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: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/10/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 02/15/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/11/2019
Next Scheduled EDR Contact: 05/27/2019
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: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
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: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
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: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 56

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/22/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 11/09/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 23
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
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: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 09/19/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/19/2018
Number of Days to Update: 29
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
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: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/03/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
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: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

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: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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

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: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/05/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 23

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 58

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
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: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/24/2019
Date Data Arrived at EDR: 01/25/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 39

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 05/23/2018
Date Data Arrived at EDR: 05/24/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 50

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/20/2019
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: 11/26/2018
Date Data Arrived at EDR: 11/30/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 46

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 01/16/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 28

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
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: 10/16/2018
Date Data Arrived at EDR: 10/18/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 27

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 12/26/2018
Next Scheduled EDR Contact: 04/15/2019
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: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 11/02/2018
Date Data Arrived at EDR: 11/07/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
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: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 11/08/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 6

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 56

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
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: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
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: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 04/29/2019
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: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Semi-Annually

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: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 02/20/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 13

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 06/03/2019
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: 01/14/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/29/2018
Date Data Arrived at EDR: 08/31/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 19

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 12/07/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/24/2019
Number of Days to Update: 44

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/27/2018
Next Scheduled EDR Contact: 04/15/2019
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: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
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: 11/28/2018
Date Data Arrived at EDR: 11/30/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/04/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2019
Next Scheduled EDR Contact: 05/20/2019
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: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 01/29/2019
Date Data Arrived at EDR: 01/31/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 34

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 11/05/2018
Number of Days to Update: 24

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2018
Next Scheduled EDR Contact: 04/01/2019
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: 11/07/2018
Date Data Arrived at EDR: 01/04/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 60

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 04/15/2019
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: 11/07/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 67

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 27

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/20/2019
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: 11/28/2018
Date Data Arrived at EDR: 11/30/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 42

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 05/20/2019
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: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
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: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 03/06/2019
Next Scheduled EDR Contact: 05/06/2019
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: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
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: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
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: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/14/2018
Date Data Arrived at EDR: 11/15/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 28

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
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: 12/03/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/23/2019
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 15

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
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: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
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: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 10

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
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: 01/08/2019
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 09/18/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/25/2018
Number of Days to Update: 35

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 42

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
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: 02/27/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 35

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/26/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Annually

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: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

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: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 42

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
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: 11/26/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 35

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
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: 12/26/2018
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 13

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/26/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 22

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
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: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
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: 01/30/2019
Date Made Active in Reports: 02/14/2019
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/30/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/07/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
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 PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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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

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

THORNTON JUNIOR HIGH SCHOOL EXPANSION
4357 THORNTON AVENUE
FREMONT, CA 94536

TARGET PROPERTY COORDINATES

Latitude (North):	37.557038 - 37° 33' 25.34''
Longitude (West):	122.016694 - 122° 1' 0.10''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	586851.6
UTM Y (Meters):	4156919.0
Elevation:	47 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5641108 NEWARK, CA
Version Date:	2012
East Map:	5640408 NILES, 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).

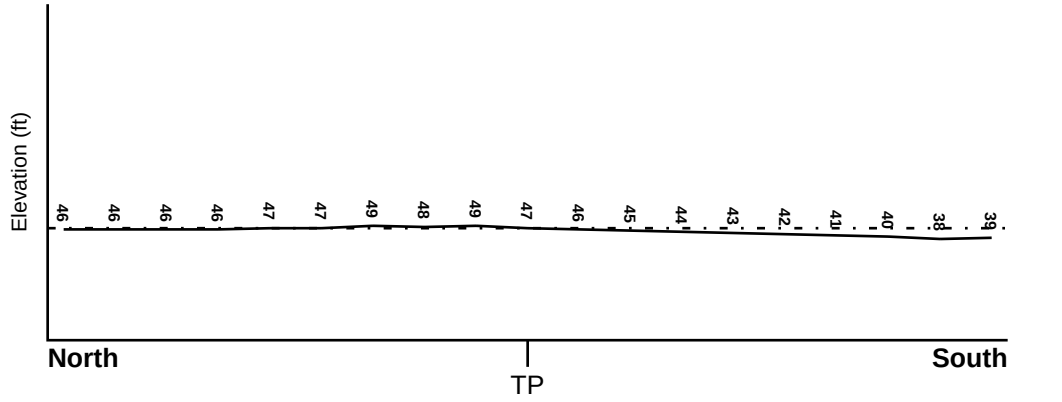
TOPOGRAPHIC INFORMATION

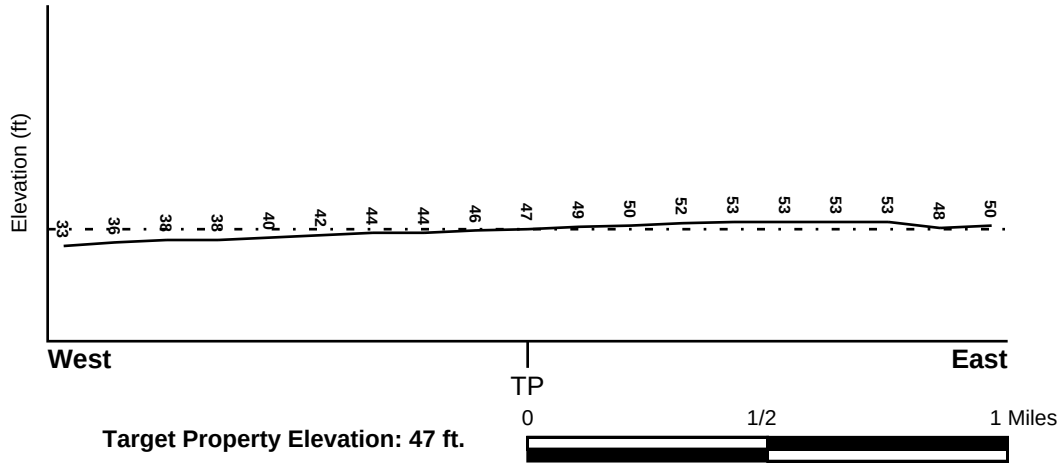
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





0 1/2 1 Miles

Target Property Elevation: 47 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
06001C0442G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06001C0455G	FEMA FIRM Flood data
06001C0433G	FEMA FIRM Flood data
06001C0434G	FEMA FIRM Flood data
06001C0441G	FEMA FIRM Flood data
06001C0461G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NEWARK	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 ESE	NW
A2	1/4 - 1/2 Mile NE	SW
A3	1/4 - 1/2 Mile NE	SW
A6	1/4 - 1/2 Mile NE	Flat

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
A7	1/4 - 1/2 Mile NE	Flat
A8	1/4 - 1/2 Mile NE	Not Reported
9	1/4 - 1/2 Mile NNE	WSW
A10	1/4 - 1/2 Mile NE	Varies
11	1/4 - 1/2 Mile ENE	SW
C12	1/4 - 1/2 Mile NE	SW
13	1/4 - 1/2 Mile SE	Varies
23	1/2 - 1 Mile ENE	Not Reported
E24	1/2 - 1 Mile NE	Not Reported
E25	1/2 - 1 Mile NE	Not Reported
F26	1/2 - 1 Mile ESE	NE to NW
28	1/2 - 1 Mile NE	Not Reported
29	1/2 - 1 Mile NNW	SE
30	1/2 - 1 Mile South	WSW
31	1/2 - 1 Mile South	S
33	1/2 - 1 Mile NW	Varies
34	1/2 - 1 Mile ESE	S
1G	1/2 - 1 Mile NW	Varies
2G	1/2 - 1 Mile NNW	SE
3G	1/2 - 1 Mile NE	Not Reported
4G	1/4 - 1/2 Mile NNE	WSW
5G	1/2 - 1 Mile NE	Not Reported
6G	1/2 - 1 Mile NE	Not Reported
7G	1/4 - 1/2 Mile NE	SW
8G	1/4 - 1/2 Mile NE	Flat
9G	1/4 - 1/2 Mile NE	Flat
10G	1/4 - 1/2 Mile NE	Not Reported
11G	1/4 - 1/2 Mile NE	Varies
12G	1/2 - 1 Mile ENE	Not Reported
13G	1/4 - 1/2 Mile NE	SW
14G	1/4 - 1/2 Mile NE	SW
15G	1/4 - 1/2 Mile ENE	SW
16G	0 - 1/8 Mile ESE	NW
17G	1/2 - 1 Mile ESE	NE to NW
18G	1/2 - 1 Mile ESE	S
19G	1/4 - 1/2 Mile SE	Varies
20G	1/2 - 1 Mile South	WSW
21G	1/2 - 1 Mile South	S

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

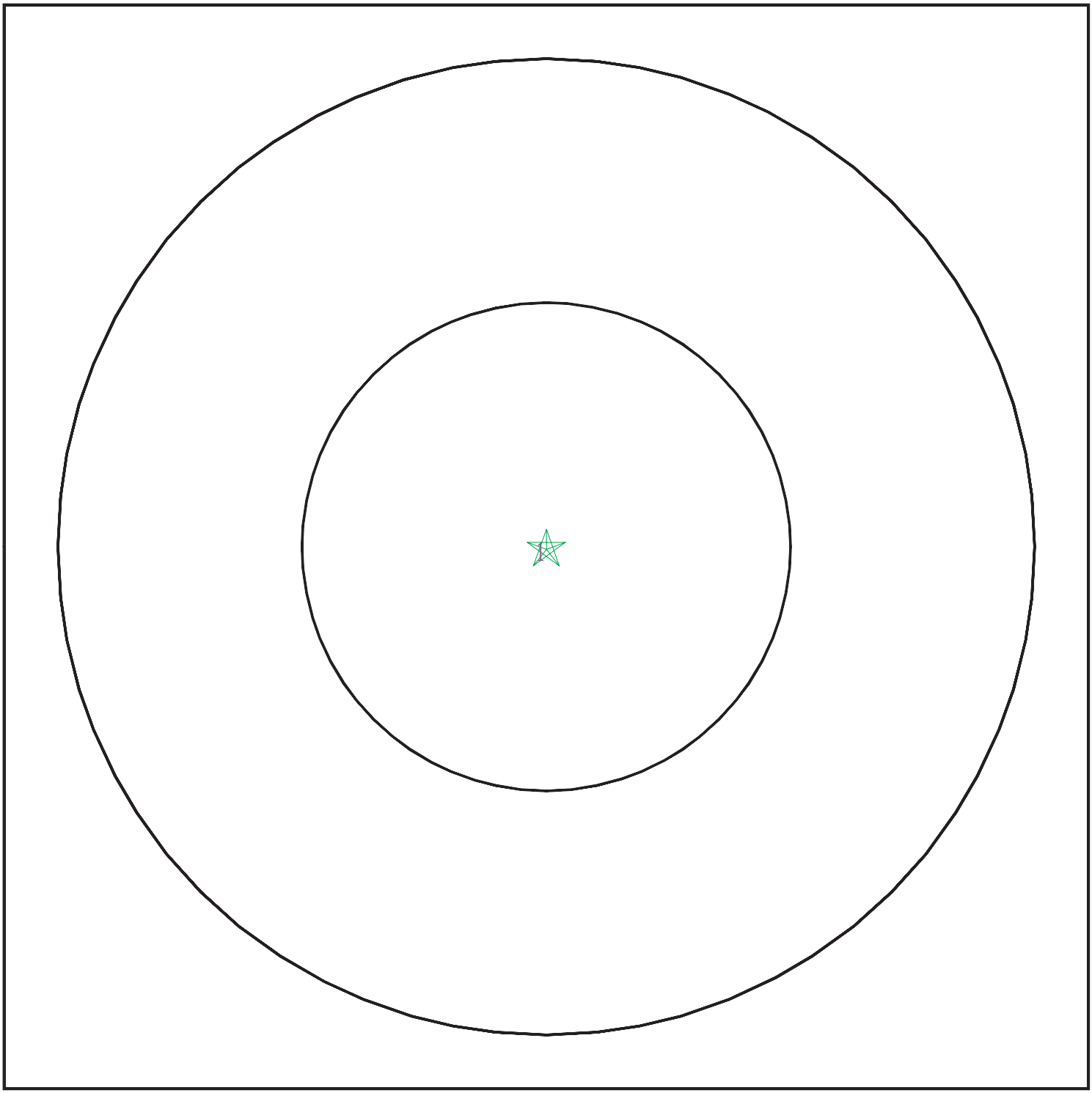
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

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 - 5584380.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Thornton Junior High School Expansion	CLIENT:	PlaceWorks
ADDRESS:	4357 Thornton Avenue Fremont CA 94536	CONTACT:	Denise Clendening
LAT/LONG:	37.557038 / 122.016694	INQUIRY #:	5584380.2s
		DATE:	March 08, 2019 12:58 pm

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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: Yolo

Soil Surface Texture: silt loam

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: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

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	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 6.1
2	7 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 6.1

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 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B4	USGS40000183777	1/4 - 1/2 Mile WNW
B5	USGS40000183776	1/4 - 1/2 Mile WNW
C14	USGS40000183795	1/4 - 1/2 Mile NE
C16	USGS40000183796	1/4 - 1/2 Mile NE
C17	USGS40000183797	1/4 - 1/2 Mile NE
D19	USGS40000183824	1/2 - 1 Mile NNW
D20	USGS40000183825	1/2 - 1 Mile NNW
D21	USGS40000183826	1/2 - 1 Mile NNW
D22	USGS40000183823	1/2 - 1 Mile NNW
F27	USGS40000183751	1/2 - 1 Mile ESE
32	USGS40000183859	1/2 - 1 Mile NNE
35	USGS40000183979	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C15	CADW60000000864	1/4 - 1/2 Mile NE
C18	CADW60000010357	1/4 - 1/2 Mile NE

PHYSICAL SETTING SOURCE MAP - 5584380.2s



- 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:	Thornton Junior High School Expansion	CLIENT:	PlaceWorks
ADDRESS:	4357 Thornton Avenue Fremont CA 94536	CONTACT:	Denise Clendening
LAT/LONG:	37.557038 / 122.016694	INQUIRY #:	5584380.2s
		DATE:	March 08, 2019 12:58 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **ESE** **0 - 1/8 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0240 NW 26.45 37.67 Not Reported 04/03/1996	**AQUIFLOW**	**69536**
A2 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported SW 35.48 44.85 Not Reported 01/26/1998	**AQUIFLOW**	**50705**
A3 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0292 SW 35.48 44.85 Not Reported 01/26/1998	**AQUIFLOW**	**50706**

B4
WNW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000183777**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W30E004M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	Not Reported	Well Depth:	155
Well Depth Units:	ft	Well Hole Depth:	221
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	3	Level reading date:	2002-11-08
Feet below surface:	30.01	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-02	Feet below surface:	25.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-13	Feet below surface:	24.37
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
B5 **WNW** **1/4 - 1/2 Mile** **Lower**	**FED USGS**	**USGS40000183776**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W30E003M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19561023	Well Depth:	593
Well Depth Units:	ft	Well Hole Depth:	650
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	3	Level reading date:	2002-11-08
Feet below surface:	45.03	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-04-02	Feet below surface:	37.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-13	Feet below surface:	36.91
Feet to sea level:	Not Reported	Note:	Not Reported

A6 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID:	0246	**AQUIFLOW**	**69537**
	Groundwater Flow:	Flat		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	35.3'		
	Date:	04/22/1999		

A7 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID:	0228	**AQUIFLOW**	**69538**
	Groundwater Flow:	Flat		
	Shallow Water Depth:	40'bg		
	Deep Water Depth:	46'bg		
	Average Water Depth:	Not Reported		
	Date:	09/18/1995		

A8 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID:	0005	**AQUIFLOW**	**69513**
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	35'bg		
	Deep Water Depth:	39'bg		
	Average Water Depth:	Not Reported		
	Date:	02/11/1999		

---

9 **NNE** **1/4 - 1/2 Mile** **Higher**	Site ID:	0177	**AQUIFLOW**	**69619**
	Groundwater Flow:	WSW		
	Shallow Water Depth:	60'		
	Deep Water Depth:	140'		
	Average Water Depth:	Not Reported		
	Date:	05/04/1994		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
A10 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0312 Varies 36.41 45.21 Not Reported 04/18/1997	**AQUIFLOW**	**50725**
11 **ENE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0328 SW Not Reported Not Reported 40.5 08/25/1995	**AQUIFLOW**	**50723**
C12 **NE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0278 SW Not Reported Not Reported 40.5 06/18/1996	**AQUIFLOW**	**50712**
13 **SE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0426 Varies Not Reported Not Reported 39 06/25/1997	**AQUIFLOW**	**50674**

C14
NE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000183795**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W30A002M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19980804	Well Depth:	400
Well Depth Units:	ft	Well Hole Depth:	425
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-11-08
Feet below surface:	54.91	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-02	Feet below surface:	48.55
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C15
NE
1/4 - 1/2 Mile
Higher

CA WELLS **CADW60000000864**

Objectid:	864	Latitude:	37.561571
Longitude:	-122.010348	Site code:	375616N1220103W001
State well numbe:	04S01W30A004M	Local well name:	'4S/1W-30A004'
Well use id:	1	Well use descrip:	Observation
County id:	1	County name:	Alameda
Basin code:	'2-9.01'	Basin desc:	Niles Cone
Dwr region id:	80236	Dwr region:	North Central Region Office
Site id:	CADW60000000864		

C16
NE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000183796**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W30A004M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19980806	Well Depth:	230
Well Depth Units:	ft	Well Hole Depth:	245
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-11-08
Feet below surface:	52.38	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	2002-05-02	Feet below surface:	46.54
Feet to sea level:	Not Reported	Note:	Not Reported

C17
NE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000183797**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W30A005M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19980912	Well Depth:	150
Well Depth Units:	ft	Well Hole Depth:	160
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-11-08

Feet below surface:	39.68	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-02	Feet below surface:	34.77
Feet to sea level:	Not Reported	Note:	Not Reported

C18
NE
1/4 - 1/2 Mile
Higher

CA WELLS **CADW60000010357**

Objectid:	10357	Latitude:	37.561528
Longitude:	-122.010278	Site code:	375615N1220103W001
State well numbe:	04S01W30A005M	Local well name:	'4S/1W-30A005'
Well use id:	1	Well use descrip:	Observation
County id:	1	County name:	Alameda
Basin code:	'2-9.01'	Basin desc:	Niles Cone
Dwr region id:	80236	Dwr region:	North Central Region Office
Site id:	CADW60000010357		

D19
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000183824**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W19N002M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19970730	Well Depth:	410
Well Depth Units:	ft	Well Hole Depth:	448
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	2002-11-08
Feet below surface:	54.63	Feet to sea level:	Not Reported
Note:	Not Reported		

D20
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000183825**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W19N005M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19970805	Well Depth:	230
Well Depth Units:	ft	Well Hole Depth:	240
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-11-08
Feet below surface:	41.27	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-06	Feet below surface:	37.93
Feet to sea level:	Not Reported	Note:	Not Reported

D21
NNW **FED USGS** **USGS40000183826**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W19N014M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19970801	Well Depth:	100
Well Depth Units:	ft	Well Hole Depth:	105
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-11-08
Feet below surface:	27.55	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-06	Feet below surface:	23.22
Feet to sea level:	Not Reported	Note:	Not Reported

D22
NNW **FED USGS** **USGS40000183823**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W19N004M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19970807	Well Depth:	310
Well Depth Units:	ft	Well Hole Depth:	325
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	2002-11-08
Feet below surface:	43.08	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
23 **ENE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0337 Not Reported Not Reported Not Reported 34'bg 10/05/1998	**AQUIFLOW**	**69535**
E24 **NE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0345 Not Reported Not Reported Not Reported 37 05/17/1996	**AQUIFLOW**	**50724**
E25 **NE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Not Reported Not Reported Not Reported 37 05/17/1996	**AQUIFLOW**	**50726**
F26 **ESE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0089 NE to NW 29' 46' Not Reported 12/29/1995	**AQUIFLOW**	**69529**
F27 **ESE** **1/2 - 1 Mile** **Higher**			**FED USGS**	**USGS40000183751**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W18R001M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	Not Reported	Well Depth:	150
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:	2002-04-16
Feet below surface:	28.74	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
28 **NE** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0352 Not Reported Not Reported Not Reported 40 11/26/1996	**AQUIFLOW**	**50727**
29 **NNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0016 SE Not Reported Not Reported 21.0' 03/15/1999	**AQUIFLOW**	**69621**
30 **South** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0535 WSW 25.00 28.83 Not Reported 07/01/1997	**AQUIFLOW**	**69531**
31 **South** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0076 S 21.17 39.05 Not Reported 04/26/1999	**AQUIFLOW**	**69528**

32
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000183859**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W19J006M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	Not Reported	Well Depth:	145
Well Depth Units:	ft	Well Hole Depth:	152
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-07-25
Feet below surface:	34.37	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-01	Feet below surface:	30.95
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

33
NW
1/2 - 1 Mile
Lower

Site ID:	0264
Groundwater Flow:	Varies
Shallow Water Depth:	14.01
Deep Water Depth:	35.00
Average Water Depth:	Not Reported
Date:	05/03/1999

AQUIFLOW **50729**

34
ESE
1/2 - 1 Mile
Higher

Site ID:	0009
Groundwater Flow:	S
Shallow Water Depth:	30.06
Deep Water Depth:	51.78
Average Water Depth:	Not Reported
Date:	10/07/1998

AQUIFLOW **50716**

35
ENE
1/2 - 1 Mile
Lower

FED USGS **USGS40000183979**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S001W29C007M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
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:	19751030	Well Depth:	61.4
Well Depth Units:	ft	Well Hole Depth:	63.5
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	2002-05-06
Feet below surface:	37.02	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-05-06	Feet below surface:	37.02
Feet to sea level:	Not Reported	Note:	Not Reported

1G
NW
1/2 - 1 Mile
Lower

Site ID:	0264
Groundwater Flow:	Varies
Shallow Water Depth:	14.01
Deep Water Depth:	35.00
Average Water Depth:	Not Reported
Date:	05/03/1999

AQUIFLOW **50729**

2G
NNW
1/2 - 1 Mile
Lower

Site ID:	0016
Groundwater Flow:	SE
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	21.0’
Date:	03/15/1999

AQUIFLOW **69621**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
3G **NE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0352 Not Reported Not Reported Not Reported 40 11/26/1996	**AQUIFLOW**	**50727**
4G **NNE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0177 WSW 60’ 140’ Not Reported 05/04/1994	**AQUIFLOW**	**69619**
5G **NE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0345 Not Reported Not Reported Not Reported 37 05/17/1996	**AQUIFLOW**	**50724**
6G **NE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Not Reported Not Reported Not Reported 37 05/17/1996	**AQUIFLOW**	**50726**
7G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0278 SW Not Reported Not Reported 40.5 06/18/1996	**AQUIFLOW**	**50712**
8G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0246 Flat Not Reported Not Reported 35.3’ 04/22/1999	**AQUIFLOW**	**69537**
9G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0228 Flat 40’bg 46’bg Not Reported 09/18/1995	**AQUIFLOW**	**69538**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
10G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0005 Not Reported 35'bg 39'bg Not Reported 02/11/1999	**AQUIFLOW**	**69513**
11G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0312 Varies 36.41 45.21 Not Reported 04/18/1997	**AQUIFLOW**	**50725**
12G **ENE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0337 Not Reported Not Reported Not Reported 34'bg 10/05/1998	**AQUIFLOW**	**69535**
13G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported SW 35.48 44.85 Not Reported 01/26/1998	**AQUIFLOW**	**50705**
14G **NE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0292 SW 35.48 44.85 Not Reported 01/26/1998	**AQUIFLOW**	**50706**
15G **ENE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0328 SW Not Reported Not Reported 40.5 08/25/1995	**AQUIFLOW**	**50723**
16G **ESE** **0 - 1/8 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0240 NW 26.45 37.67 Not Reported 04/03/1996	**AQUIFLOW**	**69536**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
17G **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0089 NE to NW 29' 46' Not Reported 12/29/1995	**AQUIFLOW**	**69529**
18G **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0009 S 30.06 51.78 Not Reported 10/07/1998	**AQUIFLOW**	**50716**
19G **SE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0426 Varies Not Reported Not Reported 39 06/25/1997	**AQUIFLOW**	**50674**
20G **South** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0535 WSW 25.00 28.83 Not Reported 07/01/1997	**AQUIFLOW**	**69531**
21G **South** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0076 S 21.17 39.05 Not Reported 04/26/1999	**AQUIFLOW**	**69528**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94536	53	3

Federal EPA Radon Zone for ALAMEDA 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: 94536

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.500 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: Department of Conservation
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

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Appendix C. Site Photographs

PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
1	3/18/2019

Description:

A view of a campus map showing original multi-use buildings (orange), original classroom buildings (purple), modular buildings (green) and portable buildings (blue).



Photo No:	**Date:**
2	3/18/2019

Description:

A view toward the school entrance, looking westerly from Thornton Ave.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
3	3/18/2019

Description:

Main transformer 1: PG&E South Service Transformer on south side of campus. Perspective 1.



Photo No:	**Date:**
4	3/18/2019

Description:

Main transformer 1: PG&E South Service Transformer. Perspective 2.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
5	3/18/2019

Description:

Main transformer 2: PG&E North Service Transformer on north side of campus. Perspective 1.



Photo No:	**Date:**
6	3/18/2019

Description:

Main transformer 2: PG&E North Service Transformer. Perspective 2.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
7	3/18/2019

Description:

An expanded view of Building 4 (permanent structure) transformer.



Photo No:	**Date:**
8	3/18/2019

Description:

A close-up view of the Building 4 transformer.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
9	3/18/2019

Description:

Close up view of the fenced Building 9 (locker room, permanent building) transformer.



Photo No:	**Date:**
10	3/18/2019

Description:

Second view of the fenced Building 9 transformer.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
11	3/18/2019

Description:

Electric irrigation/pump system located behind Building 9.



Photo No:	**Date:**
12	3/18/2019

Description:

Secure valves associated with electric irrigation/pump system located behind Building 9.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
13	3/18/2019

Description:

External electric panels on the campus multi-use room (permanent building).



Photo No:	**Date:**
14	3/18/2019

Description:

Electric box located between row of modular buildings on the east side of campus.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
15	3/18/2019

Description:

Area of exposed wiring on school administration building.



Photo No:	**Date:**
16	3/18/2019

Description:

Perspective behind row of portable classrooms on northeast boundary of campus.



PLACEWORKS

PHOTO ESSAY

Client Name: Fremont Unified School District

Site Location: Thornton Junior High School, 4357 Thornton Avenue, Fremont, California

Project No.: FREM-01.0

Photo No:	**Date:**
17	3/18/19

Description:

Bollards surrounding fire valves on central campus hardtop area.



Photo No:	**Date:**
18	3/18/19

Description:

Disengaged anti-theft/vandal security equipment on west side of campus, south of playing fields.



Appendix

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Appendix D. Questionnaire

Appendix

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PLACEWORKS

Environmental Site Assessment Questionnaire for Client

The following information is requested to evaluate the potential for environmentally-related impacts and property contamination. This questionnaire is to be completed by the User of the Phase I Environmental Site Assessment, as defined by ASTM E-1527-13, or its authorized representative.

PART I

1.	Project description: Fremont Unified School District is proposing the Thornton Middle School Conversion project located at 4357 Thornton Avenue, Fremont, Alameda County, California. Fremont Unified School District requested the preparation of a Phase I Environmental Site Assessment (ESA). The project includes demolition of about 7,040 square feet of existing permanent and modular structures and construction of approximately 45,445 square feet of new buildings and building additions.
2.	Property address(es) and Assessor Parcel Number(s) (APN): The project site is located at 4357 Thornton Avenue, Fremont, CA. The APN for the project site is 501-0221-085-02.
3.	Current property owner (name, address, telephone number): Fremont Unified School District located at 4210 Technology Drive, Fremont is the property owner. The phone number is 510.657.2350.
4.	Current property development/improvements: The site is currently developed with the Thornton Middle School.
5.	Date(s) of current property development/improvements: The school was constructed in 1963 with nine permanent, wood frame buildings. A series of modular buildings was added from 1990 to 2004 to accommodate new students. The last permanent structure built on the campus was a concrete block gymnasium added in 2007.
6.	Past property use, development/improvements: Prior to the construction of the school, the site was used for agricultural purposes from at least 1946 through 1960.
7.	Neighboring property uses: The school is primarily surrounded by residential land uses to the north, west and east. Commercial and retail uses are located directly across Thornton Avenue to the south, including a small outdoor mall that includes a branch of the United States Post Office. Two churches are also located across Thornton Avenue. Fremont Boulevard, three blocks east of the school, is lined with auto-oriented service and sales businesses. Several other schools are in the immediate area, including Oliveira Elementary School to northeast, as well as Cabrillo Elementary School, American High School and Fremont Christian School.

PLACEWORKS

PART II

1.	Are you aware of any environmental cleanup liens against the property that are filed under federal, tribal, local or state law?	**Yes** **No**
2.	Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law?	**Yes** **No**
3.	Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	**Yes** **No**
4.	Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, (a) do you know of specific chemicals that are present at the *property?* (b) do you know of spills or other chemical releases that have taken place at the *property?* (c) do you know of any environmental cleanups that have taken place at the *property?*	**Yes** **No**
5.	Based on your knowledge and experience related to the *property*, are there any obvious indicators that point to the presence or likely presence of contamination at the *property?*	**Yes** **No**
6.	If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property?* If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property?*	~~Yes~~ ~~No~~ N/A JC 3/8/19
7.	Are you aware of any past or present above ground or underground storage tanks on the *property*? To your knowledge, has there ever been any hazardous substances or wastes stored on the *property?*	**Yes** **No**

If a "Yes" response was provided to Questions 1 – 5 or a "No" response was provided to Question 6, please provide details below:

I certify that the information provided herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): JOHN CHWASTYK

Signature: _____ Date: 3/8/19

Appendix E. Qualifications

Appendix

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DENISE CLENDENING, PhD

Associate Principal, Site Assessment Services

Denise has over 27 years of experience providing technical oversight and performing human health risk assessments, site assessments, and investigations of chemical waste at multiple sites including Resource Conservation & Recovery Act (RCRA) and Superfund sites. She is adept at applying alternatives that are economical yet protective of human health and the environment. She conducts realistic assessments and calculates target cleanup levels based on site-specific exposure scenarios. Her work has involved pesticides, heavy metals, solvents, and petroleum-contaminated soils. She assists multiple school districts in California with site assessment, public relations, and the Department of Toxic Substance Control (DTSC) school site approval process. She participates in public hearings and school board meetings and coordinates her projects with the CEQA process.

Before joining PlaceWorks, Denise managed large divestiture environmental due diligence projects for the electric power industry and was involved in numerous environmental projects for oil field operation. Her experience also includes the development and testing of risk assessment software and teaching training courses in risk assessment using different software programs.

Denise has established a very good reputation with regulatory agencies and negotiates risk-related issues on behalf of her clients. She is a member of the Los Angeles Regional Water Quality Control Board Underground Storage Tank Advisory Board and has extensive experience with site closure activities with the DTSC, Environmental Protection Agency, Regional Water Quality Control Boards, and local oversight agencies throughout California.

HIGHLIGHTS OF EXPERIENCE

ENVIRONMENTAL & HEALTH RISK ASSESSMENTS

- Xerox Corporation Preliminary Environmental Assessment and Health Risk Assessment | Santa Ana CA
- Human Health Risk Evaluation, Literature Research for American Petroleum Institute
- City of Redlands Health Risk Assessment | Redlands CA
- Caltrans Risk Assessment and Groundwater Impact Analysis | California
- Risk Assessments and Indoor Air Sampling for Confidential Client(s) | Various Locations
- Human Health & Ecological Risk Assessment – Technical Review | Various Locations
- Landfill Risk Assessments | Various Locations
- Risk Assessments for Pesticide Contaminated Soil | Various Locations
- Human Health Risk Assessment for Confidential Mineral Resources Client | Arizona
- Human Health Risk Assessment at Whites Point Nike Missile Site | Los Angeles County CA
- Human Health Risk Assessment at Fort MacArthur | Los Angeles County CA

EDUCATION

- PhD, Soil Physics, University of California, Riverside
- MS, Soil Science, University of California, Riverside
- BS, Geology, University of California, Riverside

CERTIFICATIONS

- Oil Spill Response Training

AFFILIATIONS

- Soil Science Society of America
- American Geophysical Union
- American Chemical Society
- Society of Risk Analysis
- Coalition of Adequate School Housing

Team member since 2005

PLACEWORKS

DENISE CLENDENING

Associate Principal

dclendening@placeworks.com

SITE ASSESSMENTS

- Site Remediation for Hull Middle School | Torrance CA
- PEA for New High School, William S. Hart UHSD | Castaic CA
- Phase I for Property at East Briar Drive | San Bernardino County CA
- PEA for Stella Academy Middle School | Los Angeles CA
- Phase I for Valley Boulevard Widening | City of Industry CA
- Oil Field Preliminary Environmental Assessment | Culver City CA
- Lead-Based Paint Evaluations | Various Locations
- Cogeneration Facilities Permit Applications | Various Locations throughout California
- NRG Energy Environmental Due Diligence Investigations | California
- AES Environmental Due Diligence Work Plans | California
- Remedial Investigation and Remedial Action for Jersey Avenue Elementary School Site (Congresswomen Grace Napolitano presented award for special congressional recognition for project), Little Lake City School District | City of Santa Fe Springs CA
- Preliminary Environmental Assessments for over 100 school sites throughout California
- Phase I ESA and PEAs for four school sites, Moreno Valley USD
- Phase I ESAs, PEAs, SSIs and RAWs for eight school sites, San Bernardino County Superintendent of Schools
- Phase I ESA for Elementary School No. 19, Rialto USD
- PEA and SSI for the New High School No. 3 Site, Colton Joint USD
- Phase I ESA and PEAs for four school sites, Lynwood USD
- Phase I ESA for the Proposed Elementary School No. 8, San Ysidro School District
- Phase I ESA for the Proposed K–8 Parker Dam School, Needles USD
- PEAs for three school sites and environmental and legislative support services, Santa Ana USD
- Phase I ESA, PSHA, and PEA for Community Day School, Eastside USD
- PEAs for five school sites in Clovis | Clovis CA
- PEA for redevelopment project for the City of South Gate | South Gate CA
- Phase I ESA for Arrowhead Springs Resort I | San Bernardino CA
- Phase I ESA for two Charter Schools for Green Dot Public Schools | Los Angeles CA
- Phase I and Phase II ESA for Former Service Station | Los Angeles CA
- Phase I ESAs, PEA, SSIs, and fill testing for multiple school sites, Pomona USD
- PEA and methane gas testing, Encinitas USD
- Phase I ESA and lead testing for multiple sites, Fontana USD
- Proponent's Environmental Assessment for PUC | Long Beach CA
- Initial Site Assessments for Street Widening Projects | Santa Ana CA
- Phase I ESAs for Renaissance Community Fund | Corona CA

TITLE 5/CDE RISK ASSESSMENTS

- Geohazard Assessment for Inglewood Site, Today's Fresh Start Charter School
- PEAs and Title 5 Assessments for three school sites, Redlands USD
- Title 5 Compliance Study Reports for four sites, Whittier Union High School District
- Prairie Vista Lead Testing, Hawthorne USD
- Environmental Support and Risk Assessment for school sites, San Dieguito Union High School District
- Human Health Risk Assessment School Site, Pomona USD
- Title 5 Hazard and Constraints Analysis for four school sites, Irvine USD
- Title 5 Hazard and Constraints Analysis for school site, Rialto USD

APPENDIX F

NOISE IMPACT ANALYSIS

Fundamentals of Noise

NOISE

Noise is most often defined as unwanted sound; whether it is loud, unpleasant, unexpected, or otherwise undesirable. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness."

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Decibel (dB).** A unitless measure of sound, expressed on a logarithmic scale and with respect to a defined reference sound pressure. The standard reference pressure is 20 micropascals (20 μPa).

- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second ($1x10^{-6}$ in/sec).

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level

exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM. NOTE: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive – that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.

- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Characteristics of Sound

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is that pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves.

Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). Loudness or amplitude is measured in dB, frequency or pitch is measured in Hertz [Hz] or cycles per second, and duration or time variations is measured in seconds or minutes.

Amplitude

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1 presents the subjective effect of changes in sound pressure levels. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound.

Table 1 Noise Perceptibility

Change in dB	Noise Level
± 3 dB	Threshold of human perceptibility

± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies, David A. and Colin H. Hansen. 2009. *Engineering Noise Control: Theory and Practice*. 4th ed. New York: Spon Press.

Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all, but are "felt" more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to approximate the response of the human ear. The A-weighted noise level has been found to correlate well with people's judgments of the "noisiness" of different sounds and has been used for many years as a measure of community and industrial noise. Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet rural or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

Duration

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2, L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These "n" values are typically used to demonstrate compliance for stationary noise sources with many cities' noise ordinances. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and many local jurisdictions use an adjusted 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment (or "penalty") of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00 PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 PM and 10:00 PM. Both

descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher). The CNEL or L_{dn} metrics are commonly applied to the assessment of roadway and airport-related noise sources.

Sound Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single-point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would be 79 dBA, and at 200 feet it would be 73 dBA. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance over a reflective ("hard site") surface such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by an additional 1.5 dB for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 2 shows typical noise levels from familiar sources.

Table 2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans). 2009, November. Technical Noise Supplement ("TeNS"). Prepared by ICF International.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. As with noise, vibration can be described by both its amplitude and frequency. Vibration displacement is the distance that a point on a surface moves away from its original static position; velocity is the instantaneous speed that a point on a surface moves; and acceleration is the rate of change of the speed. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the

square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage and RMS is typically more suitable for evaluating human response.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 3 displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

Table 3 Human Reaction to Typical Vibration Levels

Vibration Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e. not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: California Department of Transportation (Caltrans). 2004, June. Transportation- and Construction-Induced Vibration Guidance Manual. Prepared by ICF International.

LOCAL REGULATIONS AND STANDARDS

Noise and Vibration

Excessive noise is a health concern for a community. At high levels noise can have damaging effects on human hearing and health. At lower levels noise can cause irritability, wakefulness and other conditions which have health implications and negatively affect quality of life. Vibration can also cause disturbance and interrupt everyday activities. The purpose of this section is to identify noise and vibration sources and impacts and provide policy guidance to minimize their effects.

This section follows the guidelines adopted by the State Office of Noise Control (section 46050.1 of the Health and Safety Code) and meets the requirements in section 65302(f) of the California Government Code. This section also evaluates vibration impacts based on federal guidelines.

Noise Characteristics

Noise is defined as unwanted sound. The magnitude of sound is measured in terms of decibels (dB). When sound is measured, electronic filters are used to emphasize the various frequencies or pitches people hear. The "A" filter is the most common, and is indicated by dB(A). Human hearing ranges from 0 dB(A) to 140-160 dB(A), with pain occurring at around 120 dB(A).

Sound varies throughout the day due to such factors as traffic or individual events like a honking horn. Because of the complexity of sound levels over the course of a day, and subjective human response, sound levels are generally described as a weighted average. Weighted averages place greater emphasis on night time and evening noise levels because people are usually at home and high noise levels are disruptive to activities such as sleeping. The weighted noise average used by the City of Fremont is the day/night average level (Ldn).

Impacts of Noise

The effects of noise can be grouped into three categories: 1) subjective effects; 2) interference with activities; and, 3) physiological effects. Subjective effects of noise are difficult to quantify. In a typical environment, about 10 percent of the population will object to any noise not of their own making regardless of the noise level. Subjective complaints increase when there is a large difference between the background noise and the noise source.

COMMON NOISE LEVELS (dBA)

115 dBA	Rock Concert
100 dBA	Pile Driver (at 60 feet)
85 dBA	Truck Passing by (at 50 feet)
70 dBA	Lawn Mower (at 90 feet)
65 dBA	Normal Speech (at 3 feet)
45 dBA	Office Environment
35 dBA	Suburban Area (Nighttime)
20 dBA	Wilderness Area
0 dBA	Threshold of Human Hearing

Interference can occur at a number of different noise levels depending upon the activity. Face to face conversation can occur with background noise levels of up to 66 dB(A), and group conversations with background levels up to 50 or 60 dB(A). Sleep interference varies with the individual and the cycle of sleep. The California Office of Noise Control recommends that individual events or isolated noises not exceed 50 dB(A) in bedrooms.

Physiological symptoms of noise levels above 70 dB(A) can include constriction of the blood vessels, changes in breathing and dilation of the pupils. Steady noises of 90 dB(A) have been shown to increase muscle tension and impair decision making. Long term exposure to noises above 70 dB(A) can cause hearing loss.

Noise Conditions in Fremont

Various sources throughout Fremont contribute to the overall noise environment. The most significant sources are:

- Transportation noise from vehicular traffic
- Railroads and train noise
- Industrial uses
- Mechanical equipment

Most major transportation routes, including designated truck routes, are significant sources of noise. (See the Mobility Element for truck routes in the City). Rail lines are another source of transportation related noise. Fremont has several rail lines crossing through the City as well as the existing BART rail-transit line and future extensions. A train noise prediction model has been used to calculate the noise from railroads. The Health & Safety Background Report and EIR contain all background noise data and measurements conducted from roadways and railroads for the General Plan.

The noisiest roadways in Fremont are Interstates 680 and 880, State Route 84, Mission Boulevard, Auto Mall Parkway, Grimmer Boulevard, Decoto Road, portions of Paseo Padre Parkway, and Fremont Boulevard.

Industrial noise is another major noise source. Industrial noise sources are generally only significant in industrial areas. Other significant sources of noise include gas stations, car washes, fire stations, air conditioning units, mechanical equipment, child care centers and public schools. Although these sources do not usually produce sound levels as great as those from

industry, they are more frequently located near residential or other noise sensitive areas and are often sources of irritation and complaints. Additionally, temporary noise increases occur at the time of construction. The City controls construction noise through limitations on construction hours.

Industrial activity and noise will continue to increase as currently vacant industrial parcels are developed. This should have minimal affect on existing residential or other noise sensitive areas since the industrial area is generally isolated from residential areas. Noise from industry may become more of a problem if currently designated industrial land is converted to residential or other noise sensitive uses. See Table 10-1, Noise Level Standards for New Industrial and Commercial Noise Sources.

The City does not have commercial, military or general aviation airports. There are two heli-stops located in the City Center. Noise generated by helicopter activity is regulated by the use permits for these facilities. There are no other heliport operations, jet engine test stands, or any other ground facilities or maintenance functions related to airport operation in Fremont.

Table 10-1
Noise Level Standards for New Industrial and Commercial Noise Sources

Exterior Noise Level Standards, dB(A)1		
	Daytime - 7 AM – 10 PM	Nighttime - 10 PM – 7 AM
Hourly Leq	50	45
Hourly Lmax[2]	70	65

1. These standards apply on residential properties at locations where a lowered noise level would be beneficial
2. . Typical recurring maximum noise level.
Source: Illingworth & Rodkin, 2008

Railroad Quiet Zones

Railroad Quiet Zones are established to improve neighborhood quality of life for residents who live in the vicinity of railroad at-grade crossings by reducing the amount of noise generated by trains. There are three active rail lines in the City of Fremont with 15 public at-grade crossings. Of the 15 public at-grade crossings, six crossings are anticipated to be eliminated

because of grade separation projects. The City could establish railroad quiet zones for the other locations. A quiet zone is a segment of rail line comprising one or more at-grade highway-rail crossing where trains are ordered not to routinely sound the horn. Current rules require trains to sound their horns before the approach to an at-grade crossing (but not more than ¼-mile away) until the locomotive occupies the crossing location.

Federal regulations preempt state and local laws governing the sounding of locomotive horns and describe specific requirements for communities to create a "Quiet Zone". In order to establish a Quiet Zone the City needs to assess the risk of banning horn blowing and consider installation of supplemental safety measures at the grade crossings in order to mitigate the potential increase in collisions. Additional safety measures could include the installation of additional railroad gates and or median islands to prevent motorists from traveling around the gates. The establishment of Quiet Zones in the City will be coordinated as funding allows.

Future Noise Conditions

Transportation will continue to be the most significant source of noise in the future. The continued growth of Fremont and surrounding areas will add to traffic on existing roads and highways unless measures aimed at reducing vehicle trips are more successful than projected. The projected increases in noise will not be significant on most secondary roads as traffic levels generally must increase by 100% for a noise levels to increase by 3 decibels. A change in 3 dB(A) or less is barely noticed by most people. The effects of increased commute traffic on major thoroughfares may be more significant due to volume and speed of the traffic. Diagram 10-9 shows predicted traffic noise contours along Fremont's major transportation routes.

Construction of major roadways such as the East-West Connector (I-880 to Mission Boulevard) or a future I-680 to I-880 connector, if proposed, and widening of existing highways may lead to a significant increase in noise levels. The use of existing BART lines and the use of new lines extending through Fremont will also increase noise levels. Noise mitigation such as sound insulation and sound barriers will be needed to maintain acceptable noise levels in sensitive areas and throughout Fremont.

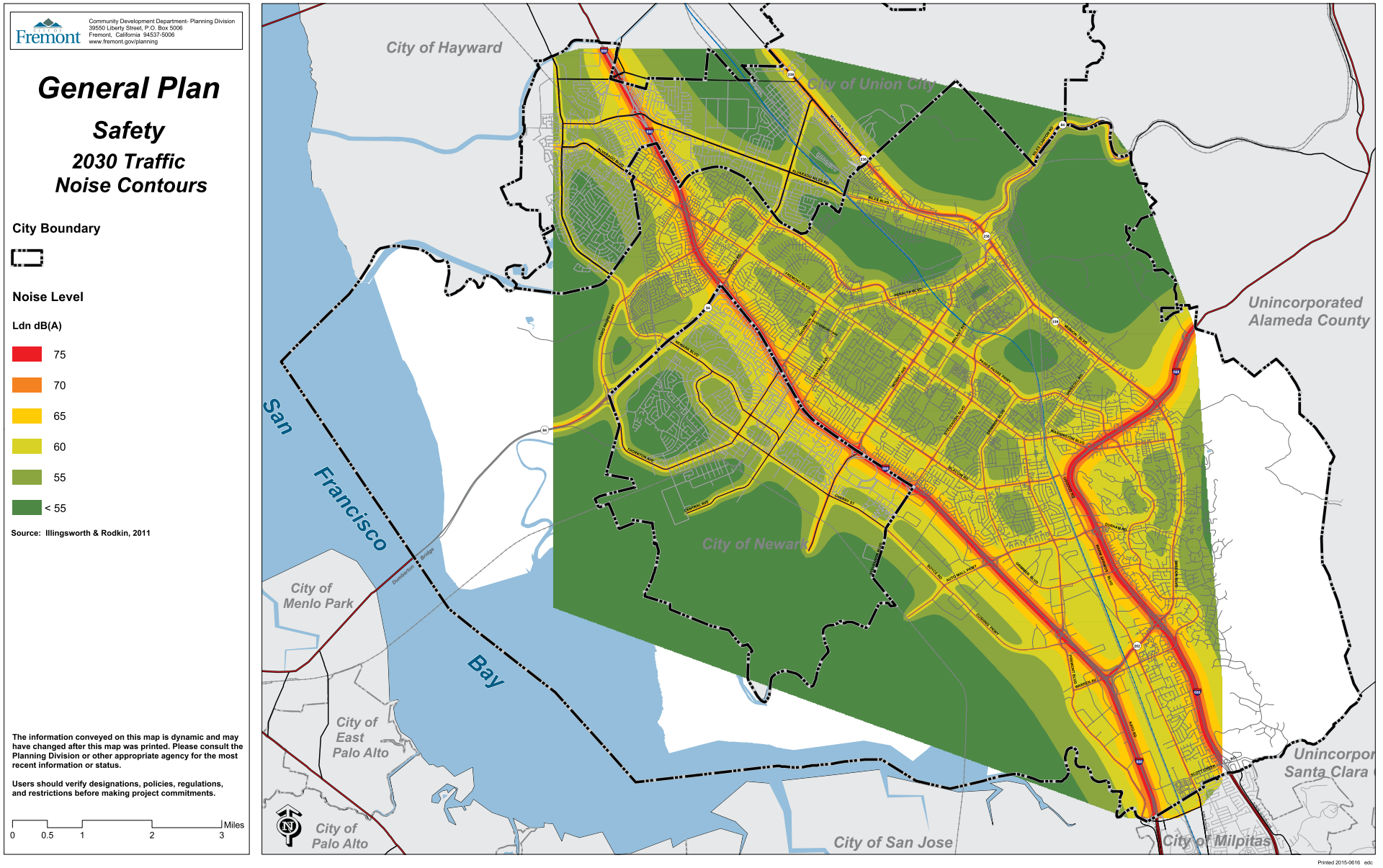


Diagram 10-9 Noise Contours

This is a reduced image. Please see the most current color full-size maps available at the Fremont Planning Division or online at www.fremont.gov/planning
The information on this diagram is dynamic and may have changed since this page was last printed.

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Ground Vibration Background

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several methods are typically used to quantify the amplitude of vibration including Peak Particle Velocity (PPV) and Root Mean Square (RMS) velocity. PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. RMS velocity is defined as the average of the squared amplitude of the signal. PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

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. In high noise environments, which are more prevalent where ground-borne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows. Ground vibration levels in buildings can be reduced due to coupling losses between the ground and the foundation, and amplified by resonances in the floor.

In Fremont, the primary sources of ground-borne vibration include railroads and rail transit, and construction activities.

Railroads and Rail Transit

Rail operations are potential sources of substantial ground-borne vibration depending on distance, the type and the speed of trains, and the type of railroad track. People's response to ground-borne vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1 x 10-6 inches/second RMS, which equals 0 VdB, and 1 inch/second equals 120 VdB. Although not a universally accepted notation, the abbreviation "VdB" is used to indicate vibration decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceivable vibration levels inside residences are attributed to the operation of heating and air conditioning systems, appliances, door slams, and foot traffic. Construction activities (in particular, pile-driving for taller buildings in certain soil conditions), train operations, and street traffic are some of the most common external sources of perceptible vibration inside

residences. Table 10-2 identifies some common sources of vibration, corresponding VdB levels, and associated human perception and potential for structural damage.

Table 10-2
Typical Levels of Ground-borne Vibration

Human/Structural Response	Velocity Level, VdB (re 1µinch/sec, RMS)	Typical Events (50 –foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment
	95	Heavy tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	Commuter rail, upper range
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, occasional events	75	Commuter rail, typical bus or truck over bump or on rough roads
Residential annoyance, frequent events	72	Rapid transit, typical
Approximate human threshold of perception to vibration	65	Buses, trucks and heavy street traffic
	60	Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	

Source: U.S. Department of transportation, federal transit administration, transit noise and vibration impact assessment, may 2006, fta-va-90-1003-06.

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 ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the peak particle velocity descriptor (PPV) has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans. As Fremont develops over time to reach its vision of becoming strategically urban, an increased number of people will be subject to short term, construction related, perceptible ground vibration levels.

FTA Criteria

Although there are no local standards, the U.S. Department of Transportation's Federal Transit Administration (FTA) has developed assessment criteria for evaluating vibration impacts associated with transit projects. The FTA has proposed criteria based on maximum overall levels for a single event. There are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day). The thresholds for homes and buildings where people normally sleep (e.g., nearby residences) are 72 VdB for frequent events, 75 VdB for occasional events, and 80 VdB for infrequent events. The City will utilize these standards to evaluate vibration impacts throughout the City. The criteria is summarized in Table 10-3.

Table 10-3
Groundborne Vibration Impact Criteria

	Groundborne Vibration Impact Levels (VdB re 1 µinch/sec, RMS)		
Land Use Category	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter rail lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration levels. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

Source: U.S. Department of transportation, federal transit administration, transit noise and vibration impact assessment, May 2006, fta-va-90-1003-06

Vibration Conditions in Fremont

Ground vibration levels in Fremont are caused primarily by railroads, BART and construction activity. Vibration levels are routinely measured as a part of residential development applications when these uses are proposed near these sources of vibration. Previous data indicates that percep-

tible ground vibration levels typically occur at distances within 150 feet from the centerline of railroad tracks. The City will use this standard to evaluate future projects near railroads and evaluate projects near construction sites on a case by case basis.

Crime Preventative Community Planning

Good design can create settings that reduce criminal activity; poor design can encourage it. Crime Prevention Through Environmental Design (CPTED) is a national movement focusing on project design that eliminates or reduces criminal behavior, while encouraging people to become part of the solution and watch out for others. CPTED utilizes the following strategies to design a project with crime prevention in mind:

- **Surveillance** – Surveillance keeps potential intruders easily observable, providing "eyes on the street". Features maximizing visibility may include: doors/windows that look out to streets and parking lots; pedestrian friendly sidewalks and streets; front porches; and, adequate night time lighting.
- **Territoriality** – Creating a sense of territoriality encourages individuals to take control of their environment and defend it against perpetrators. Potential offenders recognize this sense of territory and are less inclined to engage in criminal activities in the area. Territoriality is promoted by incorporation of design features that define property lines and distinguish private spaces from public spaces using landscaping, fences, pavement designs and gateway treatments.
- **Natural Access Control** – Clear demarcation of public spaces from private spaces reduces potential targets, and perception of risk to potential offenders is increased as a deterrent. Natural access control can be achieved by designing streets, sidewalks, building entrances, and neighboring gateways to clearly indicate public routes, as well as discouraging access to private areas using landscaping, structural, or other design elements.
- **Physical Security** – The CPTED goal of increasing physical security of areas is not to create an impenetrable fortress, but rather to make it more difficult and time consuming to enter a location. Some common features that can be used include window locks, dead bolts and interior door hinges. Features that can be used outside of a building include

> Implementation 10-7.3.A: Emergency Preparedness Outreach

Conduct seminars and make public presentations on personal, family, and neighborhood emergency preparedness

> Implementation 10-7.3.B: CERT Program

Encourage public participation in the Community Emergency Response Team (CERT) program.

• Policy 10-7.4: DMOP Coordination

Coordinate Fremont's Disaster Management Operation Plan (DMOP) with other local jurisdictions, utility districts and regional agencies to anticipate cumulative impacts and coordinated response during times of disaster.

> Implementation 10-7.4.A: Regional Consistency

Review adjacent jurisdictions' emergency plans and resolve areas of potential conflict.

> Implementation 10-7.4.B: Post-Disaster Recovery

Include post-disaster recovery operations for businesses and ensure a network of support services that allow businesses to re-open after a natural disaster into the next revision to the City's DMOP.

GOAL 10-8: Noise & Vibration

Minimal impacts to residents and property due to noise and ground vibration sources.

• Policy 10-8.1: Site Development Acceptable Noise Environment

A noise environment which meets acceptable standards as defined by the State of California Building Code and local policies contained herein.

> Implementation 10-8.1.A: Noise Standards

New development projects shall meet acceptable exterior noise level standards. The "normally acceptable" noise standards for new land uses established in Land Use Compatibility for Community Exterior Noise Environments shown in Figure 10-11 shall be used as modified by the following:

1. The goal for maximum acceptable noise levels in residential areas is an Ldn of 60 dB(A). This level shall guide the design of future development, and is a goal for the reduction of noise in existing development. A 60 Ldn goal will be applied where outdoor use is a major consideration (e.g., backyards in single family developments and recreation areas in multifamily projects). The outdoor standard will not normally be applied to small decks associated with apartments and condominiums, but these will be evaluated on a case-by-case basis. When the City determines that providing an outdoor Ldn of 60 dB(A) or lower cannot be achieved after the application of appropriate mitigations an Ldn of 65 dB(A) may be permitted at the discretion of the City Council.

2. Indoor noise level shall not exceed an Ldn of 45 dB(A) in new housing units. A noise insulation study, conforming to the methodology of the State Building Code, shall be prepared for all new housing, hotels, and motels exposed to an exterior Ldn of 60 dB(A) or greater and submitted to the building department prior to issuance of a permit.

3. Railroad noise sources may create instances when the outdoor noise exposure criterion can exceed 65 Ldn up to 70 Ldn for future development, recognizing that train noise is characterized by relatively few loud events. Railroad noise influence shall be evaluated independent of other noise sources. Indoor noise level shall not exceed an Ldn of 45 dB(A) in new housing units.

4. Typical maximum instantaneous noise level in bedrooms at night should not exceed 50 dB(A). Typical maximum instantaneous noise levels in other rooms and bedrooms during the daytime should not exceed 55 dB(A). The typical maximum noise level is the maximum level that is exceeded during 30 percent of the measured pass-bys, based on the measurement of at least 10 events during the daytime and the nighttime.

5. Appropriate interior noise levels in commercial, industrial, and office buildings are a function of the use of space and shall be evaluated on a case-by-case basis. Interior noise levels in offices generally should be maintained at 45 Leq (hourly average) or less.

Table 10-4
Land Use Compatibility for Community Exterior Noise Environments

Land Use Category	Exterior Noise Exposure (Ldn)															
	<55		55		60		65		70		75		80		>80	
Single-Family and Multi-Family Residential																
Hotels, Motels and other lodging																
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds																
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches																
Office Buildings, Business, Commercial, and Professional																
Auditoriums, Concert Halls, Amphitheaters																

NORMALLY ACCEPTABLE:
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements

CONDITIONALLY ACCEPTABLE:
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

UNACCEPTABLE:
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies

> Implementation 10-8.1.B: Noise Studies Required

Continue to use noise guidelines and contours to determine if additional noise studies are needed for a proposed new development. Prepare a format and guidelines for noise studies.

> Implementation 10-8.1.C: Residential Noise Exposure

Limit new residential development, excepting vertically integrated mixed use development, where the ambient noise level due to commercial or industrial noise sources will exceed the noise level standards as set forth in Table 10-1, Noise and Land Use Compatibility Standards for New Industrial and Commercial Noise Sources, modified by the following as necessary unless effective mitigation measures are incorporated into the design of the project.

The noise level standards specified in Table 10-1 shall be reduced by 5 dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Where the ambient noise level exceeds the noise level standards, the standards shall be adjusted upwards to the ambient levels.

> Implementation 10-8.1.D: Noise Mitigation

Encourage the use of site design, set backs, landscaping, earth berms and other non-structural methods to reduce and mitigate the effects of traffic noise and other sources. Building placement should also be utilized to mitigate noise impacts on outdoor areas. In general, the use and construction of sound walls is discouraged unless no other alternative exists. If landscaping is used then appropriate controls for irrigation and maintenance shall be provided.

• Policy 10-8.2: Acceptable Noise Environment

Guidelines articulated by Table 10-4 are not intended to be applied reciprocally. In other words, if an area currently is below the desired noise standards, an increase in noise up to the maximum should not necessarily be allowed. The impact of a proposed project on an existing land use should be evaluated in terms of potential for adverse community response based on a substantial increase in existing noise levels, regardless of the compatibility guidelines.

• Policy 10-8.3: Noise Environment Protection

Protect existing residential neighborhoods from noise. In general, the City will require the evaluation of mitigation measures for projects under the following circumstances:

1) The project would cause the Ldn to increase by 5 dB(A) or more but would remain below 60 dB(A), or;

2) The project would cause the Ldn to increase by 3 dB(A) or more and exceed 60 dB(A), or;

3) The project has the potential to generate significant adverse community response due to the unusual character of the noise.

• Policy 10-8.4: Commercial and Industrial Noise Sources

Control noise created by commercial or industrial sources associated with new projects or developments to not exceed the noise level standards set forth in Table 10-1 as measured at any affected residential land use property line.

• Policy 10-8.5: Construction Noise Levels

Control construction noise at its source to maintain existing noise levels, and in no case to exceed the acceptable noise levels.

> Implementation 10-8.5.A: Noise Ordinance

Consider creating and adopting a noise ordinance to control noise generating activities such as construction activity, heavy industrial equipment, roadway noise, horns, engines, loudspeakers, leaf blowers, and other sources.

> Implementation 10-8.5.B: Construction Noise Mitigation

Continue to apply the construction hours ordinance to new development to limit noise exposure created by construction activity. Apply best practices to further limit noise in sensitive areas and long term projects, such as maintaining construction equipment in good condition and use of mufflers on internal combustion engines, installation of temporary noise barriers, prohibiting extended idling time of internal combustion engines, locating staging areas away from sensitive receptors and other feasible best management practices.

• Policy 10-8.6: Sensitive Uses

Protect schools, hospitals, libraries, places of religious worship, convalescent homes, and other noise sensitive uses from noise levels exceeding those allowed in residential areas.

> Implementation 10-8.6.A: Location of Sensitive Uses

Locate noise sensitive uses away from noise sources unless mitigation measures are included in development plans.

• Policy 10-8.7: Street Design

Consider noise abatement when designing, maintaining or improving city streets.

> Implementation 10-8.7.A: Quiet Pavement

Design City streets utilizing a "quieter" pavement design, such as Open-Grade or Rubberized Asphalt Concrete, that also meets standards established by the City for pavement engineering design, when resurfacing streets to the extent feasible.

• Policy 10-8.8: Agency Coordination

Encourage other agencies to reduce noise levels generated by roadways, railways, airports, and other facilities.

> Implementation 10-8.8.A: Transit Agency Coordination

Work closely with appropriate transportation/transit agencies to adequately quantify and mitigate the noise impacts associated with any new or improved roadways and transportation improvements as well as bus and rail transit service.

• Policy 10-8.9: Unnecessary Noise Sources

Control unnecessary noise from vehicles and other sources.

> Implementation 10-8.9.A: Vehicle Amplification Systems

Control the sound of vehicle amplification systems (e.g., loud stereos) by encouraging enforcement of Section 27007 of the California Motor Vehicle Code. This section prohibits amplified sound which can be heard 50 or more feet from a vehicle.

> Implementation 10-8.9.B: Vehicle Exhaust Noise

Control excessive exhaust noise by encouraging enforcement of Section 27150 of the California Motor Vehicle Code.

> Implementation 10-8.9.C: Drive-Through Noise

Discourage drive-through facilities (e.g., food establishments, banks, pharmacies, car washes, etc.) when adjacent to residential uses. If allowed, limit hours of operation, ensuring proper location and direction of any external noise sources (e.g., speakers, mechanical equipment) and require proper noise attenuation.

• Policy 10-8.10: Vibration Environment

A vibration environment which meets acceptable guidelines as provided by the Federal Transit Administration (FTA).

> Implementation 10-8.10.A: New Development to Meet FTA Guidelines

New development projects shall meet acceptable vibration guidelines. These guidelines are those established by the U.S. Department of Transportation, Federal Transit Administration, as shown in Table 10-3.

Where new vibration sensitive development is proposed adjacent to an existing source of vibration (e.g., heavy rail or BART), the vibration guidelines shall be applied at the distance from the vibration source where the buildings are proposed. Normally, for development such as residences, the vibration velocity level measured in the vertical direction is sufficient for comparison to the guidelines. More detailed analyses may be required for highly vibration sensitive uses, such as microelectronics manufacturing. Adjust rail vibration standards to address high volumes of freight traffic if deemed necessary.

> Implementation 10-8.10.B: Vibration Studies

Residential projects proposed within 150 feet of the centerline of BART tracks or railroad tracks require a site-specific vibration study.

> Implementation 10-8.10.C: Evaluation of Vibration Impacts

The FTA Guidelines shall be used to evaluate vibration impacts from rail projects that could increase (i.e. BART extensions, changes to BART service, or changes to UPRR rail facilities) vibration levels due to a change in the horizontal or vertical alignment of the tracks or the train speeds.

> Implementation 10-8.10.D: Vibration Mitigation

Incorporate vibration mitigation measures when vibration levels would exceed the guidelines, including site planning (by increasing the distance between the vibration source and the vibration sensitive building), isolating buildings, or incorporating vibration isolation into new or modified rail transportation systems. Ensure building design does not substantially amplify vibration to upper levels.

(7 hits)

Chapter 18.218
STANDARD DEVELOPMENT REQUIREMENTS

TO ADDRESS RESOURCE PROTECTION

Sections:

18.218.010 Purpose and intent.
18.218.020 Legislative findings.
18.218.030 Definitions.
18.218.040 Applicability.
18.218.050 Standard development requirements.

18.218.010 Purpose and intent.

The purpose of this chapter is to ensure the universal application of standard development requirements for resource protection to development projects that have the potential to adversely disturb or impact (a) special-status species; (b) cultural resources; and (c) air quality due to construction activities such as grading, demolition, and tree and shrub removal. Pursuant to Cal. Pub. Res. Code § 21083.3(d) and California Environmental Quality Act (CEQA) Guidelines Section 15183(f), the intent is to establish development standards consistent with legislative requirements and resource agency protocol to ensure protection of limited or endangered resources, in particular when a proposed project is not subject to or may be exempt from CEQA. (Ord. 27-2016 § 37, 12-6-16.)

18.218.020 Legislative findings.

This chapter is enacted in recognition of the following:

(a) Air Quality. Since 2006, the state has enacted key pieces of legislation focusing on the regulation and reduction of greenhouse gas (GHG) emissions to curtail the serious threat of global warming to the economic well-being, public health, natural resources, and the environment of California.

(1) Assembly Bill (AB) 32 (2006) focuses on reducing GHG emissions in California to 1990 levels by 2020 and Senate Bill (SB) 375 (2009) also targets climate protection and emission reduction through smart growth.

(2) SB 375 requires development of a sustainable regional strategy that focuses housing in concentrated growth areas near transit referred to as Priority Development Areas (PDAs).

(3) The Bay Area Air Quality Management District (BAAQMD), which is the regional agency charged with regulating air quality in the Bay area, recommends basic construction management practices for all proposed projects that would help to reduce criteria air pollutants contributing to global warming.

(b) Endangered Species. Both federal and state legislation provide a framework for protecting and facilitating the recovery of threatened and endangered populations of listed animal species.

(1) The federal government regulates threatened animal species through the Endangered Species Act, which lists identified species and prohibits a “take” of any such species. The Federal Migratory Bird Treaty Act makes it unlawful to take (kill, harm, harass, etc.) any migratory listed bird.

(2) The California Endangered Species Act establishes that it is the state’s policy to conserve, protect, and enhance endangered species and their habitats, and Cal. Fish & Game Code §§ 3503, 3503.5, and 3800 prohibit the “take, possession, or destruction of birds, their nests or eggs.” Disturbance that causes nest

abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a take.

(3) The general plan identifies potentially occurring special-status species in the city of Fremont. Nesting or roosting burrowing owls (commonly found on vacant or agricultural habitat with burrows of California ground squirrels) are a listed species, as are other birds with propensity to nest in local trees, and also various bat species that may be found in existing or abandoned structures on property slated for development.

(4) The general plan also includes policies and implementation measures for the protection of rare, threatened, endangered and candidate species and their habitats consistent with state and federal law. However, the general plan program EIR does not contain specific project-level mitigation measures to address the occurrence of burrowing owls on vacant sites, nesting or special-status bird species, or nesting or special-status bat species that could occur in Fremont.

(c) Protection of Cultural Resources. The California Public Resources Code and AB 52 (2014) both recognize the need for notification and evaluation procedures to protect cultural resources that may be located in areas considered sacred lands or that may be accidentally discovered during construction activities.

For all these reasons, and in the interest of the public health, safety and welfare of the people of the city of Fremont, recognizing the private rights to develop and use property in a manner that is not prejudicial to the public interest, it is the purpose of this chapter to provide standard development requirements that would reduce potential significant impacts to natural resources. (Ord. 27-2016 § 37, 12-6-16.)

18.218.030 Definitions.

“Cultural resources” generally refers to or encompasses resources that are considered “cultural” in nature such as historic properties, tribal cultural resources as defined in Cal. Pub. Res. Code § 21074, archaeological, and paleontological resources, and burial sites.

“Special status species” is a term used primarily in the California regulatory community for species that are considered sufficiently rare that they require special consideration and/or protection.

“Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap capture, or collect, or to attempt to engage in any such conduct. (Ord. 27-2016 § 37, 12-6-16.)

18.218.040 Applicability.

These universal development standards for resource protection are applicable to all temporary project sites, new development project sites, and on sites being redeveloped where there may be a potential adverse impact to special-status species, cultural, archeological and/or paleontological resources, possible burial sites associated with indigenous cultures, and/or to air quality resulting from the elimination of trees, site grading, ground disturbing construction activities, and/or demolition of buildings. (Ord. 27-2016 § 37, 12-6-16.)

18.218.050 Standard development requirements.

(a) Air Quality.

(1) Construction Related Emissions. The following construction measures, as periodically amended by BAAQMD, are required for all proposed development projects to reduce construction-related fugitive dust and exhaust emissions:

(A) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times daily.

(B) All haul trucks transporting soil, sand, or other loose material off site shall be covered.

(C) 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.

(D) All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

(E) 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.

(F) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five 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.

(G) 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.

(H) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

(b) Biology, Special-Status Species.

(1) Burrowing Owl. New development projects with the potential to impact burrowing owl habitat through grading, demolition, and/or new construction shall implement the following measures prior to grading or ground disturbing activities:

(A) Preconstruction Surveys. Preconstruction surveys for burrowing owls shall be conducted prior to the initiation of all project activities within potential burrowing owl nesting and roosting habitat (i.e., agricultural habitat with burrows of California ground squirrels) to determine if suitable burrowing owl habitat is present. Surveys shall be conducted by a qualified biologist in conformance with the most recent requirements and guidelines of the California Department of Fish and Wildlife (CDFW). The biologist shall determine the number and time frame (prior to construction) of surveys to be conducted.

(B) Implement Buffer Zones. Areas currently occupied by burrowing owls shall be avoided for the duration of residing on site and/or the nesting period (February 1st through August 31st). The biologist will recommend a suitable buffer zone distance for avoidance of nesting or roosting habitat.

(C) Passive Relocation. If burrowing owls cannot be avoided by the proposed project, then additional measures, such as passive relocation during the nonbreeding season, may be utilized to reduce any potential impacts. Measures for successful relocation shall be recommended by a qualified biologist in conformance with CDFW requirements and guidelines.

(D) Initiation of Construction Activities. When a qualified biologist is able to determine that burrowing owls are no longer occupying the site and passive relocation is deemed successful, construction activities may continue. The applicant shall submit the determination of the biologist to the planning manager for authorization to continue.

(2) Nesting Birds. New development projects with the potential to impact nesting birds through tree or shrub removal shall implement the following measures prior to removal of any trees/shrubs, grading, or ground disturbing activities:

(A) Avoidance. Proposed projects shall avoid construction activities during the bird nesting season (February 1st through August 31st).

(B) Preconstruction Surveys. If construction activities are scheduled during the nesting season, a qualified biologist shall conduct a preconstruction survey to identify any potential nesting activity. The biologist shall determine the number and time frame (prior to construction) of surveys to be conducted.

(C) Protective Buffer Zone(s). If the survey indicates the presence of nesting birds, protective buffer zones shall be established around the nests. The size of the buffer zone shall be recommended by the biologist in consultation with the CDFW depending on the species of nesting bird and level of potential disturbance.

(D) Initiation of Construction Activities. The buffer zones shall remain in place until the young have fledged and are foraging independently. A qualified biologist shall monitor the nests closely until it is determined the nests are no longer active, at which time construction activities may commence within the buffer area.

(3) Roosting Bats. New development with potential to impact special-status or roosting bat species through demolition of existing structures or removal of trees on site shall conduct the following measures prior to demolition:

(A) Preconstruction Surveys. A qualified biologist shall conduct a preconstruction survey during seasonal periods of bat activity (mid-February through mid-October) to determine suitability of structure(s) or trees as bat roost habitat.

(B) Protective Buffer Zone(s). If active bat roosts are found on site, a suitable buffer from construction shall be established per the biologist. The biologist shall determine the species of bats present and the type of roost.

(C) Mitigation and Exclusion. If the bats are identified as common species, and the roost is not being used as a maternity roost or hibernation site, the bats may be evicted using methods developed by a qualified biologist. If special-status bat species are found present, or if the roost is determined to be a maternity roost or hibernation site for any species, then the qualified biologist shall develop a bat mitigation and exclusion plan to compensate for lost roost. The site shall not be disturbed until CDFW approves the mitigation plan.

(c) Cultural Resources.

(1) Notification, Affiliated California Native American Tribes. Prior to preparation of an environmental assessment and within 14 days of determining that an application for a project is complete, the city shall provide formal notification to the designated contact or a tribal representative of traditionally and culturally affiliated California Native American tribes that have requested to receive such notice from the city. The written notification shall include a brief description of the proposed project and its location, project contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to AB 52.

(2) Accidental Discovery of Cultural Resources. The following requirements shall be met to address the potential for accidental discovery of cultural resources during ground disturbing excavation:

(A) The project proponent shall include a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources.

(B) The project proponent shall retain a professional archaeologist to provide a preconstruction briefing to supervisory personnel of any excavation contractor to alert them to the possibility of exposing buried cultural resources, including significant prehistoric archaeological resources. The briefing shall discuss any cultural resources, including archaeological objects, that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the project proponent and archaeological team.

(C) In the event that any human remains or historical, archaeological or paleontological resources are discovered during ground disturbing excavation, the provisions of CEQA Guidelines Sections 15064.5(e) and (f), and of subsection (c)(2)(D) of this section, requiring cessation of work, notification, and immediate evaluation shall be followed.

(D) If resources are discovered during ground disturbing activities that may be classified as historical, unique archaeological, or tribal cultural resources, ground disturbing activities shall cease immediately, and the planning manager shall be notified. The resources will be evaluated by a qualified archaeologist and, in the planning manager's discretion, a tribal cultural monitor. If the resources are determined to be historical, unique archaeological, or tribal cultural resources, then a plan for avoiding the resources shall be prepared. If avoidance is infeasible, then all significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. Any plan for avoidance or mitigation shall be subject to the approval of the planning manager.

(E) As used herein, "historical resource" means a historical resource as defined by CEQA Guidelines Section 15064.5(a); "unique archaeological resource" means unique archaeological resource as defined by Cal. Pub. Res. Code § 21083.2(g); and "tribal cultural resource" means tribal cultural resource as defined by Cal. Pub. Res. Code § 21074. Collectively, these terms describe "significant cultural materials."

(d) Noise.

(1) Construction Noise. To reduce the potential for noise impacts during construction, the following requirements shall be implemented:

(A) Construction equipment shall be well-maintained and used judiciously to be as quiet as practical.

(B) Construction, excavating, grading, and filling activities (including the loading and unloading of materials, truck movements, and warming of equipment motors) shall be limited as provided in Section 18.160.010.

(C) All internal combustion engine-driven equipment shall be equipped with mufflers, which are in good condition and appropriate for the equipment.

(D) The contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.

(E) Loading, staging areas, stationary noise generating equipment, etc., shall be located as far as feasible from sensitive receptors.

(F) The contractor shall comply with Air Resource Board idling prohibitions of unnecessary idling of internal combustion engines.

(G) Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number for the project sponsor in the

event of noise complaints. The applicant shall designate an on-site complaint and enforcement manager to track and respond to noise complaints. (Ord. 27-2016 § 37, 12-6-16; Ord. 23-2018 § 41, 10-2-18.)

The Fremont Municipal Code is current through Ordinance 02-2019, passed February 5, 2019.
Disclaimer: The City Clerk's Office has the official version of the Fremont Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

Chapter 18.160
CONSTRUCTION HOURS

Sections:

18.160.010 Construction hours – Limitations.

18.160.010 Construction hours – Limitations.

(a) Except as modified herein, construction activity for development projects in any zoning district on any property within 500 feet of one or more residences, lodging facilities, nursing homes or inpatient hospitals shall be limited to the weekday hours of 7:00 a.m. to 7:00 p.m. and the Saturday or holiday hours of 9:00 a.m. to 6:00 p.m., while Sunday construction is not allowed. Construction activity for projects not located within 500 feet of residences, lodging facilities, nursing homes or inpatient hospitals shall be limited to the weekday hours of 6:00 a.m. to 10:00 p.m. and the weekend or holiday hours of 8:00 a.m. to 8:00 p.m. A holiday shall be as defined in Section 2.35.010.

(b) Resident homeowners and their uncompensated volunteer workers performing construction activity on their own single-family detached home shall be limited to the weekday hours of 7:00 a.m. to 8:00 p.m. and the weekend hours of 8:00 a.m. to 8:00 p.m.

(c) This section shall not apply to construction necessary to prevent or repair an emergency condition, as reasonably determined by the city manager's designee.

(d) Projects requiring a permit under the authority of this code shall have construction hours noted on the cover sheet of the construction plans.

(e) Projects requiring a permit under the authority of this code, except additions and alterations to single-family residential homes or lots, shall have an all-weather notice board conspicuously placed adjacent to the most visible public right-of-way for the duration of construction activity. The placement, format and content of the notice board shall be prescribed by city staff, and shall contain, at a minimum, summary project information, allowable construction hours, and city staff contact information.

(f) The city manager's designee shall have the authority to modify these hours under any of the following conditions:

(1) To facilitate staff supervision or inspection or when the applicant is required to comply with more restrictive provisions of this code, state or federal law.

(2) When, based upon the nature of nearby uses and/or site-specific considerations, he or she makes a finding that such modified construction hours are reasonably foreseeable to result in an equal or superior level of comfortable enjoyment of life and property by the community.

(3) When the project is located in a right-of-way or easement or on publicly owned property, and such modified hours, on balance, will minimize disruption to the community as a whole, such as to facilitate the orderly flow of traffic or to reduce negative impacts on commercial or residential activity.

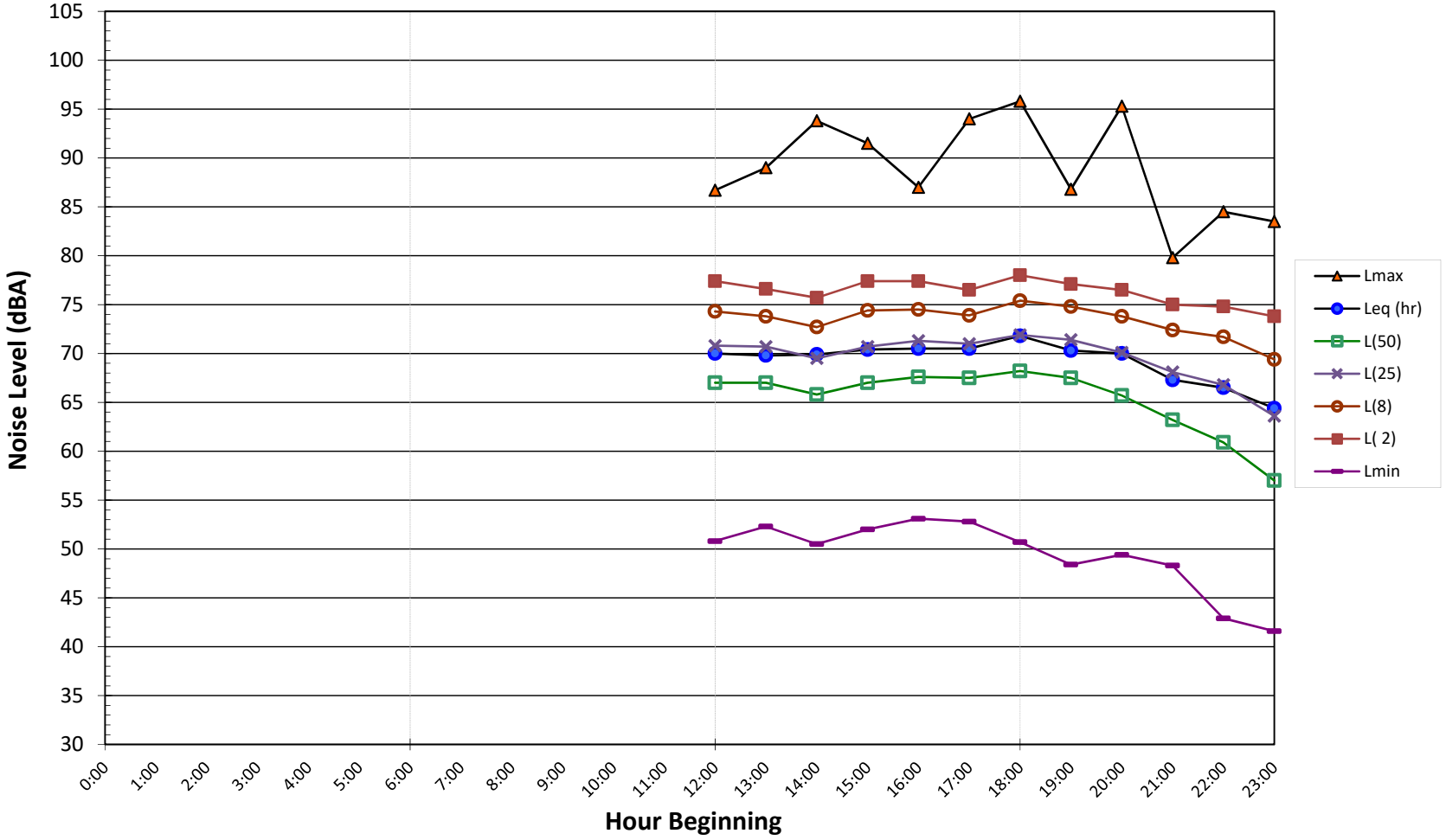
(g) Violations of the provisions of this section shall be considered a public nuisance as defined in Section 8.60.040 for purposes of enforcement and remedy. In addition to the provisions of Title 8, staff shall have the power to withhold inspections if construction hours are not observed. (Ord. 36-2005 § 1, 11-22-05. 1990 Code § 8-2205.)

The Fremont Municipal Code is current through Ordinance 02-2019, passed February 5, 2019.

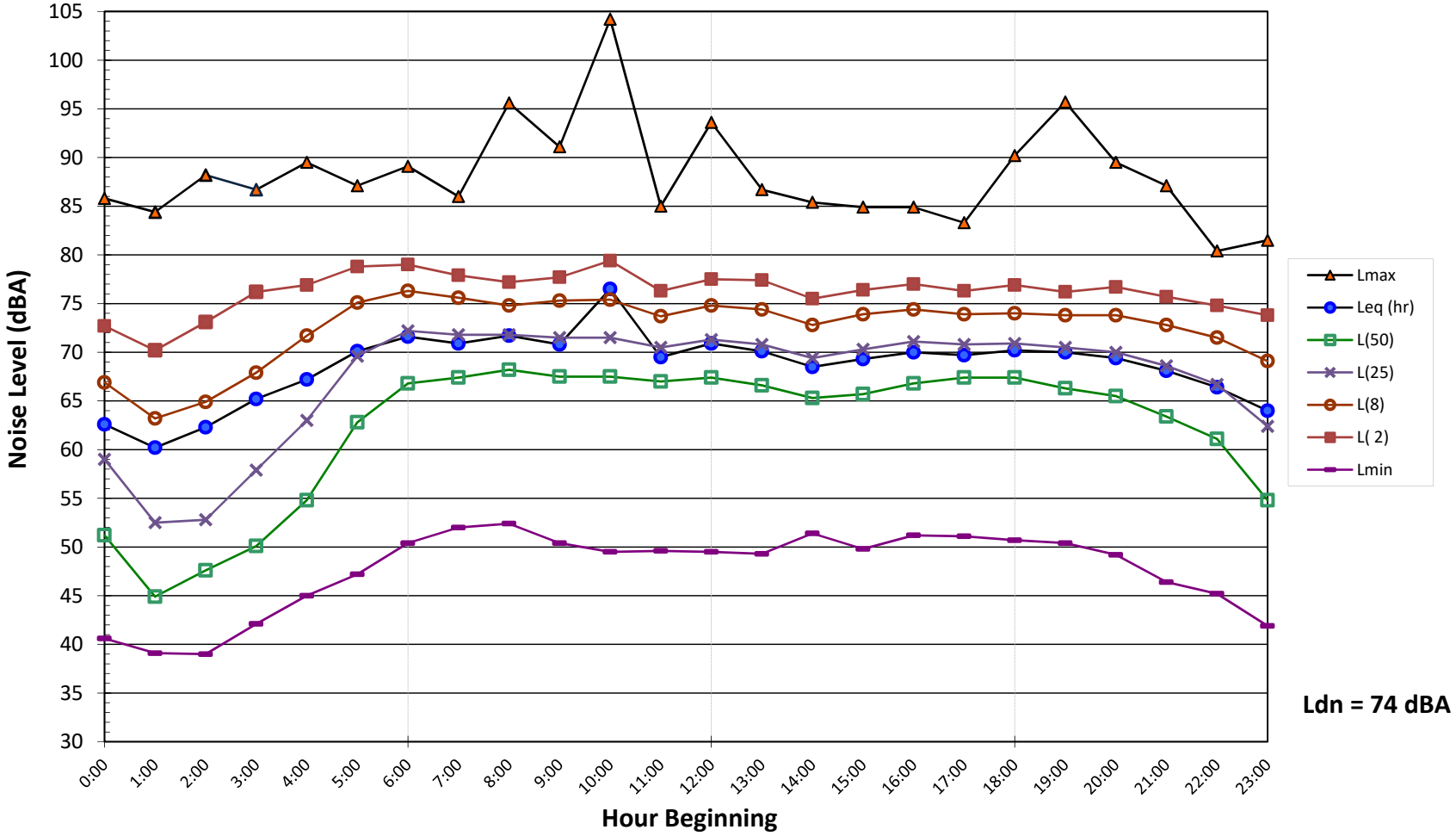
Disclaimer: The City Clerk's Office has the official version of the Fremont Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

AMBIENT NOISE MONITORING RESULTS

Noise Levels at LT-1
Thornton Middle School - Fremont, CA
Monday, April 15, 2019

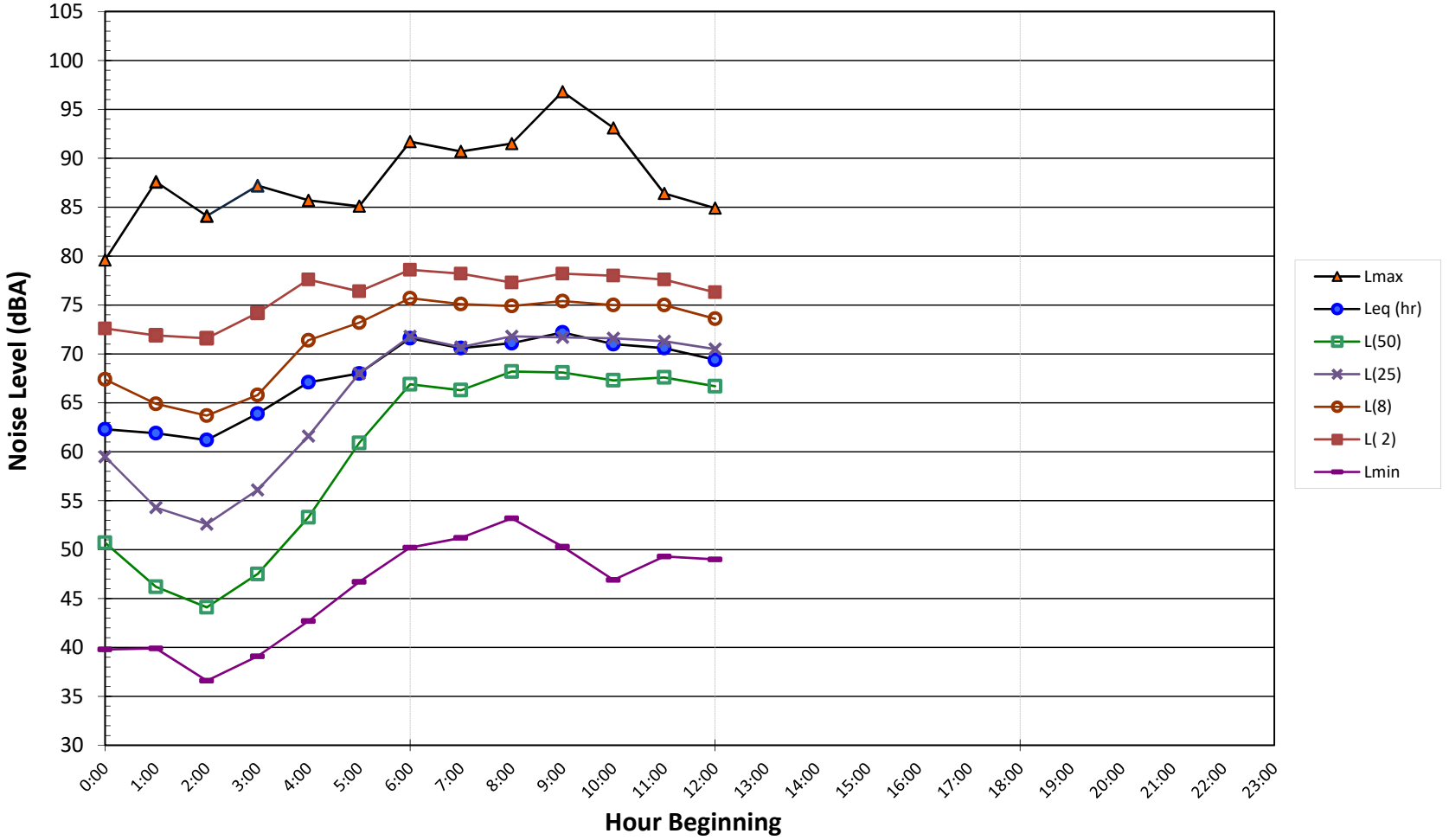


Noise Levels at LT-1
Thornton Middle School - Freemont, CA
Tuesday, April 16, 2019



Ldn = 74 dBA

Noise Levels at LT-1
Thornton Middle School - Freemont, CA
Wednesday, April 17, 2019



CONSTRUCTION NOISE MODELING

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/23/2019
Case Description: FREM-01

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Demolition 1	Residential	60.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	380.0	0.0
Excavator	No	40	85.0		380.0	0.0
Excavator	No	40		80.7	380.0	0.0
Excavator	No	40		80.7	380.0	0.0
Dozer	No	40		81.7	380.0	0.0
Dozer	No	40		81.7	380.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	72.0	65.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	67.4	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.0	69.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/23/2019
Case Description: FREM-01

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Site Prep 1	Residential	60.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	380.0	0.0
Dozer	No	40		81.7	380.0	0.0
Dozer	No	40		81.7	380.0	0.0
Tractor	No	40	84.0		380.0	0.0
Tractor	No	40	84.0		380.0	0.0
Front End Loader	No	40		79.1	380.0	0.0
Backhoe	No	40		77.6	380.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.5	57.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.9	56.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.4	68.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/23/2019
Case Description: FREM-01

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Grading 1	Residential	60.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	380.0	0.0
Excavator	No	40		80.7	380.0	0.0
Grader	No	40	85.0		380.0	0.0
Dozer	No	40		81.7	380.0	0.0
Scraper	No	40		83.6	380.0	0.0
Scraper	No	40		83.6	380.0	0.0
Tractor	No	40	84.0		380.0	0.0
Front End Loader	No	40		79.1	380.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	67.4	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	66.0	62.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	66.0	62.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.5	57.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	67.4	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/23/2019
Case Description: FREM-01.0

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Building Construction	Residential	60.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	380.0	0.0
Man Lift	No	20		74.7	380.0	0.0
Man Lift	No	20		74.7	380.0	0.0
Man Lift	No	20		74.7	380.0	0.0
Generator	No	50		80.6	380.0	0.0
Tractor	No	40	84.0		380.0	0.0
Front End Loader	No	40		79.1	380.0	0.0
Backhoe	No	40		77.6	380.0	0.0
Welder / Torch	No	40		74.0	380.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	62.9	55.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	57.1	50.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	57.1	50.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	57.1	50.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	63.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.5	57.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.9	56.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Welder / Torch	56.4	52.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.4	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/23/2019
Case Description: FREM-01.0

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Paving	Residential	60.0	65.0	60.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2		380.0	0.0
Paver	No	50	77.2		380.0	0.0
Pavement Scarafier	No	20	89.5		380.0	0.0
Pavement Scarafier	No	20	89.5		380.0	0.0
Roller	No	20	80.0		380.0	0.0
Roller	No	20	80.0		380.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	59.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	59.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	71.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	71.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	62.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	62.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	71.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/14/2019
Case Description: FREM-01.0

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Painting	Residential	60.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	380.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TRAFFIC NOISE INCREASE CALCULATIONS

Segment	Existing No Project	Existing Plus Project	Future No Project	Future Plus Project	Project Noise Increase	Cumulative Increase
Thornton Ave - North of Fremont Blvd	1643	1749	2054	2160	0.27	1.19
Thornton Ave - South of Freemont Blvd	2162	2320	2703	2960	0.31	1.36
Freemont Blvd - Thornton Ave to Alder Ave	1828	1854	2327	895	0.06	-3.10
Freemont Blvd - West of Thornton Ave	2153	2179	2732	885	0.05	-3.86
Thornton Ave - North of Oak St	2217	2376	2771	2931	0.30	1.21
Thornton Ave - South of Oak St	2218	2404	2774	2960	0.35	1.25
Oak St - Thornton Ave to Hansen Ave	178	191	224	237	0.31	1.24
Oak St - West of Thornton Ave	477	543	597	664	0.56	1.44
Thornton Ave - North of Dusterberry WY	1921	2023	2379	2481	0.22	1.11
Thornton Ave - South of Dusterberry WY	2086	2233	2576	2724	0.30	1.16
Dusterberry WY - East of Thornton Ave	711	724	882	895	0.08	1.00
Dusterberry WY - West of Thornton Ave	336	576	359	600	2.34	2.52
Thornton Ave - South of Thornton Ave	2154	2339	2694	2879	0.36	1.26
Contra Costa Ave - East of Thornton Ave	255	268	320	333	0.22	1.16
Contra Costa Ave - West of Thornton Ave	665	717	833	885	0.33	1.24
Thornton Ave - North of Cabrillo Dr	2083	2269	2604	2791	0.37	1.27
Thornton Ave - South of Cabrillo Dr	2360	2493	2950	3083	0.24	1.16
Cabrillo Dr - East of Thornton Ave	30	43	38	51	1.56	2.30
Cabrillo Dr - West of Thornton Ave	677	717	846	887	0.25	1.17
Thornton Ave - North of Blacow Rd/I-880 NB Ramps	2743	2875	3429	3563	0.20	1.14
Thornton Ave - South of Blacow Rd/I-880 NB Ramps	2489	2577	3111	3200	0.15	1.09
Blacow Rd/I-880 NB Ramps - East of Thornton Ave	1468	1494	1836	1862	0.08	1.03
Blacow Rd/I-880 NB Ramps - West of Thornton Ave	720	738	900	919	0.11	1.06
Thornton Ave - North of I-880 NB off-ramp	2489	2578	3112	3199	0.15	1.09
Thornton Ave - South of I-880 NB off-ramp	3210	3277	4013	4079	0.09	1.04
I-880 NB off-ramp - East of Thornton Ave	1215	1237	1519	1540	0.08	1.03
Thornton Ave - North of I-880 SB off-ramp	3210	3276	4013	4078	0.09	1.04
Thornton Ave - South of I-880 SB off-ramp	3040	3066	3800	3826	0.04	1.00
I-880 SB off-ramp - East of Thornton Ave	437	437	546	546	0.00	0.97
I-880 SB off-ramp - West of Thornton Ave	1339	1379	1675	1714	0.13	1.07
Alder Ave - North of Freemont Blvd	713	713	893	893	0.00	0.98

Alder Ave - South of Freemont Blvd	752	778	941	967	0.15	1.09
Freemont Blvd - West of Alder Ave	2276	2328	2886	2939	0.10	1.11
Peralta Blvd - North of Freemont Blvd	946	946	1245	1245	0.00	1.19
Peralta Blvd - South of Freemont Blvd	696	696	872	872	0.00	0.98
Freemont Blvd - East of Peralta Blvd	1669	1695	2189	2216	0.07	1.23
Peralta Blvd - West of Peralta Blvd	1863	1889	2370	2397	0.06	1.09
Thornton Ave - North of North Drivewy	2191	2379	2739	2926	0.36	1.26
Thornton Ave - South of North Drivewy	2202	2390	2752	2939	0.36	1.25
Thornton Ave - South of South Driveway	2064	2237	2581	2752	0.35	1.25

APPENDIX G

TRANSPORTATION IMPACT ANALYSIS

APPENDIX G

TRANSPORTATION IMPACT ANALYSIS

Transportation Impact Analysis

Thornton Middle School Conversion

Fremont, California

Final Report

November 2019

Transportation Impact Analysis

Thornton Middle School Conversion

Fremont, California

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Project No. 23355

November 2019



TABLE OF CONTENTS

Introduction **7**

Project Description 7

Study Objectives 7

Scope of the Report 10

Existing Conditions **11**

Roadway Network 11

Existing Traffic Conditions 16

Transportation Impact Analysis **21**

Thresholds of Significance 21

Project Analysis 23

Existing Plus Project Conditions 27

Near-Term Conditions 30

Cumulative Conditions 36

Additional Transportation Needs Assessment 42

Alternatives **50**

No-Build Alternative 50

Lower Growth Alternative 50

Conclusion 54

Conclusions and Recommendations **55**

Significant Impacts 55

Student Drop-Off and Pick-Up 56

Pedestrian and Bicycle Facilities 56

LIST OF FIGURES

Figure 1 Site Location and Study Intersections 8
Figure 2 Proposed Site Plan 9
Figure 3 Existing Bicycle Facilities and Safe Routes to School Routes 14
Figure 4 Existing Transit Facilities 15
Figure 5 Existing Traffic Volumes 17
Figure 6 Project Trip Distribution 25
Figure 7 Project Trips 26
Figure 8 Existing plus Project Traffic Volumes 29
Figure 9 Near-Term Traffic Volumes 32
Figure 10 Near-Term Plus Project Traffic Volumes 35
Figure 11 Cumulative Traffic Volumes 38
Figure 12 Cumulative plus Project Traffic Volumes 41
Figure 13 Lower Growth Alternative Traffic Volumes at Thornton Avenue/Oak Street, AM Peak Hour 51
Figure 14 Existing plus Lower Growth Alternative Traffic Volumes at Thornton Avenue/ Oak Street, AM Peak Hour 51
Figure 15 Lower Growth Alternative Traffic Volumes at Thornton Avenue/ Dusterberry Drive, AM Peak Hour 53
Figure 16 Cumulative plus Lower Growth Alternative Traffic Volumes at Thornton Avenue/ Dusterberry Drive, AM Peak Hour 53

LIST OF TABLES

Table 1 General Level of Service Definitions 18
Table 2 Intersection Level of Service Definitions 19
Table 3 Existing Conditions Intersection Operations 20
Table 4 Project Trip Generation 23
Table 5 Existing plus Project Intersection Operations 28
Table 6 Near-Term No Project Intersection Operations 31
Table 7 Near-Term Plus Project Intersection Operations 33
Table 8 Cumulative Intersection Operations 37
Table 9 Cumulative Plus Project Intersection Operations 39
Table 10 MTS Freeway and Arterial Level of Service – 2020 PM Peak Hour 44
Table 11 MTS Freeway and Arterial Level of Service – 2040 PM Peak Hour 45
Table 12 Crashes by Severity, July 2015 – June 2018 49
Table 13 Pedestrian- and Bicyclist-Involved Crashes, July 2015 – June 2018 49
Table 14 Existing plus Lower Growth Alternative Intersection Operations, Thornton Ave & Oak St, AM Peak Hour 52
Table 15 Cumulative plus Lower Growth Alternative Intersection Operations, Thornton Ave & Dusterberry Dr, AM Peak Hour 53
Table 16 Plus Project Intersection Operations with Mitigations 56

APPENDICES

Appendix A Traffic Count Data

Appendix B Description of Level-of-Service Methods and Criteria

Appendix C 95th Percentile Queue Length Summary

Appendix D Year 2019 Existing Conditions Level-of-Service Worksheets

Appendix E Year 2019 Existing plus Project Conditions Level-of-Service Worksheets

Appendix F Year 2022 Near-Term Conditions Level-of-Service Worksheets

Appendix G Year 2022 Near-Term plus Project Conditions Level-of-Service Worksheets

Appendix H Year 2040 Cumulative Conditions Level-of-Service Worksheets

Appendix I Year 2040 Cumulative plus Project Conditions Level-of-Service Worksheets

Appendix J SWITRS Crash Data

Appendix K Alternatives Analysis Worksheets– Existing Plus Alternative Project

Appendix L Alternatives Analysis Worksheets– Cumulative Plus Alternative Project

Appendix M Mitigated Level-of-Service Worksheets

Appendix N Peak Hour Signal Warrant Worksheets

INTRODUCTION

This transportation impact study was commissioned by the Fremont Unified School District (School District). The purpose of this study is to analyze and address traffic operations and site access issues associated with the expansion in enrollment of Thornton Junior High School in Fremont, California.

PROJECT DESCRIPTION

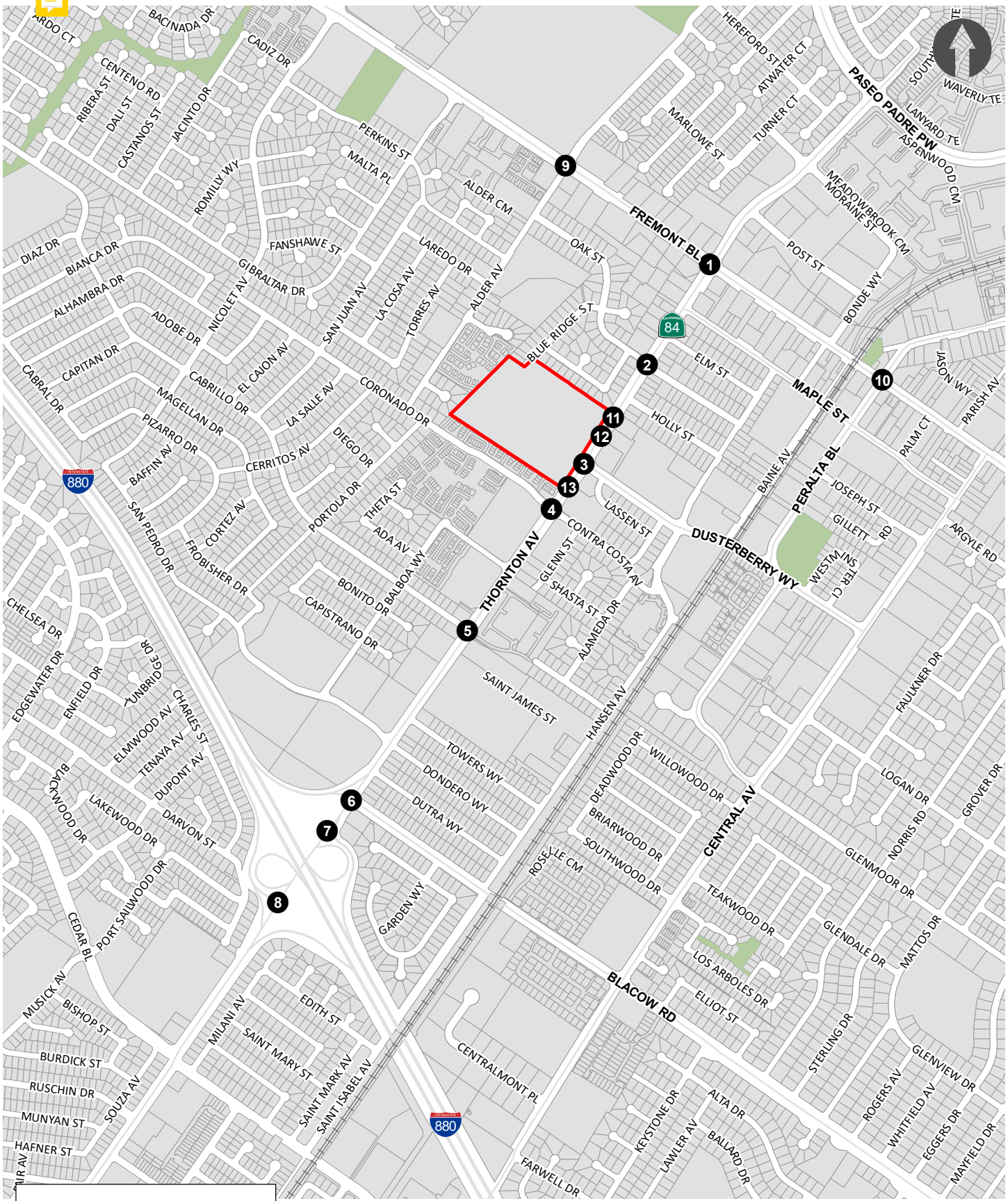
The Thornton Middle School Conversion Project (Project) includes new building construction, reconfiguration and modernization of existing buildings, and new parking and vehicular circulation areas within the existing footprint of the Thornton Junior High School campus. The site improvements will accommodate a 73 percent increase in student capacity, from 1,259 students to 2,176 students, to support the conversion from the current 7th and 8th grade junior high school to a middle school with 6th, 7th, and 8th grades.

As shown in Figure 1, the Project is located along SR-84 (Thornton Avenue) across from Dusterberry Way. Figure 2 shows the proposed site plan.

STUDY OBJECTIVES

This study analyzes the transportation effects of the Project, as follows:

- Operations at thirteen intersections in the vicinity of the school;
- Site access and circulation; and,
- Vehicle queuing resulting from student drop-off/pick-up activities.
- Alternatives to the project.



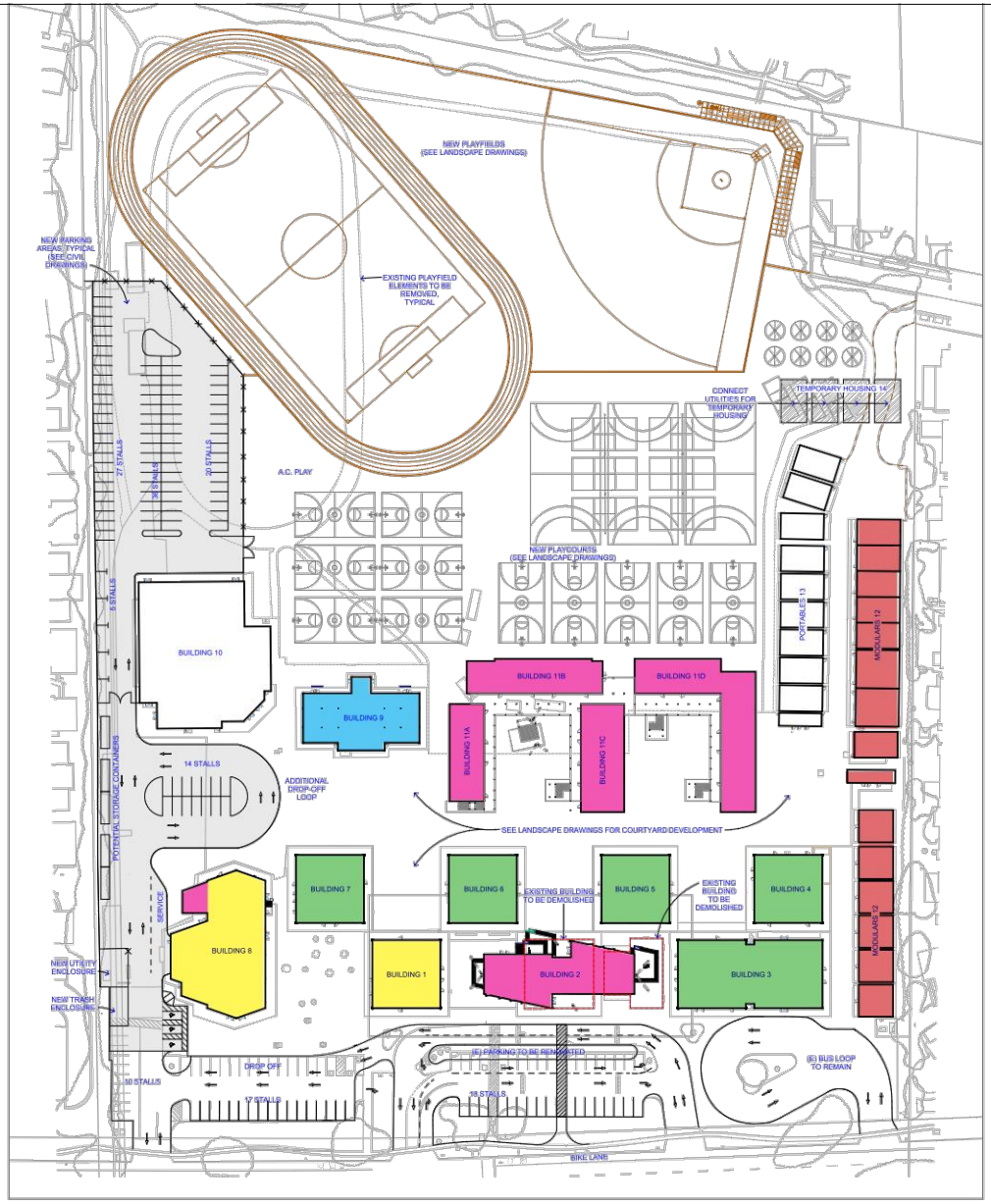
Site Location and Study Intersections
Fremont, California

Figure **1**

(#) Study Intersections

Project Site

KITTELSON & ASSOCIATES



Proposed Site Plan
Fremont, California

Figure
2

H:\23\23355 - fremont thornton middle school is_mnd\report\figs\23355 Figure 001.dwg May 10, 2019 - 10:18am - bcullimore Layout Tab: Proposed Site Plan

SCOPE OF THE REPORT

The analyses performed for this study determine the transportation-related effects of the proposed Project to accommodate an increase in student enrollment by 917 students.

The scope of the report was developed in coordination with the City of Fremont and the School District. The following 13 study intersections were selected based on land use and circulation conditions near the school:

1. Thornton Avenue and Fremont Boulevard
2. Thornton Avenue and Oak Street
3. Thornton Avenue and Dusterberry Way
4. Thornton Avenue and Coronado Drive – Contra Costa Avenue
5. Thornton Avenue and Cabrillo Drive
6. Thornton Avenue and Blacow Road – I-880 NB On-Ramp
7. Thornton Avenue and I-880 NB Off-Ramp
8. Thornton Avenue and I-880 SB Off-Ramp
9. Alder Avenue and Fremont Boulevard
10. Peralta Boulevard and Fremont Boulevard
11. Thornton Avenue and School Bus-Only Driveway
12. Thornton Avenue and School Central Driveway
13. Thornton Avenue and School South Driveway

This report evaluates the following transportation issues:

- Existing (2019) conditions within the site vicinity during the weekday AM peak hour and PM peak hour;
- Trip generation and distribution estimates for the Project;
- Existing conditions during the three peak hours with the addition of Project-related traffic;
- Near-Term (2022) background traffic conditions during the three peak hours;
- Near-Term (2022) background traffic conditions during the three peak hours with the addition of Project-related traffic;
- Cumulative (2040) background traffic conditions during the three peak hours;
- Cumulative (2040) background traffic conditions during the three peak hours with the addition of Project-related traffic; and,
- Access and circulation at the Project site associated with student drop off and pick up activities.
- Two Alternatives to the project were evaluated.

EXISTING CONDITIONS

The existing conditions analysis identifies the site conditions and current operational and geometric characteristics of the study intersections as well as transit services, bicyclist, and pedestrian facilities within the study area.

ROADWAY NETWORK

Thornton Avenue is an east-west major arterial with an eastern terminus at Paseo Padre Parkway and a western terminus at Highway 84 just east of the Dumbarton Bridge Toll Plaza. Within the Study Area, Thornton Avenue is a four-lane roadway with Class II bike facilities on both sides, sidewalks, and intermittent on-street parking.

Oak Street is a north-south collector providing access between Alder Avenue and Hansen Avenue, and serves as an alternative north-south connection to Fremont Avenue. Oak Street also provides access to both Thornton Junior High School and Oliveira Elementary School. Oak Street is a two-lane roadway with sidewalks on both sides and on-street parking.

Dusterberry Way is a north-south collector providing access between Central Avenue and Thornton Avenue, across from a Thornton Junior High School access driveway. Dusterberry Way has an at-grade rail crossing and is a four-lane roadway with continuous sidewalks on both sides and no on-street parking.

Coronado Drive is a north-south collector providing access between Thornton Avenue and Nicolet Avenue, mainly serving residential neighborhoods. Coronado Drive is a two-lane roadway with continuous sidewalks and on-street parking. A sidewalk connects the playing fields behind Thornton Junior High School to Coronado Drive.

Contra Costa Avenue is a north-south collector providing access between Thornton Avenue and Hansen Avenue, expanding about ¼ mile. It is a two-lane roadway with continuous sidewalks on both sides and on-streets parking.

Cabrillo Drive is a north-south collector west of Thornton Avenue and a local street east of Thornton Avenue. West of Thornton Avenue, Cabrillo Drive is a two-lane roadway with continuous sidewalks, providing access to Decoto Road, weaving through residential neighborhoods. Cabrillo Drive east of Thornton Avenue extends 500 feet and serves a multi-family residential development.

Blacow Road is a north-south minor arterial expanding the City of Fremont with a terminus at Thornton Avenue across from the I-880 northbound on-ramp. In the site vicinity, Blacow Road is a four-lane roadway with a center median, intermittent on-street parking, and continuous sidewalks with an at-grade rail crossing.

Interstate 880 is a north-south interstate highway connecting San Jose and Oakland. I-880 connects with Thornton Avenue, both northbound and southbound, via the Thornton Avenue/Central Newark interchange.

Alder Avenue is an east-west collector providing access between Paseo Padre Parkway and Coronado Drive, and serves as a main access point for American High School east of Fremont Boulevard and for Oliveira Elementary School west of Fremont Boulevard. Alder Avenue is a two-lane roadway with sidewalks and intermittent on-street parking.

Peralta Boulevard is an east-west minor arterial east of Fremont Boulevard and a collector west of Fremont Boulevard. Peralta Boulevard (SR-84) east of Fremont Boulevard provides access to Mowry Avenue, and is a two-lane roadway with a center left-turn lane, no on-street parking, and sidewalks on both sides of the roadways. Peralta Boulevard west of Fremont Boulevard terminates at Central Avenue and is a two-lane roadway, no on-street parking, and sidewalks on both sides.

Fremont Boulevard is a north-south major arterial providing access between I-880 to the south, near the Warm Springs Bart Station, and I-880 to the north near Alameda Creek. Fremont Boulevard is a four-lane roadway with a Class II bike lane and sidewalk on both sides.

Pedestrian Facilities

Sidewalks are present on both sides of Thornton Avenue, Coronado Avenue, Oak Street and Blue Ridge Street which provide direct pedestrian access to the Project. Marked crosswalks are located at the Thornton Avenue/Dusterberry Way and Thornton Avenue/Coronado Drive-Contra Costa Avenue intersections.

Bicycle Facilities

Bicycle facilities are defined by the following three classes in Chapter 1000 of California Department of Transportation's (Caltrans) Highway Design Manual:

- **Class I** – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
- **Class II** – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.
- **Class III** – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

Class II bicycle lanes are present along both sides of Thornton Avenue and Fremont Boulevard north of Thornton Avenue. Coronado Drive, Alder Avenue, and Dusterberry Way are designated Class III bicycle routes.

Transit Service

The transit system in the study area includes bus services provided by Alameda-Contra Costa Transit District (AC Transit), as follows:

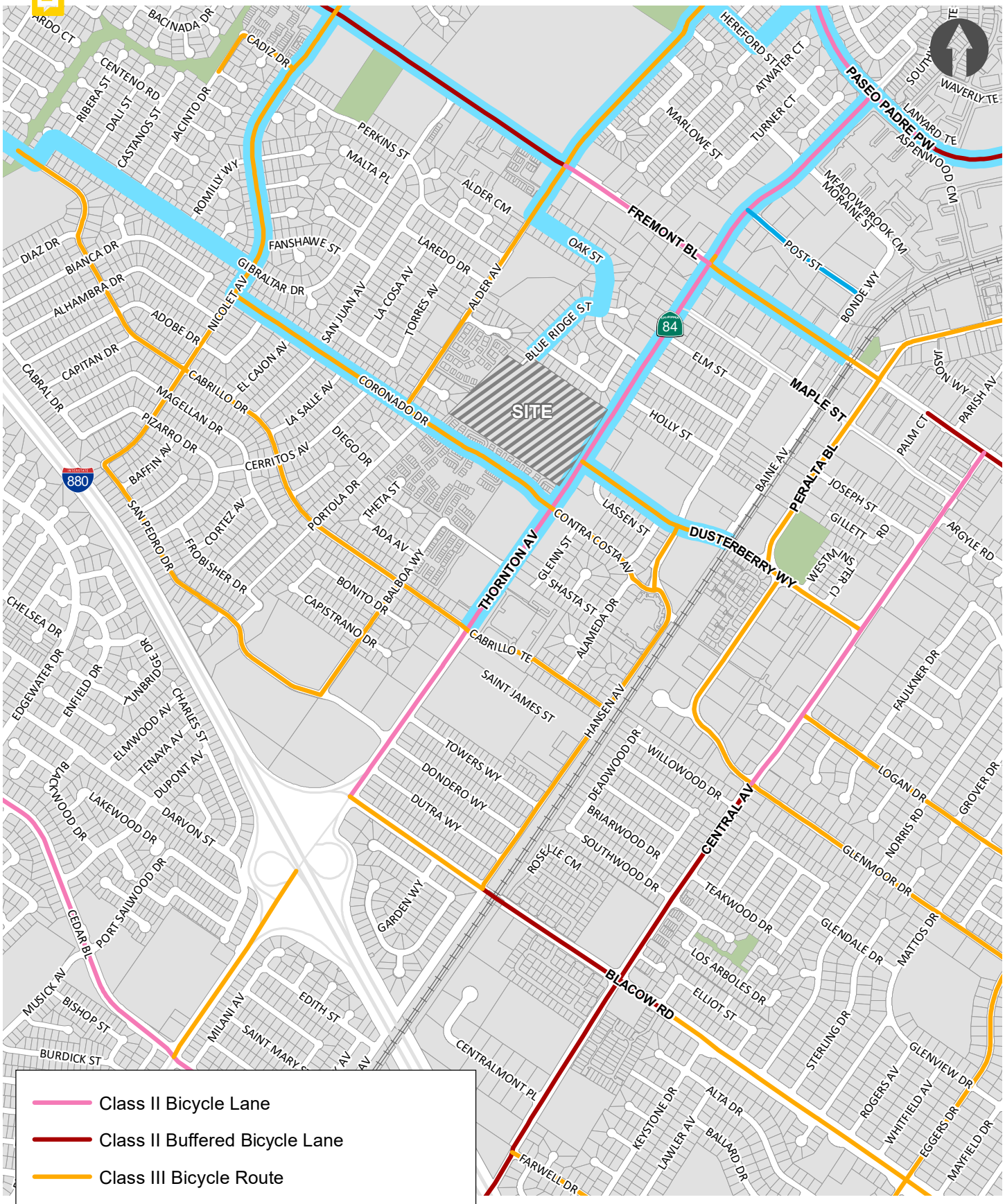
- **Line U** is a Transbay service between Fremont BART and the Stanford Shopping Center in Palo Alto operating in the peak direction, 6:00AM to 8:20AM in the southbound direction and 2:45PM to 5:55PM in the northbound direction. Line U provides service at 30- to 40-minute frequency. Line U runs along Fremont Boulevard in the site vicinity.
- **Line 99** is a main trunk route service between Hayward BART and Fremont BART operating between 5:00AM and 12:00AM at 20-minute frequency. Line 99 runs along Fremont Boulevard in the site vicinity.
- **Line 210** is a Local service between Union Landing Transit Center and Ohlone College operating between 5:30AM and 10:30PM at 30-minute frequency. Line 210 runs along Fremont Boulevard in the site vicinity.
- **Line 251** is a Local service between Fremont BART and the Ohlone College Newark Campus operating between 6:00AM and 7:00PM at 60-minute frequency. Line 251 runs along Thornton Avenue in the site vicinity.
- **Line 621** is a School service between the Thornton Junior High School and Ardenwood Boulevard/Commerce Drive operating during the school peak. One bus operates southbound in the morning at 7:15AM and two buses operate northbound in the school PM peak at 1:21PM and 2:44PM. Line 621 runs along Thornton Avenue in the site vicinity.
- **Line 801** is a All-Nighter service between Downtown Oakland and Fremont BART operating between 11:45PM and 4:45AM at one-hour frequency. Line 801 runs along Fremont Boulevard.
- **Line 707/710** is part of the Early Bird service to provide an alternative service to BART between 4:00AM and 5:00AM. Line 707/710 runs along I-880 in the site vicinity.

The bus stops within a ¼ mile of the Project site are located on Thornton Avenue, including Line 251 (Northbound/Southbound) at Dusterberry Way, Line 621 (Northbound) at Dusterberry Way, Line 251 (Southbound) at Allen Court, Line 251 (Northbound) at Contra Costa Avenue, and Line 251 (Northbound/Southbound) at Cabrillo Drive.

Safe Routes to School

The City of Fremont, through their Walk & Roll to School Program, has identified suggested route for students to walk or bike to school. These include Coronado Drive, Thornton Avenue, Alder Avenue, Nicolet Avenue, and Fremont Boulevard west of Alder Avenue.

The existing bicycle and pedestrian facilities, transit service, and recommended Safe Routes to School routes are shown in Figure 3 and Figure 4.



Class II Bicycle Lane

Class II Buffered Bicycle Lane

Class III Bicycle Route

Class IV Separated Bikeway

Recommend Safe Routes to School Routes

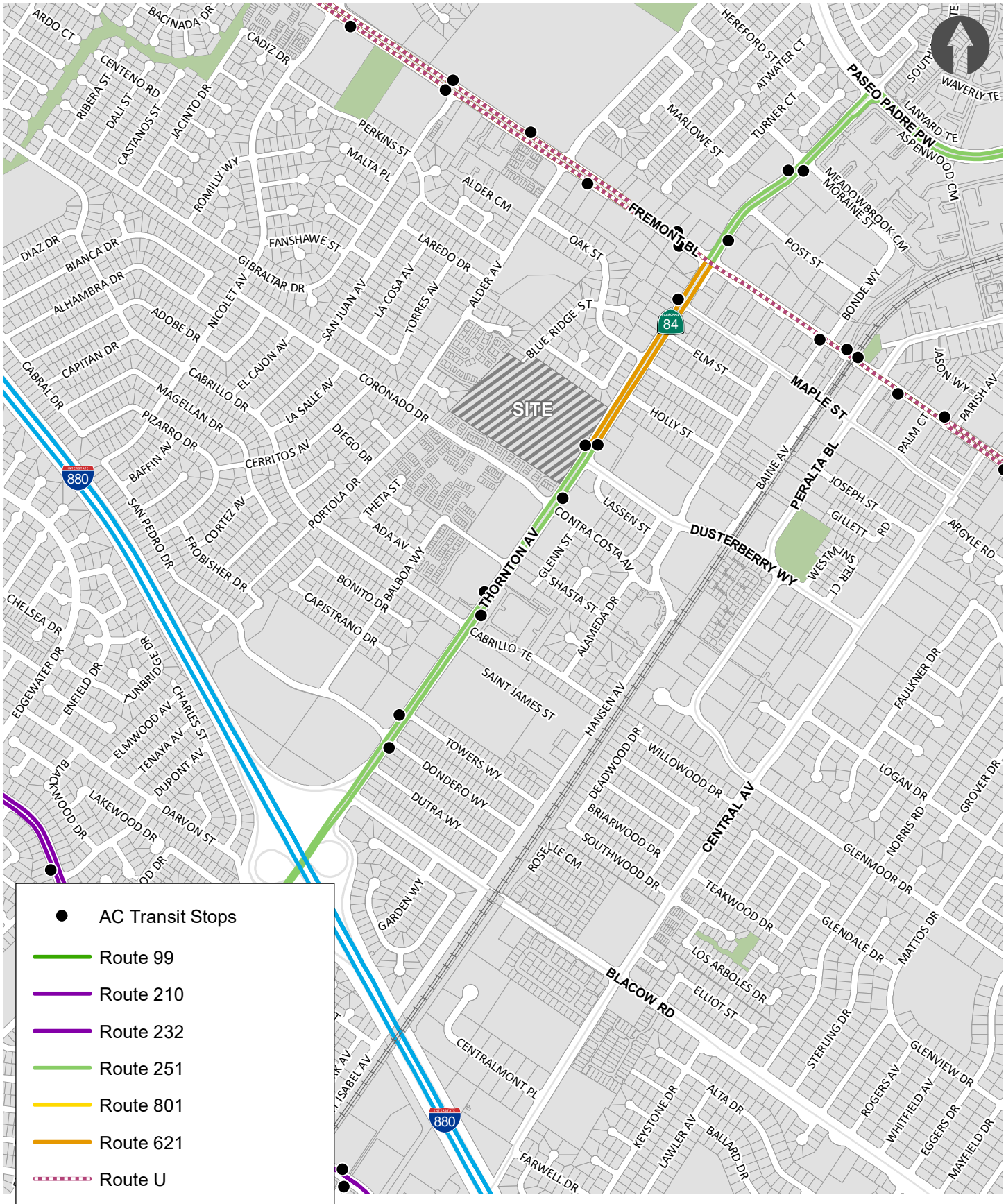
Existing Bicycle Facilities and Safe Routes to School Routes Fremont, California

Figure **3**

KITTELSON & ASSOCIATES

Data source: 2017 Fremont BMP

H:\23\23355 - Fremont Thornton Middle School IS_MND\gis\Existing Bike Facilities and Safe Routes to School.mxd - jsommerville - 3:25 PM 5/8/2019



H:\23\23355 - Fremont Thornton Middle School IS_MND\gis\Existing Transit Facilities.mxd - jsommerville - 3:25 PM 5/8/2019

Existing Transit Facilities
Fremont, California

Figure **4**

KITTELSON & ASSOCIATES

Data source: http://www.actransit.org/planning-focus/data-resource-center/

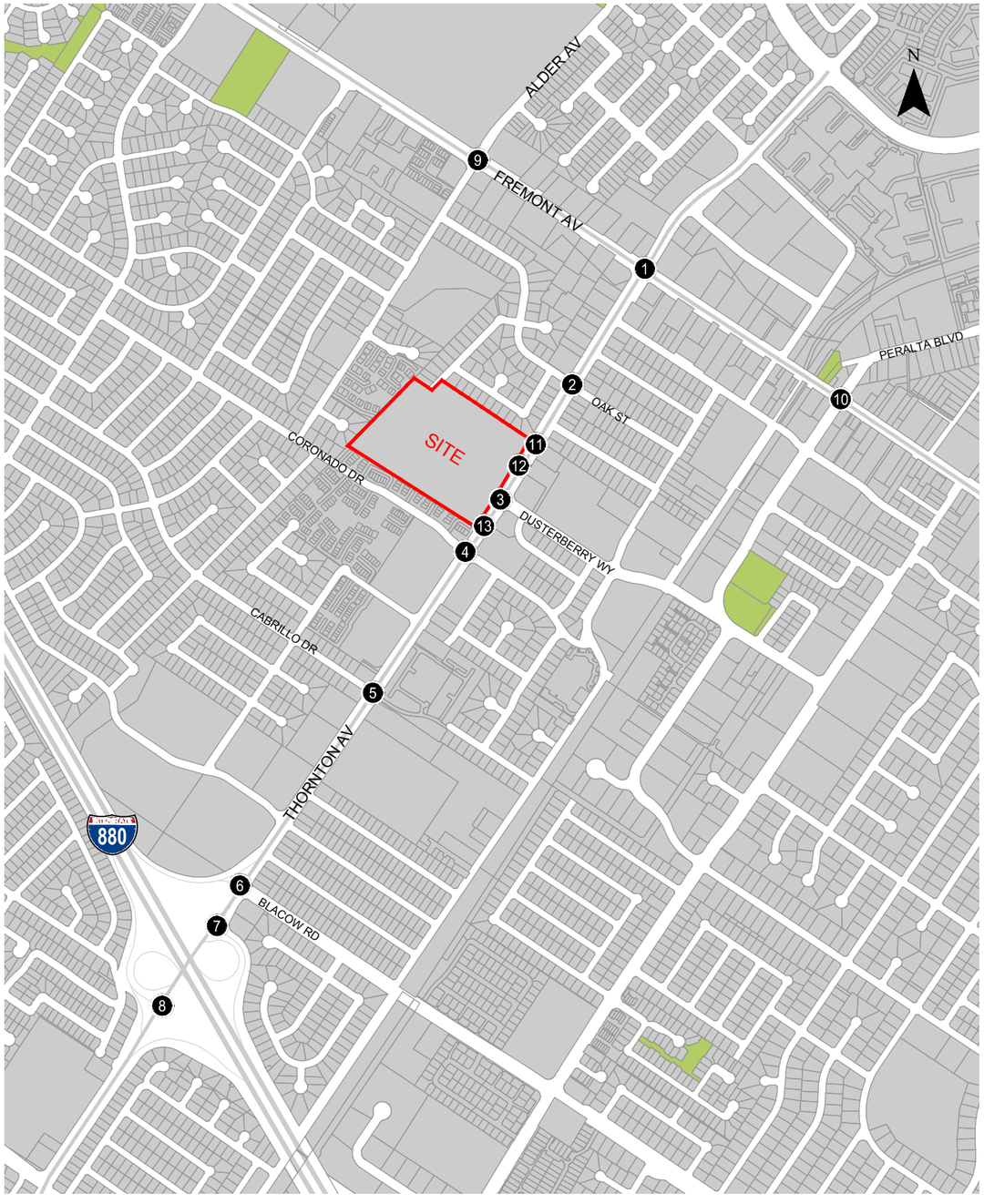
EXISTING TRAFFIC CONDITIONS

Kittelson & Associates, Inc. (KAI) contracted with a data collection subconsultant to collect existing traffic volumes for intersections in order to establish a basis for analysis in this study. Intersection turning movement volumes were collected on March 7, 2019 at all study intersections, during the following periods: 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. Turning movement volumes for the afterschool peak period, 2:00 PM to 4:00 PM were only collected for the four school driveways along Thornton Avenue. Appendix A includes traffic count data sheets.

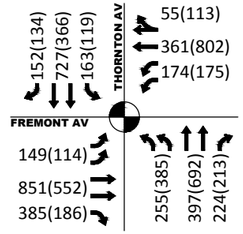
Intersection peak hours were identified from the data collected at the study intersections. While some variation exists between peak hours at the 13 study intersections, the peak hours at the study intersections generally are as follows:

- AM peak hour: 7:40 to 8:40 AM
- PM peak hour: 5:00 to 6:00 PM

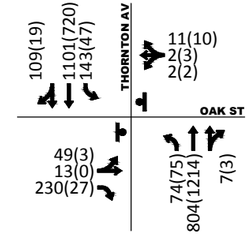
Intersection geometries and existing peak hour volumes are shown in Figure 5.



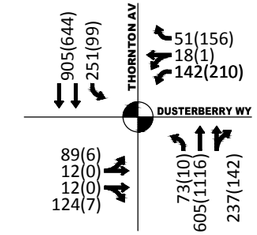
1 Thornton Avenue / Fremont Boulevard



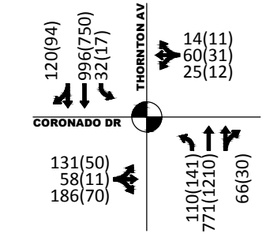
2 Thornton Avenue / Oak Street



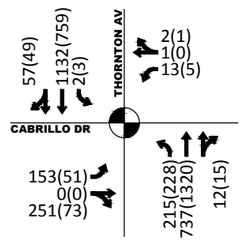
3 Thornton Avenue / Dusterberry Way



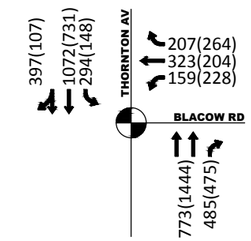
4 Thornton Avenue / Coronado Drive



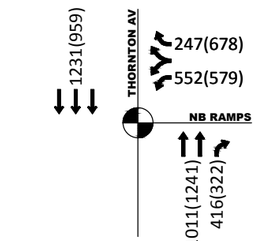
5 Thornton Avenue / Cabrillo Terrace



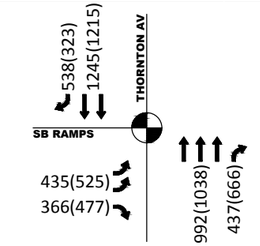
6 Thornton Avenue / Blacow Road



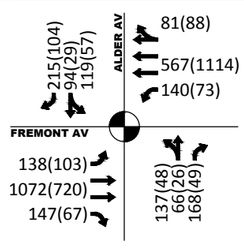
7 Thornton Avenue / I-880 NB Off-Ramp



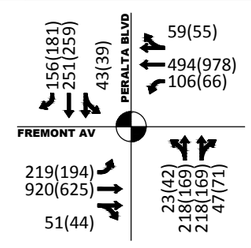
8 Thornton Avenue / I-880 SB Off-Ramp



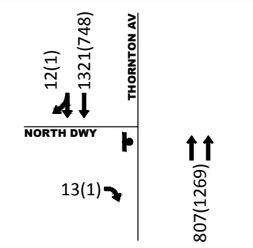
9 Fremont Boulevard / Alder Avenue



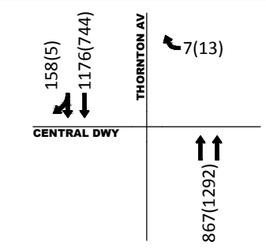
10 Fremont Boulevard / Peralta Boulevard



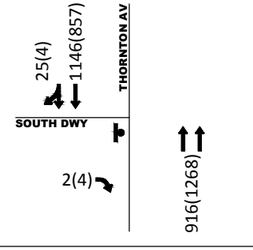
11 Thornton Avenue / North Driveway



12 Thornton Avenue / Central Driveway



13 Thornton Avenue / South Driveway



AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Volumes
AM & PM Peak Hours
Fremont, California

Figure 5

KITTELSON & ASSOCIATES

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Analysis Methodologies and Level-of-Service Standards

"Level of service" describes the operating conditions experienced by users of a facility. Level of service (LOS) is a qualitative measure of the effect of a number of factors, including speed, travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated A through F from best to worst, which cover the entire range of traffic operations that might occur. LOS A through E generally represent traffic volumes at less than roadway capacity while LOS F represents over capacity or forced flow conditions. In general, LOS D or better is considered acceptable while LOS E and LOS F are not.

All intersection level-of-service evaluations used the peak 15-minute flow rate during the weekday AM, afterschool and PM peak hours. Using the peak 15-minute flow rate ensures that this analysis is based on a reasonable worst-case scenario. For this reason, the analysis reflects conditions that are only likely to occur for 15 minutes out of each average peak hour. During all other periods, the transportation system likely will operate under conditions better than the conditions described in this report.

Intersection LOS

LOS describes the operating conditions experienced by motorists. LOS is a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. LOS A through LOS F covers the entire range of traffic operations that might occur. Motorists using a facility that operates at LOS A experience very little delay, while those using a facility that operates at LOS F will experience long delays. These conditions are generally described in Table 1. Specific LOS definitions are located in the Appendix B.

Table 1 General Level of Service Definitions

LOS	Description
A	**Free Flow or Insignificant Delays:** Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.
B	**Stable Operation or Minimal Delays:** The ability to maneuver within the traffic stream is only slightly restricted, and control delay at signalized intersections are not significant.
C	**Stable Operation or Acceptable Delays:** The ability to maneuver and change lanes is somewhat restricted, and average travel speeds may be about 50 percent of the free flow speed.
D	**Approaching Unstable or Tolerable Delays:** Small increases in flow may cause substantial increases in delay and decreases in travel speed.
E	**Unstable Operation or Significant Delays:** Significant delays may occur and average travel speeds may be 33 percent or less of the free flow speed.
F	**Forced Flow or Excessive Delays:** Congestion, high delays, and extensive queuing occur at critical signalized intersections with urban street flow at extremely low speeds.

Source: *Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000.

Intersection analysis was conducted using the operational methodology outlined in the *Highway Capacity Manual* (HCM) (Transportation Research Board, Washington, D.C., 2000) at all intersections, as operationalized by Synchro version 9 software tool. The HCM 2000 procedure calculates a weighted average stop delay in seconds per vehicle at an intersection and assigns a level of service designation based on the delay. Table 2 presents the relationship of average delay to level of service.

Table 2 Intersection Level of Service Definitions

Signalized Intersection			Unsignalized Intersection
Average Delay Per Vehicle (Seconds)	**LOS**	**Description of Traffic Conditions**	**Average Delay Per Vehicle (Seconds)**
≤10.0	A	Free flowing. Most vehicles do not have to stop.	≤10.0
>10.0 and ≤20.0	B	Minimal delays. Some vehicles have to stop, although waits are not bothersome.	>10.0 and ≤15.0
>20.0 and ≤35.0	C	Acceptable delays. Significant numbers of vehicles have to stop because of steady, high traffic volumes. Still, many pass without stopping.	>15.0 and ≤25.0
>35.0 and ≤55.0	D	Tolerable delays. Many vehicles have to stop. Drivers are aware of heavier traffic. Cars may have to wait through more than one red light. Queues begin to form, often on more than one approach.	>25.0 and ≤35.0
>55.0 and ≤80.0	E	Significant delays. Cars may have to wait through more than one red light. Long queues form, sometimes on several approaches.	>35.0 and ≤50.0
≤80.0	F	Excessive delays. Intersection is jammed. Many cars have to wait through more than one red light, or more than 60 seconds. Traffic may back up into “up-stream” intersections.	>50.0

Source: Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000.

The existing operations at the study intersections are shown in Table 3. The results indicate that all study intersections are operating at LOS D or better for all peak hours.

Queue lengths at signalized intersections were evaluated using Synchro software, version 9.0. Appendix C includes the 95th percentile queue worksheets. Tables C1 and C2 display the 95th percentile queue lengths for the nine signalized study intersections under Existing conditions during both the AM and PM peak hour.

Appendix D includes the Existing conditions level-of-service Synchro worksheets.

Table 3 Existing Conditions Intersection Operations

No.	Location	Control	Peak Hour	LOS Standard	Existing		
					V/C	Delay	LOS
1	Thornton Ave & Fremont Blvd	Signal	AM	E	0.74	41.2	D
			PM		0.77	37.2	D
2	Thornton Ave & Oak St	TWSC	AM	E	0.62	27.9	D
			PM		0.50	26.5	D
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Signal	AM	E	0.63	45.1	D
			PM		0.67	19.3	B
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Signal	AM	E	0.88	38.3	D
			PM		0.56	14.1	B
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Signal	AM	E	0.76	23.8	C
			PM		0.57	13.8	B
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Signal	AM	E	0.89	42.9	D
			PM		0.73	18.1	B
7	Thornton Ave & I-880 NB Off-Ramp	Signal	AM	E	0.56	13.7	B
			PM		0.67	26.7	C
8	Thornton Ave & I-880 SB Off-Ramp	Signal	AM	E	0.56	7.2	A
			PM		0.56	7.9	A
9	Alder Ave & Fremont Blvd	Signal	AM	D	0.83	38.3	D
			PM		0.43	24.5	C
10	Peralta Blvd & Fremont Blvd	Signal	AM	E	0.61	29.0	C
			PM		0.65	27.1	C
11	Thornton Ave & North Dwy	TWSC	AM	E	0.56	16.3	C
			PM		0.39	11.0	B
13	Thornton Ave & South Dwy	TWSC	AM	E	0.50	9.5	A
			PM		0.39	9.8	A

TWSC: Two-Way Stop Control (or Side-Street Stop Control)

Average delay in seconds is presented for signalized and all-way stop control intersections. Worst approach average delay shown for side-street stop control intersections. Definitions of “Delay,” “LOS” and “V/C” are provided in Table 2.

Source: Kittelson & Associates, 2019

TRANSPORTATION IMPACT ANALYSIS

The transportation impact analysis identifies how the study area's transportation system will operate when middle school classes are provided and overall student enrollment increases. The effects of traffic that would be generated by the Project during the typical weekday AM and PM peak hours were examined as follows:

- Site-generated trips were estimated for growing enrollment by 917 middle school students.
- Distribution of new trips were developed based on the school catchment zone and existing traffic patterns.
- Existing (2019) with Project conditions consist of existing traffic volumes and distribution of new trips associated with growing enrollment by 917 middle school students during the two peak hours.
- Near-Term (2022) conditions were developed by applying a one percent per year growth to existing traffic volumes and adding trips generated from approved developments to account for regional growth in the site vicinity during the two peak hours.
- Near-Term (2022) with Project conditions account for traffic growth and distribution of new trips associated with growing enrollment by 917 middle school students during the two peak hours.
- Cumulative (2040) conditions were developed based on the City of Fremont traffic model to existing conditions to account for regional growth in the site vicinity during the two peak hours.
- Cumulative (2040) with Project conditions account for traffic growth and distribution of new trips associated with growing enrollment by 917 middle school students during the two peak hours.
- Site access and circulation associated with student drop off/pick up with the Project were analyzed.

THRESHOLDS OF SIGNIFICANCE

Transportation impact criteria for this analysis were guided by impact criteria used by the City of Fremont for developments within the city.

Signalized Intersections

The City of Fremont General Plan provides the following level of service (LOS) standards for signalized intersections:

> *For locations outside of the City Center, Town Centers, and Warm Springs / South Fremont BART Station area (as depicted on the Future Land Use Map), peak hour levels of service for signalized intersections should generally be maintained at Level of Service (LOS) "D" for minor arterials and collector streets, and LOS "E" for regional (CMA network) arterials. The design and construction of new signalized intersections and roadways in areas outside the City Center, Town Centers, and Warm Springs BART Station area should achieve a target operational capacity of midpoint LOS D or better upon completion.*

Per the Alameda CTC 2017 Congestion Management Program (CMP), the designated regional network within the site vicinity include the following segments:

- SR-84 (Thornton Avenue) between I-880 and Fremont Boulevard
- SR-84 (Fremont Boulevard) between SR-84 (Thornton Avenue) and SR-84 (Peralta Boulevard)
- SR-84 (Peralta Boulevard) between SR-84 (Fremont Boulevard) and SR-84 (Mowry Avenue)

Unsignalized Intersections

The City of Fremont does not have or apply significance thresholds to unsignalized intersections. For the purpose of this analysis, for two-way-stop-controlled intersections, the worst approach shall maintain LOS E or better.

MTS Freeway and Arterial Segments

For CEQA purposes, a roadway segment is considered to operate at an acceptable level if the segment operates at the level of service standard identified for that segment by the County Congestion Management Agency. According to the Alameda County Transportation Commission (ACTC) 2011 Congestion Management Program (CMP), the ACTC has not adopted any policy for determining thresholds of significant for LOS the land Use Analysis Program of the CMP; therefore, for purposes of this analysis, the LOS standard for Metropolitan Transportation (MTC) roadways, which include the CMP roadway network, has been set as any impact that:

- Results in any roadway segment currently meeting its CMP LOS E standard to degrade to LOS F, or,
- Results in more than a five (5) percent increase in the volume to capacity (V/C) ratio for any roadway segment already exceeding its CMP LOS standard, or if already LOS F, under Cumulative No Project conditions.

PROJECT ANALYSIS

The Project includes new building construction, reconfiguration and modernization of existing buildings, and new parking and vehicular circulation areas within the existing footprint of the Thornton Junior High School campus. The site improvements will accommodate a 73 percent increase in student capacity, from 1,259 students to 2,176 students, to support the conversion from the current 7th and 8th grade junior high school to a middle school with 6th, 7th, and 8th grades.

The number of trips estimated to be generated by the Project as well as how these trips would be distributed (for the additional 917 middle school students) onto the transportation network are discussed in this section.

Trip Generation

Trip generation of the Project was developed both by applying ITE Trip Generation trip estimates and using traffic data collected on March 7, 2019 at the school driveways, along Thornton Avenue. Based on site observations, drop-off/pick-up activity occurs at the site driveways along Thornton Avenue, as well as waiting along Thornton Avenue and surrounding streets, particularly Oak Avenue and Coronado Drive. As such, since driveways counts may be an artificially low estimate, a comparison to the ITE Trip Generation rates was completed. The weekday AM peak hour applies the ITE Trip Generation rates and the weekday PM peak hour applies observed trip generation based on the school peak during the PM peak period.

As summarized in Table 4**Error! Not a valid bookmark self-reference.**, the existing school generates 730 AM peak hour trips, 149 PM peak hour trips, and 2,682 daily trips. The Project would generate an additional 532 AM peak hour trips, 109 PM peak hour trips, and 1,953 daily trips.

Table 4 Project Trip Generation

Land Use	ITE Code	Size	Daily Trips	Weekday AM Peak[1]			Weekday PM Peak[2]		
				In	Out	Total	In	Out	Total
Existing Site									
Middle School/Junior High School	522	1,259	2,682	394	336	730	48	101	149
			2.13	54%	46%	0.58	32%	68%	0.12
Proposed Project									
Middle School/Junior High School	522	2,176	4,635	682	581	1,262	83	175	258
Net New Project Trips			**1,953**	**287**	**245**	**532**	**35**	**74**	**109**

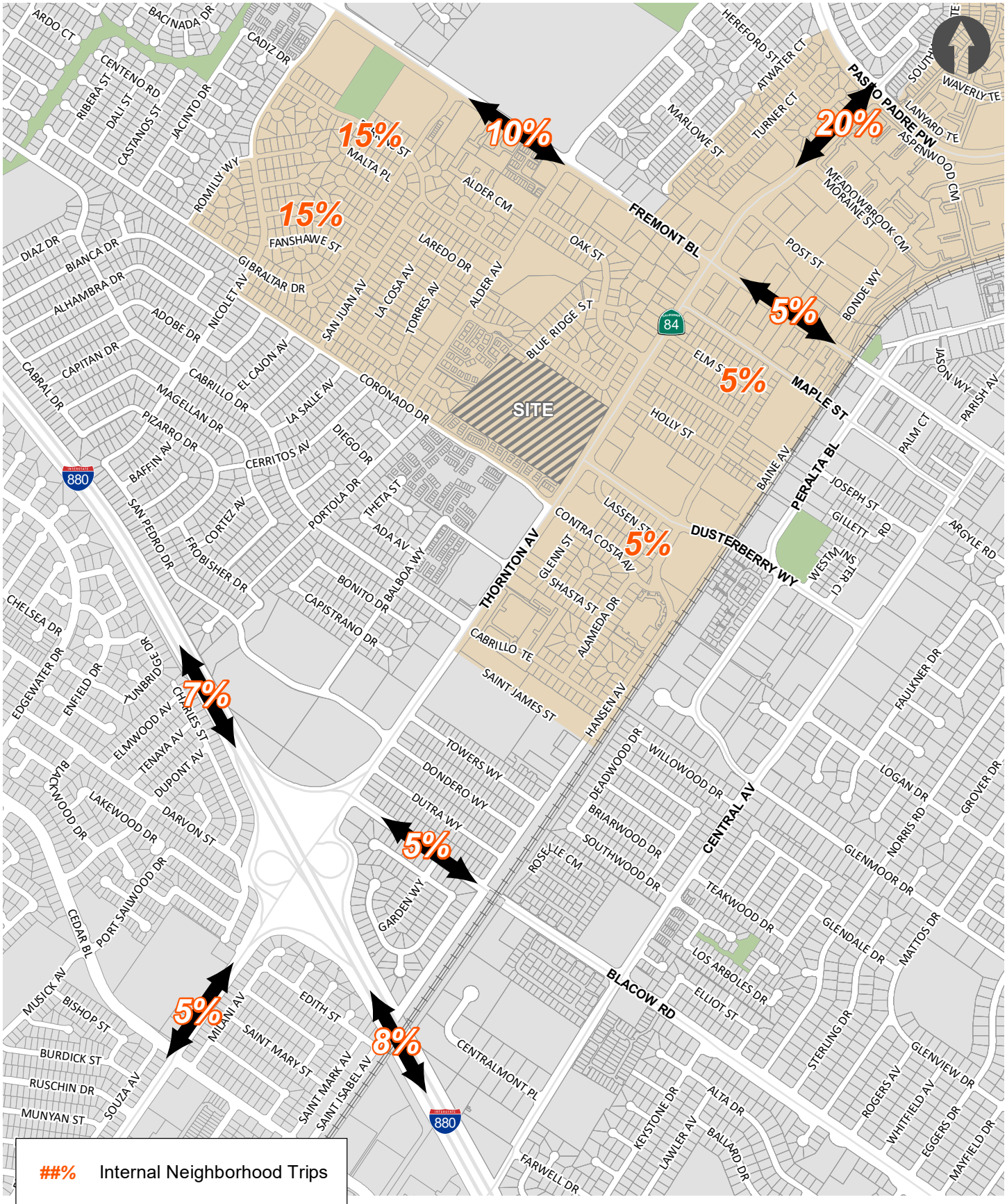
[1] Based on ITE Trip Generation rates of adjacent street traffic

[2] Based on observed/collected trip generation for generator peak during the 4:00-6:00PM peak. Observed generator peak is 4:00-5:00PM

Source: Kittelson & Associates, 2019

Trip Distribution

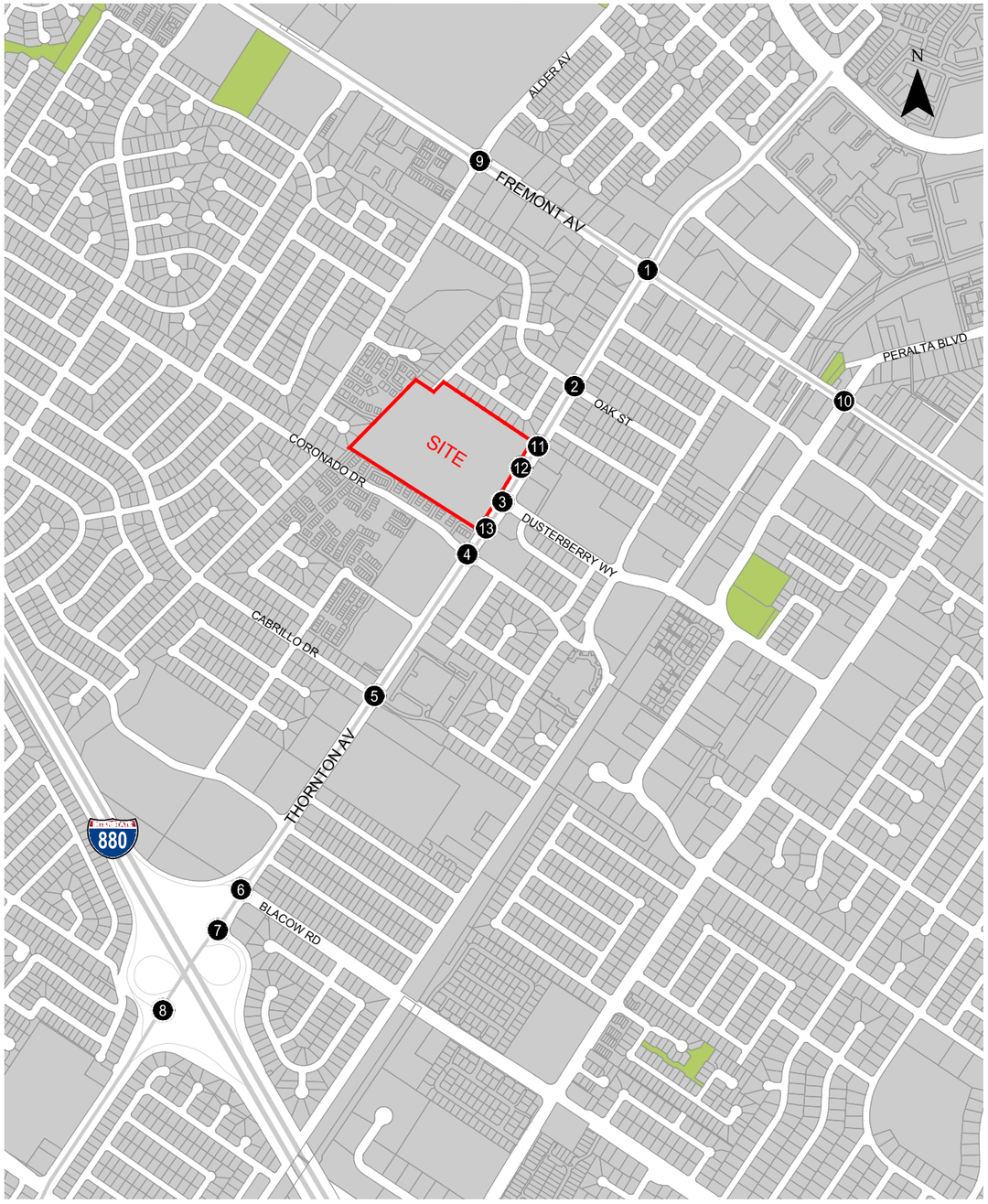
The distribution of Project trips was developed based on a select zone analysis using the Alameda CTC Countywide travel demand model, and by applying the FUSD attendance boundaries. The distribution from the model was adjusted to match travel patterns from/to Project driveway locations and the existing FUSD attendance boundaries. The trip distribution assumptions were confirmed with City of Fremont staff. The overall distribution percentages and volumes of Project trips are presented in Figure 6 and Figure 7.

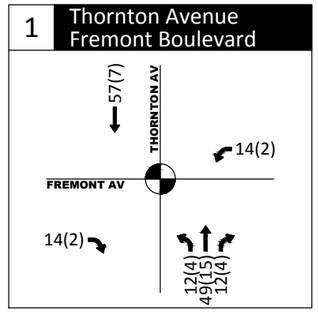


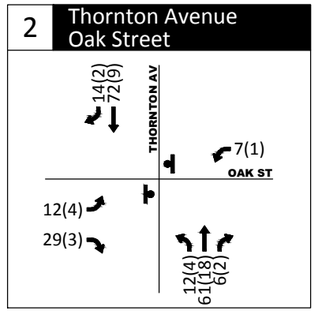
Project Trip Distribution
Fremont, California

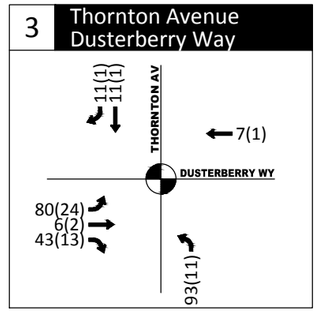
Figure **8**

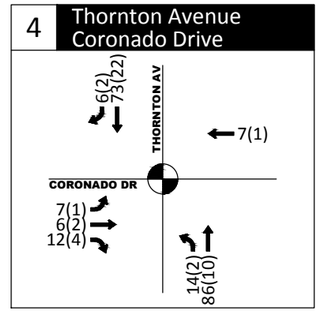
KITTELSON & ASSOCIATES

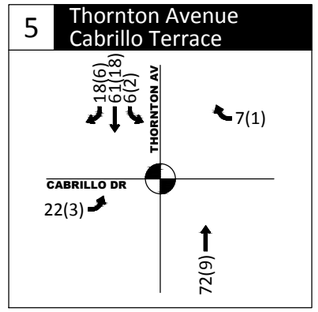


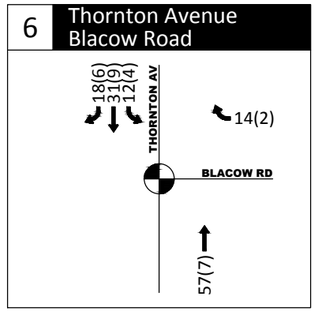


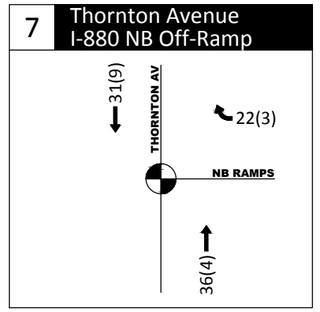


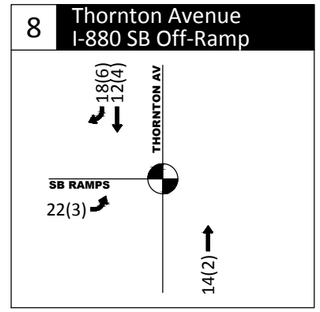


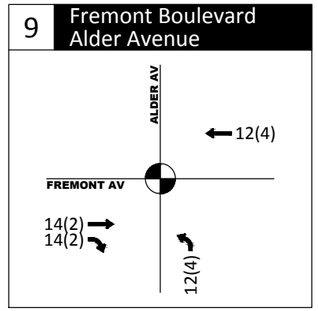


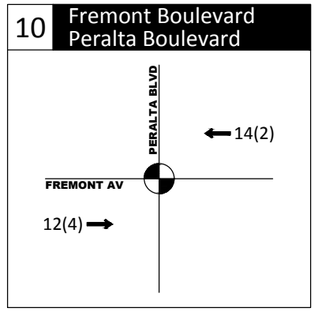


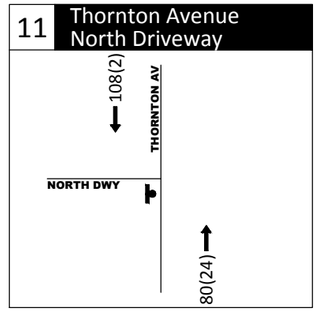


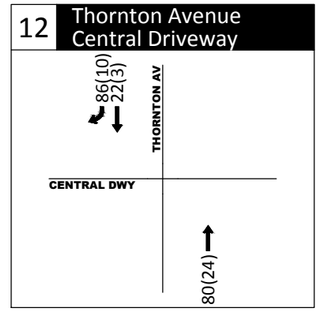


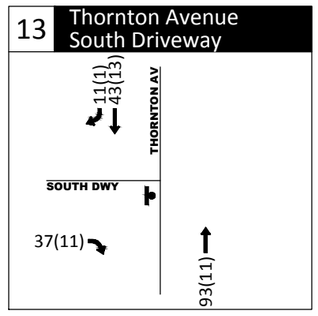












AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

Project Trips
AM & PM Peak Hours
Fremont, California

Figure
7

KITTELSON & ASSOCIATES

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EXISTING PLUS PROJECT CONDITIONS

The potential effects of the Project on Existing operations at the study intersections are discussed in this section. Other impacts, such as those associated with pedestrian and bicycle facilities, site access and circulation, and safety are discussed in the Additional Transportation Needs Assessments section.

Intersection Operations

Traffic volumes for Existing plus Project conditions were developed using an additive approach. Estimated vehicle trips generated by the Project were added to existing volumes on the roadway network to develop the volumes for the Existing plus Project conditions. Existing plus Project turning movement volumes are shown in Figure 8.

As shown in Table 5, all study intersections with the exception of the Thornton Avenue/Oak Street intersection during the AM peak operate at acceptable LOS under Existing plus Project conditions. Appendix E includes the Existing plus Project Synchro LOS worksheets.

Table 5 Existing plus Project Intersection Operations

No.	Location	Control	Peak Hour	LOS Standard	Existing + Project		
					V/C	Delay	LOS
1	Thornton Ave & Fremont Blvd	Signal	AM	E	0.77	42.2	D
			PM		0.78	37.5	D
2	Thornton Ave & Oak St	TWSC	AM	E	**0.87**	**99.4**	**F**
			PM		0.50	28.7	D
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Signal	AM	E	0.69	53.2	D
			PM		0.68	23.9	C
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Signal	AM	E	0.96	53.2	D
			PM		0.57	14.3	B
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Signal	AM	E	0.81	25.5	C
			PM		0.58	13.9	B
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Signal	AM	E	0.92	46.4	D
			PM		0.74	18.2	B
7	Thornton Ave & I-880 NB Off-Ramp	Signal	AM	E	0.57	14.0	B
			PM		0.67	26.9	C
8	Thornton Ave & I-880 SB Off-Ramp	Signal	AM	E	0.58	7.5	A
			PM		0.56	7.9	A
9	Alder Ave & Fremont Blvd	Signal	AM	D	0.86	40.1	D
			PM		0.43	24.6	C
10	Peralta Blvd & Fremont Blvd	Signal	AM	E	0.62	28.6	C
			PM		0.65	27.1	C
11	Thornton Ave & North Dwy	TWSC	AM	E	0.61	17.5	C
			PM		0.40	11.0	B
13	Thornton Ave & South Dwy	TWSC	AM	E	0.52	9.9	A
			PM		0.39	9.6	A

Synchro Version 9, HCM 2000 methodology

TWSC: Two-Way Stop Control (or Side-Street Stop Control)

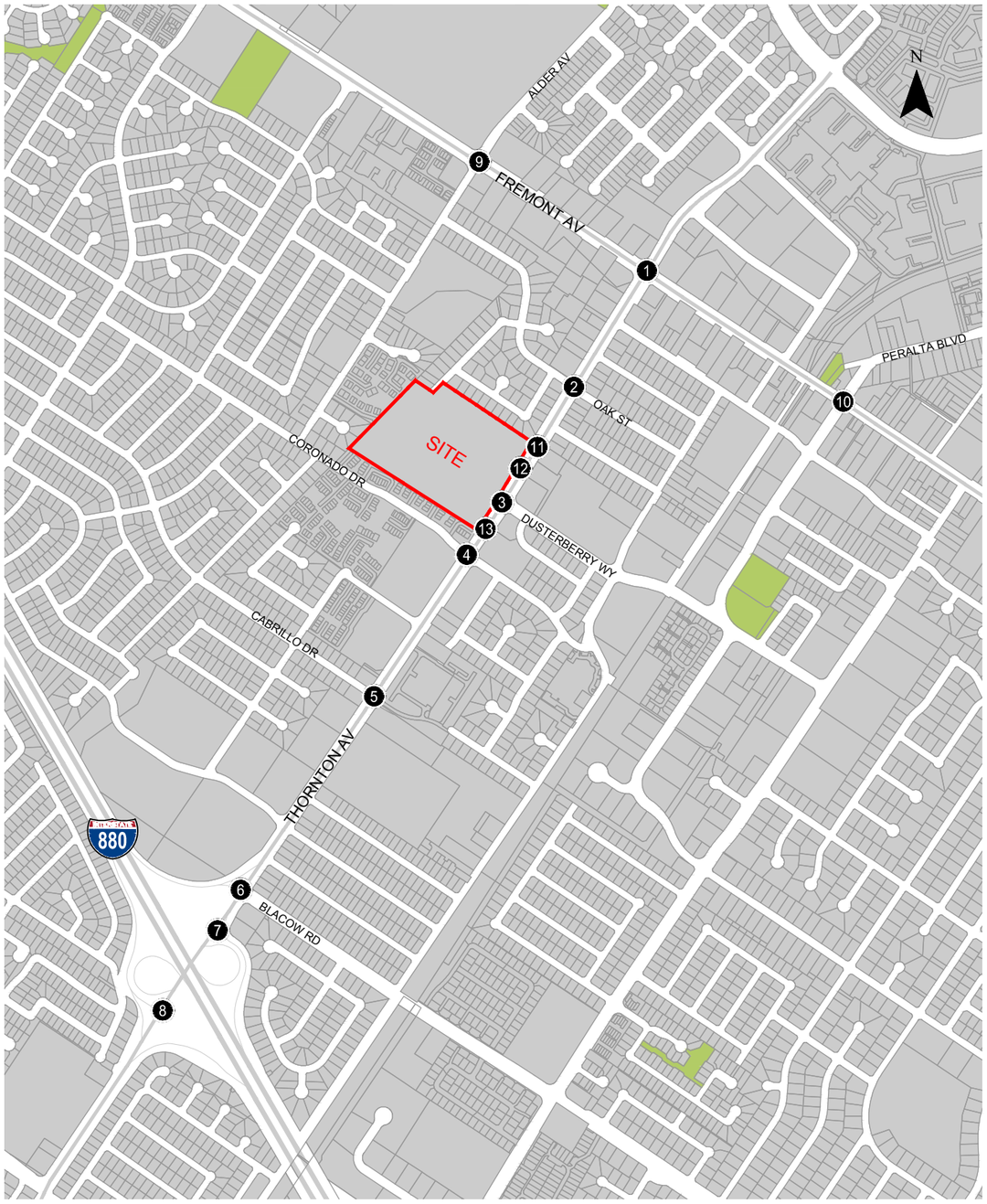
Average delay in seconds is presented for signalized and all-way stop control intersections. Worst approach average delay shown for side-street stop control intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

Source: Kittelson & Associates, 2019

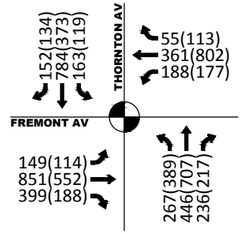
Signalized Intersection Queues

Queue lengths at signalized intersections were evaluated using Synchro software, version 9.0. Tables C1 and C2 display the 95th percentile queue lengths for the nine signalized study intersections under Existing plus Project conditions during both the AM and PM peak hour. At the following locations, turn movement queues exceed available storage, or through movement queues extend past upstream intersections as a result of the Project:

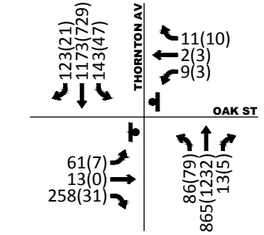
- Thornton Avenue/Dusterberry Way (#3) northbound left queue exceeds available storage during the AM peak hour.



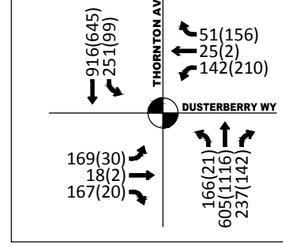
1 Thornton Avenue / Fremont Boulevard



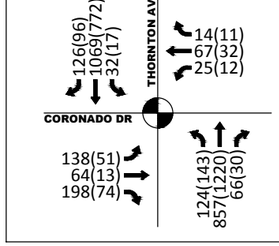
2 Thornton Avenue / Oak Street



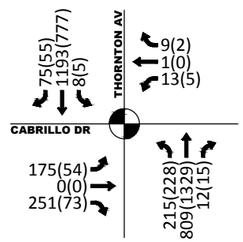
3 Thornton Avenue / Dusterberry Way



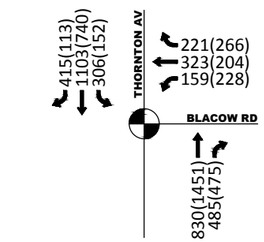
4 Thornton Avenue / Coronado Drive



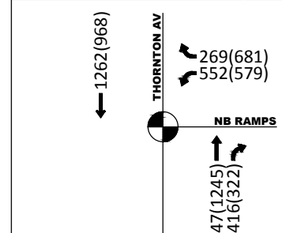
5 Thornton Avenue / Cabrillo Terrace



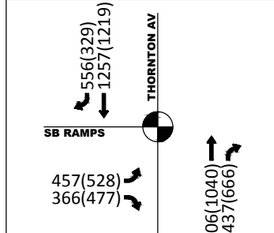
6 Thornton Avenue / Blacow Road



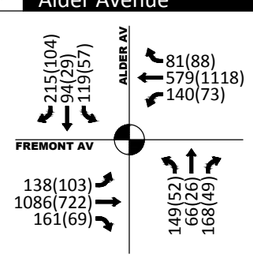
7 Thornton Avenue / I-880 NB Off-Ramp



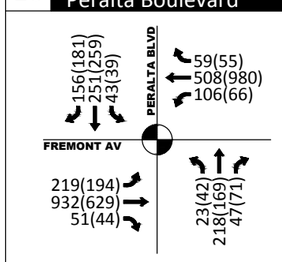
8 Thornton Avenue / I-880 SB Off-Ramp



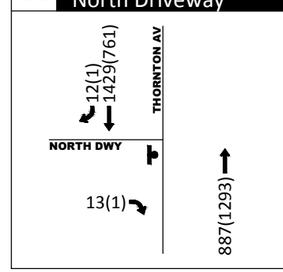
9 Fremont Boulevard / Alder Avenue



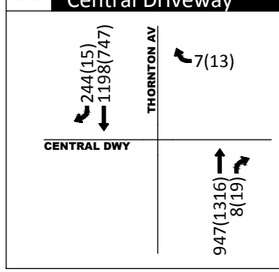
10 Fremont Boulevard / Peralta Boulevard



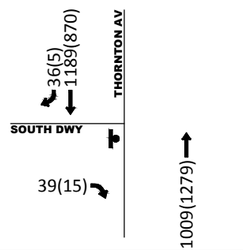
11 Thornton Avenue / North Driveway



12 Thornton Avenue / Central Driveway



13 Thornton Avenue / South Driveway



AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

Existing plus Project Traffic Volumes
AM & PM Peak Hours
Fremont, California

Figure
8

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NEAR-TERM CONDITIONS

Near-term (2022) conditions and the potential effects of the Project on Near-Term intersection operations are discussed in this section. Other impacts, such as those associated with pedestrian and bicycle facilities, site access and circulation, and safety are discussed in the Additional Transportation Needs Assessments section.

Near-Term No Project Conditions

Background traffic growth was developed based on discussions with the City of Fremont. A one percent annual growth rate was applied to existing traffic volumes consistent with opening year of the Project. In addition to applying a growth rate, the City of Fremont provided the development potential of six approved developments as background projects, as follows:

- **3900 Thornton Avenue** includes 54 multi-family condominiums and 7,124 square feet of commercial space.
- **Centerville Junction** includes 11 single-family residential homes and 52 multi-family townhomes.
- **Central Commons** includes 30 multi-family condominiums.
- **Montecito Townhomes and Apartments** includes 54 multi-family townhomes and 76 multi-family condominiums.
- **Peralta Crossing** includes 43 multi-family townhomes.
- **Silicon Sage Mixed Use** includes 72 multi-family townhomes, 64 multi-family condominiums, and 15,000 square feet of net-new commercial space.

Near-term volumes were generated, distributed and assigned to the study intersections as shown in Figure 9. As shown in Table 6, with the addition of background traffic growth and approved developments within the site vicinity, all study intersections would continue to operate at acceptable LOS under Near-Term conditions. Queue lengths at signalized intersections were evaluated using Synchro software, version 9.0. Tables C3 and C4 display the 95th percentile queue lengths for the nine signalized study intersections under Near-Term conditions during both the AM and PM peak hour.

Appendix F includes the Near-Term Synchro LOS worksheets.

Table 6 Near-Term No Project Intersection Operations

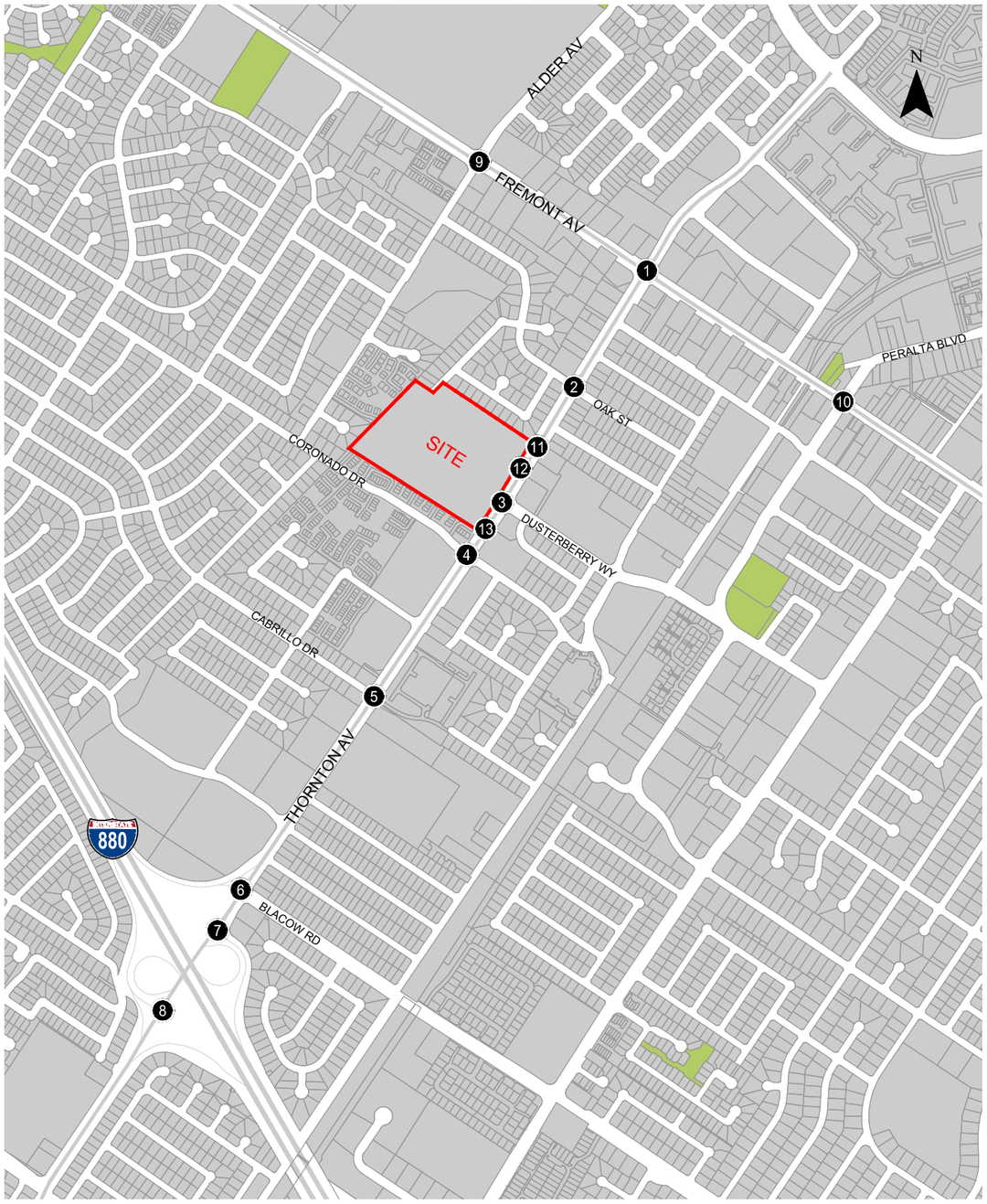
No.	Location	Control	Peak Hour	LOS Standard	Near-Term		
					V/C	Delay	LOS
1	Thornton Ave & Fremont Blvd	Signal	AM	E	0.77	39.5	D
			PM		0.80	38.5	D
2	Thornton Ave & Oak St	TWSC	AM	E	0.70	31.9	D
			PM		0.51	28.5	D
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Signal	AM	E	0.65	54.0	D
			PM		0.70	20.2	C
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Signal	AM	E	0.91	38.9	D
			PM		0.58	14.4	B
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Signal	AM	E	0.78	24.7	C
			PM		0.58	14.6	B
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Signal	AM	E	0.83	20.5	C
			PM		0.75	20.0	B
7	Thornton Ave & I-880 NB Off-Ramp	Signal	AM	E	0.58	14.3	B
			PM		0.72	28.4	C
8	Thornton Ave & I-880 SB Off-Ramp	Signal	AM	E	0.58	7.0	A
			PM		0.57	8.4	A
9	Alder Ave & Fremont Blvd	Signal	AM	D	0.87	40.4	D
			PM		0.44	24.3	C
10	Peralta Blvd & Fremont Blvd	Signal	AM	E	0.65	28.1	C
			PM		0.67	28.1	C
11	Thornton Ave & North Dwy	TWSC	AM	E	0.58	16.8	C
			PM		0.40	11.1	B
13	Thornton Ave & South Dwy	TWSC	AM	E	0.52	9.6	A
			PM		0.40	9.8	A

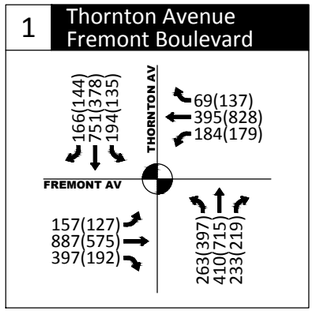
Synchro Version 9, HCM 2000 methodology

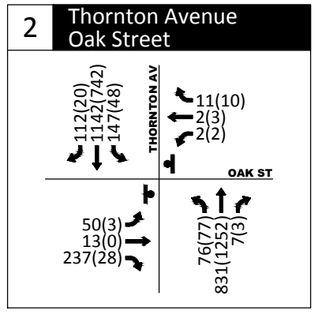
TWSC: Two-Way Stop Control (or Side-Street Stop Control)

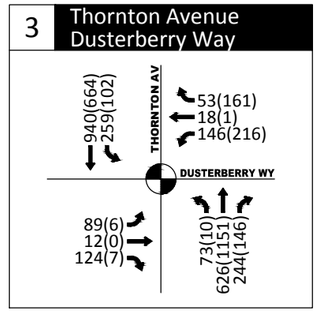
Average delay in seconds is presented for signalized and all-way stop control intersections. Worst approach average delay shown for side-street stop control intersections. Definitions of “Delay,” “LOS” and “V/C” are provided in Table 2.

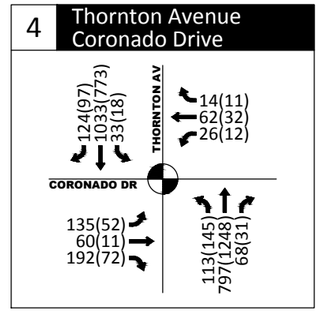
Source: Kittelson & Associates, 2019

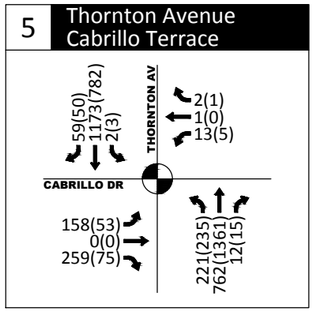


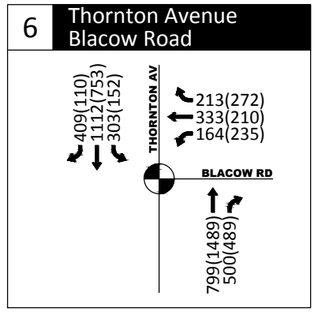


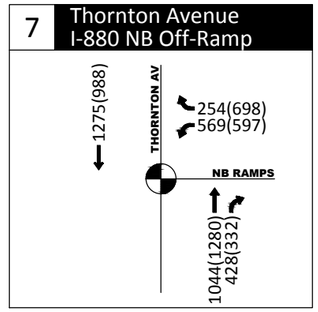


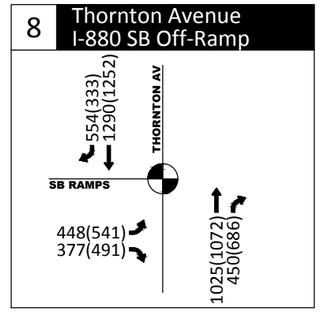


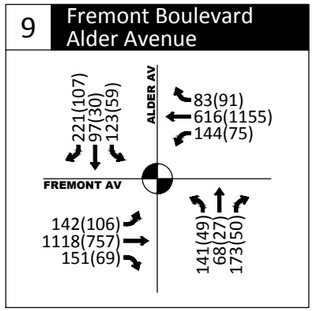


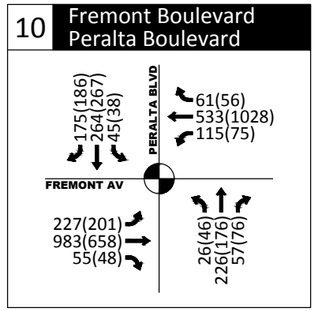


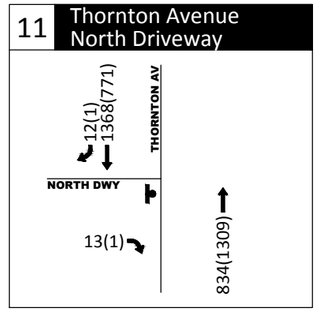


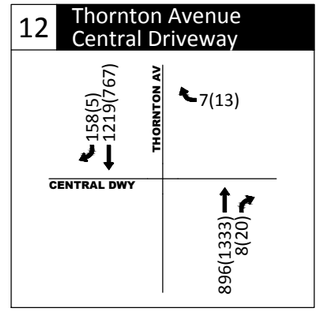


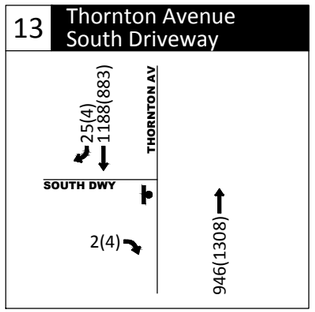












AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

Near-Term Traffic Volumes
AM & PM Peak Hours
Fremont, California

Figure
9

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Near-Term Plus Project Conditions

Near-Term plus Project volumes were developed by adding Project trips to the Near-Term volumes. Near-Term plus Project volumes are shown in Figure 10. As shown in Table 7, similar to Existing plus Project conditions, all study intersections with the exception of the Thornton Avenue/Oak Street intersection during the AM peak operate at acceptable LOS under Near-Term plus Project conditions.

Appendix G includes the Near-Term Synchro LOS worksheets.

Table 7 Near-Term Plus Project Intersection Operations

No.	Location	Control	Peak Hour	LOS Standard	Near-Term + Project		
					V/C	Delay	LOS
1	Thornton Ave & Fremont Blvd	Signal	AM	E	0.80	40.4	D
			PM		0.80	38.7	D
2	Thornton Ave & Oak St	TWSC	AM	E	**1.01**	**297.0**	**F**
			PM		0.52	30.8	D
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Signal	AM	E	0.74	58.6	E
			PM		0.70	25.7	C
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Signal	AM	E	0.98	51.2	D
			PM		0.59	14.6	B
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Signal	AM	E	0.83	26.8	C
			PM		0.58	14.7	B
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Signal	AM	E	0.84	22.3	C
			PM		0.76	20.2	C
7	Thornton Ave & I-880 NB Off-Ramp	Signal	AM	E	0.59	14.7	B
			PM		0.72	28.5	C
8	Thornton Ave & I-880 SB Off-Ramp	Signal	AM	E	0.60	7.2	A
			PM		0.58	8.5	A
9	Alder Ave & Fremont Blvd	Signal	AM	D	0.89	42.2	D
			PM		0.44	24.4	C
10	Peralta Blvd & Fremont Blvd	Signal	AM	E	0.66	27.9	C
			PM		0.67	28.1	C
11	Thornton Ave & North Dwy	TWSC	AM	E	0.63	18.0	C
			PM		0.41	11.1	B
13	Thornton Ave & South Dwy	TWSC	AM	E	0.54	10.0	B
			PM		0.40	9.6	A

Synchro Version 9, HCM 2000 methodology

TWSC: Two-Way Stop Control (or Side-Street Stop Control)

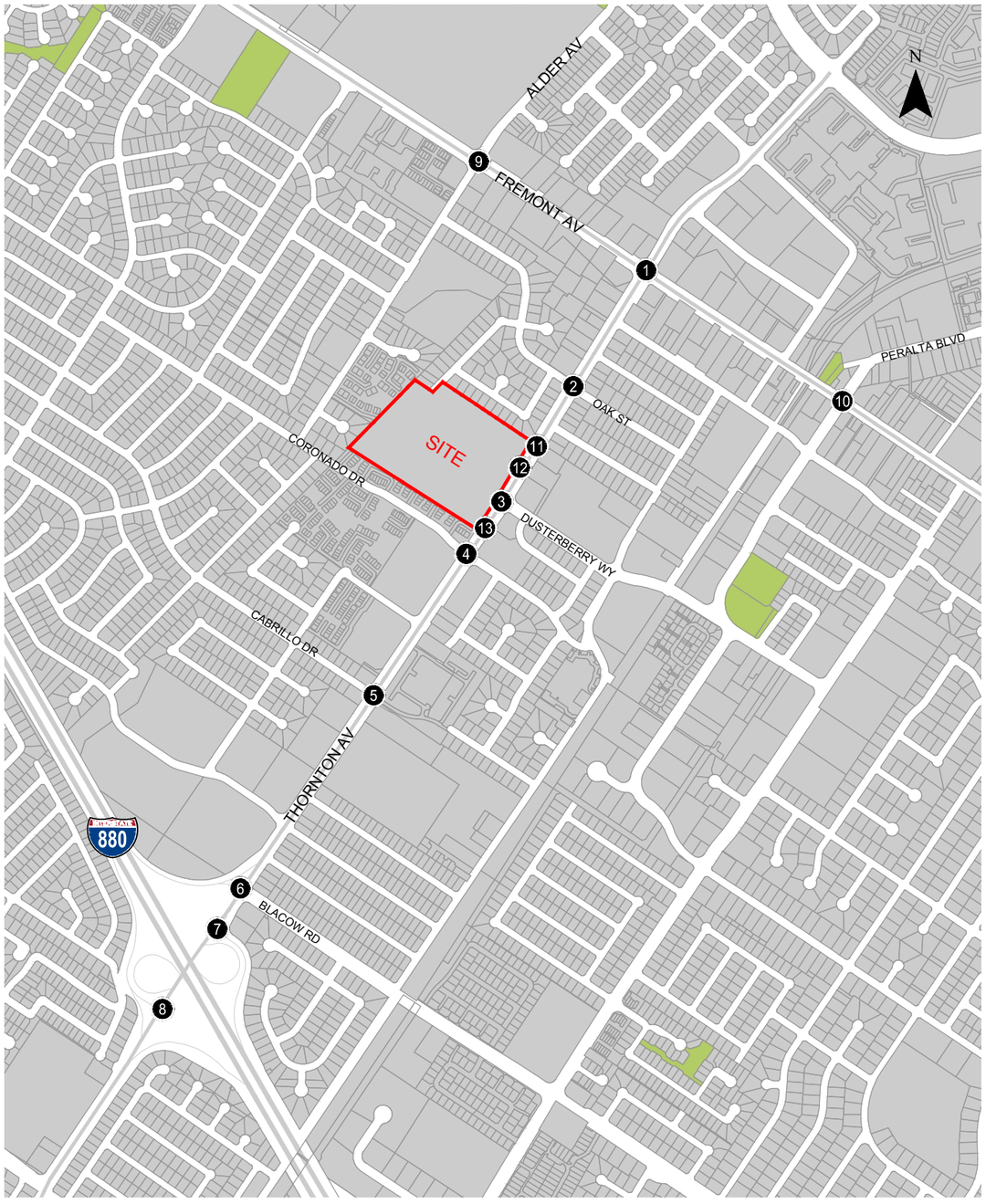
Average delay in seconds is presented for signalized and all-way stop control intersections. Worst approach average delay shown for side-street stop control intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

Source: Kittelson & Associates, 2019

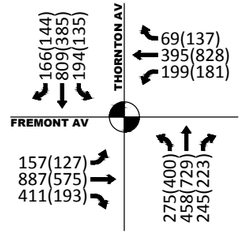
Signalized Intersection Queues

Queue lengths at signalized intersections were evaluated using Synchro software, version 9.0. Tables C3 and C4 display the 95th percentile queue lengths for the nine signalized study intersections under Near-Term plus Project conditions during both the AM and PM peak hour. At the following locations, turn movement queues exceed available storage, or through movement queues extend past upstream intersections as a result of the Project:

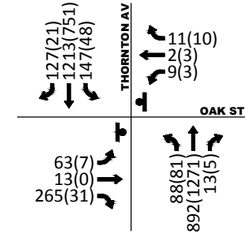
- Thornton Avenue/Dusterberry Way (#3) northbound left queue exceeds available storage during the AM peak hour.



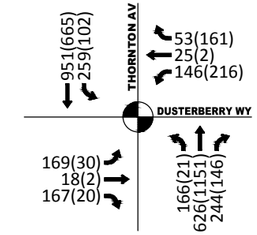
1 Thornton Avenue / Fremont Boulevard



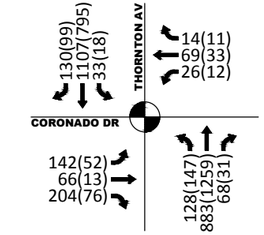
2 Thornton Avenue / Oak Street



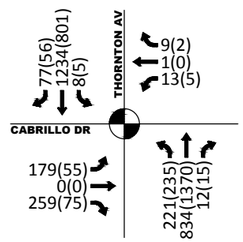
3 Thornton Avenue / Dusterberry Way



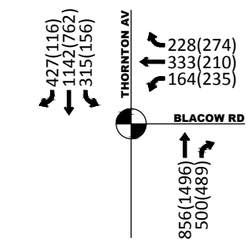
4 Thornton Avenue / Coronado Drive



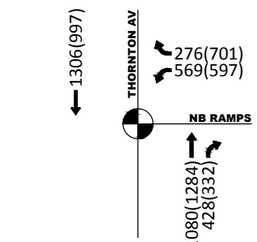
5 Thornton Avenue / Cabrillo Terrace



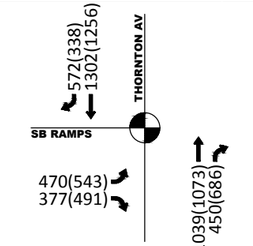
6 Thornton Avenue / Blacow Road



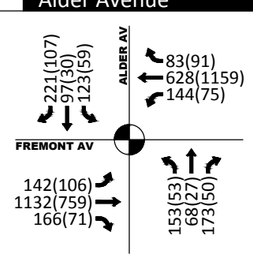
7 Thornton Avenue / I-880 NB Off-Ramp



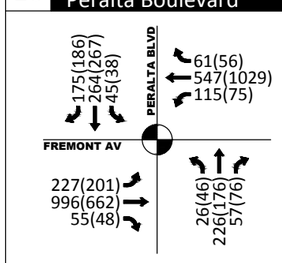
8 Thornton Avenue / I-880 SB Off-Ramp



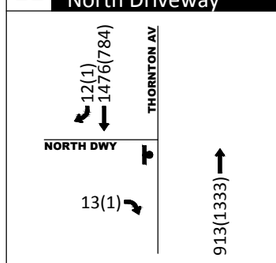
9 Fremont Boulevard / Alder Avenue



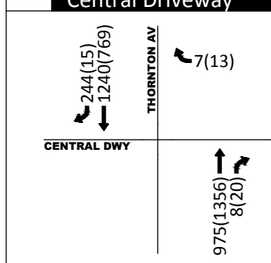
10 Fremont Boulevard / Peralta Boulevard



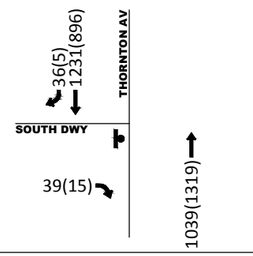
11 Thornton Avenue / North Driveway



12 Thornton Avenue / Central Driveway



13 Thornton Avenue / South Driveway



AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

Near-Term Plus Project Traffic Volumes
AM & PM Peak Hours
Fremont, California

Figure
10

H:\23\23355 - fremont thornton middle school is_mnd\report\Figs\23355 Figure 001.dwg May 10, 2019 - 8:41am - bcullimore Layout Tab: Near-Term+Proj Vol 11x17

CUMULATIVE CONDITIONS

Cumulative (2040) conditions and the potential effects of the Project on Cumulative intersection operations are discussed in this section. Other impacts, such as those associated with pedestrian and bicycle facilities, site access and circulation, and safety are discussed in the Additional Transportation Needs Assessments section.

Cumulative No Project Conditions

Cumulative traffic growth was developed using the City of Fremont 2035 General Plan traffic volumes. The model assumes future development throughout the city consistent with regional totals projected by the Association of Bay Area Governments (ABAG). Year 2035 in the model was used to develop a growth increment. That growth increment was extrapolated to 2040.

In addition to assuming regional growth, the Cumulative conditions also includes the proposed expansion of the Centerville Junior High School (located at Fremont Boulevard and Central Avenue), which is expected to increase enrollment by 1,491 students.

Cumulative volumes are shown in Figure 11. As shown in Table 8, all study intersections, with the exception of the Thornton Avenue/Oak Street intersection, during both the AM and PM peak operate at acceptable LOS under Cumulative conditions.

Appendix H includes the Near-Term Synchro LOS worksheets.

Queue lengths at signalized intersections were evaluated using Synchro software, version 9.0. Tables C5 and C6 display the 95th percentile queue lengths for the nine signalized study intersections under Cumulative conditions during both the AM and PM peak hour.

Table 8 Cumulative Intersection Operations

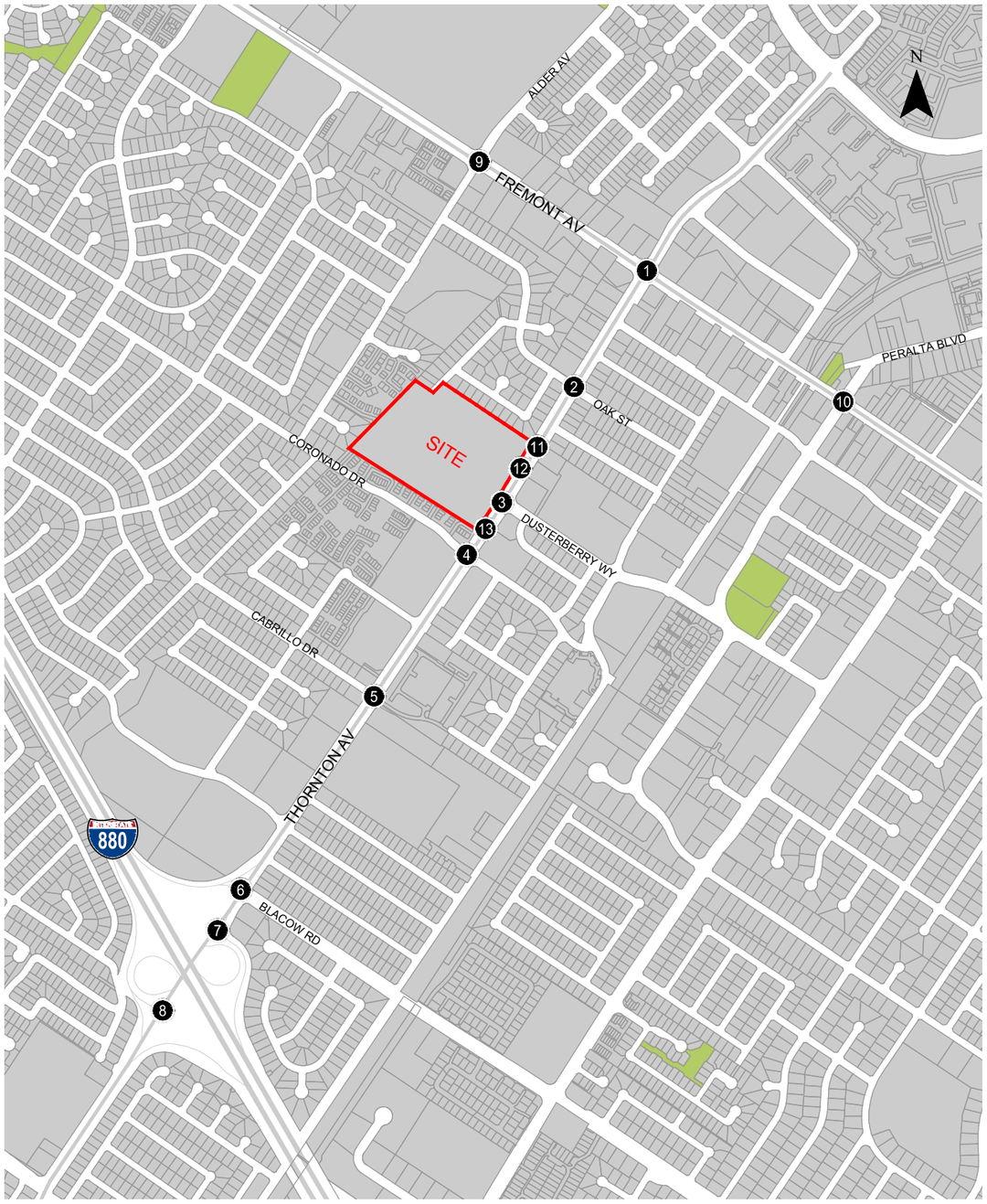
No.	Location	Control	Peak Hour	LOS Standard	Cumulative		
					V/C	Delay	LOS
1	Thornton Ave & Fremont Blvd	Signal	AM	E	0.92	46.2	D
			PM		0.98	51.6	D
2	Thornton Ave & Oak St	TWSC	AM	E	**1.53**	**166.4**	**F**
			PM		**0.64**	**82.2**	**F**
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Signal	AM	E	0.74	77.2	E
			PM		0.86	51.4	D
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Signal	AM	E	1.00	53.5	D
			PM		0.73	16.9	B
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Signal	AM	E	0.84	29.5	C
			PM		0.68	17.8	B
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Signal	AM	E	0.92	30.3	C
			PM		0.95	29.0	C
7	Thornton Ave & I-880 NB Off-Ramp	Signal	AM	E	0.66	16.0	B
			PM		0.92	33.2	C
8	Thornton Ave & I-880 SB Off-Ramp	Signal	AM	E	0.69	7.8	A
			PM		0.72	9.3	A
9	Alder Ave & Fremont Blvd	Signal	AM	D	0.96	48.2	D
			PM		0.56	27.4	C
10	Peralta Blvd & Fremont Blvd	Signal	AM	E	0.76	30.3	C
			PM		0.81	32.2	C
11	Thornton Ave & North Dwy	TWSC	AM	E	0.68	19.8	C
			PM		0.51	12.1	B
13	Thornton Ave & South Dwy	TWSC	AM	E	0.59	10.0	B
			PM		0.51	10.3	B

Synchro Version 9, HCM 2000 methodology

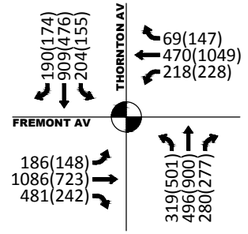
TWSC: Two-Way Stop Control (or Side-Street Stop Control)

Average delay in seconds is presented for signalized and all-way stop control intersections. Worst approach average delay shown for side-street stop control intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

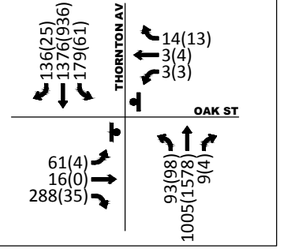
Source: Kittelson & Associates, 2019



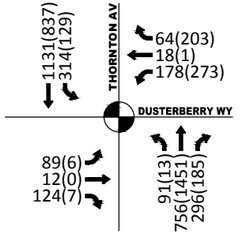
1 Thornton Avenue / Fremont Boulevard



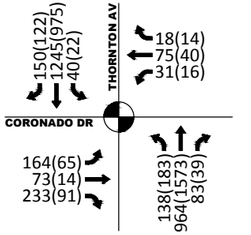
2 Thornton Avenue / Oak Street



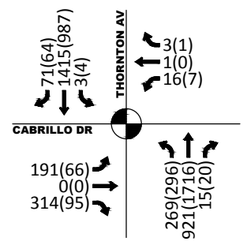
3 Thornton Avenue / Dusterberry Way



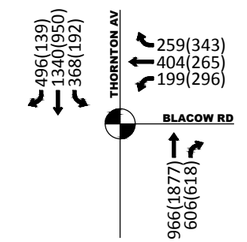
4 Thornton Avenue / Coronado Drive



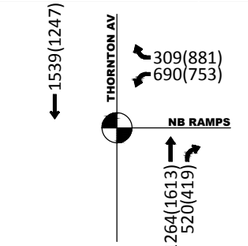
5 Thornton Avenue / Cabrillo Terrace



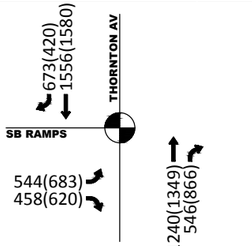
6 Thornton Avenue / Blacow Road



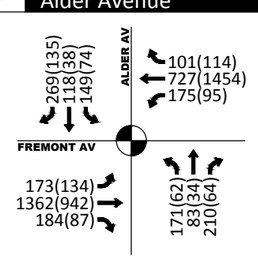
7 Thornton Avenue / I-880 NB Off-Ramp



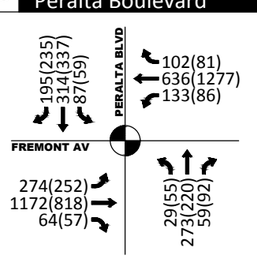
8 Thornton Avenue / I-880 SB Off-Ramp



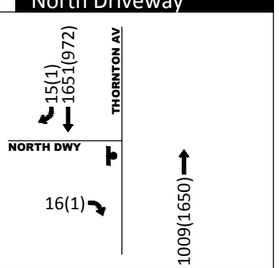
9 Fremont Boulevard / Alder Avenue



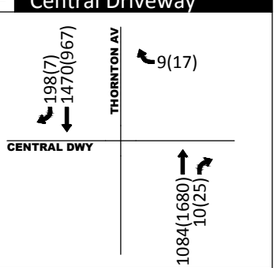
10 Fremont Boulevard / Peralta Boulevard



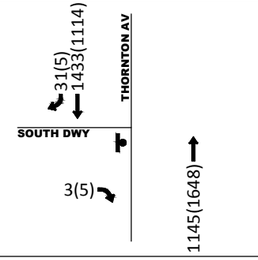
11 Thornton Avenue / North Driveway



12 Thornton Avenue / Central Driveway



13 Thornton Avenue / South Driveway



AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Traffic Volumes
AM & PM Peak Hours
Fremont, California

Figure
11

Layout Tab: Cumul Traf Vol 11x17
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KITTELSON & ASSOCIATES

Cumulative Plus Project Conditions

Cumulative plus Project conditions were developed by adding Project trips to the Cumulative volumes. Cumulative plus Project volumes are shown in Figure 12. As shown in Table 9, with the addition of Project traffic, all study intersections operate acceptably, except the following intersections:

- Thornton Avenue/Oak Street (#2) during the AM and PM peak hours
- Thornton Avenue/Dusterberry Way (#3) during the AM peak hour

Appendix I includes the Near-Term Synchro LOS worksheets.

Table 9 Cumulative Plus Project Intersection Operations

No.	Location	Control	Peak Hour	LOS Standard	Cumulative + Project		
					V/C	Delay	LOS
1	Thornton Ave & Fremont Blvd	Signal	AM	E	0.95	48.5	D
			PM		0.99	52.2	D
2	Thornton Ave & Oak St	TWSC	AM	E	**1.00**	**>100**	**F**
			PM		**0.65**	**91.3**	**F**
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Signal	AM	E	**0.83**	**90.7**	**F**
			PM		0.86	72.3	E
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Signal	AM	E	1.06	66.2	E
			PM		0.74	17.3	B
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Signal	AM	E	0.89	35.8	D
			PM		0.69	18.0	B
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Signal	AM	E	0.93	31.2	C
			PM		0.95	29.4	C
7	Thornton Ave & I-880 NB Off-Ramp	Signal	AM	E	0.68	16.6	B
			PM		0.92	33.3	C
8	Thornton Ave & I-880 SB Off-Ramp	Signal	AM	E	0.70	8.0	A
			PM		0.73	9.3	A
9	Alder Ave & Fremont Blvd	Signal	AM	D	0.98	50.3	D
			PM		0.56	27.4	C
10	Peralta Blvd & Fremont Blvd	Signal	AM	E	0.76	30.2	C
			PM		0.81	32.2	C
11	Thornton Ave & North Dwy	TWSC	AM	E	0.73	21.3	C
			PM		0.51	12.2	B
13	Thornton Ave & South Dwy	TWSC	AM	E	0.61	10.1	B
			PM		0.51	10.0	A

Synchro Version 9, HCM 2000 methodology

TWSC: Two-Way Stop Control (or Side-Street Stop Control)

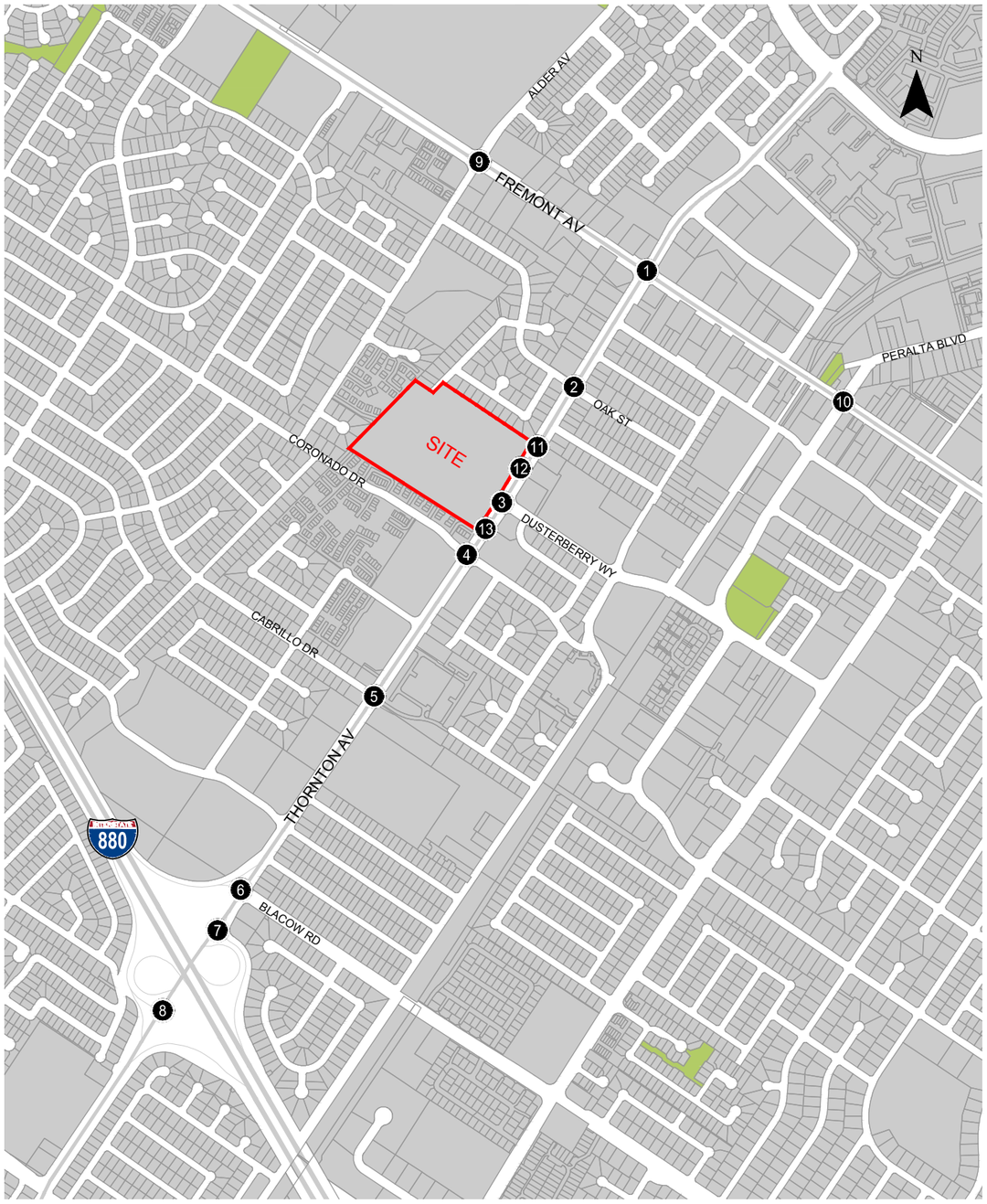
Average delay in seconds is presented for signalized and all-way stop control intersections. Worst approach average delay shown for side-street stop control intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

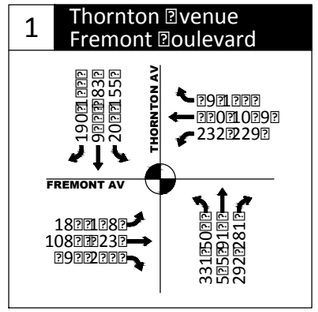
Source: Kittelson & Associates, 2019

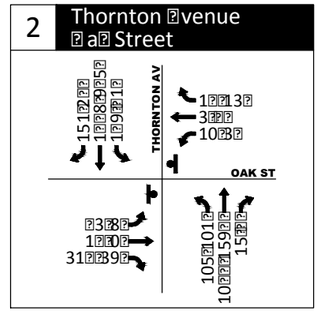
Signalized Intersection Queues

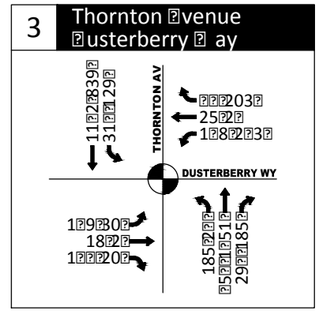
Queue lengths at signalized intersections were evaluated using Synchro software, version 9.0. Tables C5 and C6 display the 95th percentile queue lengths for the nine signalized study intersections under Cumulative plus Project conditions during both the AM and PM peak hour. At the following locations, turn movement queues exceed available storage, or through movement queues extend past upstream intersections as a result of the Project:

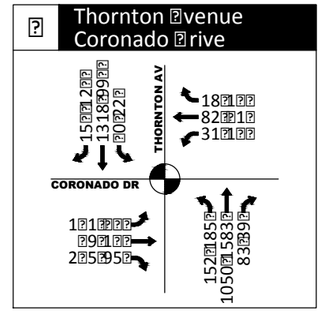
- Thornton Avenue/Dusterberry Way (#3) northbound left queue exceeds available storage during the AM peak hour.
- Thornton Avenue/Coronado Drive (#4) northbound left queue exceeds available storage during the AM peak hour.

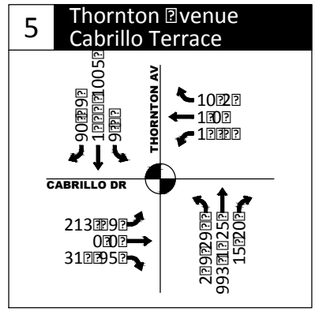


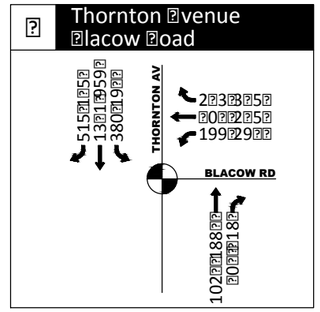


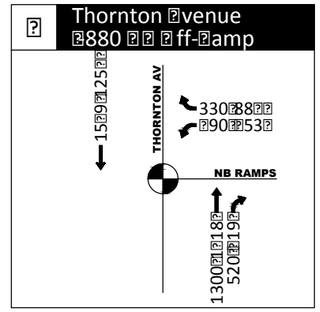


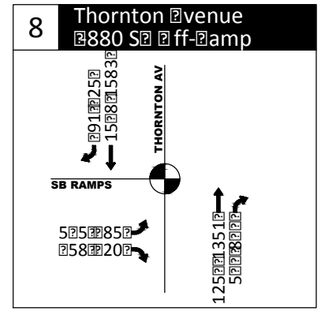


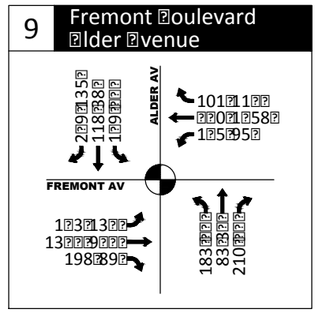


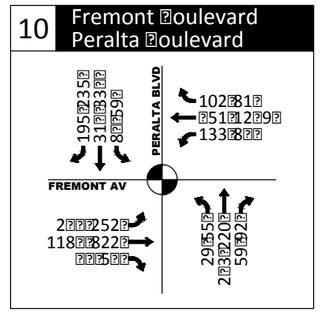


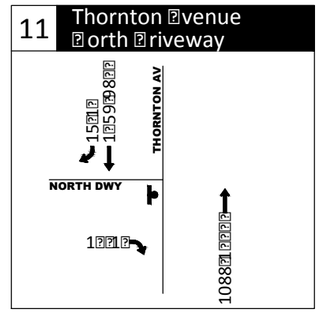


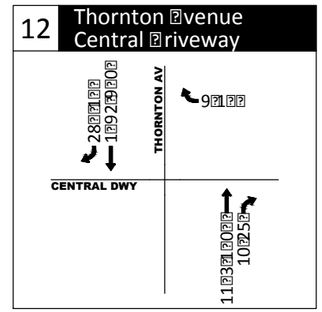


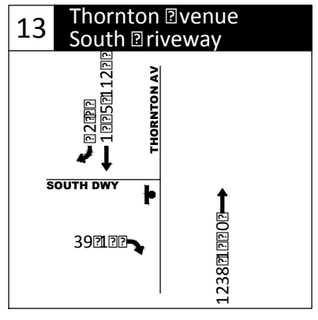












?M?PM?- Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative plus Pro?ect Traffic ?olumes
?M ? PM Pea? Hours
Fremont, California

Figure
12

Layout Tab: Cumul?Pro?
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KITTELSON & ASSOCIATES

ADDITIONAL TRANSPORTATION NEEDS ASSESSMENT

Congestion Management Program

The Alameda County Transportation Commission (Alameda CTC) coordinates transportation planning efforts throughout Alameda County and programs local, regional, State and federal funding for project implementation. Additionally, it prepares the Congestion Management Program (CMP), a plan mandated by California law to describe the strategies to address congestion problems on the CMP network, which includes State highways and principal arterials.

The CMP requires analysis of the Metropolitan Transportation System (MTS) roadway and transit, uses level of service standards as a means to measure congestion, and has established level of service standards to determine how local governments meet the standards of the CMP. It also requires analysis of impacts to cyclists on the Countywide Bicycle Network and impacts to pedestrians within the Areas of Countywide Significance identified in the Alameda Countywide Pedestrian Plan.

CMP Regional Roadway Analysis – Year 2020 and Year 2040

A separate analysis of regional roadways is required to comply with requirements of the Alameda County Transportation Commission (Alameda CTC). Alameda CTC requires the analysis of project impacts to Metropolitan Transportation System (MTS) roadways through the CMP for development projects that would generate more than 100 PM peak hour trips. As shown in Table 4, the Project would generate more than 100 PM peak hour trips. Existing freeway and roadway segment peak hour volumes were obtained from the Alameda Countywide Travel Demand Model for the MTS roadway system at the locations identified by Alameda CTC in their letter dated March 13, 2019, which they wrote in response to the Project notice of preparation letter.

Operations of the MTS freeway and local roadway segments were analyzed based on volume-to-capacity (V/C) ratios. For freeway segments, a per-lane capacity of 2,000 vehicles per hour was used. For local roadways, a per-lane capacity of 900 vehicles-per-hour was used. The capacity for local roadways does not reflect additional capacity provided at intersections through turn pockets. The significance criteria used to analyze roadway facilities is described earlier in this report.

Year 2020 and year 2040 volumes also were obtained from the Countywide Travel Demand Model. Level of service was determined by calculating the V/C ratio of each freeway and roadway segment.

Year 2020

Table 10 shows the results of the LOS analysis for the 2020 scenarios both with and without the Project. As shown, all study segments, except the five (5) following segments, operate at LOS D or better during the p.m. peak hour under 2020 baseline conditions:

- I-880 southbound, from Thornton Avenue to Decoto Road operates at LOS E.
- Peralta Boulevard northbound, from Paseo Padre to Fremont Boulevard operates at LOS F.
- Fremont Boulevard eastbound, from Peralta Boulevard to Thornton Avenue operates at LOS F.
- Fremont Boulevard westbound, from Peralta Boulevard to Thornton Avenue operates at LOS E.
- Fremont Boulevard eastbound, from Thornton Avenue to Adler Avenue operates at LOS E.

However, no segments get impacted with the addition of Project trips by changing to LOS E or F with the Project, or increase V/C ratio by more than 5% once reaching LOS E or F with the Project. Therefore, the Project is expected to have a less-than-significant impact at all the roadway and freeway segments under 2020 with Project Conditions.

Year 2040

Table 11 shows the results of the LOS analysis for the 2040 scenarios both with and without the Project. As shown, all of the study segments, except the following seven (7) segments, operate at LOS D or better during both the p.m. peak hour under 2040 baseline conditions.

All of the freeway segments operate at LOS F in the northbound direction in the a.m. peak hour and operate at LOS F in the southbound direction in the p.m. peak hour.

- I-880 northbound, from Mowry Avenue to Thornton Avenue operates at LOS E
- I-880 southbound, from Mowry Avenue to Thornton Avenue operates at LOS F
- I-880 northbound, from Thornton Avenue to Decoto Road operates at LOS E
- I-880 southbound, from Thornton Avenue to Decoto Road operates at LOS F
- Thornton Avenue northbound, from Fremont Boulevard to Blacow Road operates at LOS F
- Fremont Boulevard eastbound, from Peralta Boulevard to Thornton Avenue operates at LOS F.
- Fremont Boulevard westbound, from Peralta Boulevard to Thornton Avenue operates at LOS F.

The addition of Project traffic would not result in an impact at any of the local roadway or freeway segments. Therefore, the Project is expected to have a less-than-significant impact at all the roadway and freeway segments under 2040 with Project Conditions.

Table 10 MTS Freeway and Arterial Level of Service – 2020 PM Peak Hour

Segment	Direction	# Lanes	No Project Volume	Project Volume	Plus Project Volume	V/C Ratio No Project	V/C Ratio Plus Project	No Project LOS	Plus Project LOS	Change from LOS E or better to LOS F	Change in V/C > 0.05
I-880											
Mowry Avenue to	Northbound	4	6,068	22	6,090	0.759	0.761	D	D	No	No
Thornton Avenue	Southbound	3	4,677	6	4,683	0.780	0.781	D	D	No	No
Thornton Avenue to	Northbound	4	5,850	6	5,856	0.731	0.732	D	D	No	No
Decoto Road	Southbound	3	4,739	22	4,761	0.790	0.794	**E**	**E**	No	No
Thornton Avenue											
Paseo Padre to Fremont	Northbound	2	594	15	609	0.330	0.338	C	C	No	No
Boulevard	Southbound	2	378	7	385	0.210	0.214	B	B	No	No
Fremont Boulevard to	Northbound	2	1,140	24	1,164	0.633	0.647	D	D	No	No
Blacow Road	Southbound	2	690	15	705	0.383	0.392	C	C	No	No
Peralta Boulevard											
Paseo Padre to Fremont	Northbound	1	904	2	906	1.004	1.007	**F**	**F**	No	No
Boulevard	Southbound	1	598	1	599	0.664	0.666	C	C	No	No
Mowry Avenue											
Paseo Padre to Fremont	Northbound	3	1,085	4	1,089	0.402	0.403	C	C	No	No
Boulevard	Southbound	3	1,105	2	1,107	0.409	0.410	C	C	No	No
Fremont Boulevard to	Northbound	3	1,381	0	1,381	0.511	0.511	D	D	No	No
Blacow Road	Southbound	3	1,010	0	1,010	0.374	0.374	C	C	No	No
Fremont Boulevard											
Peralta Boulevard to	Eastbound	2	1,882	4	1,886	1.046	1.048	**F**	**F**	No	No
Thornton Avenue	Westbound	2	1,693	2	1,695	0.941	0.942	**E**	**E**	No	No
Thornton Avenue to Adler	Eastbound	2	1,644	2	1,646	0.913	0.914	**E**	**E**	No	No
Avenue	Westbound	2	1,440	4	1,444	0.800	0.802	D	D	No	No
Paseo Padre Parkway											
Isherwood Way to	Eastbound	3	476	7	483	0.176	0.179	A	A	No	No
Thornton Avenue	Westbound	3	468	2	470	0.173	0.174	A	A	No	No
Thornton Avenue to	Eastbound	2	290	2	292	0.161	0.162	A	A	No	No
Peralta Boulevard	Westbound	2	358	2	360	0.199	0.200	B	B	No	No
Central Avenue											
Fremont Boulevard to	Northbound	2	232	1	233	0.129	0.129	A	A	No	No
Blacow Road	Southbound	2	189	1	190	0.105	0.106	A	A	No	No

Source: Kittelson & Associates, 2019

Table 11 MTS Freeway and Arterial Level of Service – 2040 PM Peak Hour

Segment	Direction	# Lanes	No Project Volume	Project Volume	Plus Project Volume	V/C Ratio No Project	V/C Ratio Plus Project	No Project LOS	Plus Project LOS	Change from LOS E or better to LOS F	Change in V/C > 0.05
I-880											
Mowry Avenue to Thornton Avenue	Northbound	4	7,104	22	7,126	0.888	0.891	**E**	**E**	No	No
	Southbound	3	5,979	6	5,985	0.997	0.998	**F**	**F**	No	No
Thornton Avenue to Decoto Road	Northbound	4	6,784	6	6,790	0.848	0.849	**E**	**E**	No	No
	Southbound	3	5,961	22	5,983	0.994	0.997	**F**	**F**	No	No
Thornton Avenue											
Paseo Padre to Fremont Boulevard	Northbound	2	1,543	15	1,558	0.857	0.866	D	D	No	No
	Southbound	2	941	7	948	0.523	0.527	C	C	No	No
Fremont Boulevard to Blacow Road	Northbound	2	1,800	24	1,824	1.000	1.013	**F**	**F**	No	No
	Southbound	2	908	15	923	0.504	0.513	C	C	No	No
Peralta Boulevard											
Paseo Padre to Fremont Boulevard	Northbound	1	787	2	789	0.874	0.877	D	D	No	No
	Southbound	1	579	1	580	0.643	0.644	C	C	No	No
Mowry Avenue											
Paseo Padre to Fremont Boulevard	Northbound	3	1,353	4	1,357	0.501	0.503	C	C	No	No
	Southbound	3	1,480	2	1,482	0.548	0.549	C	C	No	No
Fremont Boulevard to Blacow Road	Northbound	3	1,659	0	1,659	0.614	0.614	C	C	No	No
	Southbound	3	1,259	0	1,259	0.466	0.466	C	C	No	No
Fremont Boulevard											
Peralta Boulevard to Thornton Avenue	Eastbound	2	2,011	4	2,015	1.117	1.119	**F**	**F**	No	No
	Westbound	2	1,997	2	1,999	1.109	1.111	**F**	**F**	No	No
Thornton Avenue to Adler Avenue	Eastbound	2	1,619	2	1,621	0.899	0.901	D	D	No	No
	Westbound	2	1,580	4	1,584	0.878	0.880	D	D	No	No
Paseo Padre Parkway											
Isherwood Way to Thornton Avenue	Eastbound	3	1,707	7	1,714	0.632	0.635	C	C	No	No
	Westbound	3	1,841	2	1,843	0.682	0.683	C	C	No	No
Thornton Avenue to Peralta Boulevard	Eastbound	2	1,080	2	1,082	0.600	0.601	C	C	No	No
	Westbound	2	1,013	2	1,015	0.563	0.564	C	C	No	No
Central Avenue											
Fremont Boulevard to Blacow Road	Northbound	2	580	1	581	0.322	0.323	C	C	No	No
	Southbound	2	244	1	245	0.136	0.136	A	A	No	No

Source: Kittelson & Associates, 2019

Pedestrian and Bicyclist Facilities

According to the 2015 Alameda County CMP Transportation Impact Analysis Technical Guidelines, a Project would create an impact on pedestrian and bike circulation if:

1. Project vehicle trips would present a barrier to bikes/pedestrians safely crossing roadways
2. The Project would reduce or sever existing or planned bike/pedestrian circulation in the area.

The current site is already creating an impact to bike/pedestrian circulation in the area due to limited on-site pickup and drop-off areas forcing parents to park off-site in the shoulder lane on Thornton Avenue and in the neighborhood behind the school. The Project will allow more on-site parking and improved on-site circulation to reduce the amount of parking and student loading activity on Thornton Avenue and in the surrounding neighborhood. The Project would not reduce or sever any existing or planned bike/pedestrian facilities in the Project vicinity. Therefore, the Project would not further deteriorate pedestrian and bicyclist facilities and would not have an adverse impact to pedestrian and bicyclist circulation in the area.

Future operations at the school, including student loading, parking, circulation and pedestrian conflict measures employed by the school should safely accommodate the additional pedestrian and bicycling activity generated by the Project.

Therefore, the impact of the Project on bicycle and pedestrian facilities would be less than significant.

Transit Operations

According to the 2015 Alameda County CMP Transportation Impact Analysis Technical Guidelines, a Project would create an impact on transit service if it:

1. Causes vehicular congestion that would significantly degrade transit operations
2. Causes a ridership increase that would exceed existing transit capacity
3. Conflicts with existing transit service plans or preclude future transit service to the Project area

There is existing transit service provided in the immediate vicinity of the site. The nearest AC Transit bus stop is located on Thornton Avenue at Dusterberry Way next to the school pick up area. In addition, the Fremont BART station is located 2 miles from the school. Given the location and distance from BART, and the defined enrollment boundaries, few Project trips use BART today. No change in BART use is expected with the increased enrollment at the school.

The school has student bussing service, which many students utilize on a regular basis. During field observations, very few students were observed utilizing the existing AC Transit service. No change in AC Transit use is expected with the increased enrollment at the school.

The Project would not require additional transit service to the area, nor would it induce enough demand for AC Transit to increase service in the area. The Project would not preclude, modify or affect

proposed transit projects or policies identified by AC Transit. Therefore, the impact of the Project on transit service would be less than significant.

Site Plan Review and Drop-Off/Pick-Up Activities Assessment

In addition to analyzing the operations of the study intersections, school access and site circulation were analyzed. Existing school access and site circulation were observed during school PM peak period, on March 26, 2019 and April 5, 2019. During the PM peak period, vehicles were observed waiting in the shoulder lane along Thornton Avenue between Oak Street and Coronado Drive, and along Blue Ridge Street between the school access nearest the playing fields and Oak Street, and along Coronado Drive between Thornton Avenue and Portola Drive. A limited number of vehicles entered the designated school pick-up/drop-off loop on school property fronting Thornton Avenue due to the limited circulation space, most vehicles waited along Thornton Avenue. As a result, vehicles were observed blocking the Dusterberry Way intersection after the red light as they waited to enter the school parking lot, indicating queuing issues on site. As observed, vehicles waited on-street for up to 30 minutes in advance of the school release bell waiting for students, and all vehicles flushed out within five to ten minutes.

Site Access

As shown on Figure 2, vehicle access will be provided via the three existing access points along Thornton Avenue, between Oak Street and Dusterberry Way. The proposed on-site circulation improvements provide additional on-site drop-off/pick-up space which will reduce the amount of on-street passenger loading. The three school access driveways along Thornton Avenue would operate acceptably, assuming optimization of signal cycle length and phasing splits at the Thornton Avenue/Dusterberry Way intersection.

Drop-Off/Pick-Up Activities

Based on the proposed site circulation, the school will have two locations for drop-off/pick-up activities: the central parking area would incorporate a drop-off loop parallel to Thornton Avenue adjacent to Building 2 that extends past Building 1 to Building 8 and an additional drop-off loop between Building 8 and Building 10. The area parallel to Thornton Avenue would provide approximately 600 feet of curb for pick-up/drop-off activities. The area adjacent to Building 10 would provide approximately 300 feet of curb for pick-up/drop-off activities. The total directional distance of the pick-up/drop-off space, including both the outside lane adjacent to the curb and the inside lane, is approximately 1,800 feet. The total directional distance of the internal roads is approximately 2,900 feet, not including circulation for the back parking area beyond the additional pick-up/drop-off area.

Based on the vehicle stacking length assumption of 1.5 feet per student enrolled[1] and a maximum enrollment of 2,176 students, the estimated maximum queue during pick-up/drop-off activity is 3,264 feet. This estimated maximum queue length corresponds to 131 vehicles, assuming 25 feet per vehicle. As mentioned above, the Project site plan shows approximately 1,800 feet of designated pick-up/drop-off space or approximately 72 queued vehicles in the in the designated pick up/drop off space plus the 116 vehicles in the internal circulation space. Therefore the site can accommodate 188 vehicles, which would fully accommodate the maximum anticipated queue of 131 vehicles, so this would not create a hazardous Project impact.

The following findings were made regarding pick-up/drop-off activities:

- The School District may consider having staff or volunteer parents help manage pick-up/drop-off activities to ensure drivers keep the queue moving.

Neighborhood Circulation

The proposed Project site plan shows a significant increase in circulation space and designated pick-up/drop-off space on-site, resulting in less demand for off-site pick-up/drop-off area. As a result, neighborhood circulation along Oak Street should diminish with increased enrollment.

Pedestrian and Bicycle Facilities Assessment

As shown in the Project site plan (Figure 2), the existing sidewalks along the Project site frontage of Thornton Avenue would be maintained. On-site sidewalks and pedestrian facilities will be rehabilitated. The existing on-site pedestrian crosswalk that traverses the central parking area is a direct extension to the crosswalk that traverses Thornton Avenue. The proposed Project site plan shows this internal crosswalk shifting approximately 70 feet north to align with internal buildings. This shift in the on-site crosswalk location results in a 70-foot offset from the Thornton Avenue crosswalk. The sidewalk at this location along Thornton Avenue is approximately 14 feet wide allowing for heavy pedestrian movements, as would be expected during peak school times. There are no hazardous Project impacts as a result of this shift in the on-site crosswalk location.

Based on observations, a relatively high volume of students walk along Oak Street to and from Alder Street. Due to horizontal curves along Oak Street, which impact sight distance for vehicles traveling along Oak Street, and the additional pedestrian activity anticipated from the increase in student enrollment, the following gap in the pedestrian circulation network should be considered for improvement:

[1] Cooner, Scott et al, Traffic Operations and Safety at Schools: Recommended Guidelines, Texas Transportation Institute, January 2004, Texas Department of Transportation Report 4286-2.

- Lack of marked crosswalk across Oak Street on both the eastbound and westbound approach at Blue Ridge Street. Consider adding marked crosswalks at Oak Street.

The Project will provide on-site in-ground mounted bike racks. The City of Fremont Bicycle Master Plan proposes a separated bikeway along Thornton Avenue and a bike lane along Dusterberry Way.

Safety

Three years of crash data (July 2015 – June 2018) for the study intersection were accessed from the Statewide Integrated Traffic Records System (SWITRS). Table 12 presents total crashes by severity, and Table 13 presents crashes involving people walking or biking.

Table 12 Crashes by Severity, July 2015 – June 2018

ID	Intersection	Severity				
		Fatal	PDO-Only	Minor Injury	Severe Injury	Total
1	Thornton Ave & Fremont Blvd	1	4	12	-	17
3	Thornton Ave & Loop Dwy/Dusterberry Wy	-	2	3	-	5
4	Thornton Ave & Coronado Dr/Contra Costa Ave	-	2	5	-	7
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	-	3	6	-	9
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	-	2	8	-	10
9	Alder Ave & Fremont Blvd	-	1	4	-	5
10	Peralta Blvd & Fremont Blvd	-	2	8	-	10

Source: SWITRS, 2019

Table 13 Pedestrian- and Bicyclist-Involved Crashes, July 2015 – June 2018

ID	Intersection	Bicycle Involved	Pedestrian Involved
1	Thornton Ave & Fremont Blvd	3	2
3	Thornton Ave & Loop Dwy/Dusterberry Wy	-	1
4	Thornton Ave & Coronado Dr/Contra Costa Ave	1	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	1	3
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	1	-
9	Alder Ave & Fremont Blvd	-	-
10	Peralta Blvd & Fremont Blvd	-	3

Source: SWITRS, 2019

Based on the crash history, there was one fatal crash at the Thornton Avenue/Fremont Boulevard intersection which occurred in May 2016 at around 11:30 p.m. The fatal crash involved a pedestrian in the vehicular right-of-way outside of normal school hours.

In light of the crash data, particularly the specific circumstances of the fatal crash, absence of severe crashes and the low occurrence of pedestrian-involved or bicyclist-involved crashes, the Project would not introduce safety hazards into the transportation network.

Appendix J includes the SWITRS crash data.

ALTERNATIVES

Two project alternatives were tested under CEQA to evaluate whether all environmental impacts could be reduced to less than significant.

NO-BUILD ALTERNATIVE

The No-Build Alternative consists of the school district maintaining student enrollment, classroom sizes, and number of classes at levels seen over recent years. It also consists of maintaining current access points and on-site circulation patterns on the school property. The effects of this alternative are commensurate to Existing conditions since maintaining the status quo would result in no measurable changes to travel patterns or cause other effects to the transportation network. Therefore, the No-Build Alternative would result in impacts that are ***less than significant***.

This alternative would not achieve the goals of the Project to provide updated classroom resources, provide education to more students through an increase in student enrollment, and improve access and on-site circulation through reconstruction of certain portions of the site.

LOWER GROWTH ALTERNATIVE

A lower Growth Alternative was evaluated to see at what level of student enrollment increase would reduce all impacts to less than significant. A Lower Growth Alternative consisting of an increase in student enrollment at 63% of the increase in enrollment with the Project as well as all new construction and site access improvements included in the Project was analyzed.

Intersection Operations

Existing plus Lower Growth Alternative Conditions

As presented in the Existing plus Project section, under Existing plus Project conditions, the Thornton Avenue/Oak Street intersection would operate beyond the standard at LOS F during the AM peak hour, causing a significant impact. All other intersections would operate within the standard during all peak periods.

Traffic volumes for Existing plus Lower Growth Alternative conditions were developed using an additive approach to enrollment. Estimated vehicle trips generated by the Alternative were added to existing volumes on the roadway network to develop the volumes for the Existing plus Lower Growth Alternative conditions. Alternative-only volumes are presented in Figure 13. Existing plus Lower Growth Alternative volumes are presented in Figure 14.

Figure 13 Lower Growth Alternative Traffic Volumes at Thornton Avenue/Oak Street, AM Peak Hour

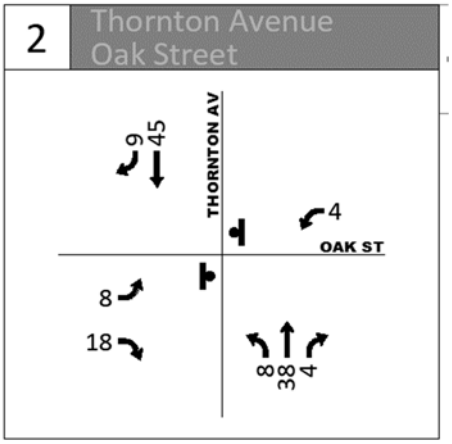
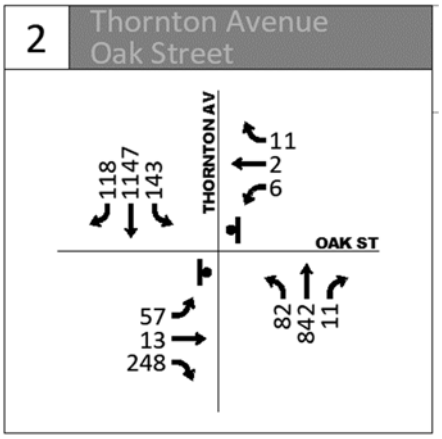


Figure 14 Existing plus Lower Growth Alternative Traffic Volumes at Thornton Avenue/ Oak Street, AM Peak Hour



Intersection operations were evaluated during the AM peak hour for the Lower Growth Alternative to determine whether the Alternative would cause an impact. As shown in Table 14, the intersection would operate at LOS E and remain within the standard under Existing plus Lower Growth Alternative conditions. Therefore, the Lower Growth Alternative would result in impacts that are ***less than significant.***

Appendix K includes the Existing plus Lower Growth Alternative Synchro LOS worksheets.

Table 14 Existing plus Lower Growth Alternative Intersection Operations, Thornton Ave & Oak St, AM Peak Hour

No.	Location	Control	Peak Hour	LOS Standard	Existing + Project			Existing + Lower Growth Alternative		
					V/C	Delay	LOS	V/C	Delay	LOS
2	Thornton Ave & Oak St	TWSC	AM	E	**0.87**	**99.4**	**F**	0.19	47.2	E

Synchro Version 9, HCM 2000 methodology

TWSC: Two-Way Stop Control (or Side-Street Stop Control)

Worst approach average delay is shown for side-street stop control intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

Source: Kittelson & Associates, 2019

Cumulative plus Lower Growth Alternative Conditions

Thornton Avenue/Oak Street. As presented in the Cumulative Conditions section, under Cumulative conditions, the Thornton Avenue/Oak Street intersection would operate beyond the standard at LOS F during the AM and PM peak hours. Therefore, the addition of Lower Growth Alternative traffic would contribute to a cumulative impact and would cause a ***significant impact***.

The following mitigation already identified to address Cumulative impacts would mitigate this impact:

- Mitigation 1: Install a traffic signal at the Thornton Avenue/Oak Street intersection[2]

With Mitigation 1, the Cumulative plus Lower Growth Alternative impact would be reduced to ***less than significant.***

Thornton Avenue/Dusterberry Drive. As presented in the Cumulative plus Project section, under Cumulative plus Project conditions, the Thornton Avenue/Dusterberry Drive intersection would operate beyond the standard at LOS F during the AM peak hour, causing a significant impact.

Traffic volumes for Cumulative plus Lower Growth Alternative conditions at the Thornton Avenue/Dusterberry Drive intersection were developed using an additive approach. Estimated vehicle trips generated by the Alternative were added to Cumulative volumes on the roadway network to develop the volumes for the Cumulative plus Lower Growth Alternative conditions. Alternative-only volumes are presented in Figure 15. Cumulative plus Lower Growth Alternative volumes are presented in Figure 16.

[2] An optional treatment at the Thornton Avenue/Oak Street intersection would be to restrict movements to right-in/right-out from Oak Street which would result in the redistribution of left-turning and through volumes.

Figure 15 Lower Growth Alternative Traffic Volumes at Thornton Avenue/ Dusterberry Drive, AM Peak Hour

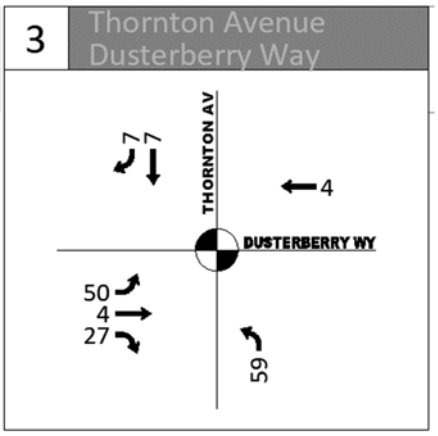
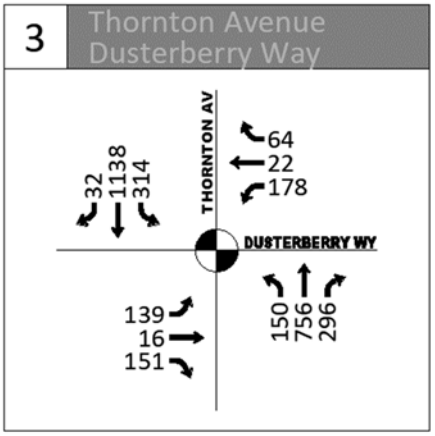


Figure 16 Cumulative plus Lower Growth Alternative Traffic Volumes at Thornton Avenue/ Dusterberry Drive, AM Peak Hour



Intersection operations were evaluated during the AM peak hour for the Lower Growth Alternative to determine whether the Alternative would cause an impact. As shown in Table 15, the intersection would operate beyond the standard at LOS F during the AM peak hour. Therefore, the Lower Growth Alternative would cause a ***significant impact.***

Table 15 Cumulative plus Lower Growth Alternative Intersection Operations, Thornton Ave & Dusterberry Dr, AM Peak Hour

No.	Location	Control	Peak Hour	LOS Standard	Cumulative + Project			Cumulative + Lower Growth Alternative		
					V/C	Delay	LOS	V/C	Delay	LOS
3	Thornton Ave & Dusterberry Dr	Signal	AM	E	**0.83**	**90.7**	**F**	**0.81**	**88.8**	**F**

Synchro Version 9, HCM 2000 methodology

Average delay in seconds is presented for signalized intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

Source: Kittelson & Associates, 2019

The following mitigation already identified to address Cumulative plus Project impacts would mitigate this impact:

- Mitigation 2: Optimize signal cycle length and phasing splits at the Thornton Avenue/ Dusterberry Drive intersection

With Mitigation 2, the Cumulative plus Lower Growth Alternative impact would be reduced to ***less than significant.***

Appendix L includes the Cumulative plus Lower Growth Alternative Synchro LOS worksheets.

CONCLUSION

The Alternatives analysis has indicated:

- The **No-Build Alternative** would result in impacts that are ***less than significant***. However, this alternative would not achieve the goals of the Project to provide updated classroom resources, provide education to more students through an increase in student enrollment, and improve access and on-site circulation through reconstruction of certain portions of the site.
- The **Lower Growth Alternative** was evaluated to see at what level of student enrollment increase would reduce all impacts to less than significant. A Lower Growth Alternative consisting of an increase in student enrollment at 63% of the increase in enrollment with the Project as well as all new construction and site access improvements included in the Project was analyzed. Since the Thornton Avenue/Oak Street intersection would operate beyond the standard at LOS F during the AM and PM peak hours under Cumulative conditions, even a nominal amount of traffic from a project in the area would contribute to the Cumulative impact. Therefore, the Lower Growth Alternative would require an enrollment increase well below 63% of Project enrollment increase, essentially no increase in enrollment, to reduce all impacts to less than significant without any mitigations.
- The **Lower Growth Alternative**, with 63% of Project-level enrollment increase, would reduce near-term impacts (Existing plus Lower Growth Alternative) to ***less than significant without mitigations***. The **Lower Growth Alternative** plus mitigations identified for the Project would reduce all long-term impacts (Cumulative plus Lower Growth Alternative) to ***less than significant with mitigations***.

CONCLUSIONS AND RECOMMENDATIONS

The results of the traffic impact analysis indicate that the proposed Thornton Middle School conversion can be accommodated while maintaining acceptable levels of service and safety on the surrounding transportation system as long as appropriate mitigations are in place. The findings of the transportation impact analysis are summarized, and the recommendations to mitigate Project impacts are discussed in this section.

SIGNIFICANT IMPACTS

The analysis indicates the addition of Project trips would result in impacts at two study intersections:

- Impact 1: The two-way stop control intersection at Thornton Avenue/Oak Street (#3) was found to operate unacceptably at LOS F during the AM peak hour under the Existing, Near-Term, and Cumulative conditions and during the PM peak hour under the Cumulative conditions.
- Impact 2: The signalized intersection at Thornton Avenue/Dusterberry Drive (#5) was found to operate unacceptably at LOS F during the AM peak hour under the Cumulative conditions.

Mitigation Measures

The following suggested improvements were identified to mitigate the intersection impacts:

- Mitigation 1: Install a traffic signal at the Thornton Avenue/Oak Street intersection[3]
- Mitigation 2: Optimize signal cycle length and phasing splits at the Thornton Avenue/ Dusterberry Drive

As shown in Table 16, with implementation of these mitigation measures, the two impacted intersections would operate acceptable with the addition of Project traffic to Existing, Near-Term, and Cumulative traffic volumes. The Thornton Avenue/Oak Street intersection meets the peak-hour signal warrants during the AM peak hour under the Existing plus Project, Near-Term plus Project, and Cumulative plus Project conditions. Appendix K includes the Synchro LOS worksheets under the mitigated Existing and Cumulative plus Project conditions. Appendix L includes the signal warrant worksheets.

[3] An optional treatment at the Thornton Avenue/Oak Street intersection would be to restrict movements to right-in/right-out from Oak Street which would result in the redistribution of left-turning and through volumes.

Table 16 Plus Project Intersection Operations with Mitigations

No.	Location	Peak Hour	LOS Standard	Existing			Near-Term			Cumulative		
				V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
2	Thornton Ave & Oak St	AM	E	0.64	24.0	C	0.68	22.0	C	0.75	27.2	C
		PM		0.52	13.3	B	0.53	13.5	B	0.63	15.7	B
3	Thornton Ave & Loop Dwy/Dusterberry Wy	AM	E	n/a	n/a	n/a	n/a	n/a	n/a	0.77	55.0	E
		PM		n/a	n/a	n/a	n/a	n/a	n/a	0.86	72.3	E

Synchro Version 9, HCM 2000 methodology

Average delay in seconds is presented for signalized intersections. Definitions of "Delay," "LOS" and "V/C" are provided in Table 2.

Source: Kittelson & Associates, 2019

At the following locations, turn movement queues exceed available storage as a result of the Project:

- Thornton Avenue/Dusterberry Way (#3) northbound left queue exceeds available storage during the AM peak hour under the Existing plus Project, Near-Term plus Project, and Cumulative plus Project conditions.
- Thornton Avenue/Coronado Drive (#4) northbound left queue exceeds available storage during the AM peak hour under Cumulative plus Project conditions.

The mitigation proposed at the Thornton Avenue/Dusterberry Way intersection does not reduce the queue length for the northbound movement to fit within the available storage. However, the presence of queues are not, in and of themselves, considered a hazardous impact.

STUDENT DROP-OFF AND PICK-UP

The School District may consider having staff or volunteer parents help manage pick-up/drop-off activities to ensure drivers keep the queues moving.

The Project site plan shows adequate designated pick-up/drop-off space for queuing on site. Therefore the pick-up/drop-off and circulation area would not create a hazardous Project impact associated with queueing onto the street.

PEDESTRIAN AND BICYCLE FACILITIES

Based on observations, a relatively high volume of students walk along Oak Street to and from Alder Street. Due to horizontal curves along Oak Street which impact sight distance for vehicles traveling along Oak Street and the additional pedestrian activity anticipated from the increase in student enrollment, the following gap in the pedestrian circulation network should be considered for improvement:

- Lack of marked crosswalk across Oak Street on both the eastbound and westbound approach at Blue Ridge Street. Consider adding marked crosswalks at Oak Street.

Appendix A
Traffic Count Data

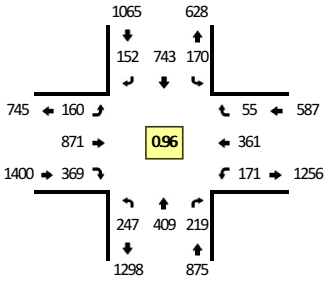
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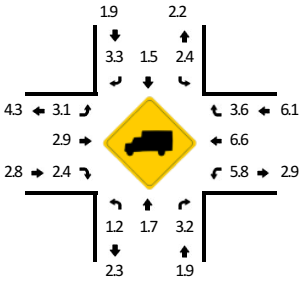
Method for determining peak hour: Total Entering Volume

LOCATION: 1. Thornton Ave -- Fremont Blvd
CITY/STATE: Alameda, CA

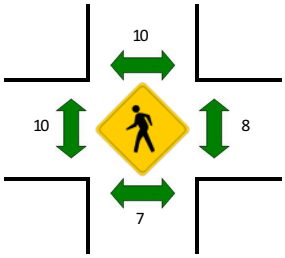
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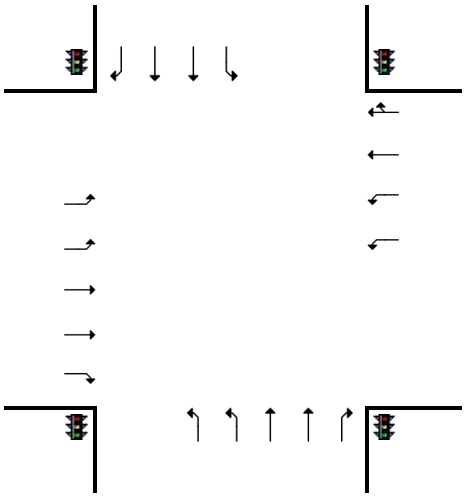
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

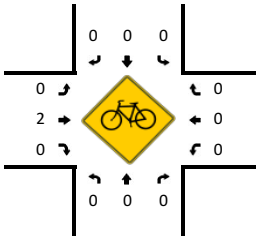


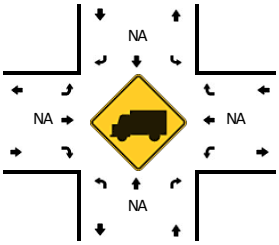


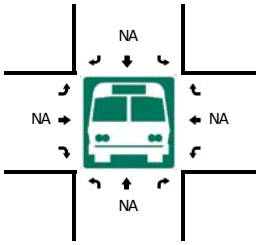
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	1. Thornton Ave (Northbound)				1. Thornton Ave (Southbound)				Fremont Blvd (Eastbound)				Fremont Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	20	10	0	8	30	3	0	4	40	12	0	6	6	5	0	150	
7:05 AM	9	19	7	2	7	28	3	0	6	42	15	0	8	11	4	0	161	
7:10 AM	9	29	5	0	4	49	5	0	7	26	23	0	11	17	0	0	185	
7:15 AM	8	18	10	1	6	36	7	1	3	46	28	0	10	16	3	0	193	
7:20 AM	7	20	11	0	5	54	3	0	10	42	22	0	7	14	3	0	198	
7:25 AM	13	17	6	0	6	42	7	0	7	62	27	0	21	20	3	0	231	
7:30 AM	28	21	15	0	12	53	4	0	3	66	39	0	12	20	2	0	275	
7:35 AM	22	28	17	0	9	58	11	0	3	52	29	0	2	23	5	0	259	
7:40 AM	22	18	15	0	10	56	6	0	8	57	37	1	11	21	5	0	267	
7:45 AM	23	30	23	1	14	52	13	0	8	60	44	0	30	41	5	0	344	
7:50 AM	37	41	16	1	19	65	19	0	15	60	49	0	11	27	7	0	367	
7:55 AM	25	31	20	0	10	53	15	0	8	54	43	0	15	30	7	0	311	2941
8:00 AM	22	37	21	0	18	47	14	0	8	67	42	0	13	26	4	0	319	3110
8:05 AM	18	42	22	0	11	78	16	0	15	72	26	0	20	35	4	0	359	3308
8:10 AM	21	36	11	1	14	46	18	0	8	104	23	0	12	35	3	0	332	3455
8:15 AM	19	24	17	2	12	52	13	0	22	87	26	0	14	26	7	0	321	3583
8:20 AM	12	27	16	2	13	75	17	0	14	79	25	0	16	28	3	0	327	3712
8:25 AM	28	33	19	4	17	61	5	1	9	74	17	0	9	22	1	0	300	3781
8:30 AM	8	46	22	1	12	82	8	2	14	64	28	0	12	39	5	0	343	3849
8:35 AM	6	32	22	2	10	60	8	0	19	73	25	0	11	31	4	0	303	3893
8:40 AM	13	30	10	1	16	72	6	1	20	77	21	0	8	21	5	0	301	3927
8:45 AM	16	17	12	1	11	51	8	0	9	86	26	0	10	30	4	0	281	3864
8:50 AM	15	27	12	3	17	63	9	0	17	87	26	0	8	16	4	0	304	3801
8:55 AM	8	24	14	2	10	50	9	0	9	85	21	0	22	30	7	0	291	3781

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	340	408	236	8	172	680	188	0	124	696	544	0	224	392	76	0	4088
Heavy Trucks	0	4	8		0	4	4		12	12	4		12	16	0		76
Pedestrians		8				20				20				24			72
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

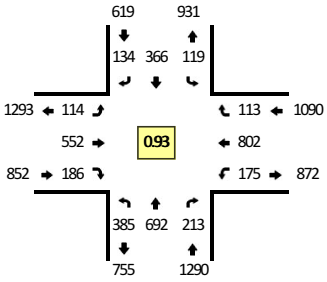
Type of peak hour being reported: Intersection Peak

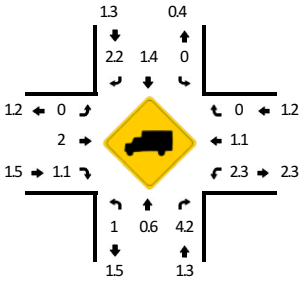
Method for determining peak hour: Total Entering Volume

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CITY/STATE: Alameda, CA

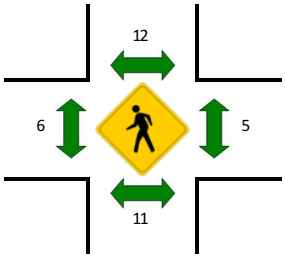
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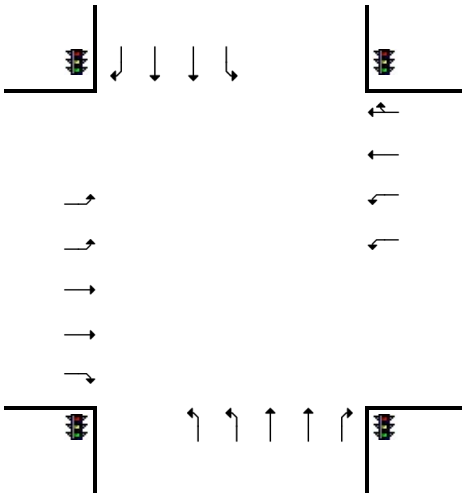
Peak-Hour: 5:00 PM -- 6:00 PM
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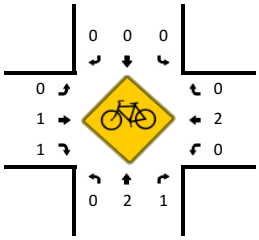


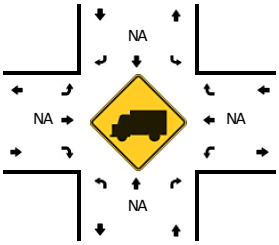


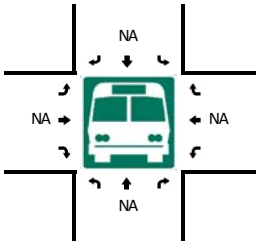
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	1. Thornton Ave (Northbound)				1. Thornton Ave (Southbound)				Fremont Blvd (Eastbound)				Fremont Blvd (Westbound)				Total	Hourly Totals
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4:00 PM	26	43	20	0	5	34	9	3	10	45	19	0	16	48	8	0	286	
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4:10 PM	26	51	19	2	5	24	13	3	7	52	22	0	10	77	9	0	320	
4:15 PM	27	52	18	0	2	26	7	1	5	48	20	0	11	54	9	0	280	
4:20 PM	23	39	18	0	9	43	4	1	12	47	18	0	14	35	3	0	266	
4:25 PM	40	61	15	1	6	22	9	0	7	32	13	0	16	58	9	0	289	
4:30 PM	38	53	13	1	9	29	8	1	9	45	18	0	6	57	12	0	299	
4:35 PM	27	52	15	0	7	19	12	1	4	49	16	0	16	70	13	0	301	
4:40 PM	30	48	19	2	7	32	7	1	7	31	19	0	19	61	11	0	294	
4:45 PM	40	66	17	0	3	29	6	1	10	47	13	0	14	58	13	0	317	
4:50 PM	22	51	16	1	13	48	13	3	12	35	15	0	11	50	4	0	294	
4:55 PM	45	62	21	1	6	25	5	1	6	33	20	0	13	68	10	0	316	3568
5:00 PM	29	80	15	2	9	37	9	2	12	43	24	0	19	62	13	0	356	3638
5:05 PM	40	42	12	2	4	27	12	1	9	39	18	0	22	65	9	0	302	3634
5:10 PM	25	67	15	2	8	33	18	0	8	35	11	0	12	70	9	0	313	3627
5:15 PM	37	54	14	2	5	23	12	1	6	53	17	0	19	83	10	0	336	3683
5:20 PM	23	55	12	2	12	35	9	3	5	46	11	0	4	52	7	0	276	3693
5:25 PM	39	61	19	1	10	24	14	1	7	31	10	0	13	50	7	0	287	3691
5:30 PM	23	51	20	5	9	25	11	1	10	31	18	0	11	76	11	0	302	3694
5:35 PM	32	49	24	5	10	21	5	0	6	72	16	0	16	74	7	0	337	3730
5:40 PM	23	55	15	1	7	33	11	0	21	57	18	0	11	43	7	0	302	3738
5:45 PM	23	57	22	2	13	48	8	0	9	43	13	0	13	65	8	0	324	3745
5:50 PM	33	49	25	1	10	37	11	3	10	49	13	0	22	78	12	0	353	3804
5:55 PM	30	72	20	3	10	23	14	0	11	53	17	0	13	84	13	0	363	3851

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	344	712	268	24	132	432	132	12	120	580	172	0	192	908	132	0	4160
Heavy Trucks	0	4	16		0	8	4		0	12	4		4	4	0		56
Pedestrians		4				16				4				8			32
Bicycles	0	1	1		0	0	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

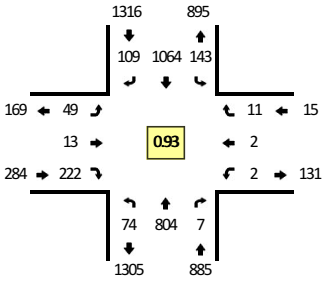
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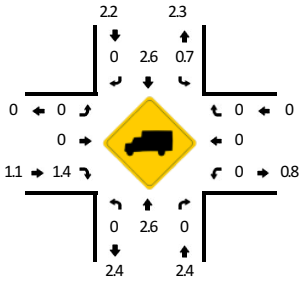
Method for determining peak hour: Total Entering Volume

LOCATION: 2. Thornton Ave -- Oak St
CITY/STATE: Alameda, CA

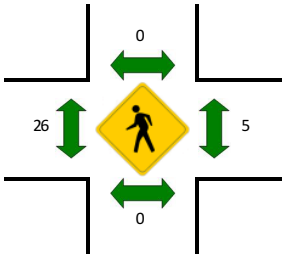
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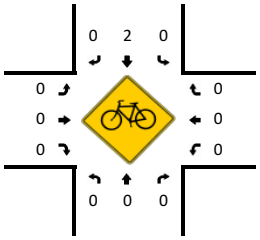


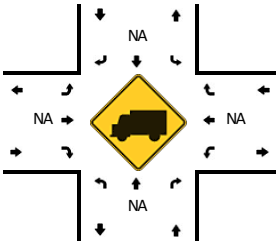


Quality Counts
DATA THAT DRIVES COMMUNITIES

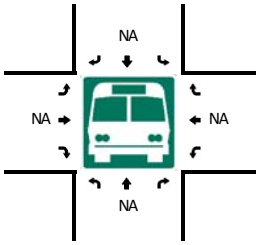












5-Min Count Period Beginning At	2. Thornton Ave (Northbound)				2. Thornton Ave (Southbound)				Oak St (Eastbound)				Oak St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	40	0	2	0	51	0	0	0	0	1	0	0	0	0	0	94	
7:05 AM	1	31	0	1	0	51	1	0	0	0	1	0	0	0	0	0	86	
7:10 AM	0	34	0	3	0	79	1	1	0	0	1	0	0	0	0	0	119	
7:15 AM	1	40	0	2	5	70	1	0	0	0	0	0	0	0	1	0	120	
7:20 AM	4	35	1	3	2	78	0	1	0	0	2	0	0	0	0	0	126	
7:25 AM	0	48	1	1	3	87	2	0	0	0	7	0	0	0	0	0	149	
7:30 AM	3	58	0	2	4	98	3	1	0	0	6	0	0	0	1	0	176	
7:35 AM	5	72	0	3	4	82	9	2	0	0	9	0	0	0	0	0	186	
7:40 AM	3	66	0	3	7	93	5	1	1	0	16	0	1	0	1	0	197	
7:45 AM	2	76	0	2	4	112	7	0	1	0	13	0	0	0	2	0	219	
7:50 AM	3	81	0	2	7	108	6	4	3	0	13	0	0	0	1	0	228	
7:55 AM	6	67	0	2	10	94	13	1	5	0	17	0	0	0	1	0	216	1916
8:00 AM	3	77	1	1	12	78	8	5	2	0	14	0	1	0	0	0	202	2024
8:05 AM	5	85	1	0	16	101	11	3	8	1	20	1	0	0	0	0	252	2190
8:10 AM	4	59	1	0	11	61	4	5	3	3	16	0	0	0	1	0	168	2239
8:15 AM	8	48	1	2	15	63	14	3	5	0	11	0	0	1	1	0	172	2291
8:20 AM	10	61	1	0	11	90	19	1	4	0	21	0	0	0	1	0	219	2384
8:25 AM	10	53	1	0	4	70	15	3	7	4	33	0	0	1	2	0	203	2438
8:30 AM	0	58	0	1	8	101	6	3	5	4	27	0	0	0	1	0	214	2476
8:35 AM	3	73	1	4	6	93	1	3	4	1	21	0	0	0	0	0	210	2500
8:40 AM	0	41	0	2	7	93	0	3	1	2	6	0	2	0	0	0	157	2460
8:45 AM	4	52	1	0	6	75	0	8	0	2	5	0	0	0	0	0	153	2394
8:50 AM	4	56	0	1	8	87	1	0	0	0	2	0	0	0	1	0	160	2326
8:55 AM	2	48	1	3	3	87	1	2	0	2	3	0	0	0	0	0	152	2262

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	916	8	12	152	1092	128	36	60	4	204	4	4	0	4	0	2680
Heavy Trucks	0	28	0		4	20	0		0	0	4		0	0	0		56
Pedestrians		0				0				60				12			72
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

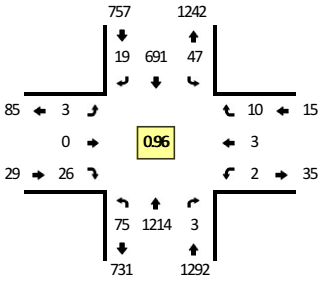
Type of peak hour being reported: Intersection Peak

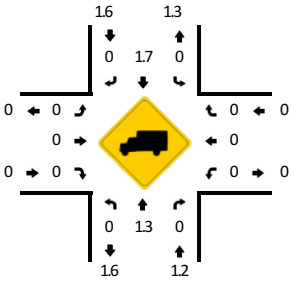
Method for determining peak hour: Total Entering Volume

LOCATION: 2. Thornton Ave -- Oak St
CITY/STATE: Alameda, CA

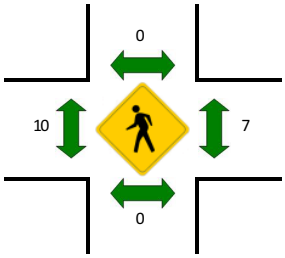
QC JOB #: 14919404
DATE: Thu, Mar 7 2019

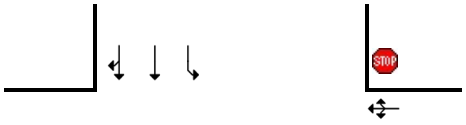
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:45 PM -- 6:00 PM

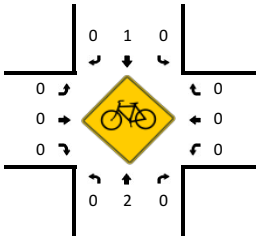


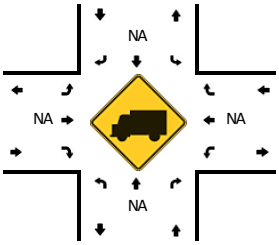


Quality Counts
DATA THAT DRIVES COMMUNITIES

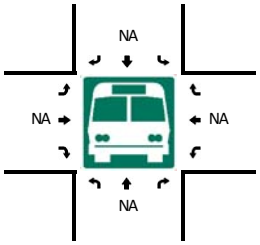












5-Min Count Period Beginning At	2. Thornton Ave (Northbound)				2. Thornton Ave (Southbound)				Oak St (Eastbound)				Oak St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	96	0	2	2	72	4	0	1	0	3	0	0	0	0	0	184	
4:05 PM	2	83	0	1	2	69	2	1	1	0	0	0	0	0	0	0	161	
4:10 PM	3	110	0	0	0	57	1	1	0	0	3	0	0	0	0	0	175	
4:15 PM	6	103	0	3	1	51	3	3	0	0	2	0	0	0	1	0	173	
4:20 PM	4	83	1	1	2	74	2	1	0	1	1	0	0	0	1	0	171	
4:25 PM	2	97	0	0	1	49	1	1	0	0	0	0	0	0	1	0	152	
4:30 PM	2	95	0	0	2	50	2	0	0	0	3	0	0	0	0	0	154	
4:35 PM	11	99	0	2	0	51	0	1	1	0	1	0	1	0	1	0	168	
4:40 PM	1	104	0	1	3	69	2	0	1	0	0	0	0	1	1	0	183	
4:45 PM	3	96	0	0	0	52	4	2	1	0	2	0	0	0	0	0	160	
4:50 PM	1	122	0	1	1	66	1	3	1	0	4	0	0	0	0	0	200	
4:55 PM	7	95	1	0	1	56	3	1	0	0	4	0	0	0	1	0	169	2050
5:00 PM	7	116	1	1	4	70	3	0	0	0	3	0	0	0	0	0	205	2071
5:05 PM	5	87	0	3	2	63	1	0	0	0	2	0	0	0	1	0	164	2074
5:10 PM	6	102	0	0	7	45	4	1	0	0	1	0	1	0	0	0	167	2066
5:15 PM	4	95	0	0	0	64	0	1	0	0	5	0	0	0	2	0	171	2064
5:20 PM	5	99	0	0	2	47	1	2	0	0	0	0	0	0	2	0	158	2051
5:25 PM	4	96	0	3	0	48	1	2	0	0	2	0	0	1	0	0	157	2056
5:30 PM	7	86	1	2	3	49	0	3	2	0	3	0	0	1	1	0	158	2060
5:35 PM	5	120	0	0	3	60	3	0	0	0	4	0	0	0	1	0	196	2088
5:40 PM	4	101	0	0	5	60	0	1	0	0	1	0	0	0	1	0	173	2078
5:45 PM	4	87	1	1	2	71	1	3	0	0	2	0	0	0	1	0	173	2091
5:50 PM	6	115	0	1	3	60	2	2	1	0	1	0	1	1	1	0	194	2085
5:55 PM	6	110	0	1	1	54	3	0	0	0	2	0	0	0	0	0	177	2093

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	1248	4	12	24	740	24	20	4	0	20	0	4	4	8	0	2176
Heavy Trucks	0	20	0		0	16	0		0	0	0		0	0	0		36
Pedestrians		0				0				8				0			8
Bicycles	0	2	0		0	0	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

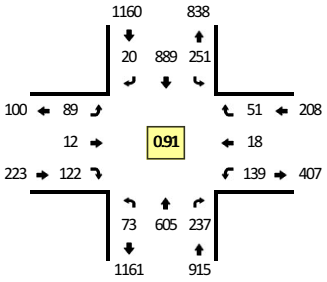
Type of peak hour being reported: Intersection Peak

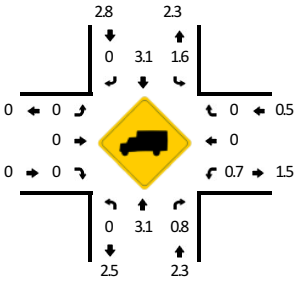
Method for determining peak hour: Total Entering Volume

LOCATION: 3. Thornton Ave -- Dusterberry Way
CITY/STATE: Alameda, CA

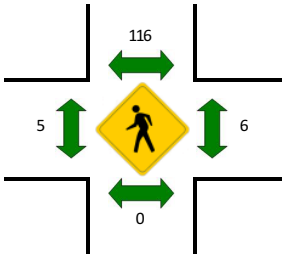
QC JOB #: 14919405
DATE: Thu, Mar 7 2019

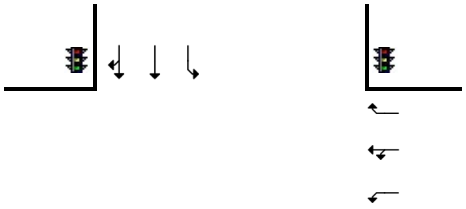
Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

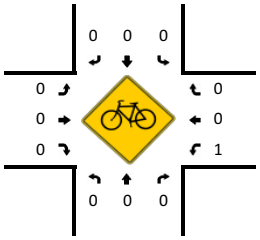


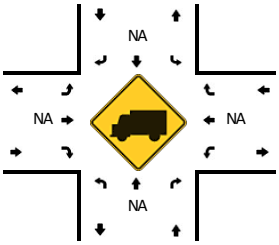


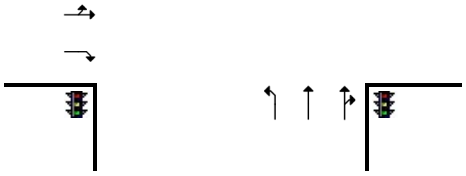
Quality Counts
DATA THAT DRIVES COMMUNITIES

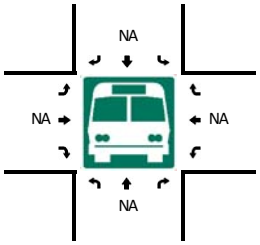












5-Min Count Period Beginning At	3. Thornton Ave (Northbound)				3. Thornton Ave (Southbound)				Dusterberry Way (Eastbound)				Dusterberry Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	46	12	0	1	51	0	3	0	0	0	0	6	0	1	0	120	
7:05 AM	1	23	7	0	3	47	0	3	0	0	0	0	10	0	5	0	99	
7:10 AM	1	39	8	1	4	65	1	4	1	0	3	0	12	0	3	0	142	
7:15 AM	0	24	7	1	6	55	1	1	2	0	2	0	10	0	3	0	112	
7:20 AM	1	39	16	3	6	58	4	5	1	0	1	0	3	0	2	0	139	
7:25 AM	1	35	9	0	8	78	0	0	9	0	4	0	6	0	3	0	153	
7:30 AM	4	52	20	1	11	74	2	5	9	1	5	0	6	0	7	0	197	
7:35 AM	4	53	21	0	12	62	0	4	12	0	13	0	14	1	1	0	197	
7:40 AM	3	54	25	1	8	50	2	4	10	2	14	0	7	5	3	0	188	
7:45 AM	11	63	24	4	9	73	2	10	13	1	15	0	8	3	5	0	241	
7:50 AM	11	51	35	2	8	76	4	4	10	2	13	0	13	3	6	0	238	
7:55 AM	14	37	21	1	8	54	9	11	14	1	24	0	12	1	2	0	209	2035
8:00 AM	11	60	15	1	8	77	0	13	15	1	16	0	15	3	2	0	237	2152
8:05 AM	3	45	17	1	8	73	0	11	8	3	21	0	18	0	5	0	213	2266
8:10 AM	7	48	19	0	12	90	2	8	12	1	16	0	11	1	3	0	230	2354
8:15 AM	0	34	15	0	14	59	1	4	2	1	1	0	14	0	4	0	149	2391
8:20 AM	0	56	25	0	19	77	0	6	2	0	2	0	17	2	1	0	207	2459
8:25 AM	1	45	7	0	21	76	0	7	2	0	0	0	9	0	5	0	173	2479
8:30 AM	0	50	19	0	21	105	0	9	0	0	0	0	8	0	9	0	221	2503
8:35 AM	1	62	15	1	22	79	0	6	1	0	0	0	7	0	6	0	200	2506
8:40 AM	0	38	16	0	23	74	0	4	0	0	1	0	12	0	10	0	178	2496
8:45 AM	0	47	11	0	25	67	0	3	0	0	0	0	23	0	4	0	180	2435
8:50 AM	0	46	12	0	10	62	0	2	1	0	0	0	12	1	14	0	160	2357
8:55 AM	0	41	10	0	9	101	0	3	0	0	0	0	11	0	8	0	183	2331

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	604	320	28	100	812	60	100	148	16	208	0	132	28	52	0	2752
Heavy Trucks	0	12	0		0	16	0		0	0	0		0	0	0		28
Pedestrians		0				184				8				8			200
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

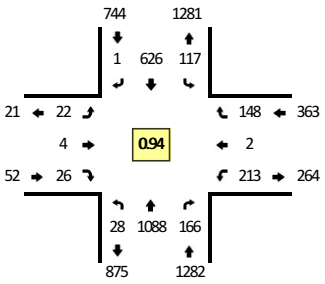
Type of peak hour being reported: Intersection Peak

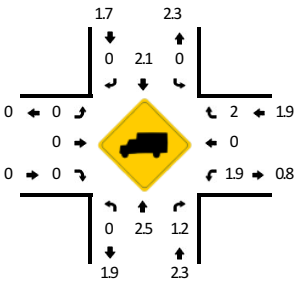
Method for determining peak hour: Total Entering Volume

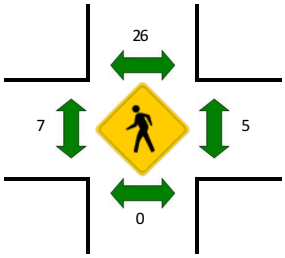
LOCATION: 3. Thornton Ave -- Dusterberry Way
CITY/STATE: Alameda, CA

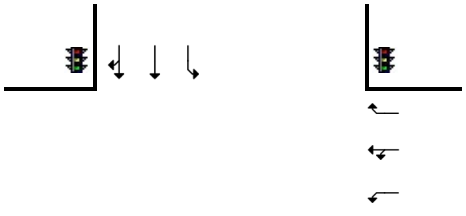
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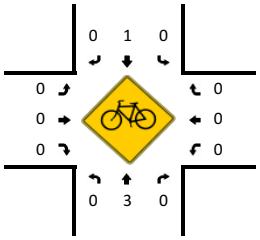
Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

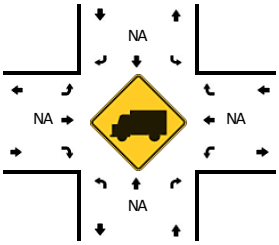


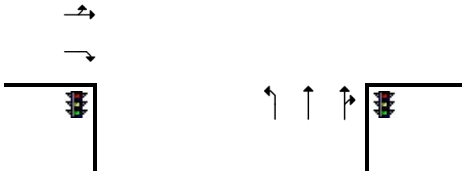


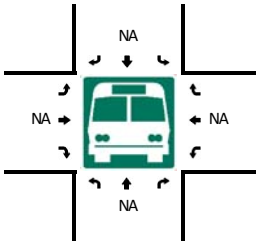












5-Min Count Period Beginning At	3. Thornton Ave (Northbound)				3. Thornton Ave (Southbound)				Dusterberry Way (Eastbound)				Dusterberry Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	89	9	0	8	59	2	1	3	0	1	0	16	0	16	0	205	
4:05 PM	1	81	7	1	10	70	1	2	9	0	4	0	13	0	6	0	205	
4:10 PM	0	81	20	1	11	52	0	2	2	0	0	0	16	0	14	0	199	
4:15 PM	1	108	8	1	10	46	0	2	1	1	3	0	9	0	8	0	198	
4:20 PM	0	70	17	3	4	58	0	2	1	0	0	0	19	0	12	0	186	
4:25 PM	3	80	13	0	4	45	0	2	0	0	2	0	22	1	12	0	184	
4:30 PM	2	103	11	1	16	43	1	0	0	1	0	0	22	0	13	0	213	
4:35 PM	3	88	15	1	6	45	0	0	0	0	1	0	21	0	17	0	197	
4:40 PM	2	95	16	1	6	63	0	2	2	0	1	0	16	1	7	0	212	
4:45 PM	0	85	13	2	2	47	0	4	2	0	5	0	15	0	11	0	186	
4:50 PM	1	88	17	0	8	52	0	5	4	1	0	0	22	0	19	0	217	
4:55 PM	3	89	8	0	10	39	0	3	6	1	9	0	16	0	10	0	194	2396
5:00 PM	2	106	16	0	8	61	0	0	2	0	4	0	15	0	15	0	229	2420
5:05 PM	1	95	12	0	9	75	0	1	2	0	1	0	20	0	10	0	226	2441
5:10 PM	0	73	14	0	7	39	0	2	1	0	0	0	23	0	21	0	180	2422
5:15 PM	0	97	7	0	9	59	0	1	1	0	0	0	28	0	14	0	216	2440
5:20 PM	0	86	15	1	5	36	0	3	0	0	0	0	16	0	16	0	178	2432
5:25 PM	0	80	14	0	5	40	0	0	0	0	0	0	17	0	11	0	167	2415
5:30 PM	0	86	8	0	12	47	1	3	0	0	2	0	15	0	10	0	184	2386
5:35 PM	1	103	8	0	3	56	0	2	0	0	0	0	18	0	14	0	205	2394
5:40 PM	0	98	5	0	4	64	0	1	0	0	0	0	13	1	13	0	199	2381
5:45 PM	0	84	12	3	7	59	0	4	0	0	0	0	10	0	7	0	186	2381
5:50 PM	2	108	17	0	4	57	0	3	0	0	0	0	16	0	13	0	220	2384
5:55 PM	0	100	14	0	5	50	0	1	0	0	0	0	19	0	12	0	201	2391

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	1160	144	0	108	700	0	16	40	4	56	0	204	0	140	0	2596
Heavy Trucks	0	16	4		0	8	0		0	0	0		0	0	4		32
Pedestrians		0				8				12				12			32
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

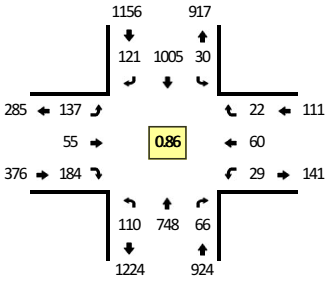
Report generated on 3/20/2019 2:15 PM

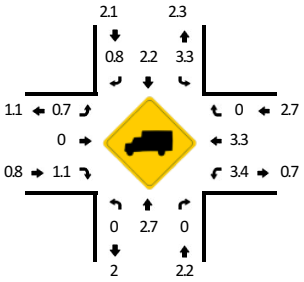
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

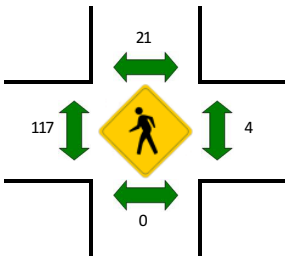
LOCATION: 4. Thornton Ave -- Coronado Dr/Contra Costa Ave | **QC JOB #:** 14919407
CITY/STATE: Alameda, CA | **DATE:** Thu, Mar 7 2019

Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

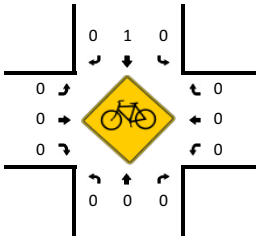


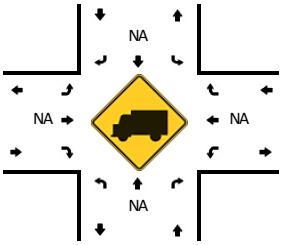


Quality Counts
DATA THAT DRIVES COMMUNITIES

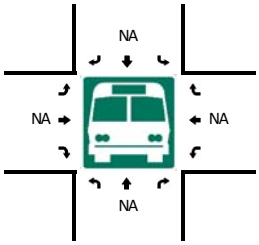












5-Min Count Period Beginning At	4. Thornton Ave (Northbound)				4. Thornton Ave (Southbound)				Coronado Dr/Contra Costa Ave (Eastbound)				Coronado Dr/Contra Costa Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	46	1	0	0	56	1	0	6	0	8	0	1	0	2	0	121	
7:05 AM	0	24	1	0	1	54	2	0	5	0	13	0	3	0	1	0	104	
7:10 AM	2	38	1	0	1	67	2	0	7	1	10	0	2	1	2	0	134	
7:15 AM	1	30	1	0	0	73	1	0	5	1	9	0	1	0	2	0	124	
7:20 AM	2	51	1	0	0	58	2	0	7	1	18	0	2	0	2	0	144	
7:25 AM	2	44	0	1	0	84	3	0	5	1	15	0	0	0	1	0	156	
7:30 AM	4	60	3	0	0	59	4	0	15	3	13	0	4	1	3	0	169	
7:35 AM	5	52	2	0	0	88	7	0	14	1	13	0	4	1	10	0	197	
7:40 AM	6	80	9	0	0	68	8	0	10	8	21	0	3	3	0	0	216	
7:45 AM	11	82	9	1	2	82	7	0	16	6	17	0	1	6	2	0	242	
7:50 AM	13	74	9	1	1	83	13	0	19	7	21	0	4	9	3	0	257	
7:55 AM	19	78	16	1	1	82	13	0	9	3	22	0	3	2	1	0	250	2114
8:00 AM	10	62	6	0	1	78	16	1	12	5	16	0	5	3	2	0	217	2210
8:05 AM	8	48	3	0	2	95	15	7	11	6	27	0	5	7	0	0	234	2340
8:10 AM	4	49	1	2	0	102	13	0	10	5	10	0	1	7	1	0	205	2411
8:15 AM	10	53	3	0	3	70	6	1	7	4	10	0	1	8	2	0	178	2465
8:20 AM	4	65	3	0	2	85	9	1	12	3	6	0	1	8	1	0	200	2521
8:25 AM	10	47	3	0	4	74	7	0	7	1	9	0	1	5	0	0	168	2533
8:30 AM	4	58	2	1	4	98	7	0	10	6	12	0	0	1	0	0	203	2567
8:35 AM	4	63	2	1	2	79	6	0	8	4	15	0	0	1	2	0	187	2557
8:40 AM	6	51	1	0	2	79	2	0	9	3	13	0	1	0	0	0	167	2508
8:45 AM	3	46	1	0	0	85	3	0	4	0	5	0	2	0	0	0	149	2415
8:50 AM	5	50	2	0	1	70	5	0	4	0	14	0	0	0	1	0	152	2310
8:55 AM	2	56	0	1	0	108	4	0	4	0	9	0	3	0	0	0	187	2247

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	172	936	136	12	16	988	132	0	176	64	240	0	32	68	24	0	2996
Heavy Trucks	0	12	0		0	16	0		0	0	0		0	0	0		28
Pedestrians		0				44				316				8			368
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad Stopped Buses																	

Comments:

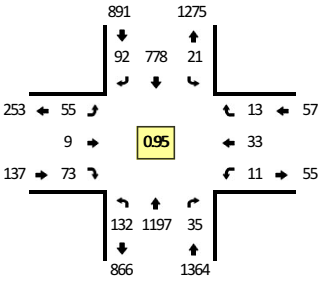
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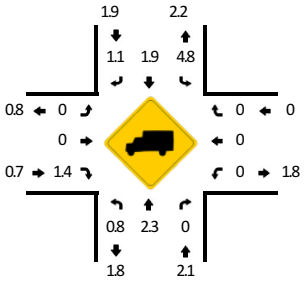
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

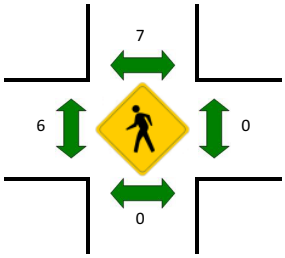
LOCATION: 4. Thornton Ave -- Coronado Dr/Contra Costa Ave | **QC JOB #:** 14919408
CITY/STATE: Alameda, CA | **DATE:** Thu, Mar 7 2019

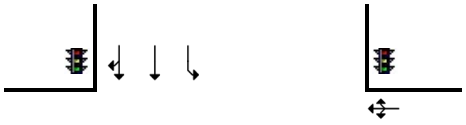
Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

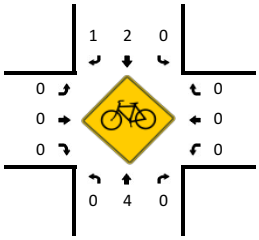


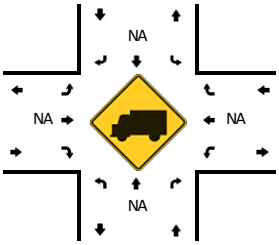


Quality Counts
DATA THAT DRIVES COMMUNITIES

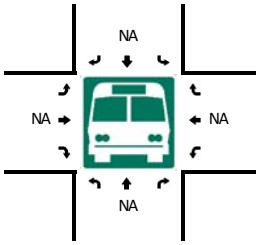












5-Min Count Period Beginning At	4. Thornton Ave (Northbound)				4. Thornton Ave (Southbound)				Coronado Dr/Contra Costa Ave (Eastbound)				Coronado Dr/Contra Costa Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	92	1	0	2	62	3	0	4	4	8	0	1	0	0	0	186	
4:05 PM	6	78	3	1	0	84	9	2	2	4	5	0	2	1	1	0	198	
4:10 PM	6	94	3	0	1	62	10	2	5	0	5	0	0	3	1	0	192	
4:15 PM	8	105	1	0	0	56	4	0	2	2	5	0	4	1	3	0	191	
4:20 PM	12	92	4	1	1	69	8	1	2	0	8	0	1	2	2	0	203	
4:25 PM	11	100	2	0	1	57	11	0	1	0	6	0	1	2	0	0	192	
4:30 PM	10	103	5	1	1	51	8	1	3	1	5	0	0	1	1	0	191	
4:35 PM	14	107	4	0	0	66	6	0	7	0	5	0	1	3	1	0	214	
4:40 PM	13	109	2	0	1	57	7	0	6	1	2	0	2	3	1	0	204	
4:45 PM	13	94	1	1	0	72	9	0	6	1	7	0	0	4	0	0	208	
4:50 PM	12	101	5	1	1	77	9	5	6	2	7	0	0	4	0	0	230	
4:55 PM	8	93	3	0	1	63	3	0	4	0	8	0	0	2	3	0	188	2397
5:00 PM	14	110	2	0	1	74	6	1	6	1	7	0	1	3	1	0	227	2438
5:05 PM	7	89	3	0	3	74	11	0	7	1	8	0	1	5	0	0	209	2449
5:10 PM	10	90	1	0	0	57	9	1	5	1	7	0	0	2	1	0	184	2441
5:15 PM	13	97	0	1	2	68	6	2	4	0	4	0	2	0	0	0	199	2449
5:20 PM	10	88	0	0	0	46	9	0	6	1	8	0	0	4	3	0	175	2421
5:25 PM	8	93	1	0	1	53	6	0	2	1	3	0	3	4	2	0	177	2406
5:30 PM	13	100	7	1	1	61	5	0	2	0	1	0	1	1	0	0	193	2408
5:35 PM	14	99	4	0	1	61	8	0	4	2	3	0	0	4	1	0	201	2395
5:40 PM	10	104	1	0	2	71	6	0	0	1	4	0	1	3	2	0	205	2396
5:45 PM	18	93	4	0	1	59	7	0	4	1	11	0	1	1	0	0	200	2388
5:50 PM	13	128	6	0	1	54	10	0	4	0	5	0	2	4	0	0	227	2385
5:55 PM	9	109	1	0	0	64	10	0	6	2	9	0	0	0	1	0	211	2408

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	136	1216	40	4	12	856	72	24	64	12	88	0	4	36	16	0	2580
Heavy Trucks	4	24	0		0	4	0		0	0	4		0	0	0		36
Pedestrians		0				8				8				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

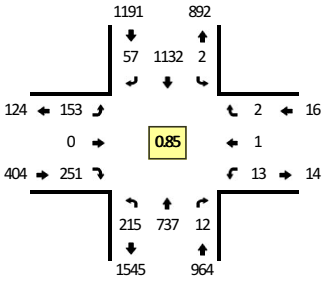
Type of peak hour being reported: Intersection Peak

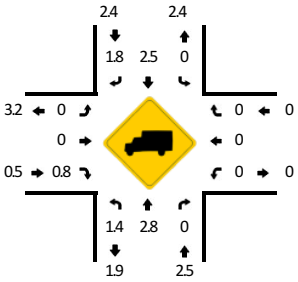
Method for determining peak hour: Total Entering Volume

LOCATION: 5. Thornton Ave -- Cabrillo Dr
CITY/STATE: Alameda, CA

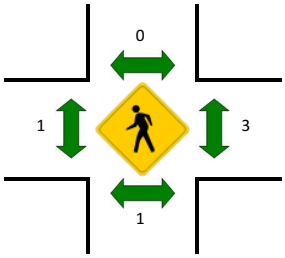
QC JOB #: 14919409
DATE: Thu, Mar 7 2019

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

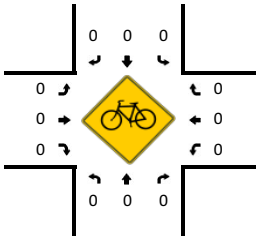


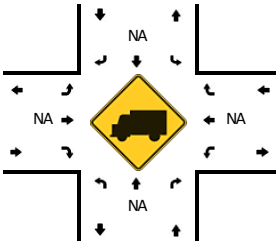


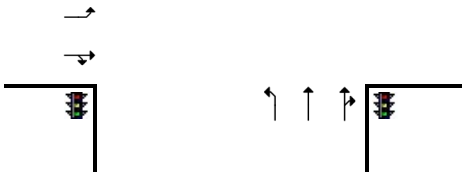
Quality Counts
DATA THAT DRIVES COMMUNITIES

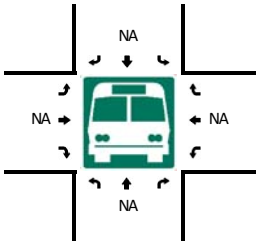












5-Min Count Period Beginning At	5. Thornton Ave (Northbound)				5. Thornton Ave (Southbound)				Cabrillo Dr (Eastbound)				Cabrillo Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	42	0	7	0	64	0	0	4	0	2	0	0	0	0	0	120	
7:05 AM	5	21	0	7	0	63	2	0	4	0	11	0	1	0	0	0	114	
7:10 AM	0	34	0	3	0	89	0	0	3	0	22	0	0	0	0	0	151	
7:15 AM	2	31	0	4	0	72	5	0	3	0	14	0	0	0	0	0	131	
7:20 AM	1	42	0	2	0	97	2	0	8	0	11	0	0	0	1	0	164	
7:25 AM	5	35	0	3	0	86	2	1	7	0	15	0	2	0	0	0	156	
7:30 AM	1	48	0	4	0	79	1	0	14	0	26	0	1	0	0	0	174	
7:35 AM	3	58	0	9	0	100	0	0	11	0	19	0	0	0	0	0	200	
7:40 AM	2	65	0	8	0	85	2	0	21	0	19	0	0	0	1	0	203	
7:45 AM	2	80	1	11	0	110	0	0	19	0	15	0	3	0	0	0	241	
7:50 AM	10	80	2	16	0	87	2	0	24	0	26	0	3	0	0	0	250	
7:55 AM	4	93	1	22	0	103	7	0	14	0	20	0	1	0	1	0	266	2170
8:00 AM	6	50	4	18	1	94	10	0	10	0	20	0	2	0	0	0	215	2265
8:05 AM	3	53	0	2	0	103	13	0	8	0	26	0	0	0	0	0	208	2359
8:10 AM	8	41	2	10	0	98	6	0	10	0	22	0	1	0	0	0	198	2406
8:15 AM	9	61	2	10	0	82	7	0	3	0	17	0	2	1	0	0	194	2469
8:20 AM	8	63	0	7	0	83	3	0	6	0	20	0	0	0	0	0	190	2495
8:25 AM	5	50	0	15	1	79	3	0	12	0	15	0	0	0	0	0	180	2519
8:30 AM	4	51	0	16	0	108	3	0	9	0	22	0	1	0	0	0	214	2559
8:35 AM	5	50	0	14	0	100	1	0	17	0	29	0	0	0	0	0	216	2575
8:40 AM	4	45	1	8	0	109	2	0	11	0	16	0	1	0	0	0	197	2569
8:45 AM	4	41	1	5	0	92	3	0	6	0	12	0	0	0	0	0	164	2492
8:50 AM	6	55	0	4	0	76	2	0	7	0	11	0	2	0	0	0	163	2405
8:55 AM	4	44	1	16	0	120	3	0	6	0	12	0	1	0	0	0	207	2346

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	1012	16	196	0	1200	36	0	228	0	244	0	28	0	4	0	3028
Heavy Trucks	0	16	0		0	16	0		0	0	4		0	0	0		36
Pedestrians		4				0				4				8			16
Bicycles	0	0	0		0	0	0		0	0	1		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

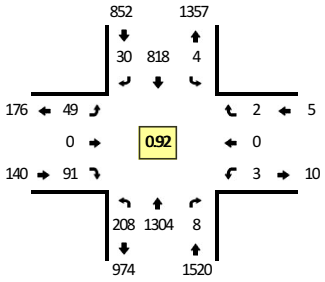
Type of peak hour being reported: Intersection Peak

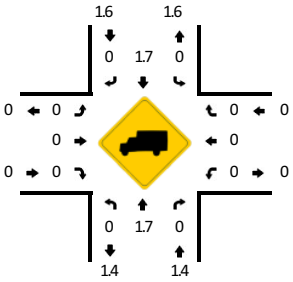
Method for determining peak hour: Total Entering Volume

LOCATION: 5. Thornton Ave -- Cabrillo Dr
CITY/STATE: Alameda, CA

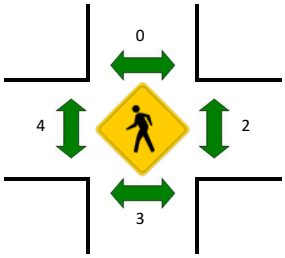
QC JOB #: 14919410
DATE: Thu, Mar 7 2019

Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

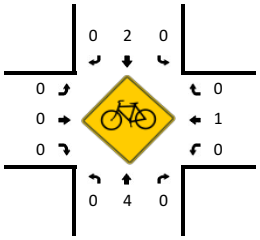


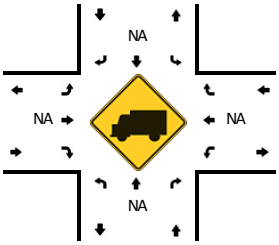


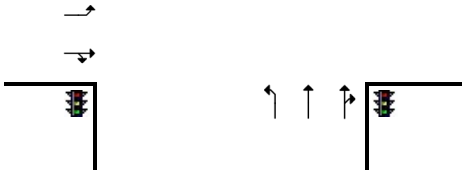
Quality Counts
DATA THAT DRIVES COMMUNITIES

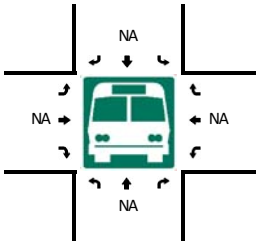












5-Min Count Period Beginning At	5. Thornton Ave (Northbound)				5. Thornton Ave (Southbound)				Cabrillo Dr (Eastbound)				Cabrillo Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	22	86	1	1	0	59	6	0	6	0	2	0	0	0	0	0	183	
4:05 PM	11	99	1	3	0	73	9	0	3	0	9	0	0	0	0	0	208	
4:10 PM	17	89	2	3	0	71	3	0	2	0	13	0	0	0	1	0	201	
4:15 PM	11	102	1	2	0	52	2	0	2	0	4	0	0	0	1	0	177	
4:20 PM	11	102	1	4	0	60	0	1	2	0	11	0	1	0	0	0	193	
4:25 PM	5	121	1	5	0	76	3	0	5	0	5	0	1	0	0	0	222	
4:30 PM	11	94	1	7	0	46	4	0	8	0	4	0	0	0	0	0	175	
4:35 PM	13	126	0	3	0	54	3	0	5	0	10	0	0	0	1	0	215	
4:40 PM	9	119	0	9	1	75	4	0	6	0	6	0	0	0	1	0	230	
4:45 PM	12	115	1	7	0	71	3	0	3	0	6	0	0	0	0	0	218	
4:50 PM	21	114	1	4	0	74	2	1	5	0	16	0	1	0	0	0	239	
4:55 PM	14	100	0	5	0	61	2	0	3	0	5	0	0	0	0	0	190	2451
5:00 PM	9	106	0	5	1	84	2	0	2	0	11	0	0	0	0	0	220	2488
5:05 PM	21	105	1	3	0	92	2	0	3	0	2	0	0	0	0	0	229	2509
5:10 PM	7	79	1	5	0	52	4	0	5	0	6	0	0	0	0	0	159	2467
5:15 PM	13	123	1	5	0	73	1	0	2	0	9	0	0	0	0	0	227	2517
5:20 PM	10	96	0	4	1	55	4	0	4	0	4	0	0	0	0	0	178	2502
5:25 PM	11	116	1	4	0	50	2	0	8	0	4	0	0	0	0	0	196	2476
5:30 PM	20	119	2	4	0	53	5	0	2	0	8	0	1	0	0	0	214	2515
5:35 PM	10	105	3	5	1	66	8	0	3	0	3	0	0	0	0	0	204	2504
5:40 PM	14	108	1	11	0	60	8	0	5	0	9	0	1	0	1	0	218	2492
5:45 PM	14	120	1	11	0	70	6	0	6	0	6	0	1	0	0	0	235	2509
5:50 PM	12	130	3	10	0	55	4	0	6	0	5	0	1	0	0	0	226	2496
5:55 PM	10	113	1	10	0	49	3	0	5	0	6	0	1	0	0	0	198	2504

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	168	1392	8	80	4	880	36	4	56	0	112	0	4	0	4	0	2748
Heavy Trucks	0	32	0		0	20	0		0	0	0		0	0	0		52
Pedestrians		4				0				4				0			8
Bicycles	0	2	0		0	0	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

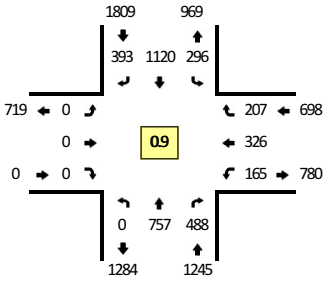
Type of peak hour being reported: Intersection Peak

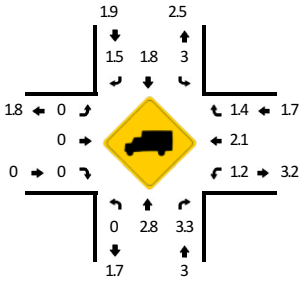
Method for determining peak hour: Total Entering Volume

LOCATION: 6. Thornton Ave -- Blacow Rd/I-880 NB Ramps
CITY/STATE: Alameda, CA

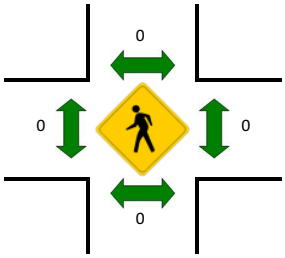
QC JOB #: 14919411
DATE: Thu, Mar 7 2019

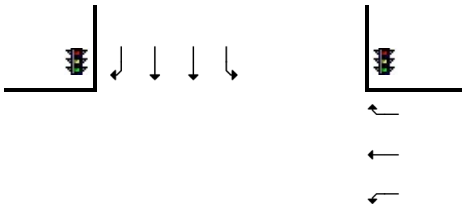
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

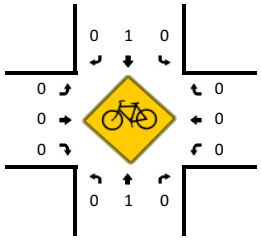


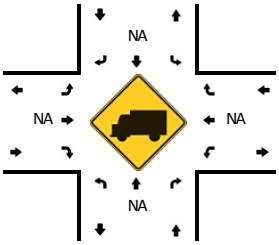


Quality Counts
DATA THAT DRIVES COMMUNITIES

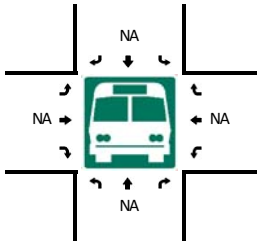












5-Min Count Period Beginning At	6. Thornton Ave (Northbound)				6. Thornton Ave (Southbound)				Blacow Rd/I-880 NB Ramps (Eastbound)				Blacow Rd/I-880 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	31	21	0	9	55	15	0	0	0	0	0	14	20	7	0	172	
7:05 AM	0	26	17	0	8	61	24	0	0	0	0	0	4	28	3	1	172	
7:10 AM	0	35	26	0	20	81	19	0	0	0	0	0	9	21	8	0	219	
7:15 AM	0	33	12	0	20	82	17	0	0	0	0	0	11	20	6	0	201	
7:20 AM	0	40	32	0	16	83	18	0	0	0	0	0	4	15	4	0	212	
7:25 AM	0	37	32	0	19	80	14	0	0	0	0	0	15	27	5	0	229	
7:30 AM	0	60	41	0	26	75	20	0	0	0	0	0	11	25	10	1	269	
7:35 AM	0	60	49	0	26	88	36	0	0	0	0	0	16	23	9	0	307	
7:40 AM	0	71	44	0	23	77	25	0	0	0	0	0	11	26	14	0	291	
7:45 AM	0	93	38	0	27	85	35	0	0	0	0	0	11	25	17	1	332	
7:50 AM	0	98	48	0	26	92	39	0	0	0	0	0	12	26	15	0	356	
7:55 AM	0	79	48	0	22	93	44	1	0	0	0	0	18	29	18	0	352	3112
8:00 AM	0	53	44	0	25	101	39	0	0	0	0	0	14	29	16	0	321	3261
8:05 AM	0	57	36	0	22	65	44	0	0	0	0	0	24	27	16	0	291	3380
8:10 AM	0	53	44	0	24	90	32	0	0	0	0	0	16	29	13	0	301	3462
8:15 AM	0	70	41	0	27	82	24	0	0	0	0	0	10	24	23	0	301	3562
8:20 AM	0	63	29	0	22	63	24	0	0	0	0	0	5	27	34	0	267	3617
8:25 AM	0	52	44	0	23	97	29	2	0	0	0	0	15	27	12	0	301	3689
8:30 AM	0	47	34	0	21	118	32	2	0	0	0	0	13	25	15	0	307	3727
8:35 AM	0	37	35	0	27	107	30	0	0	0	0	0	9	29	14	0	288	3708
8:40 AM	0	55	47	0	25	127	21	0	0	0	0	0	17	29	14	0	335	3752
8:45 AM	0	42	35	0	28	85	19	0	0	0	0	0	7	22	9	0	247	3667
8:50 AM	0	57	32	0	26	78	9	0	0	0	0	0	13	20	11	1	247	3558
8:55 AM	0	47	33	0	30	86	35	0	0	0	0	0	11	15	5	0	262	3468

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1080	536	0	300	1080	472	4	0	0	0	0	164	320	200	4	4160
Heavy Trucks	0	12	24		4	8	12		0	0	0		0	16	0		76
Pedestrians		0				0				0				0			0
Bicycles	0	1	0		0	1	0		0	0	0		0	0	0		2
Railroad Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

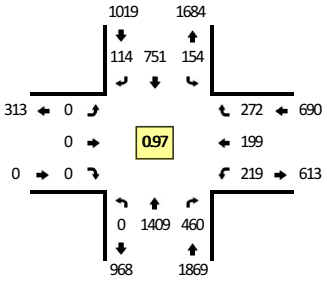
Type of peak hour being reported: Intersection Peak

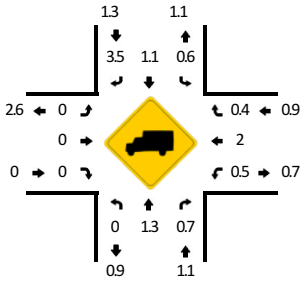
Method for determining peak hour: Total Entering Volume

LOCATION: 6. Thornton Ave -- Blacow Rd/I-880 NB Ramps
CITY/STATE: Alameda, CA

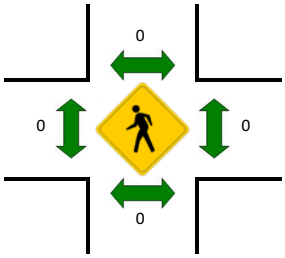
QC JOB #: 14919412
DATE: Thu, Mar 7 2019

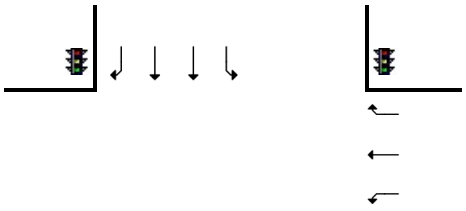
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

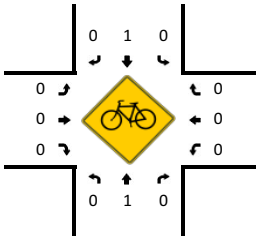


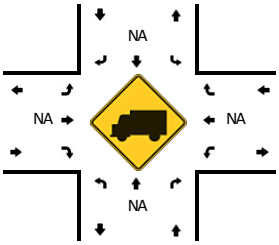


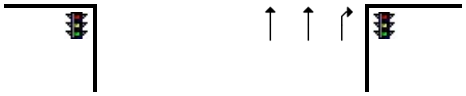
Quality Counts
DATA THAT DRIVES COMMUNITIES

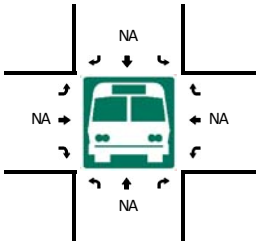












5-Min Count Period Beginning At	6. Thornton Ave (Northbound)				6. Thornton Ave (Southbound)				Blacow Rd/I-880 NB Ramps (Eastbound)				Blacow Rd/I-880 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	118	20	0	8	43	6	1	0	0	0	0	9	6	12	0	223	
4:05 PM	0	89	39	0	13	66	18	0	0	0	0	0	20	21	27	1	294	
4:10 PM	0	114	42	0	15	57	6	0	0	0	0	0	16	11	9	0	270	
4:15 PM	0	118	38	0	8	52	8	0	0	0	0	0	17	13	15	0	269	
4:20 PM	0	120	21	0	14	57	8	0	0	0	0	0	15	16	9	0	260	
4:25 PM	0	118	37	0	22	73	8	0	0	0	0	0	23	19	16	0	316	
4:30 PM	0	123	36	0	8	47	9	1	0	0	0	0	16	15	17	1	273	
4:35 PM	0	125	44	0	9	45	8	0	0	0	0	0	20	18	13	0	282	
4:40 PM	0	120	30	0	22	65	9	0	0	0	0	0	23	15	18	0	302	
4:45 PM	0	133	36	0	13	57	11	0	0	0	0	0	15	15	23	0	303	
4:50 PM	0	126	38	0	16	74	16	0	0	0	0	0	16	14	26	0	326	
4:55 PM	0	122	36	0	15	64	9	0	0	0	0	0	12	13	21	0	292	3410
5:00 PM	0	108	40	0	19	75	8	1	0	0	0	0	21	8	28	0	308	3495
5:05 PM	0	113	34	0	7	85	13	0	0	0	0	0	20	22	16	1	311	3512
5:10 PM	0	96	37	0	7	44	7	0	0	0	0	0	27	20	9	0	247	3489
5:15 PM	0	111	39	0	16	75	12	0	0	0	0	0	14	23	27	0	317	3537
5:20 PM	0	119	38	0	9	57	9	0	0	0	0	0	18	15	26	0	291	3568
5:25 PM	0	118	40	0	10	45	11	0	0	0	0	0	22	21	31	0	298	3550
5:30 PM	0	135	34	0	10	55	3	0	0	0	0	0	16	12	25	0	290	3567
5:35 PM	0	112	43	0	10	65	7	0	0	0	0	0	17	17	21	0	292	3577
5:40 PM	0	123	38	0	18	47	10	0	0	0	0	0	15	20	23	0	294	3569
5:45 PM	0	126	43	0	14	65	9	2	0	0	0	0	19	14	19	1	312	3578
5:50 PM	0	133	44	0	11	51	11	1	0	0	0	0	19	13	16	0	299	3551
5:55 PM	0	134	40	0	12	54	7	1	0	0	0	0	14	19	23	0	304	3563

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1424	456	0	200	852	132	4	0	0	0	0	196	140	300	0	3704
Heavy Trucks	0	16	4		0	12	4		0	0	0		4	8	0		48
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

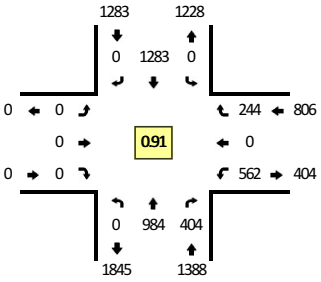
Type of peak hour being reported: Intersection Peak

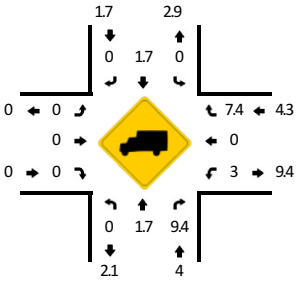
Method for determining peak hour: Total Entering Volume

LOCATION: 7. Thornton Ave -- I-880 NB off-ramp
CITY/STATE: Alameda, CA

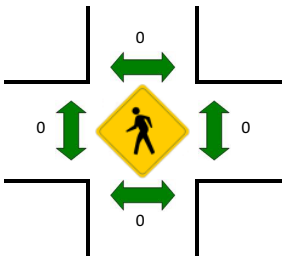
QC JOB #: 14919413
DATE: Thu, Mar 7 2019

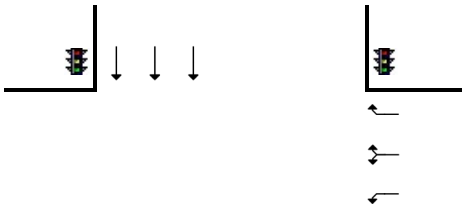
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

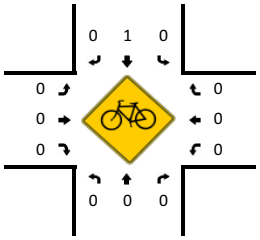


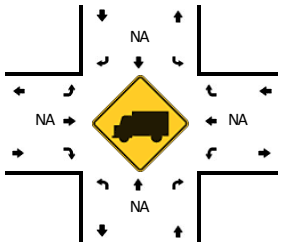


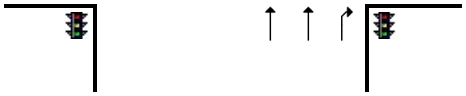
Quality Counts
DATA THAT DRIVES COMMUNITIES

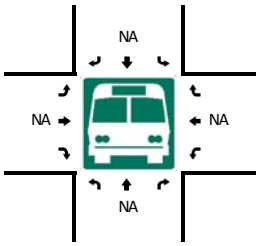












5-Min Count Period Beginning At	7. Thornton Ave (Northbound)				7. Thornton Ave (Southbound)				I-880 NB off-ramp (Eastbound)				I-880 NB off-ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	36	32	0	0	67	0	0	0	0	0	0	24	0	16	0	175	
7:05 AM	0	30	42	0	0	67	0	0	0	0	0	0	18	0	19	0	176	
7:10 AM	0	42	43	0	0	90	0	0	0	0	0	0	26	0	18	0	219	
7:15 AM	0	31	27	0	0	95	0	0	0	0	0	0	22	0	13	0	188	
7:20 AM	0	56	33	0	0	87	0	0	0	0	0	0	23	0	16	0	215	
7:25 AM	0	58	30	0	0	96	0	0	0	0	0	0	29	0	17	0	230	
7:30 AM	0	79	41	0	0	87	0	0	0	0	0	0	47	0	21	0	275	
7:35 AM	0	94	37	0	0	104	0	0	0	0	0	0	29	0	19	0	283	
7:40 AM	0	94	34	0	0	88	0	0	0	0	0	0	29	0	27	0	272	
7:45 AM	0	103	41	0	0	96	0	0	0	0	0	0	46	0	28	0	314	
7:50 AM	0	115	39	0	0	105	0	0	0	0	0	0	45	0	30	0	334	
7:55 AM	0	96	27	0	0	109	0	0	0	0	0	0	51	0	25	0	308	2989
8:00 AM	0	83	44	0	0	115	0	0	0	0	0	0	45	0	10	0	297	3111
8:05 AM	0	78	36	0	0	93	0	0	0	0	0	0	34	0	17	0	258	3193
8:10 AM	0	75	34	0	0	105	0	0	0	0	0	0	47	0	17	0	278	3252
8:15 AM	0	94	37	0	0	93	0	0	0	0	0	0	40	0	23	0	287	3351
8:20 AM	0	63	27	0	0	67	0	0	0	0	0	0	50	0	24	0	231	3367
8:25 AM	0	86	25	0	0	112	0	0	0	0	0	0	59	0	18	0	300	3437
8:30 AM	0	56	34	0	0	132	0	0	0	0	0	0	45	0	14	0	281	3443
8:35 AM	0	61	38	0	0	116	0	0	0	0	0	0	61	0	14	0	290	3450
8:40 AM	0	74	22	0	0	140	0	0	0	0	0	0	39	0	24	0	299	3477
8:45 AM	0	68	40	0	0	97	0	0	0	0	0	0	36	0	15	0	256	3419
8:50 AM	0	64	30	0	0	93	0	0	0	0	0	0	36	0	23	0	246	3331
8:55 AM	0	59	26	0	0	96	0	0	0	0	0	0	45	0	19	0	245	3268

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1256	428	0	0	1240	0	0	0	0	0	0	568	0	332	0	3824
Heavy Trucks	0	20	60		0	12	0		0	0	0		16	0	20		128
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 7. Thornton Ave -- I-880 NB off-ramp

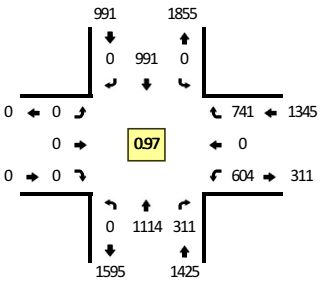
QC JOB #: 14919414

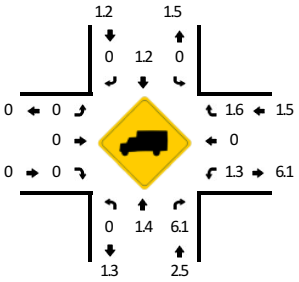
CITY/STATE: Alameda, CA

DATE: Thu, Mar 7 2019

Peak-Hour: 4:25 PM -- 5:25 PM

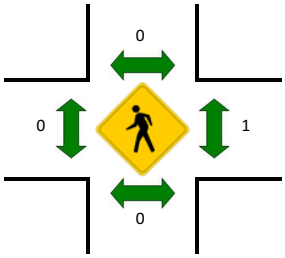
Peak 15-Min: 4:40 PM -- 4:55 PM

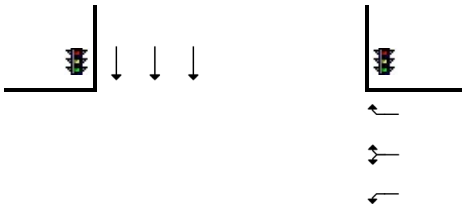


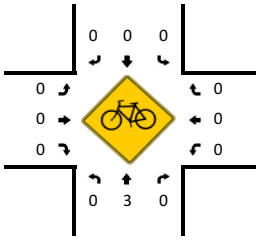


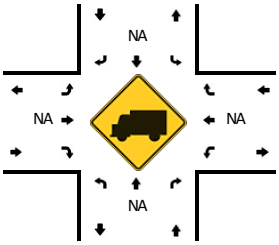
Quality Counts

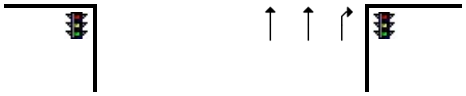
DATA THAT DRIVES COMMUNITIES

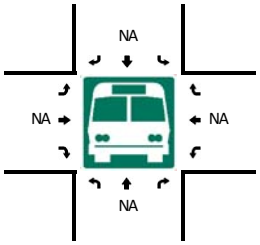












5-Min Count Period Beginning At	7. Thornton Ave (Northbound)				7. Thornton Ave (Southbound)				I-880 NB off-ramp (Eastbound)				I-880 NB off-ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	69	21	0	0	53	0	0	0	0	0	0	41	0	62	0	246	
4:05 PM	0	82	33	0	0	83	0	0	0	0	0	0	51	0	56	0	305	
4:10 PM	0	96	32	0	0	74	0	0	0	0	0	0	42	0	65	0	309	
4:15 PM	0	99	21	0	0	66	0	0	0	0	0	0	52	0	51	0	289	
4:20 PM	0	85	24	0	0	74	0	0	0	0	0	0	50	0	62	0	295	
4:25 PM	0	91	26	0	0	97	0	0	0	0	0	0	49	0	66	0	329	
4:30 PM	0	91	22	0	0	62	0	0	0	0	0	0	48	0	67	0	290	
4:35 PM	0	99	32	0	0	65	0	0	0	0	0	0	50	0	69	0	315	
4:40 PM	0	89	27	0	0	88	0	0	0	0	0	0	50	0	61	0	315	
4:45 PM	0	96	29	0	0	71	0	0	0	0	0	0	53	0	71	0	320	
4:50 PM	0	101	21	0	0	91	0	0	0	0	0	0	50	0	69	0	332	
4:55 PM	0	80	12	0	0	77	0	0	0	0	0	0	58	0	66	0	293	3638
5:00 PM	0	95	35	0	0	96	0	0	0	0	0	0	47	0	62	0	335	3727
5:05 PM	0	81	31	0	0	108	0	0	0	0	0	0	49	0	56	0	325	3747
5:10 PM	0	81	36	0	0	71	0	0	0	0	0	0	46	0	56	0	290	3728
5:15 PM	0	107	22	0	0	88	0	0	0	0	0	0	59	0	45	0	321	3760
5:20 PM	0	103	18	0	0	77	0	0	0	0	0	0	45	0	53	0	296	3761
5:25 PM	0	98	26	0	0	66	0	0	0	0	0	0	50	0	61	0	301	3733
5:30 PM	0	114	25	0	0	72	0	0	0	0	0	0	36	0	57	0	304	3747
5:35 PM	0	103	28	0	0	80	0	0	0	0	0	0	50	0	49	0	310	3742
5:40 PM	0	110	20	0	0	64	0	0	0	0	0	0	45	0	56	0	295	3722
5:45 PM	0	104	29	0	0	86	0	0	0	0	0	0	39	0	65	0	323	3725
5:50 PM	0	119	24	0	0	70	0	0	0	0	0	0	56	0	56	0	325	3718
5:55 PM	0	109	24	0	0	69	0	0	0	0	0	0	50	0	62	0	314	3739

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1144	308	0	0	1000	0	0	0	0	0	0	612	0	804	0	3868
Heavy Trucks	0	20	24		0	20	0		0	0	0		8	0	16		88
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 8. Thornton Ave -- I-880 SB off-ramp

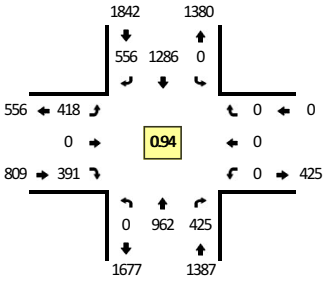
QC JOB #: 14919415

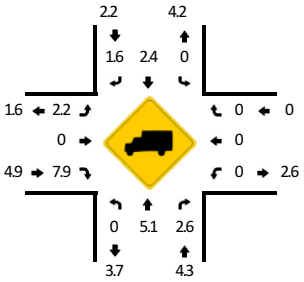
CITY/STATE: Alameda, CA

DATE: Thu, Mar 7 2019

Peak-Hour: 7:45 AM -- 8:45 AM

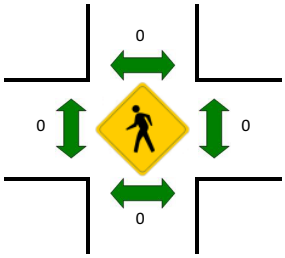
Peak 15-Min: 7:50 AM -- 8:05 AM



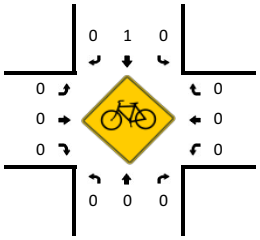


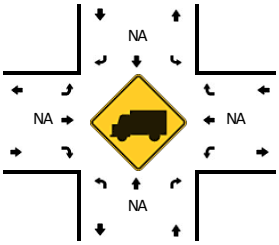
Quality Counts

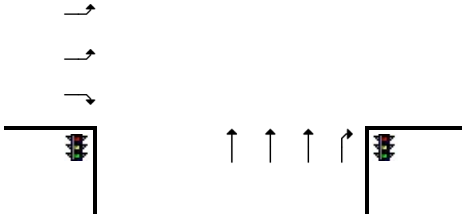
DATA THAT DRIVES COMMUNITIES

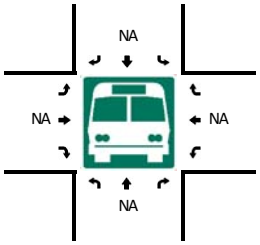












5-Min Count Period Beginning At	8. Thornton Ave (Northbound)				8. Thornton Ave (Southbound)				I-880 SB off-ramp (Eastbound)				I-880 SB off-ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	55	33	0	0	58	45	0	15	0	16	0	0	0	0	0	222	
7:05 AM	0	63	40	0	0	39	51	0	14	0	19	0	0	0	0	0	226	
7:10 AM	0	61	38	0	0	57	44	0	20	0	27	0	0	0	0	0	247	
7:15 AM	0	50	44	0	0	72	45	0	9	0	23	0	0	0	0	0	243	
7:20 AM	0	61	36	0	0	70	42	0	24	0	18	0	0	0	0	0	251	
7:25 AM	0	66	36	0	0	75	44	0	31	0	17	0	0	0	0	0	269	
7:30 AM	0	72	38	0	0	103	37	0	44	0	18	0	0	0	0	0	312	
7:35 AM	0	92	39	0	0	86	49	0	36	0	15	0	0	0	0	0	317	
7:40 AM	0	84	35	0	0	73	39	0	50	0	19	0	0	0	0	0	300	
7:45 AM	0	102	39	0	0	85	51	0	43	0	24	0	0	0	0	0	344	
7:50 AM	0	82	26	0	0	99	50	0	65	0	29	0	0	0	0	0	351	
7:55 AM	0	79	48	0	0	112	56	0	45	0	33	0	0	0	0	0	373	3455
8:00 AM	0	84	42	0	0	118	42	0	37	0	29	0	0	0	0	0	352	3585
8:05 AM	0	88	44	0	0	87	43	0	27	0	40	0	0	0	0	0	329	3688
8:10 AM	0	81	40	0	0	112	44	0	30	0	29	0	0	0	0	0	336	3777
8:15 AM	0	95	36	0	0	75	52	0	27	0	34	0	0	0	0	0	319	3853
8:20 AM	0	65	43	0	0	84	37	0	31	0	37	0	0	0	0	0	297	3899
8:25 AM	0	77	31	0	0	110	42	0	34	0	24	0	0	0	0	0	318	3948
8:30 AM	0	64	27	0	0	147	42	0	26	0	34	0	0	0	0	0	340	3976
8:35 AM	0	76	26	0	0	139	40	0	20	0	34	0	0	0	0	0	335	3994
8:40 AM	0	69	23	0	0	118	57	0	33	0	44	0	0	0	0	0	344	4038
8:45 AM	0	62	25	0	0	113	36	0	38	0	40	0	0	0	0	0	314	4008
8:50 AM	0	66	31	0	0	107	29	0	29	0	38	0	0	0	0	0	300	3957
8:55 AM	0	65	18	0	0	99	27	0	26	0	32	0	0	0	0	0	267	3851

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	980	464	0	0	1316	592	0	588	0	364	0	0	0	0	0	4304
Heavy Trucks	0	36	4		0	8	0		12	0	16		0	0	0		76
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	1		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 8. Thornton Ave -- I-880 SB off-ramp

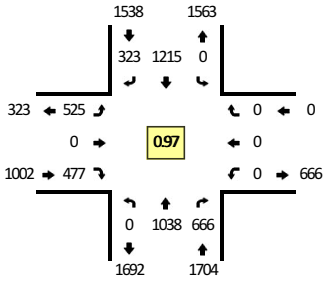
QC JOB #: 14919416

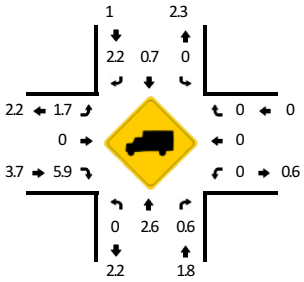
CITY/STATE: Alameda, CA

DATE: Thu, Mar 7 2019

Peak-Hour: 5:00 PM -- 6:00 PM

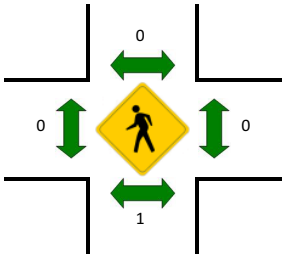
Peak 15-Min: 5:15 PM -- 5:30 PM



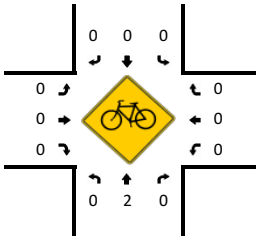


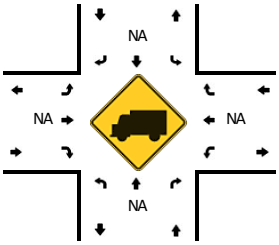
Quality Counts

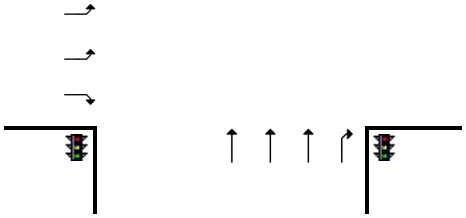
DATA THAT DRIVES COMMUNITIES

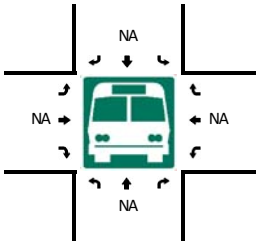












5-Min Count Period Beginning At	8. Thornton Ave (Northbound)				8. Thornton Ave (Southbound)				I-880 SB off-ramp (Eastbound)				I-880 SB off-ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	68	47	0	0	78	27	0	31	0	28	0	0	0	0	0	279	
4:05 PM	0	78	39	0	0	102	17	0	39	0	28	0	0	0	0	0	303	
4:10 PM	0	81	55	0	0	91	33	0	46	0	32	0	0	0	0	0	338	
4:15 PM	0	78	49	0	0	102	17	0	32	0	48	0	0	0	0	0	326	
4:20 PM	0	87	65	0	0	93	30	0	42	0	36	0	0	0	0	0	353	
4:25 PM	0	75	47	0	0	104	41	0	40	0	35	0	0	0	0	0	342	
4:30 PM	0	64	63	0	0	84	21	0	38	0	23	0	0	0	0	0	293	
4:35 PM	0	103	45	0	0	97	24	0	44	0	23	0	0	0	0	0	336	
4:40 PM	0	79	47	0	0	112	20	0	36	0	39	0	0	0	0	0	333	
4:45 PM	0	81	51	0	0	95	36	0	42	0	34	0	0	0	0	0	339	
4:50 PM	0	79	64	0	0	108	38	0	37	0	33	0	0	0	0	0	359	
4:55 PM	0	44	56	0	0	93	32	0	37	0	29	0	0	0	0	0	291	3892
5:00 PM	0	99	53	0	0	118	36	0	36	0	42	0	0	0	0	0	384	3997
5:05 PM	0	71	58	0	0	106	34	0	41	0	33	0	0	0	0	0	343	4037
5:10 PM	0	85	58	0	0	105	27	0	34	0	40	0	0	0	0	0	349	4048
5:15 PM	0	82	61	0	0	124	18	0	53	0	51	0	0	0	0	0	389	4111
5:20 PM	0	82	53	0	0	100	26	0	39	0	53	0	0	0	0	0	353	4111
5:25 PM	0	94	56	0	0	96	23	0	46	0	40	0	0	0	0	0	355	4124
5:30 PM	0	77	60	0	0	82	28	0	42	0	30	0	0	0	0	0	319	4150
5:35 PM	0	99	58	0	0	102	30	0	48	0	33	0	0	0	0	0	370	4184
5:40 PM	0	85	66	0	0	84	24	0	39	0	45	0	0	0	0	0	343	4194
5:45 PM	0	87	58	0	0	93	25	0	54	0	33	0	0	0	0	0	350	4205
5:50 PM	0	101	50	0	0	107	28	0	47	0	35	0	0	0	0	0	368	4214
5:55 PM	0	76	35	0	0	98	24	0	46	0	42	0	0	0	0	0	321	4244

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1032	680	0	0	1280	268	0	552	0	576	0	0	0	0	0	4388
Heavy Trucks	0	36	0		0	4	8		4	0	36		0	0	0		88
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

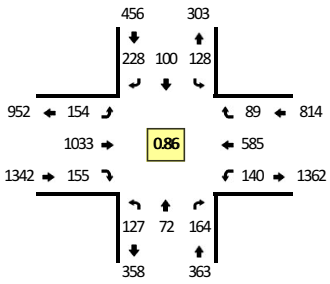
Type of peak hour being reported: Intersection Peak

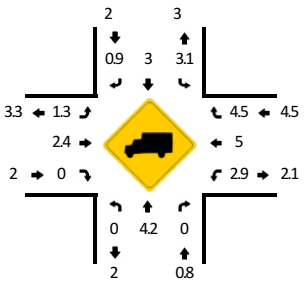
Method for determining peak hour: Total Entering Volume

LOCATION: 9. Alder Ave -- Fremont Blvd
CITY/STATE: Alameda, CA

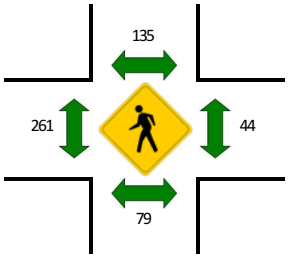
QC JOB #: 14919417
DATE: Thu, Mar 7 2019

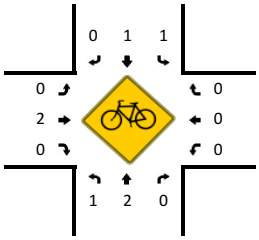
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

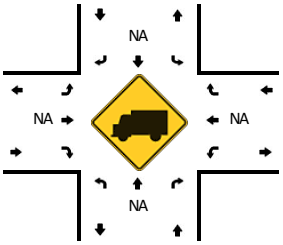


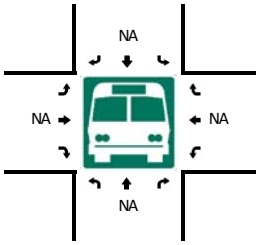


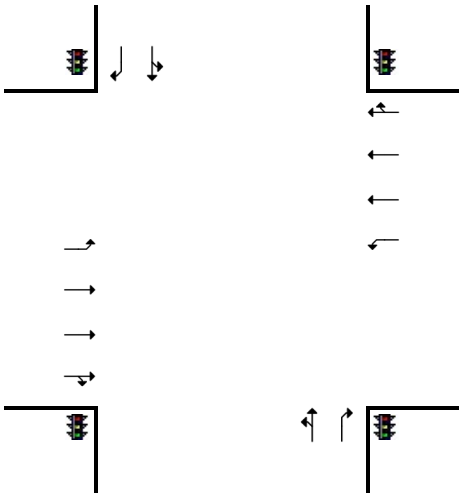
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	9. Alder Ave (Northbound)				9. Alder Ave (Southbound)				Fremont Blvd (Eastbound)				Fremont Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	2	0	0	7	2	11	0	11	48	1	0	1	12	3	1	101	
7:05 AM	1	1	4	0	5	4	12	0	17	66	4	1	3	13	4	1	136	
7:10 AM	0	0	3	0	6	2	17	0	4	50	0	0	0	22	4	2	110	
7:15 AM	2	2	1	0	3	2	4	0	12	55	2	0	2	23	1	2	111	
7:20 AM	1	2	4	0	7	3	12	0	10	72	3	0	2	26	2	1	145	
7:25 AM	3	0	4	0	7	2	12	0	18	97	9	1	0	23	6	1	183	
7:30 AM	6	3	8	0	11	8	23	0	23	70	12	1	4	20	10	3	202	
7:35 AM	1	7	11	0	13	6	19	0	23	85	10	0	5	50	10	1	241	
7:40 AM	7	10	9	0	13	10	31	0	28	74	22	2	3	31	6	3	249	
7:45 AM	8	8	16	0	10	9	22	0	24	71	21	0	1	52	10	5	257	
7:50 AM	6	9	10	0	12	8	27	0	0	76	21	0	8	59	9	6	251	
7:55 AM	3	6	12	0	16	7	27	0	15	82	22	3	12	54	15	3	277	2263
8:00 AM	15	5	8	0	16	9	44	0	15	78	19	5	9	61	9	2	295	2457
8:05 AM	12	4	17	0	10	8	21	0	14	128	10	0	10	52	7	4	297	2618
8:10 AM	19	5	16	0	4	8	7	0	10	98	8	1	15	52	4	4	251	2759
8:15 AM	18	4	12	0	12	11	3	0	3	99	7	1	12	39	5	4	230	2878
8:20 AM	18	5	21	0	6	10	11	0	6	61	4	0	15	38	4	1	200	2933
8:25 AM	9	4	15	0	9	7	7	0	2	79	6	0	9	45	5	2	199	2949
8:30 AM	11	5	17	0	7	7	9	0	2	102	5	0	4	52	5	2	228	2975
8:35 AM	11	1	15	0	4	0	6	0	7	124	2	0	3	32	2	3	210	2944
8:40 AM	4	1	6	0	8	2	4	0	1	104	3	1	0	37	3	2	176	2871
8:45 AM	3	0	6	0	2	3	4	0	2	102	10	0	1	31	2	2	168	2782
8:50 AM	4	1	5	0	3	1	3	0	2	104	9	1	1	51	4	6	195	2726
8:55 AM	4	0	7	0	3	0	3	0	2	96	9	0	2	35	1	2	164	2613

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	120	60	148	0	168	96	368	0	176	1152	204	32	124	668	124	36	3476
Heavy Trucks	0	4	0		4	0	4		0	28	0		4	28	4		76
Pedestrians		48				176				284				48			556
Bicycles	0	1	0		1	0	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

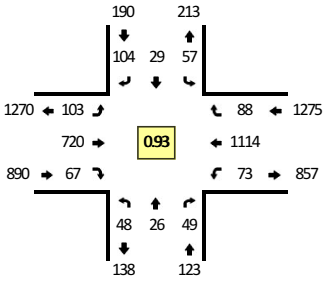
Type of peak hour being reported: Intersection Peak

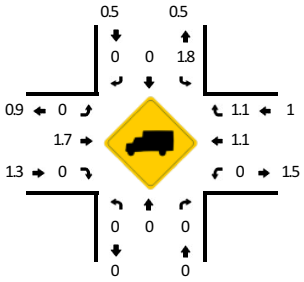
Method for determining peak hour: Total Entering Volume

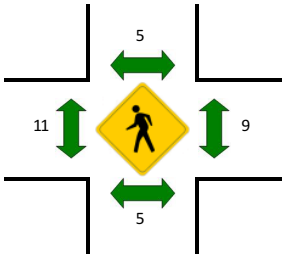
LOCATION: 9. Alder Ave -- Fremont Blvd
CITY/STATE: Alameda, CA

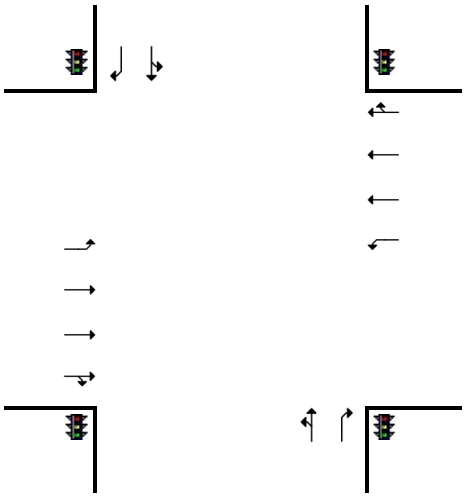
QC JOB #: 14919418
DATE: Thu, Mar 7 2019

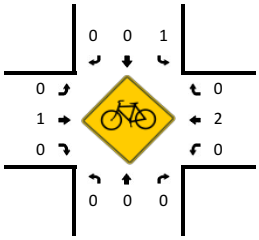
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:45 PM -- 6:00 PM

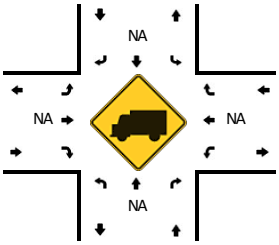


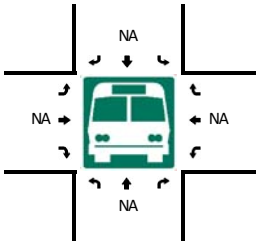












5-Min Count Period Beginning At	9. Alder Ave (Northbound)				9. Alder Ave (Southbound)				Fremont Blvd (Eastbound)				Fremont Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	2	7	0	9	3	8	0	9	47	2	0	3	69	9	8	181	
4:05 PM	4	4	3	0	11	0	7	0	6	61	2	0	3	80	9	2	192	
4:10 PM	6	4	2	0	9	4	7	0	3	61	4	0	5	114	1	1	221	
4:15 PM	4	1	6	0	1	1	3	0	4	68	2	0	4	75	5	2	176	
4:20 PM	5	3	8	0	5	2	8	0	7	59	2	0	3	63	4	1	170	
4:25 PM	1	1	8	0	3	2	7	0	2	60	5	0	3	89	5	1	187	
4:30 PM	1	1	3	0	7	2	6	0	6	52	5	1	5	86	9	2	186	
4:35 PM	2	2	3	0	2	2	3	0	2	47	0	0	3	91	6	1	164	
4:40 PM	8	4	5	0	2	1	5	0	4	64	3	2	5	101	5	5	214	
4:45 PM	8	4	6	0	2	2	4	0	9	53	3	0	4	78	4	0	177	
4:50 PM	5	0	6	0	5	2	4	0	3	57	3	1	6	92	4	2	190	
4:55 PM	3	2	2	0	9	2	10	0	16	50	4	0	2	90	4	4	198	2256
5:00 PM	9	3	5	0	7	1	5	0	11	50	5	0	6	91	7	3	203	2278
5:05 PM	2	1	3	0	5	2	8	0	6	46	6	0	2	79	8	3	171	2257
5:10 PM	5	4	6	0	4	3	5	0	5	62	5	0	2	119	6	4	230	2266
5:15 PM	2	1	2	0	7	2	14	0	6	61	5	0	6	103	8	1	218	2308
5:20 PM	3	3	2	0	0	1	6	0	4	43	8	1	2	89	4	3	169	2307
5:25 PM	1	1	4	0	1	1	6	0	15	62	2	0	3	85	11	2	194	2314
5:30 PM	8	3	4	0	3	1	9	0	3	62	2	0	2	87	5	1	190	2318
5:35 PM	4	2	3	0	7	3	15	0	15	65	2	3	5	72	9	2	207	2361
5:40 PM	5	1	5	0	9	4	6	0	11	64	7	0	2	102	8	4	228	2375
5:45 PM	1	2	2	0	4	4	14	0	10	81	11	0	3	89	5	2	228	2426
5:50 PM	6	1	8	0	6	3	12	0	2	32	8	0	7	98	9	4	196	2432
5:55 PM	2	4	5	0	4	4	4	0	11	92	6	0	2	100	8	2	244	2478

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	28	60	0	56	44	120	0	92	820	100	0	48	1148	88	32	2672
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	8	0		24
Pedestrians		4				0				12				20			36
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

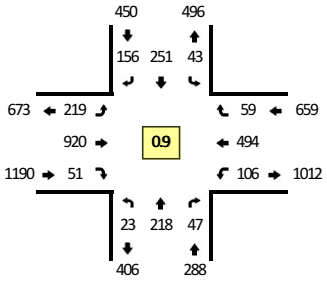
Type of peak hour being reported: Intersection Peak

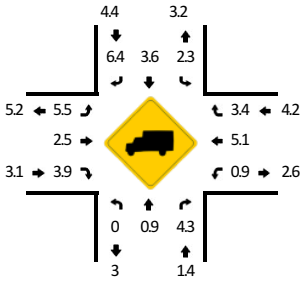
Method for determining peak hour: Total Entering Volume

LOCATION: 10. Peralta Blvd -- Fremont Blvd
CITY/STATE: Alameda, CA

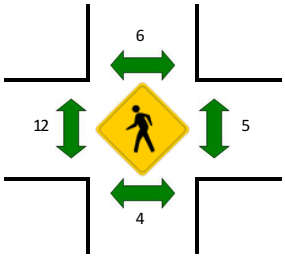
QC JOB #: 14919419
DATE: Thu, Mar 7 2019

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

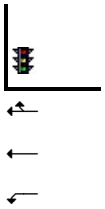


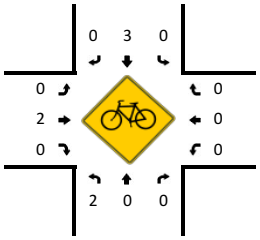


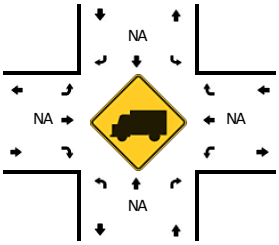
Quality Counts
DATA THAT DRIVES COMMUNITIES

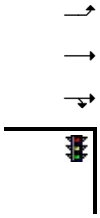


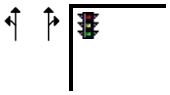


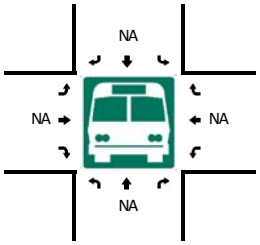












5-Min Count Period Beginning At	10. Peralta Blvd (Northbound)				10. Peralta Blvd (Southbound)				Fremont Blvd (Eastbound)				Fremont Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	4	1	0	2	4	8	0	5	38	2	0	1	21	6	0	93	
7:05 AM	0	8	2	0	2	10	4	0	5	23	4	0	1	13	2	0	74	
7:10 AM	0	7	3	0	4	19	6	0	3	48	3	0	0	18	1	0	112	
7:15 AM	0	2	2	0	1	8	7	0	11	32	4	0	2	22	1	0	92	
7:20 AM	0	7	2	0	4	8	5	0	5	71	4	0	0	17	1	0	124	
7:25 AM	1	6	4	0	10	24	13	0	10	65	5	0	4	20	2	0	164	
7:30 AM	0	8	5	0	0	17	11	0	9	86	4	0	1	35	3	0	179	
7:35 AM	3	7	5	0	3	17	7	0	15	59	3	0	3	23	2	0	147	
7:40 AM	2	15	11	0	5	20	14	0	21	70	4	0	10	43	5	0	220	
7:45 AM	1	22	6	0	6	18	20	0	14	89	7	0	9	53	4	0	249	
7:50 AM	1	17	4	0	5	25	18	0	18	79	6	0	7	41	4	0	225	
7:55 AM	2	19	2	0	2	25	8	0	11	25	4	0	12	28	5	0	143	1822
8:00 AM	0	20	2	0	1	15	13	0	24	85	5	0	16	46	6	0	233	1962
8:05 AM	5	20	4	0	5	16	15	0	18	92	5	0	13	47	6	0	246	2134
8:10 AM	1	17	3	0	1	19	12	0	13	96	7	0	10	51	11	0	241	2263
8:15 AM	0	20	3	0	5	24	10	0	20	70	2	0	10	45	6	0	215	2386
8:20 AM	3	18	2	0	1	14	9	0	20	75	1	0	10	37	1	2	193	2455
8:25 AM	0	10	4	0	4	25	12	0	12	71	3	0	1	34	7	0	183	2474
8:30 AM	3	13	1	0	3	22	11	0	22	105	5	0	3	33	2	0	223	2518
8:35 AM	5	27	5	0	5	28	14	0	26	63	2	0	3	36	2	0	216	2587
8:40 AM	0	5	5	0	1	10	12	0	16	91	10	0	4	30	3	0	187	2554
8:45 AM	1	21	4	0	6	20	10	0	13	62	1	0	9	26	0	0	173	2478
8:50 AM	0	7	3	0	3	14	10	0	12	85	5	0	2	44	2	0	187	2440
8:55 AM	2	16	7	0	2	26	15	0	22	100	5	0	6	33	6	0	240	2537

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	228	36	0	28	200	160	0	220	1092	68	0	156	576	92	0	2880
Heavy Trucks	0	0	0		0	4	4		4	40	4		0	28	4		88
Pedestrians		0				4				12				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

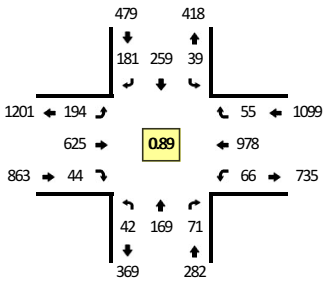
Type of peak hour being reported: Intersection Peak

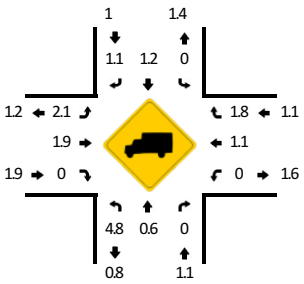
Method for determining peak hour: Total Entering Volume

LOCATION: 10. Peralta Blvd -- Fremont Blvd
CITY/STATE: Alameda, CA

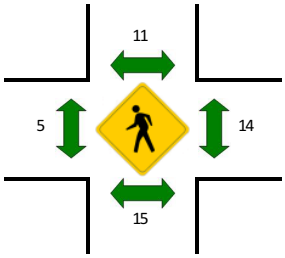
QC JOB #: 14919420
DATE: Thu, Mar 7 2019

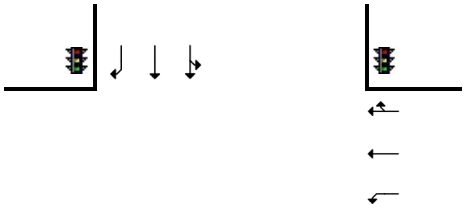
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:45 PM -- 6:00 PM

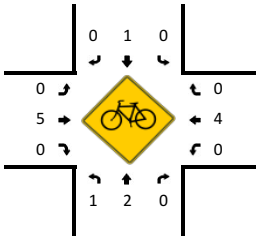


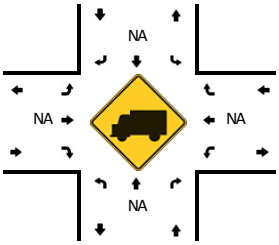


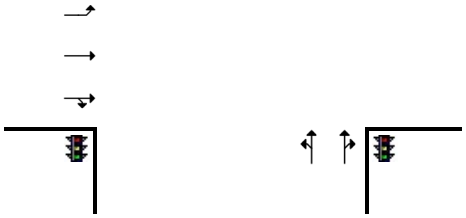
Quality Counts
DATA THAT DRIVES COMMUNITIES

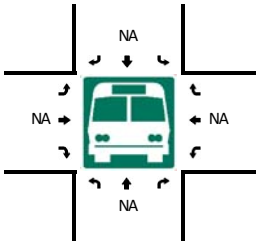












5-Min Count Period Beginning At	10. Peralta Blvd (Northbound)				10. Peralta Blvd (Southbound)				Fremont Blvd (Eastbound)				Fremont Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	13	4	0	3	12	10	0	9	43	4	0	8	73	3	0	186	
4:05 PM	6	9	2	0	2	7	3	0	9	58	4	0	4	95	4	0	203	
4:10 PM	4	16	3	0	0	18	13	0	12	50	3	0	2	60	4	0	185	
4:15 PM	3	12	6	0	4	13	12	0	16	47	3	0	2	71	3	0	192	
4:20 PM	5	8	6	0	1	16	10	0	14	55	0	0	9	67	2	0	193	
4:25 PM	0	8	3	0	3	9	8	0	20	48	4	0	5	89	6	0	203	
4:30 PM	2	8	6	0	4	16	10	0	7	48	4	0	1	73	1	0	180	
4:35 PM	7	12	4	0	7	28	14	0	15	37	6	0	5	54	5	0	194	
4:40 PM	4	11	4	0	7	15	16	0	10	33	10	0	3	89	2	0	204	
4:45 PM	2	11	4	0	2	29	12	0	16	36	2	0	6	76	3	0	199	
4:50 PM	1	12	4	0	0	19	9	0	8	39	1	0	2	73	8	0	176	
4:55 PM	3	16	6	0	3	18	11	0	14	46	3	0	8	98	1	0	227	2342
5:00 PM	8	14	6	0	0	24	21	0	18	39	2	0	12	49	1	0	194	2350
5:05 PM	3	12	7	0	1	23	8	0	5	57	1	0	3	94	2	0	216	2363
5:10 PM	3	19	8	0	3	28	20	0	15	42	1	0	4	85	5	0	233	2411
5:15 PM	5	14	5	0	4	15	5	0	14	56	0	0	7	77	3	0	205	2424
5:20 PM	3	11	5	0	2	20	17	0	10	60	7	0	4	96	6	0	241	2472
5:25 PM	4	18	2	0	4	22	12	0	13	39	7	0	2	69	0	0	192	2461
5:30 PM	1	11	4	0	4	27	13	0	17	42	2	0	6	65	6	0	198	2479
5:35 PM	4	13	10	0	3	20	10	0	25	50	4	0	8	83	6	0	236	2521
5:40 PM	1	13	3	0	2	23	17	0	16	69	7	0	2	87	5	0	245	2562
5:45 PM	5	16	6	0	6	26	24	0	22	41	4	0	4	86	7	0	247	2610
5:50 PM	3	19	10	0	7	13	15	0	18	61	2	0	5	86	5	0	244	2678
5:55 PM	2	9	5	0	3	18	19	0	21	69	7	0	9	101	9	0	272	2723

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	176	84	0	64	228	232	0	244	684	52	0	72	1092	84	0	3052
Heavy Trucks	0	0	0		0	4	4		0	16	0		0	16	0		40
Pedestrians		20				4				4				0			28
Bicycles	0	0	0		0	1	0		0	1	0		0	3	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

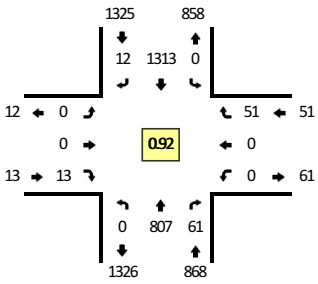
Type of peak hour being reported: Intersection Peak

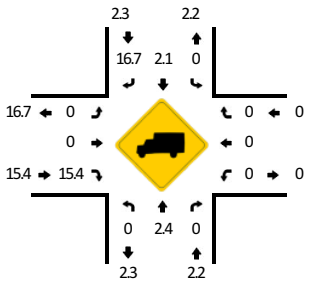
Method for determining peak hour: Total Entering Volume

LOCATION: 11. Thornton Ave -- North Dwy
CITY/STATE: Alameda, CA

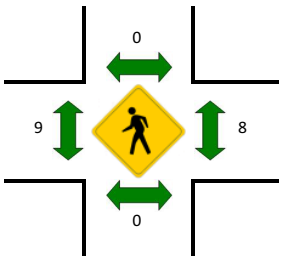
QC JOB #: 14919421
DATE: Thu, Mar 7 2019

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

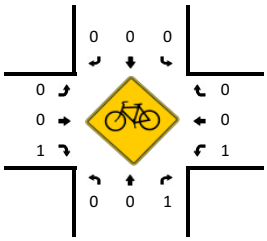


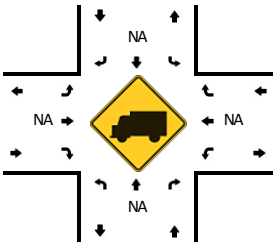


Quality Counts
DATA THAT DRIVES COMMUNITIES

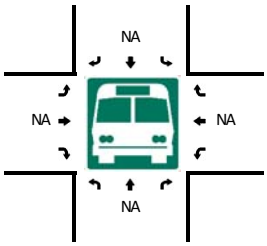












5-Min Count Period Beginning At	11. Thornton Ave (Northbound)				11. Thornton Ave (Southbound)				North Dwy (Eastbound)				North Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	41	3	0	0	58	0	0	0	0	0	0	0	0	1	0	103	
7:05 AM	0	30	3	0	0	48	0	0	0	0	0	0	0	0	1	0	82	
7:10 AM	0	35	5	0	0	74	1	0	0	0	0	0	0	0	3	0	118	
7:15 AM	0	35	5	0	0	78	0	0	0	0	1	0	0	0	9	0	128	
7:20 AM	0	37	7	0	0	75	0	0	0	0	0	0	0	0	4	0	123	
7:25 AM	0	46	1	0	0	104	0	0	0	0	0	0	0	0	4	0	155	
7:30 AM	0	51	6	0	0	94	0	0	0	0	0	0	0	0	2	0	153	
7:35 AM	0	83	6	0	0	95	1	0	0	0	0	0	0	0	5	0	190	
7:40 AM	0	68	5	0	0	113	0	0	0	0	1	0	0	0	3	0	190	
7:45 AM	0	74	6	0	0	115	0	0	0	0	0	0	0	0	4	0	199	
7:50 AM	0	78	4	0	0	118	1	0	0	0	0	0	0	0	5	0	206	
7:55 AM	0	70	9	0	0	117	0	0	0	0	1	0	0	0	6	0	203	1850
8:00 AM	0	76	6	0	0	95	3	0	0	0	0	0	0	0	6	0	186	1933
8:05 AM	0	87	3	0	0	120	2	0	0	0	5	0	0	0	5	0	222	2073
8:10 AM	0	56	4	0	0	105	4	0	0	0	4	0	0	0	5	0	178	2133
8:15 AM	0	43	6	0	0	73	1	0	0	0	1	0	0	0	3	0	127	2132
8:20 AM	0	72	3	0	0	108	0	0	0	0	0	0	0	0	2	0	185	2194
8:25 AM	0	58	3	0	0	103	0	0	0	0	0	0	0	0	2	0	166	2205
8:30 AM	0	58	6	0	0	122	0	0	0	0	0	0	0	0	2	0	188	2240
8:35 AM	0	67	6	0	0	124	1	0	0	0	1	0	0	0	8	0	207	2257
8:40 AM	0	37	11	0	0	95	0	0	0	0	0	0	0	0	6	0	149	2216
8:45 AM	0	53	6	0	0	92	0	0	0	0	0	0	0	0	2	0	153	2170
8:50 AM	0	62	3	0	0	76	0	0	0	0	0	0	0	0	2	0	143	2107
8:55 AM	0	49	7	0	0	110	0	0	0	0	0	0	0	0	5	0	171	2075

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	932	72	0	0	1328	20	0	0	0	24	0	0	0	68	0	2444
Heavy Trucks	0	32	0		0	24	4		0	0	8		0	0	0		68
Pedestrians		0				0				0				24			24
Bicycles	0	0	1		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

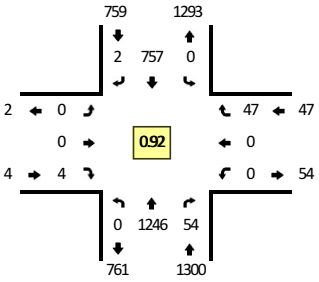
Type of peak hour being reported: Intersection Peak

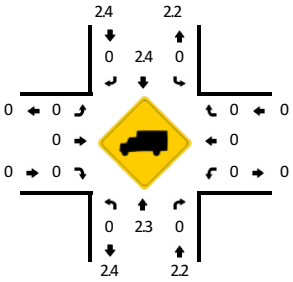
Method for determining peak hour: Total Entering Volume

LOCATION: 11. Thornton Ave -- North Dwy
CITY/STATE: Alameda, CA

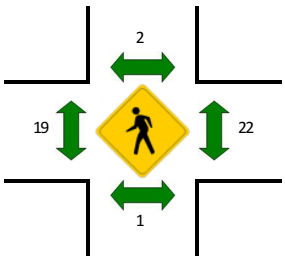
QC JOB #: 14919422
DATE: Thu, Mar 7 2019

Peak-Hour: 4:05 PM -- 5:05 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

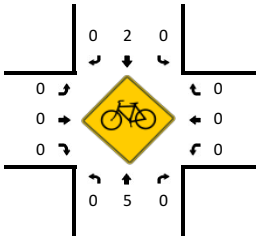


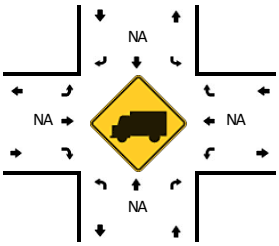


Quality Counts
DATA THAT DRIVES COMMUNITIES

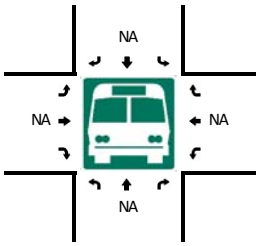












5-Min Count Period Beginning At	11. Thornton Ave (Northbound)				11. Thornton Ave (Southbound)				North Dwy (Eastbound)				North Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	91	2	0	0	65	2	0	0	0	0	0	0	0	4	0	164	
4:05 PM	0	86	2	0	0	74	1	0	0	0	2	0	0	0	3	0	168	
4:10 PM	0	122	4	0	0	67	0	0	0	0	1	0	0	0	0	0	194	
4:15 PM	0	107	5	0	0	60	0	0	0	0	0	0	0	0	4	0	176	
4:20 PM	0	85	5	0	0	66	0	0	0	0	0	0	0	0	6	0	162	
4:25 PM	0	102	2	0	0	48	0	0	0	0	0	0	0	0	5	0	157	
4:30 PM	0	95	3	0	0	60	0	0	0	0	0	0	0	0	2	0	160	
4:35 PM	0	106	7	0	0	52	1	0	0	0	1	0	0	0	8	0	175	
4:40 PM	0	93	4	0	0	72	0	0	0	0	0	0	0	0	4	0	173	
4:45 PM	0	108	5	0	0	55	0	0	0	0	0	0	0	0	2	0	170	
4:50 PM	0	118	5	0	0	60	0	0	0	0	0	0	0	0	4	0	187	
4:55 PM	0	101	9	0	0	65	0	0	0	0	0	0	0	0	4	0	179	2065
5:00 PM	0	123	3	0	0	78	0	0	0	0	0	0	0	0	5	0	209	2110
5:05 PM	0	92	2	0	0	68	0	0	0	0	0	0	0	0	5	0	167	2109
5:10 PM	0	109	4	0	0	43	0	0	0	0	0	0	0	0	2	0	158	2073
5:15 PM	0	88	1	0	0	78	0	0	0	0	0	0	0	0	4	0	171	2068
5:20 PM	0	105	4	0	0	37	0	0	0	0	0	0	0	0	3	0	149	2055
5:25 PM	0	94	1	0	0	60	0	0	0	0	0	0	0	0	8	0	163	2061
5:30 PM	0	100	2	0	0	55	0	0	0	0	0	0	0	0	3	0	160	2061
5:35 PM	0	118	2	0	0	63	0	0	0	0	0	0	0	0	1	0	184	2070
5:40 PM	0	114	1	0	0	68	0	0	0	0	0	0	0	0	2	0	185	2082
5:45 PM	0	97	1	0	0	69	0	0	0	0	0	0	0	0	1	0	168	2080
5:50 PM	0	123	5	0	0	57	1	0	0	0	1	0	0	0	2	0	189	2082
5:55 PM	0	106	2	0	0	66	0	0	0	0	0	0	0	0	3	0	177	2080

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1368	68	0	0	812	0	0	0	0	0	0	0	0	52	0	2300
Heavy Trucks	0	24	0		0	4	0		0	0	0		0	0	0		28
Pedestrians		0				0				36				36			72
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

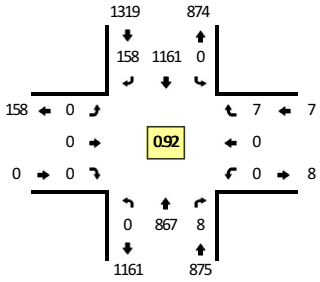
Report generated on 3/20/2019 2:15 PM

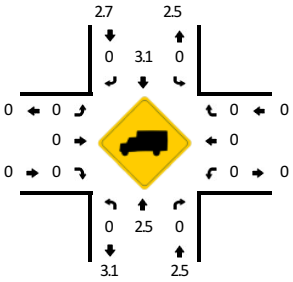
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

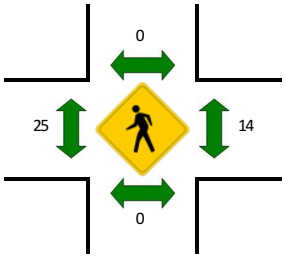
LOCATION: 12. Thornton Ave -- Central Dwy | **QC JOB #:** 14919423
CITY/STATE: Alameda, CA | **DATE:** Thu, Mar 7 2019

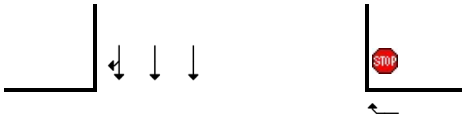
Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

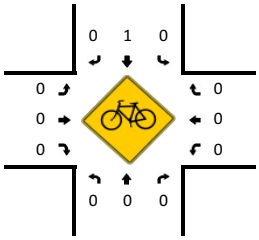


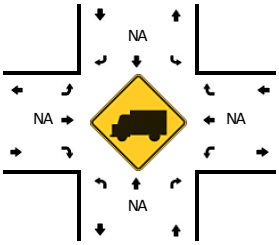


Quality Counts
DATA THAT DRIVES COMMUNITIES

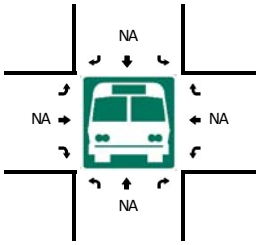












5-Min Count Period Beginning At	12. Thornton Ave (Northbound)				12. Thornton Ave (Southbound)				Central Dwy (Eastbound)				Central Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	45	0	0	0	55	0	0	0	0	0	0	0	0	0	0	100	
7:05 AM	0	35	2	0	0	52	0	0	0	0	0	0	0	0	0	0	89	
7:10 AM	0	38	0	0	0	71	4	0	0	0	0	0	0	0	0	0	113	
7:15 AM	0	39	0	0	0	75	4	0	0	0	0	0	0	0	2	0	120	
7:20 AM	0	45	0	0	0	70	6	0	0	0	0	0	0	0	0	0	121	
7:25 AM	0	45	0	0	0	93	12	0	0	0	0	0	0	0	0	0	150	
7:30 AM	0	73	0	0	0	81	13	0	0	0	0	0	0	0	0	0	167	
7:35 AM	0	75	0	0	0	76	24	0	0	0	0	0	0	0	0	0	175	
7:40 AM	0	74	0	0	0	82	30	0	0	0	0	0	0	0	0	0	186	
7:45 AM	0	79	2	0	0	76	22	0	0	0	0	0	0	0	1	0	180	
7:50 AM	0	82	0	0	0	111	25	0	0	0	0	0	0	0	0	0	218	
7:55 AM	0	78	1	0	0	84	18	0	0	0	0	0	0	0	4	0	185	1804
8:00 AM	0	82	1	0	0	79	27	0	0	0	0	0	0	0	1	0	190	1894
8:05 AM	0	86	0	0	0	115	21	0	0	0	0	0	0	0	1	0	223	2028
8:10 AM	0	65	0	0	0	90	11	0	0	0	0	0	0	0	0	0	166	2081
8:15 AM	0	52	2	0	0	76	2	0	0	0	0	0	0	0	0	0	132	2093
8:20 AM	0	69	0	0	0	107	0	0	0	0	0	0	0	0	0	0	176	2148
8:25 AM	0	59	0	0	0	100	1	0	0	0	0	0	0	0	0	0	160	2158
8:30 AM	0	65	1	0	0	120	0	0	0	0	0	0	0	0	0	0	186	2177
8:35 AM	0	76	1	0	0	121	1	0	0	0	0	0	0	0	0	0	199	2201
8:40 AM	0	49	1	0	0	98	0	0	0	0	0	0	0	0	1	0	149	2164
8:45 AM	0	56	0	0	0	82	0	0	0	0	0	0	0	0	0	0	138	2122
8:50 AM	0	63	1	0	0	80	0	0	0	0	0	0	0	0	0	0	144	2048
8:55 AM	0	53	0	0	0	105	0	0	0	0	0	0	0	0	1	0	159	2022

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	984	8	0	0	1112	264	0	0	0	0	0	0	0	24	0	2392
Heavy Trucks	0	32	0		0	36	0		0	0	0		0	0	0		68
Pedestrians		0				0				32				28			60
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

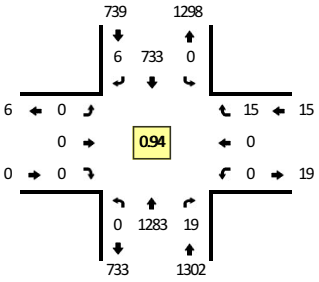
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

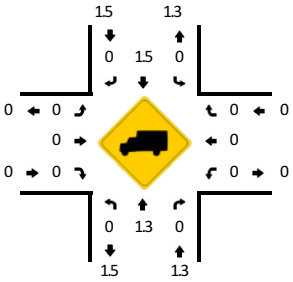
LOCATION: 12. Thornton Ave -- Central Dwy
CITY/STATE: Alameda, CA

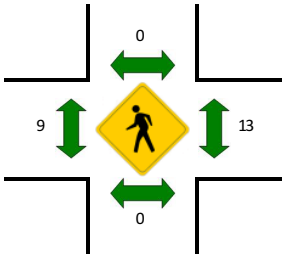
QC JOB #: 14919424
DATE: Thu, Mar 7 2019

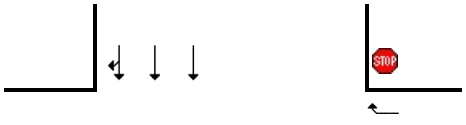
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

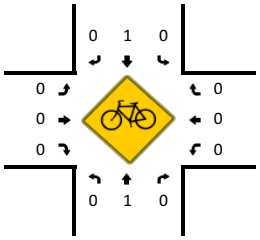


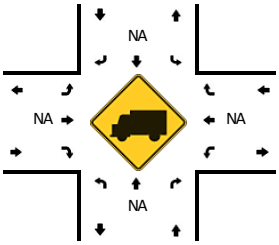




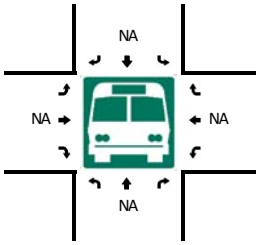












5-Min Count Period Beginning At	12. Thornton Ave (Northbound)				12. Thornton Ave (Southbound)				Central Dwy (Eastbound)				Central Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	104	2	0	0	65	4	0	0	0	0	0	0	0	1	0	176	
4:05 PM	0	92	2	0	0	65	1	0	0	0	0	0	0	0	2	0	162	
4:10 PM	0	107	2	0	0	69	1	0	0	0	0	0	0	0	2	0	181	
4:15 PM	0	115	2	0	0	58	0	0	0	0	0	0	0	0	0	0	175	
4:20 PM	0	90	0	0	0	68	0	0	0	0	0	0	0	0	0	0	158	
4:25 PM	0	100	1	0	0	52	0	0	0	0	0	0	0	0	0	0	153	
4:30 PM	0	97	1	0	0	55	1	0	0	0	0	0	0	0	1	0	155	
4:35 PM	0	116	1	0	0	52	1	0	0	0	0	0	0	0	0	0	170	
4:40 PM	0	113	1	0	0	70	1	0	0	0	0	0	0	0	0	0	185	
4:45 PM	0	96	2	0	0	49	1	0	0	0	0	0	0	0	1	0	149	
4:50 PM	0	121	3	0	0	59	0	0	0	0	0	0	0	0	1	0	184	
4:55 PM	0	105	1	0	0	65	2	0	0	0	0	0	0	0	3	0	176	2024
5:00 PM	0	124	3	0	0	72	2	0	0	0	0	0	0	0	1	0	202	2050
5:05 PM	0	94	1	0	0	69	1	0	0	0	0	0	0	0	1	0	166	2054
5:10 PM	0	111	0	0	0	46	0	0	0	0	0	0	0	0	0	0	157	2030
5:15 PM	0	108	2	0	0	70	0	0	0	0	0	0	0	0	0	0	180	2035
5:20 PM	0	97	2	0	0	42	0	0	0	0	0	0	0	0	2	0	143	2020
5:25 PM	0	94	3	0	0	54	1	0	0	0	0	0	0	0	1	0	153	2020
5:30 PM	0	92	0	0	0	52	0	0	0	0	0	0	0	0	2	0	146	2011
5:35 PM	0	130	2	0	0	66	0	0	0	0	0	0	0	0	0	0	198	2039
5:40 PM	0	103	1	0	0	64	0	0	0	0	0	0	0	0	3	0	171	2025
5:45 PM	0	94	3	0	0	68	0	0	0	0	0	0	0	0	1	0	166	2042
5:50 PM	0	131	1	0	0	65	0	0	0	0	0	0	0	0	1	0	198	2056
5:55 PM	0	114	1	0	0	58	1	0	0	0	0	0	0	0	1	0	175	2055

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1292	20	0	0	824	20	0	0	0	0	0	0	0	20	0	2176
Heavy Trucks	0	16	0		0	8	0		0	0	0		0	0	0		24
Pedestrians		0				0				12				28			40
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

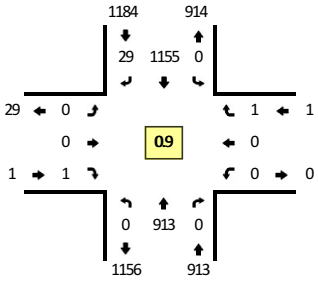
Type of peak hour being reported: Intersection Peak

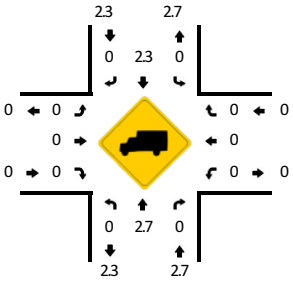
Method for determining peak hour: Total Entering Volume

LOCATION: 13. Thornton Ave -- South Dwy
CITY/STATE: Alameda, CA

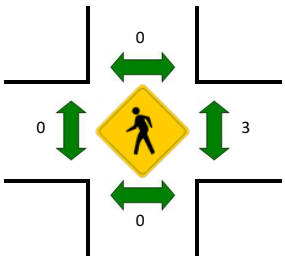
QC JOB #: 14919425
DATE: Thu, Mar 7 2019

Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

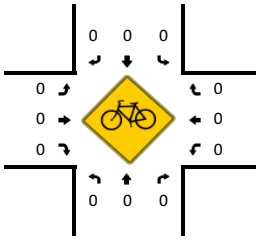


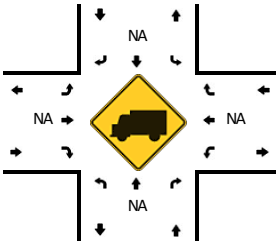


Quality Counts
DATA THAT DRIVES COMMUNITIES

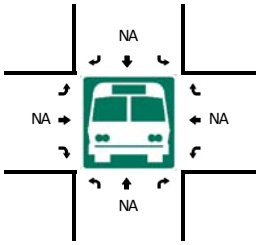












5-Min Count Period Beginning At	13. Thornton Ave (Northbound)				13. Thornton Ave (Southbound)				South Dwy (Eastbound)				South Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	56	0	0	0	57	0	0	0	0	0	0	0	0	0	0	113	
7:05 AM	0	28	0	0	0	56	0	0	0	0	0	0	0	0	0	0	84	
7:10 AM	0	49	0	0	0	70	1	0	0	0	0	0	0	0	0	0	120	
7:15 AM	0	38	0	0	0	73	3	0	0	0	0	0	0	0	0	0	114	
7:20 AM	0	60	0	0	0	59	4	0	0	0	0	0	0	0	0	0	123	
7:25 AM	0	46	0	0	0	86	3	0	0	0	0	0	0	0	0	0	135	
7:30 AM	0	80	0	0	0	67	3	0	0	0	0	0	0	0	0	0	150	
7:35 AM	0	74	0	0	0	99	4	0	0	0	0	0	0	0	0	0	177	
7:40 AM	0	90	0	0	0	66	5	0	0	0	0	0	0	0	0	0	161	
7:45 AM	0	98	0	0	0	92	5	0	0	0	0	0	0	0	1	0	196	
7:50 AM	0	101	0	0	0	102	5	0	0	0	0	0	0	0	0	0	208	
7:55 AM	0	84	0	0	0	94	0	0	0	0	0	0	0	0	0	0	178	1759
8:00 AM	0	77	0	0	0	102	5	0	0	0	0	0	0	0	0	0	184	1830
8:05 AM	0	67	0	0	0	116	3	0	0	0	0	0	0	0	0	0	186	1932
8:10 AM	0	61	0	0	0	112	0	0	0	0	0	0	0	0	0	0	173	1985
8:15 AM	0	62	0	0	0	77	1	0	0	0	1	0	0	0	0	0	141	2012
8:20 AM	0	75	0	0	0	99	0	0	0	0	0	0	0	0	0	0	174	2063
8:25 AM	0	54	0	0	0	85	0	0	0	0	0	0	0	0	0	0	139	2067
8:30 AM	0	70	0	0	0	111	1	0	0	0	0	0	0	0	0	0	182	2099
8:35 AM	0	77	0	0	0	87	0	0	0	0	1	0	0	0	0	0	165	2087
8:40 AM	0	59	0	0	0	87	0	0	0	0	0	0	0	0	0	0	146	2072
8:45 AM	0	50	0	0	0	88	1	0	0	0	0	0	0	0	0	0	139	2015
8:50 AM	0	55	0	0	0	73	0	0	0	0	0	0	0	0	1	0	129	1936
8:55 AM	0	60	0	0	0	112	0	0	0	0	0	0	0	0	0	0	172	1930

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1132	0	0	0	1152	40	0	0	0	0	0	0	0	4	0	2328
Heavy Trucks	0	16	0		0	16	0		0	0	0		0	0	0		32
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

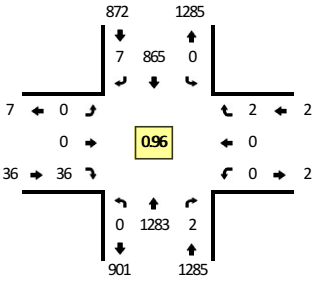
Report generated on 3/20/2019 2:15 PM

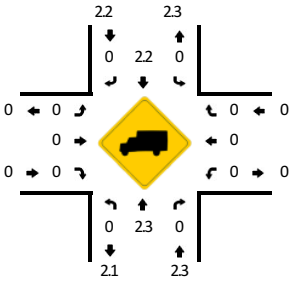
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

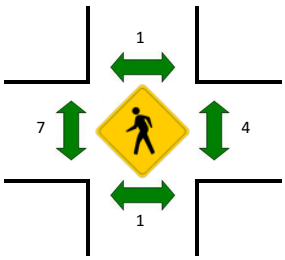
LOCATION: 13. Thornton Ave -- South Dwy | **QC JOB #:** 14919426
CITY/STATE: Alameda, CA | **DATE:** Thu, Mar 7 2019

Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

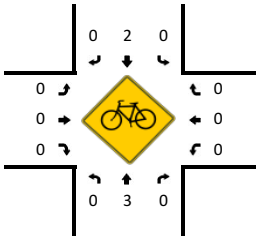


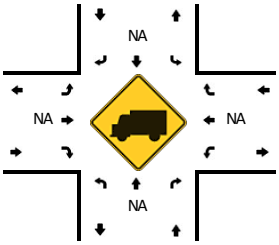


Quality Counts
DATA THAT DRIVES COMMUNITIES

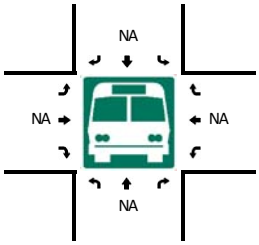












5-Min Count Period Beginning At	13. Thornton Ave (Northbound)				13. Thornton Ave (Southbound)				South Dwy (Eastbound)				South Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	98	0	0	0	68	1	0	0	0	0	0	0	0	0	0	167	
4:05 PM	0	82	0	0	0	87	1	0	0	0	3	0	0	0	0	0	173	
4:10 PM	0	101	0	0	0	72	1	0	0	0	3	0	0	0	0	0	177	
4:15 PM	0	120	0	0	0	58	1	0	0	0	3	0	0	0	0	0	182	
4:20 PM	0	90	1	0	0	79	0	0	0	0	1	0	0	0	0	0	171	
4:25 PM	0	99	0	0	0	68	2	0	0	0	1	0	0	0	0	0	170	
4:30 PM	0	114	0	0	0	60	0	0	0	0	3	0	0	0	2	0	179	
4:35 PM	0	115	0	0	0	67	1	0	0	0	1	0	0	0	0	0	184	
4:40 PM	0	112	0	0	0	78	1	0	0	0	0	0	0	0	0	0	191	
4:45 PM	0	99	0	0	0	69	1	0	0	0	4	0	0	0	0	0	173	
4:50 PM	0	116	0	0	0	72	0	0	0	0	14	0	0	0	0	0	202	
4:55 PM	0	97	0	0	0	68	0	0	0	0	4	0	0	0	0	0	169	2138
5:00 PM	0	120	1	0	0	79	0	0	0	0	1	0	0	0	0	0	201	2172
5:05 PM	0	100	0	0	0	95	0	0	0	0	1	0	0	0	0	0	196	2195
5:10 PM	0	93	0	0	0	62	0	0	0	0	1	0	0	0	0	0	156	2174
5:15 PM	0	100	1	0	0	82	0	0	0	0	0	0	0	0	0	0	183	2175
5:20 PM	0	101	1	0	0	53	0	0	0	0	0	0	0	0	0	0	155	2159
5:25 PM	0	100	0	0	0	60	0	0	0	0	0	0	0	0	0	0	160	2149
5:30 PM	0	98	0	0	0	64	0	0	0	0	0	0	0	0	0	0	162	2132
5:35 PM	0	112	0	0	0	76	0	0	0	0	0	0	0	0	0	0	188	2136
5:40 PM	0	102	0	0	0	77	0	0	0	0	0	0	0	0	0	0	179	2124
5:45 PM	0	94	0	0	0	68	2	0	0	0	0	0	0	0	0	0	164	2115
5:50 PM	0	133	0	0	0	71	1	0	0	0	0	0	0	0	0	0	205	2118
5:55 PM	0	115	0	0	0	70	1	0	0	0	1	0	0	0	0	0	187	2136

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1332	4	0	0	876	0	0	0	0	76	0	0	0	0	0	2288
Heavy Trucks	0	24	0		0	8	0		0	0	0		0	0	0		32
Pedestrians		4				4				8				4			20
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

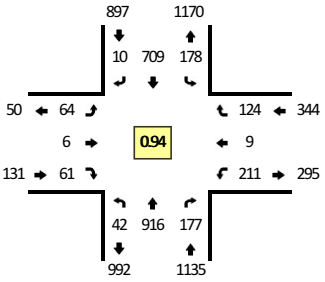
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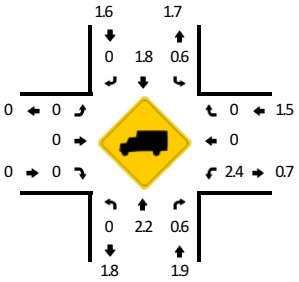
Report generated on 3/20/2019 2:15 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

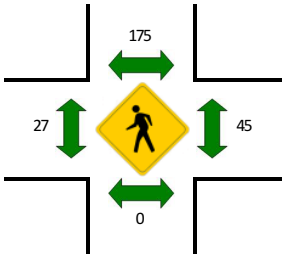
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

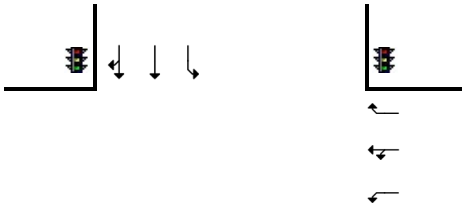
LOCATION: 3. Thornton Ave -- Dusterberry Way | **QC JOB #:** 14919427
CITY/STATE: Alameda, CA | **DATE:** Thu, Mar 7 2019

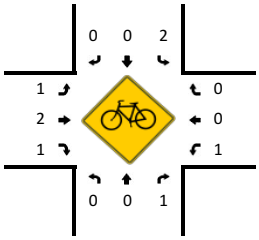
Peak-Hour: 2:40 PM -- 3:40 PM
Peak 15-Min: 3:10 PM -- 3:25 PM

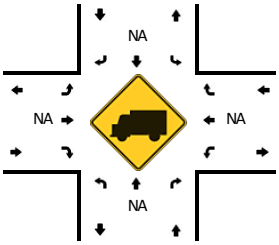


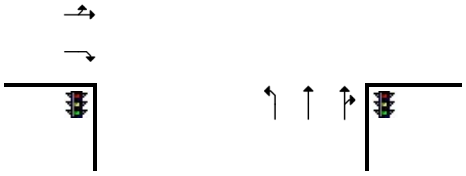


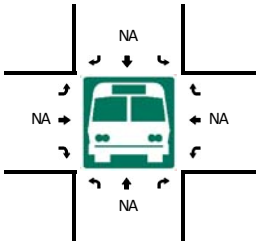












5-Min Count Period Beginning At	3. Thornton Ave (Northbound)				3. Thornton Ave (Southbound)				Dusterberry Way (Eastbound)				Dusterberry Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	2	56	13	1	6	48	1	3	0	1	1	0	15	0	7	0	154	
2:05 PM	0	53	12	1	9	38	0	7	0	0	1	0	21	0	10	0	152	
2:10 PM	1	52	14	1	6	53	2	3	0	0	0	0	11	0	11	0	154	
2:15 PM	5	59	14	0	7	37	0	2	0	0	0	0	16	0	13	0	153	
2:20 PM	0	74	12	4	11	47	0	7	0	0	0	0	18	0	13	0	186	
2:25 PM	0	56	8	2	9	50	0	7	0	0	0	0	17	0	10	0	159	
2:30 PM	0	71	19	4	4	53	0	12	0	0	0	0	16	0	9	0	188	
2:35 PM	0	68	16	1	5	54	0	7	0	0	2	0	10	0	6	0	169	
2:40 PM	4	66	16	1	8	62	3	11	7	0	8	0	14	0	9	0	209	
2:45 PM	1	59	8	0	6	62	0	11	9	0	18	0	31	2	9	0	216	
2:50 PM	3	57	11	2	7	57	0	10	17	0	7	0	10	1	4	0	186	
2:55 PM	6	88	14	2	7	60	1	2	4	1	4	0	17	4	9	0	219	2145
3:00 PM	6	57	25	0	8	56	0	12	6	2	7	0	13	1	11	0	204	2195
3:05 PM	1	76	13	1	8	56	0	6	7	0	7	0	16	0	18	0	209	2252
3:10 PM	4	86	12	0	13	67	2	1	1	1	3	0	19	1	8	0	218	2316
3:15 PM	2	84	11	1	8	77	1	5	2	0	3	0	19	0	11	0	224	2387
3:20 PM	3	97	24	1	9	55	0	3	2	1	1	0	18	0	9	0	223	2424
3:25 PM	0	87	16	1	12	61	2	0	1	0	0	0	24	0	14	0	218	2483
3:30 PM	0	90	12	1	16	52	1	1	1	0	0	0	14	0	14	0	202	2497
3:35 PM	1	69	15	1	10	44	0	4	7	1	3	0	16	0	8	0	179	2507
3:40 PM	1	90	22	0	7	45	0	4	2	0	1	0	16	0	11	0	199	2497
3:45 PM	0	76	10	0	8	40	0	2	2	0	2	0	15	0	20	0	175	2456
3:50 PM	1	86	16	1	10	54	1	2	0	0	1	0	22	0	12	0	206	2476
3:55 PM	2	56	11	2	5	34	1	1	4	1	1	0	14	1	11	0	144	2401

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	1068	188	8	120	796	12	36	20	8	28	0	224	4	112	0	2660
Heavy Trucks	0	32	0		0	12	0		0	0	0		0	0	0		44
Pedestrians		0				60				24				52			136
Bicycles	0	0	0		0	0	0		0	0	0		1	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

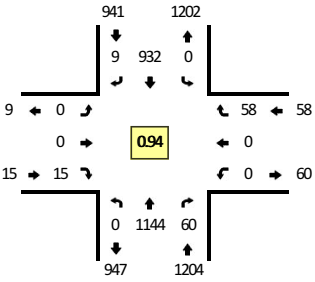
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

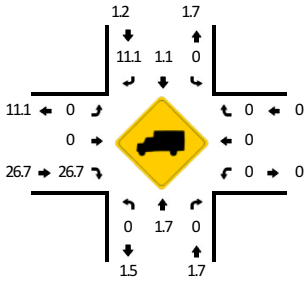
LOCATION: 11. Thornton Ave -- North Dwy
CITY/STATE: Alameda, CA

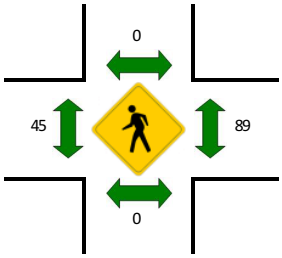
QC JOB #: 14919428
DATE: Thu, Mar 7 2019

Peak-Hour: 2:35 PM -- 3:35 PM
Peak 15-Min: 3:05 PM -- 3:20 PM

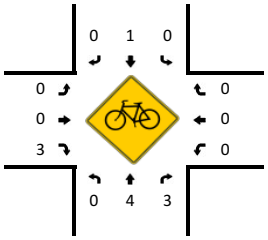


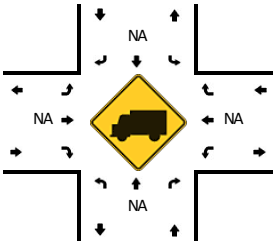




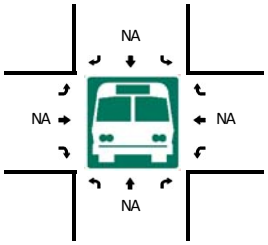












5-Min Count Period Beginning At	11. Thornton Ave (Northbound)				11. Thornton Ave (Southbound)				North Dwy (Eastbound)				North Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	50	5	0	0	59	0	0	0	0	0	0	0	0	3	0	117	
2:05 PM	0	76	3	0	0	54	0	0	0	0	0	0	0	0	4	0	137	
2:10 PM	0	58	2	0	0	67	1	0	0	0	0	0	0	0	4	0	132	
2:15 PM	0	74	8	0	0	48	1	0	0	0	0	0	0	0	0	0	131	
2:20 PM	0	83	3	0	0	63	1	0	0	0	0	0	0	0	9	0	159	
2:25 PM	0	74	1	0	0	68	2	0	0	0	0	0	0	0	2	0	147	
2:30 PM	0	74	8	0	0	75	1	0	0	0	0	0	0	0	2	0	160	
2:35 PM	0	79	6	0	0	68	1	0	0	0	1	0	0	0	4	0	159	
2:40 PM	0	73	5	0	0	87	1	0	0	0	4	0	0	0	6	0	176	
2:45 PM	0	115	6	0	0	97	2	0	0	0	3	0	0	0	7	0	230	
2:50 PM	0	84	6	0	0	77	1	0	0	0	3	0	0	0	5	0	176	
2:55 PM	0	108	2	0	0	68	0	0	0	0	0	0	0	0	5	0	183	1907
3:00 PM	0	72	4	0	0	64	1	0	0	0	0	0	0	0	6	0	147	1937
3:05 PM	0	112	9	0	0	83	0	0	0	0	1	0	0	0	3	0	208	2008
3:10 PM	0	97	3	0	0	76	1	0	0	0	1	0	0	0	1	0	179	2055
3:15 PM	0	97	5	0	0	94	2	0	0	0	2	0	0	0	6	0	206	2130
3:20 PM	0	91	7	0	0	71	0	0	0	0	0	0	0	0	4	0	173	2144
3:25 PM	0	107	3	0	0	81	0	0	0	0	0	0	0	0	7	0	198	2195
3:30 PM	0	109	4	0	0	66	0	0	0	0	0	0	0	0	4	0	183	2218
3:35 PM	0	90	3	0	0	60	0	0	0	0	0	0	0	0	5	0	158	2217
3:40 PM	0	100	7	0	0	63	0	0	0	0	0	0	0	0	5	0	175	2216
3:45 PM	0	100	5	0	0	42	0	0	0	0	0	0	0	0	1	0	148	2134
3:50 PM	0	87	5	0	0	75	0	0	0	0	0	0	0	0	10	0	177	2135
3:55 PM	0	76	5	0	0	63	0	0	0	0	0	0	0	0	2	0	146	2098

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1224	68	0	0	1012	12	0	0	0	16	0	0	0	40	0	2372
Heavy Trucks	0	28	0		0	8	0		0	0	4		0	0	0		40
Pedestrians		0				0				56				48			104
Bicycles	0	1	2		0	0	0		0	0	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

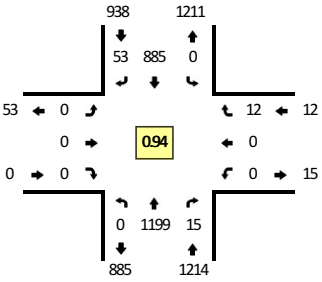
Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

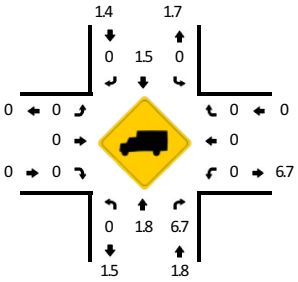
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

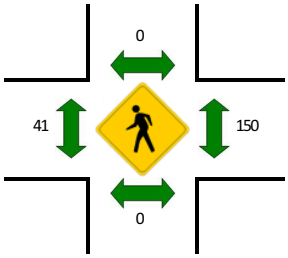
LOCATION: 12. Thornton Ave -- Central Dwy | **QC JOB #:** 14919429
CITY/STATE: Alameda, CA | **DATE:** Thu, Mar 7 2019

Peak-Hour: 2:40 PM -- 3:40 PM
Peak 15-Min: 3:05 PM -- 3:20 PM

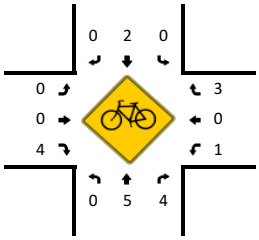


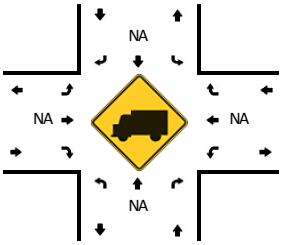
Quality Counts
DATA THAT DRIVES COMMUNITIES



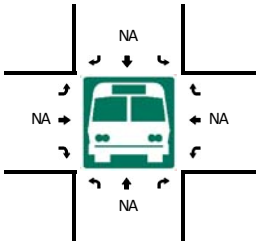












5-Min Count Period Beginning At	12. Thornton Ave (Northbound)				12. Thornton Ave (Southbound)				Central Dwy (Eastbound)				Central Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	56	2	0	0	61	0	0	0	0	0	0	0	0	0	0	119	
2:05 PM	0	74	2	0	0	56	0	0	0	0	0	0	0	0	1	0	133	
2:10 PM	0	63	2	0	0	59	6	0	0	0	0	0	0	0	0	0	130	
2:15 PM	0	75	2	0	0	49	0	0	0	0	0	0	0	0	5	0	131	
2:20 PM	0	83	2	0	0	60	0	0	0	0	0	0	0	0	0	0	145	
2:25 PM	0	78	0	0	0	72	0	0	0	0	0	0	0	0	0	0	150	
2:30 PM	0	84	3	0	0	72	0	0	0	0	0	0	0	0	1	0	160	
2:35 PM	0	76	2	0	0	70	2	0	0	0	0	0	0	0	2	0	152	
2:40 PM	0	90	3	0	0	87	6	0	0	0	0	0	0	0	1	0	187	
2:45 PM	0	105	1	0	0	84	14	0	0	0	0	0	0	0	4	0	208	
2:50 PM	0	87	1	0	0	73	7	0	0	0	0	0	0	0	0	0	168	
2:55 PM	0	106	1	0	0	64	5	0	0	0	0	0	0	0	1	0	177	1860
3:00 PM	0	80	3	0	0	61	2	0	0	0	0	0	0	0	1	0	147	1888
3:05 PM	0	117	1	0	0	75	6	0	0	0	0	0	0	0	0	0	199	1954
3:10 PM	0	103	0	0	0	79	1	0	0	0	0	0	0	0	0	0	183	2007
3:15 PM	0	100	0	0	0	90	6	0	0	0	0	0	0	0	0	0	196	2072
3:20 PM	0	102	0	0	0	74	2	0	0	0	0	0	0	0	0	0	178	2105
3:25 PM	0	115	1	0	0	76	1	0	0	0	0	0	0	0	1	0	194	2149
3:30 PM	0	99	0	0	0	64	1	0	0	0	0	0	0	0	4	0	168	2157
3:35 PM	0	95	4	0	0	58	2	0	0	0	0	0	0	0	0	0	159	2164
3:40 PM	0	104	0	0	0	58	2	0	0	0	0	0	0	0	1	0	165	2142
3:45 PM	0	106	1	0	0	47	1	0	0	0	0	0	0	0	0	0	155	2089
3:50 PM	0	93	0	0	0	71	1	0	0	0	0	0	0	0	1	0	166	2087
3:55 PM	0	78	1	0	0	56	7	0	0	0	0	0	0	0	0	0	142	2052

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1280	4	0	0	976	52	0	0	0	0	0	0	0	0	0	2312
Heavy Trucks	0	28	0		0	12	0		0	0	0		0	0	0		40
Pedestrians		0				0				56				88			144
Bicycles	0	4	1		0	0	0		0	0	0		0	0	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

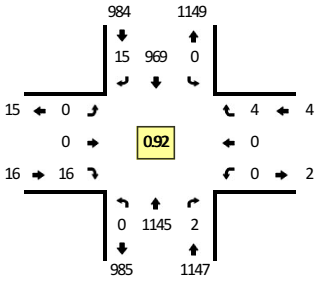
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

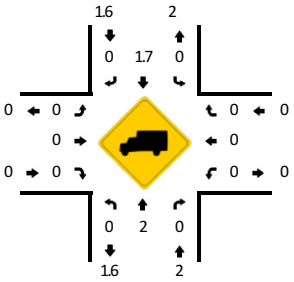
LOCATION: 13. Thornton Ave -- South Dwy
CITY/STATE: Alameda, CA

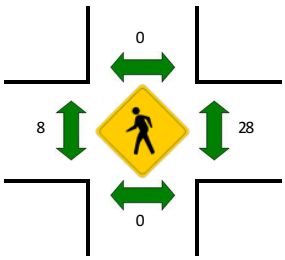
QC JOB #: 14919430
DATE: Thu, Mar 7 2019

Peak-Hour: 2:40 PM -- 3:40 PM
Peak 15-Min: 3:15 PM -- 3:30 PM

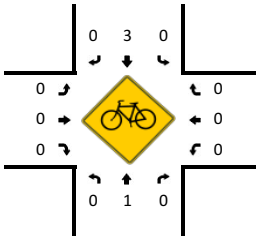


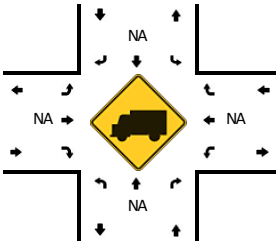
Quality Counts
DATA THAT DRIVES COMMUNITIES



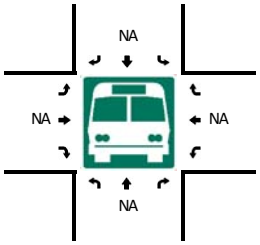












5-Min Count Period Beginning At	13. Thornton Ave (Northbound)				13. Thornton Ave (Southbound)				South Dwy (Eastbound)				South Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	64	0	0	0	65	0	0	0	0	1	0	0	0	0	0	130	
2:05 PM	0	78	0	0	0	60	1	0	0	0	1	0	0	0	0	0	140	
2:10 PM	0	55	0	0	0	64	1	0	0	0	0	0	0	0	0	0	120	
2:15 PM	0	86	0	0	0	51	0	0	0	0	0	0	0	0	0	0	137	
2:20 PM	0	84	0	0	0	67	3	0	0	0	0	0	0	0	0	0	154	
2:25 PM	0	75	0	0	0	67	1	0	0	0	0	0	0	0	0	0	143	
2:30 PM	0	94	0	0	0	72	6	0	0	0	8	0	0	0	0	0	180	
2:35 PM	0	84	0	0	0	64	1	0	0	0	4	0	0	0	0	0	153	
2:40 PM	0	88	0	0	0	68	2	0	0	0	1	0	0	0	0	0	159	
2:45 PM	0	70	0	0	0	119	1	0	0	0	0	0	0	0	1	0	191	
2:50 PM	0	74	0	0	0	81	0	0	0	0	3	0	0	0	1	0	159	
2:55 PM	0	107	0	0	0	80	2	0	0	0	0	0	0	0	0	0	189	1855
3:00 PM	0	87	1	0	0	63	2	0	0	0	1	0	0	0	1	0	155	1880
3:05 PM	0	99	0	0	0	85	0	0	0	0	1	0	0	0	0	0	185	1925
3:10 PM	0	101	0	0	0	83	2	0	0	0	3	0	0	0	0	0	189	1994
3:15 PM	0	93	1	0	0	103	1	0	0	0	0	0	0	0	0	0	198	2055
3:20 PM	0	118	0	0	0	73	1	0	0	0	1	0	0	0	1	0	194	2095
3:25 PM	0	111	0	0	0	79	2	0	0	0	1	0	0	0	0	0	193	2145
3:30 PM	0	99	0	0	0	71	1	0	0	0	1	0	0	0	0	0	172	2137
3:35 PM	0	98	0	0	0	64	1	0	0	0	4	0	0	0	0	0	167	2151
3:40 PM	0	92	0	0	0	63	1	0	0	0	0	0	0	0	0	0	156	2148
3:45 PM	0	99	0	0	0	56	1	0	0	0	1	0	0	0	0	0	157	2114
3:50 PM	0	97	0	0	0	79	0	0	0	0	0	0	0	0	0	0	176	2131
3:55 PM	0	79	0	0	0	49	0	0	0	0	4	0	0	0	0	0	132	2074

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1288	4	0	0	1020	16	0	0	0	8	0	0	0	4	0	2340
Heavy Trucks	0	16	0		0	12	0		0	0	0		0	0	0		28
Pedestrians		0				0				12				0			12
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 3/20/2019 2:15 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Appendix B
Description of Level-of-Service Methods and Criteria

Level of service (LOS) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various level of service from "A" to "F".1

SIGNALIZED INTERSECTIONS

The six level-of-service grades are described qualitatively for signalized intersections in Table B1. Additionally, Table B2 identifies the relationship between level of service and average control delay per vehicle. Control delay is defined to include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Using this definition, Level of Service "D" is generally considered to represent the minimum acceptable design standard.

Table B-1 Level-of-Service Definitions (Signalized Intersections)

Level of Service	Average Delay per Vehicle
A	Very low average control delay, less than 10 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Average control delay is greater than 10 seconds per vehicle and less than or equal to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a level of service A, causing higher levels of average delay.
C	Average control delay is greater than 20 seconds per vehicle and less than or equal to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average control delay is greater than 35 seconds per vehicle and less than or equal to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average control delay is greater than 55 seconds per vehicle and less than or equal to 80 seconds per vehicle. This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average control delay is in excess of 80 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation. It may also occur at high volume/capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

1 Most of the material in this appendix is adapted from the Transportation Research Board, Highway Capacity Manual, (2000).

Table B2 Level-of-Service Criteria for Signalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	>80

UNSIGNALIZED INTERSECTIONS

Unsignalized intersections include two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. The 2000 Highway Capacity Manual (HCM) provides models for estimating control delay at both TWSC and AWSC intersections. A qualitative description of the various service levels associated with an unsignalized intersection is presented in Table B3. A quantitative definition of level of service for unsignalized intersections is presented in Table B4. Using this definition, Level of Service "E" is generally considered to represent the minimum acceptable design standard.

Table B3 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Delay per Vehicle to Minor Street
A	• Nearly all drivers find freedom of operation. • Very seldom is there more than one vehicle in queue.
B	• Some drivers begin to consider the delay an inconvenience. • Occasionally there is more than one vehicle in queue.
C	• Many times there is more than one vehicle in queue. • Most drivers feel restricted, but not objectionably so.
D	• Often there is more than one vehicle in queue. • Drivers feel quite restricted.
E	• Represents a condition in which the demand is near or equal to the probable maximum number of vehicles that can be accommodated by the movement. • There is almost always more than one vehicle in queue. • Drivers find the delays approaching intolerable levels.
F	• Forced flow. • Represents an intersection failure condition that is caused by geometric and/or operational constraints external to the intersection.

Table B4 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

It should be noted that the level-of-service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers

expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, there are a number of driver behavior considerations that combine to make delays at signalized intersections less galling than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, while drivers on the minor street approaches to TWSC intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections than signalized intersections. For these reasons, it is considered that the control delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. While overall intersection level of service is calculated for AWSC intersections, level of service is only calculated for the minor approaches and the major street left turn movements at TWSC intersections. No delay is assumed to the major street through movements. For TWSC intersections, the overall intersection level of service remains undefined: level of service is only calculated for each minor street lane.

In the performance evaluation of TWSC intersections, it is important to consider other measures of effectiveness (MOEs) in addition to delay, such as v/c ratios for individual movements, average queue lengths, and 95th-percentile queue lengths. By focusing on a single MOE for the worst movement only, such as delay for the minor-street left turn, users may make inappropriate traffic control decisions. The potential for making such inappropriate decisions is likely to be particularly pronounced when the HCM level-of-service thresholds are adopted as legal standards, as is the case in many public agencies.

Appendix C
95th Percentile Queue Length Summary

Table C1: Existing AM Peak

No.	Location		Eastbound			Westbound			Northbound			Southbound		
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	Thornton Ave & Fremont Blvd	Storage	250	1350	200	150	1050	-	325	900	150	250	500	250
		Existing	80	310	185	75	190	-	150	185	65	265	355	50
		w/ Project	80	310	185	85	190	-	165	210	90	265	390	50
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Storage	-	400	-	225	850	100	150	350	-	275	850	-
		Existing	-	80	-	95	100	0	100	410	-	375	430	-
		w/ Project	-	125	-	100	105	0	240	425	-	385	510	-
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Storage	-	1250	-	-	1100	-	200	550	-	150	350	-
		Existing	-	345	-	-	90	-	135	355	-	55	665	-
		w/ Project	-	405	-	-	95	-	145	405	-	55	745	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Storage	125	600	-	125	500	-	250	1050	-	200	550	-
		Existing	155	20	-	25	5	-	250	230	-	5	480	-
		w/ Project	175	20	-	25	15	-	250	240	-	20	550	-
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Storage	-	-	-	250	800	250	-	300	225	250	500	-
		Existing	-	-	-	230	505	140	-	80	0	435	570	-
		w/ Project	-	-	-	230	505	150	-	95	0	420	605	-
7	Thornton Ave & I-880 NB Off-Ramp	Storage	-	-	-	1250	-	400	-	600	550	-	275	-
		Existing	-	-	-	240	-	155	-	345	5	-	185	-
		w/ Project	-	-	-	240	-	185	-	360	0	-	205	-
8	Thornton Ave & I-880 SB Off-Ramp	Storage	650	-	600	-	-	-	-	1500	-	-	600	500
		Existing	190	-	0	-	-	-	-	110	0	-	45	0
		w/ Project	200	-	0	-	-	-	-	115	0	-	50	0
9	Alder Ave & Fremont Blvd	Storage	250	500	200	200	1350	-	-	400	100	-	400	150
		Existing	200	540	70	180	215	-	-	300	100	-	285	140
		w/ Project	200	550	80	180	220	-	-	325	100	-	290	140
10	Peralta Blvd & Fremont Blvd	Storage	150	500	-	100	700	-	-	400	-	-	1200	200
		Existing	220	465	-	170	210	-	-	150	-	-	165	55
		w/ Project	220	465	-	170	220	-	-	150	-	-	165	55

Shaded cells indicates turn queue exceeds storage of turn pocket or through queue extends past upstream intersection.

Table C2: Existing PM Peak														
No.	Location		Eastbound			Westbound			Northbound			Southbound		
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	Thornton Ave & Fremont Blvd	Storage	250	1350	200	150	1050	-	325	900	150	250	500	250
		Existing	85	95	20	100	465	-	230	345	140	160	185	50
		w/ Project	85	95	25	100	465	-	235	355	145	160	185	50
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Storage	-	400	-	225	850	100	150	350	-	275	850	-
		Existing	-	0	-	105	110	50	25	660	-	115	240	-
		w/ Project	-	30	-	105	110	50	35	660	-	115	245	-
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Storage	-	1250	-	-	1100	-	200	550	-	150	350	-
		Existing	-	90	-	-	55	-	160	445	-	35	295	-
		w/ Project	-	95	-	-	55	-	160	450	-	35	310	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Storage	125	600	-	125	500	-	250	1050	-	200	550	-
		Existing	60	0	-	10	0	-	275	330	-	10	280	-
		w/ Project	65	0	-	10	0	-	275	330	-	15	285	-
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Storage	-	-	-	250	800	250	-	300	225	250	500	-
		Existing	-	-	-	320	275	110	-	215	5	140	120	-
		w/ Project	-	-	-	320	275	110	-	215	5	165	115	-
7	Thornton Ave & I-880 NB Off-Ramp	Storage	-	-	-	1250	-	400	-	600	550	-	275	-
		Existing	-	-	-	405	-	455	-	345	90	-	205	-
		w/ Project	-	-	-	410	-	460	-	345	90	-	210	-
8	Thornton Ave & I-880 SB Off-Ramp	Storage	650	-	600	-	-	-	-	1500	-	-	600	500
		Existing	215	-	0	-	-	-	-	115	0	-	20	0
		w/ Project	215	-	0	-	-	-	-	120	0	-	20	0
9	Alder Ave & Fremont Blvd	Storage	250	500	200	200	1350	-	-	400	100	-	400	150
		Existing	140	270	25	70	435	-	-	85	25	-	95	40
		w/ Project	140	270	25	70	435	-	-	90	25	-	95	40
10	Peralta Blvd & Fremont Blvd	Storage	150	500	-	100	700	-	-	400	-	-	1200	200
		Existing	185	210	-	105	480	-	-	145	-	-	165	60
		w/ Project	185	210	-	105	480	-	-	145	-	-	165	60

Shaded cells indicates turn queue exceeds storage of turn pocket or through queue extends past upstream intersection.

Table C3: Near-Term AM Peak

No.	Location		Eastbound			Westbound			Northbound			Southbound		
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	Thornton Ave & Fremont Blvd	Storage	250	1350	200	150	1050	-	325	900	150	250	500	250
		Near-Term	85	325	135	95	205	-	175	195	80	295	355	50
		w/ Project	85	325	145	105	205	-	185	215	100	295	390	50
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Storage	-	400	-	225	850	100	150	350	-	275	850	-
		Near-Term	-	75	-	95	95	5	100	415	-	410	495	-
		w/ Project	-	125	-	100	100	5	250	415	-	410	510	-
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Storage	-	1250	-	-	1100	-	200	550	-	150	350	-
		Near-Term	-	420	-	-	100	-	155	330	-	55	560	-
		w/ Project	-	465	-	-	105	-	185	375	-	55	625	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Storage	125	600	-	125	500	-	250	1050	-	200	550	-
		Near-Term	150	35	-	25	5	-	295	135	-	10	570	-
		w/ Project	170	35	-	20	15	-	295	135	-	20	635	-
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Storage	-	-	-	250	800	250	-	300	225	250	500	-
		Near-Term	-	-	-	155	330	85	-	215	70	230	65	-
		w/ Project	-	-	-	155	330	90	-	270	110	220	60	-
7	Thornton Ave & I-880 NB Off-Ramp	Storage	-	-	-	1250	-	400	-	600	550	-	275	-
		Near-Term	-	-	-	240	-	195	-	365	0	-	240	-
		w/ Project	-	-	-	240	-	215	-	385	0	-	275	-
8	Thornton Ave & I-880 SB Off-Ramp	Storage	650	-	600	-	-	-	-	1500	-	-	600	500
		Near-Term	195	-	0	-	-	-	-	115	0	-	150	0
		w/ Project	200	-	0	-	-	-	-	120	0	-	140	0
9	Alder Ave & Fremont Blvd	Storage	250	500	200	200	1350	-	-	400	100	-	400	150
		Near-Term	185	520	70	225	255	-	-	300	100	-	285	140
		w/ Project	185	530	80	220	260	-	-	325	105	-	290	140
10	Peralta Blvd & Fremont Blvd	Storage	150	500	-	100	700	-	-	400	-	-	1200	200
		Near-Term	175	495	-	155	255	-	-	160	-	-	175	60
		w/ Project	170	490	-	155	260	-	-	160	-	-	175	60

Shaded cells indicates turn queue exceeds storage of turn pocket or through queue extends past upstream intersection.

Table C4: Near-Term PM Peak													
No.	Location		Eastbound			Westbound			Northbound			Southbound		
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	Thornton Ave & Fremont Blvd	Storage	250	1350	200	150	1050	-	325	900	150	250	500	250
		Near-Term	95	110	30	105	485	-	255	345	135	210	185	50
		w/ Project	95	110	30	105	485	-	255	355	140	210	185	50
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Storage	-	400	-	225	850	100	150	350	-	275	850	-
		Near-Term	-	0	-	110	110	50	25	685	-	120	250	-
		w/ Project	-	30	-	110	110	50	35	685	-	120	250	-
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Storage	-	1250	-	-	1100	-	200	550	-	150	350	-
		Near-Term	-	95	-	-	55	-	165	465	-	35	305	-
		w/ Project	-	100	-	-	55	-	165	470	-	35	320	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Storage	125	600	-	125	500	-	250	1050	-	200	550	-
		Near-Term	60	0	-	10	0	-	235	385	-	10	325	-
		w/ Project	60	0	-	10	0	-	235	385	-	15	340	-
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Storage	-	-	-	250	800	250	-	300	225	250	500	-
		Near-Term	-	-	-	230	205	90	-	405	55	130	100	-
		w/ Project	-	-	-	230	205	90	-	405	55	135	95	-
7	Thornton Ave & I-880 NB Off-Ramp	Storage	-	-	-	1250	-	400	-	600	550	-	275	-
		Near-Term	-	-	-	295	-	350	-	490	125	-	280	-
		w/ Project	-	-	-	295	-	355	-	490	125	-	280	-
8	Thornton Ave & I-880 SB Off-Ramp	Storage	650	-	600	-	-	-	-	1500	-	-	600	500
		Near-Term	220	-	0	-	-	-	-	125	0	-	90	0
		w/ Project	220	-	0	-	-	-	-	125	0	-	75	0
9	Alder Ave & Fremont Blvd	Storage	250	500	200	200	1350	-	-	400	100	-	400	150
		Near-Term	145	285	25	65	430	-	-	90	25	-	100	45
		w/ Project	145	290	30	65	435	-	-	90	25	-	100	45
10	Peralta Blvd & Fremont Blvd	Storage	150	500	-	100	700	-	-	400	-	-	1200	200
		Near-Term	210	190	-	115	500	-	-	155	-	-	170	60
		w/ Project	215	190	-	115	500	-	-	155	-	-	170	60

Shaded cells indicates turn queue exceeds storage of turn pocket or through queue extends past upstream intersection.

Table C5: Cumulative AM Peak

No.	Location		Eastbound			Westbound			Northbound			Southbound		
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	Thornton Ave & Fremont Blvd	Storage	250	1350	200	150	1050	-	325	900	150	250	500	250
		Cumulative	95	530	145	140	250	-	230	235	130	325	480	60
		w/ Project	95	460	150	150	240	-	240	260	145	325	535	70
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Storage	-	400	-	225	850	100	150	350	-	275	850	-
		Cumulative	-	75	-	110	110	10	115	535	-	485	620	-
		w/ Project	-	120	-	110	110	10	270	535	-	485	635	-
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Storage	-	1250	-	-	1100	-	200	550	-	150	350	-
		Cumulative	-	535	-	-	115	-	195	400	-	60	705	-
		w/ Project	-	575	-	-	120	-	220	445	-	60	765	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Storage	125	600	-	125	500	-	250	1050	-	200	550	-
		Cumulative	175	65	-	25	10	-	320	150	-	10	715	-
		w/ Project	195	65	-	25	15	-	295	145	-	20	780	-
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Storage	-	-	-	250	800	250	-	300	225	250	500	-
		Cumulative	-	-	-	180	425	115	-	385	225	250	690	-
		w/ Project	-	-	-	180	425	120	-	445	225	250	675	-
7	Thornton Ave & I-880 NB Off-Ramp	Storage	-	-	-	1250	-	400	-	600	550	-	275	-
		Cumulative	-	-	-	270	-	240	-	450	5	-	395	-
		w/ Project	-	-	-	270	-	260	-	470	0	-	405	-
8	Thornton Ave & I-880 SB Off-Ramp	Storage	650	-	600	-	-	-	-	1500	-	-	600	500
		Cumulative	225	-	0	-	-	-	-	155	0	-	160	5
		w/ Project	230	-	0	-	-	-	-	165	0	-	165	10
9	Alder Ave & Fremont Blvd	Storage	250	500	200	200	1350	-	-	400	100	-	400	150
		Cumulative	210	705	95	235	285	-	-	380	130	-	370	185
		w/ Project	210	715	105	230	285	-	-	400	135	-	375	185
10	Peralta Blvd & Fremont Blvd	Storage	150	500	-	100	700	-	-	400	-	-	1200	200
		Cumulative	145	555	-	170	325	-	-	175	-	-	215	60
		w/ Project	145	550	-	170	330	-	-	175	-	-	215	60

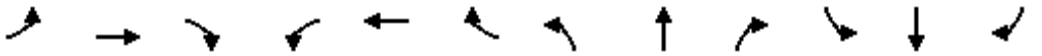
Shaded cells indicates turn queue exceeds storage of turn pocket or through queue extends past upstream intersection.

Table C6: Cumulative PM Peak

No.	Location		Eastbound			Westbound			Northbound			Southbound		
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	Thornton Ave & Fremont Blvd	Storage	250	1350	200	150	1050	-	325	900	150	250	500	250
		Cumulative	105	180	75	115	695	-	345	440	190	260	225	55
		w/ Project	105	180	75	115	700	-	350	450	195	260	230	55
3	Thornton Ave & Loop Dwy/Dusterberry Wy	Storage	-	400	-	225	850	100	150	350	-	275	850	-
		Cumulative	-	0	-	135	135	60	25	935	-	145	325	-
		w/ Project	-	30	-	135	135	60	40	935	-	145	330	-
4	Thornton Ave & Coronado Dr/Contra Costa Ave	Storage	-	1250	-	-	1100	-	200	550	-	150	350	-
		Cumulative	-	125	-	-	65	-	195	740	-	40	435	-
		w/ Project	-	130	-	-	65	-	195	750	-	40	450	-
5	Thornton Ave & Cabrillo Dr/Cabrillo Terrace	Storage	125	600	-	125	500	-	250	1050	-	200	550	-
		Cumulative	65	0	-	15	0	-	235	725	-	15	445	-
		w/ Project	70	0	-	15	0	-	230	725	-	15	480	-
6	Thornton Ave & I-880 NB On-Ramp/Blacow Rd	Storage	-	-	-	250	800	250	-	300	225	250	500	-
		Cumulative	-	-	-	355	300	230	-	775	50	250	425	-
		w/ Project	-	-	-	355	300	230	-	780	50	250	435	-
7	Thornton Ave & I-880 NB Off-Ramp	Storage	-	-	-	1250	-	400	-	600	550	-	275	-
		Cumulative	-	-	-	435	-	585	-	675	55	-	340	-
		w/ Project	-	-	-	435	-	585	-	680	55	-	345	-
8	Thornton Ave & I-880 SB Off-Ramp	Storage	650	-	600	-	-	-	-	1500	-	-	600	500
		Cumulative	265	-	0	-	-	-	-	190	0	-	185	0
		w/ Project	270	-	0	-	-	-	-	190	0	-	185	0
9	Alder Ave & Fremont Blvd	Storage	250	500	200	200	1350	-	-	400	100	-	400	150
		Cumulative	170	365	30	70	450	-	-	105	35	-	120	45
		w/ Project	170	365	30	70	450	-	-	110	35	-	120	45
10	Peralta Blvd & Fremont Blvd	Storage	150	500	-	100	700	-	-	400	-	-	1200	200
		Cumulative	315	275	-	125	620	-	-	185	-	-	215	65
		w/ Project	315	280	-	125	625	-	-	185	-	-	215	65

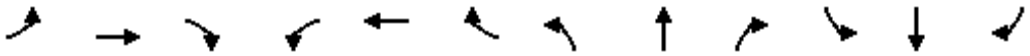
Shaded cells indicates turn queue exceeds storage of turn pocket or through queue extends past upstream intersection.

Appendix D
Year 2019 Existing Conditions
Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	851	385	174	361	55	255	397	224	163	727	152
Future Volume (vph)	149	851	385	174	361	55	255	397	224	163	727	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1551	3335	3333		3467	3539	1520	1770	3539	1531
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1551	3335	3333		3467	3539	1520	1770	3539	1531
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	157	896	405	183	380	58	268	418	236	172	765	160
RTOR Reduction (vph)	0	0	122	0	9	0	0	0	167	0	0	117
Lane Group Flow (vph)	157	896	283	183	429	0	268	418	69	172	765	43
Confl. Peds. (#/hr)	16		8	8		16	11		9	9		11
Confl. Bikes (#/hr)			2									
Heavy Vehicles (%)	3%	3%	2%	5%	6%	4%	1%	2%	4%	2%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.6	44.8	44.8	11.7	45.9		12.6	31.5	31.5	13.0	31.9	31.9
Effective Green, g (s)	10.6	44.8	44.8	11.7	45.9		12.6	31.5	31.5	13.0	31.9	31.9
Actuated g/C Ratio	0.09	0.37	0.37	0.10	0.38		0.10	0.26	0.26	0.11	0.27	0.27
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	300	1308	579	325	1274		364	928	399	191	940	406
v/s Ratio Prot	0.05	c0.26		c0.05	0.13		0.08	0.12		c0.10	c0.22	
v/s Ratio Perm			0.18						0.05			0.03
v/c Ratio	0.52	0.69	0.49	0.56	0.34		0.74	0.45	0.17	0.90	0.81	0.10
Uniform Delay, d1	52.3	31.7	28.8	51.7	26.3		52.1	37.0	34.2	52.9	41.3	33.3
Progression Factor	1.09	1.03	1.23	0.87	0.72		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	1.8	1.8	1.3	0.7		7.6	0.5	0.3	38.5	5.7	0.2
Delay (s)	57.5	34.5	37.4	46.4	19.7		59.6	37.5	34.5	91.4	47.0	33.4
Level of Service	E	C	D	D	B		E	D	C	F	D	C
Approach Delay (s)		37.8			27.6			43.2			52.0	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	13	230	2	2	11	74	804	7	143	1101	109
Future Volume (Veh/h)	49	13	230	2	2	11	74	804	7	143	1101	109
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	53	14	247	2	2	12	80	865	8	154	1184	117
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.85	0.85	0.82	0.85	0.85	0.94	0.82			0.94		
vC, conflicting volume	2182	2614	676	2188	2669	442	1327			878		
vC1, stage 1 conf vol	1576	1576		1034	1034							
vC2, stage 2 conf vol	606	1038		1154	1635							
vCu, unblocked vol	1722	2232	161	1729	2297	281	956			745		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	52	86	64	97	97	98	86			81		
cM capacity (veh/h)	109	101	685	63	63	676	581			810		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	67	247	16	80	577	296	154	789	512
Volume Left	53	0	2	80	0	0	154	0	0
Volume Right	0	247	12	0	0	8	0	0	117
cSH	108	685	197	581	1700	1700	810	1700	1700
Volume to Capacity	0.62	0.36	0.08	0.14	0.34	0.17	0.19	0.46	0.30
Queue Length 95th (ft)	77	41	7	12	0	0	17	0	0
Control Delay (s)	82.3	13.2	24.9	12.2	0.0	0.0	10.5	0.0	0.0
Lane LOS	F	B	C	B			B		
Approach Delay (s)	27.9		24.9	1.0			1.1		
Approach LOS	D		C						

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	61.7%	ICU Level of Service		B
Analysis Period (min)	15			

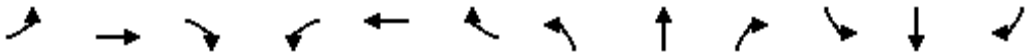
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	12	124	142	18	51	73	605	237	251	905	20
Future Volume (vph)	89	12	124	142	18	51	73	605	237	251	905	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.92		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3247		1698	1724	1381	1805	3359		1770	3493	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3247		1698	1724	1381	1805	3359		1770	3493	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	98	13	136	156	20	56	80	665	260	276	995	22
RTOR Reduction (vph)	0	120	0	0	0	42	0	41	0	0	1	0
Lane Group Flow (vph)	0	127	0	87	89	14	80	884	0	276	1016	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.1	26.1	26.1	9.4	29.2		16.0	35.8	
Effective Green, g (s)		12.0		26.1	26.1	26.1	9.4	29.2		16.0	35.8	
Actuated g/C Ratio		0.12		0.26	0.26	0.26	0.09	0.29		0.16	0.35	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		383		436	443	355	167	966		279	1232	
v/s Ratio Prot		c0.04		0.05	c0.05		0.04	c0.26		c0.16	0.29	
v/s Ratio Perm						0.01						
v/c Ratio		0.33		0.20	0.20	0.04	0.48	0.91		0.99	0.82	
Uniform Delay, d1		41.1		29.5	29.5	28.3	43.7	34.9		42.7	30.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	0.1	0.0	0.8	12.6		50.3	4.4	
Delay (s)		41.3		29.6	29.6	28.3	44.5	47.6		92.9	34.4	
Level of Service		D		C	C	C	D	D		F	C	
Approach Delay (s)		41.3			29.3			47.3			46.9	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	45.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	101.5	Sum of lost time (s)	19.2
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	58	186	25	60	14	110	771	66	32	996	120
Future Volume (vph)	131	58	186	25	60	14	110	771	66	32	996	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.97	
Flpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.98		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1710			1800		1805	3495		1752	3381	
Flt Permitted		0.80			0.85		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1383			1556		1805	3495		1752	3381	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	154	68	219	29	71	16	129	907	78	38	1172	141
RTOR Reduction (vph)	0	36	0	0	6	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	405	0	0	110	0	129	980	0	38	1306	0
Confl. Peds. (#/hr)	20					20	110		4	4		110
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	2%	0%	3%	0%	0%	2%	0%	3%	2%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		33.9			31.5		12.1	46.6		6.0	43.8	
Effective Green, g (s)		33.9			31.5		12.1	46.6		6.0	43.8	
Actuated g/C Ratio		0.32			0.30		0.11	0.44		0.06	0.42	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		444			464		207	1543		99	1403	
v/s Ratio Prot							c0.07	c0.28		0.02	c0.39	
v/s Ratio Perm		c0.29			0.07							
v/c Ratio		0.91			0.24		0.62	0.64		0.38	0.93	
Uniform Delay, d1		34.4			27.9		44.5	22.9		48.0	29.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		22.5			0.1		4.2	2.0		0.9	12.4	
Delay (s)		56.9			28.0		48.7	24.9		48.9	41.8	
Level of Service		E			C		D	C		D	D	
Approach Delay (s)		56.9			28.0			27.6			42.0	
Approach LOS		E			C			C			D	

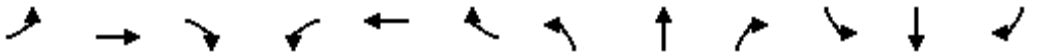
Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	0	251	13	1	2	215	737	12	2	1132	57
Future Volume (vph)	153	0	251	13	1	2	215	737	12	2	1132	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1578		1804	1710		1787	3497		1805	3510	
Flt Permitted	0.76	1.00		0.23	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1436	1578		439	1710		1787	3497		1805	3510	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	180	0	295	15	1	2	253	867	14	2	1332	67
RTOR Reduction (vph)	0	244	0	0	2	0	0	1	0	0	3	0
Lane Group Flow (vph)	180	51	0	15	1	0	253	880	0	2	1396	0
Confl. Peds. (#/hr)			1	1			1		3	3		1
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	3%	0%	0%	2%	2%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	17.3	17.3		17.3	17.3		17.5	67.1		3.6	53.2	
Effective Green, g (s)	17.3	17.3		17.3	17.3		17.5	67.1		3.6	53.2	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.18	0.67		0.04	0.53	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	248	272		75	295		312	2346		64	1867	
v/s Ratio Prot		0.03			0.00		c0.14	0.25		0.00	c0.40	
v/s Ratio Perm	c0.13			0.03								
v/c Ratio	0.73	0.19		0.20	0.00		0.81	0.38		0.03	0.75	
Uniform Delay, d1	39.1	35.3		35.4	34.2		39.7	7.2		46.5	18.2	
Progression Factor	1.00	1.00		1.00	1.00		1.32	0.96		1.00	1.00	
Incremental Delay, d2	8.6	0.1		0.5	0.0		13.1	0.4		0.1	2.8	
Delay (s)	47.7	35.5		35.9	34.2		65.4	7.3		46.6	21.0	
Level of Service	D	D		D	C		E	A		D	C	
Approach Delay (s)		40.1			35.6			20.3			21.0	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



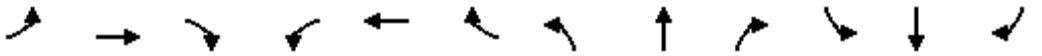
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	159	323	207	0	773	485	294	1072	397
Future Volume (vph)	0	0	0	159	323	207	0	773	485	294	1072	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.96	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1787	1845	1599		3539	1518	1752	3384	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1787	1845	1599		3539	1518	1752	3384	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	179	363	233	0	869	545	330	1204	446
RTOR Reduction (vph)	0	0	0	0	0	124	0	0	256	0	5	0
Lane Group Flow (vph)	0	0	0	179	363	109	0	869	289	330	1645	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	2%	4%	3%	2%	2%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				21.1	21.1	21.1		52.2	52.2	13.3	69.2	
Effective Green, g (s)				21.1	21.1	21.1		52.2	52.2	13.3	69.2	
Actuated g/C Ratio				0.21	0.21	0.21		0.52	0.52	0.13	0.69	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				377	389	337		1847	792	233	2341	
v/s Ratio Prot				0.10	c0.20	0.07		0.25		c0.19	c0.49	
v/s Ratio Perm									0.19			
v/c Ratio				0.47	0.93	0.32		0.47	0.36	1.42	0.70	
Uniform Delay, d1				34.6	38.8	33.4		15.1	14.1	43.4	9.2	
Progression Factor				1.00	1.00	1.00		0.74	2.46	0.89	1.75	
Incremental Delay, d2				0.3	28.8	0.2		0.8	1.2	207.1	1.5	
Delay (s)				34.9	67.6	33.6		12.0	35.8	245.6	17.6	
Level of Service				C	E	C		B	D	F	B	
Approach Delay (s)		0.0			49.8			21.2			55.6	
Approach LOS		A			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	552	247	1011	416	0	1231
Future Volume (vph)	552	247	1011	416	0	1231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	4.0		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frt	0.99	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3388	1374	3539	1468		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3388	1374	3539	1468		5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	613	274	1123	462	0	1368
RTOR Reduction (vph)	3	90	0	0	0	0
Lane Group Flow (vph)	637	157	1123	462	0	1368
Heavy Vehicles (%)	3%	7%	2%	10%	0%	2%
Turn Type	Prot	Prot	NA	Free		NA
Protected Phases	8	8	2			6
Permitted Phases				Free		
Actuated Green, G (s)	24.0	24.0	66.2	100.0		66.2
Effective Green, g (s)	24.0	24.0	66.2	100.0		66.2
Actuated g/C Ratio	0.24	0.24	0.66	1.00		0.66
Clearance Time (s)	4.7	4.7	5.1			5.1
Vehicle Extension (s)	2.5	2.5	3.0			3.0
Lane Grp Cap (vph)	813	329	2342	1468		3366
v/s Ratio Prot	c0.19	0.11	c0.32			0.27
v/s Ratio Perm				0.31		
v/c Ratio	0.78	0.48	0.48	0.31		0.41
Uniform Delay, d1	35.6	32.6	8.4	0.0		7.8
Progression Factor	1.00	1.00	1.24	1.00		0.50
Incremental Delay, d2	4.8	0.8	0.7	0.5		0.3
Delay (s)	40.4	33.4	11.0	0.5		4.2
Level of Service	D	C	B	A		A
Approach Delay (s)	38.4		8.0			4.2
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



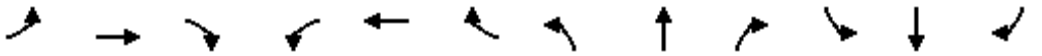
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	435	0	366	0	0	0	0	992	437	0	1245	538
Future Volume (vph)	435	0	366	0	0	0	0	992	437	0	1245	538
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1495					4940	1568		3539	1566
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1495					4940	1568		3539	1566
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	468	0	394	0	0	0	0	1067	470	0	1339	578
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	468	0	394	0	0	0	0	1067	470	0	1339	578
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	5%	3%	0%	2%	1%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	17.9		100.0					73.3	100.0		73.3	100.0
Effective Green, g (s)	17.9		100.0					73.3	100.0		73.3	100.0
Actuated g/C Ratio	0.18		1.00					0.73	1.00		0.73	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	614		1495					3621	1568		2594	1566
v/s Ratio Prot	c0.14							0.22			c0.38	
v/s Ratio Perm			0.26						0.30			0.37
v/c Ratio	0.76		0.26					0.29	0.30		0.52	0.37
Uniform Delay, d1	39.0		0.0					4.5	0.0		5.7	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.51	1.00
Incremental Delay, d2	5.0		0.4					0.2	0.5		0.6	0.6
Delay (s)	44.1		0.4					4.8	0.5		3.6	0.6
Level of Service	D		A					A	A		A	A
Approach Delay (s)		24.1			0.0			3.5			2.7	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

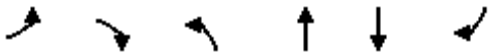
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	1072	147	140	567	81	137	66	168	119	94	215
Future Volume (vph)	138	1072	147	140	567	81	137	66	168	119	94	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.77	1.00	0.95			1.00	0.95		1.00	0.76
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.90	1.00		0.98	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1787	3505	1242	1752	4661			1633	1527		1758	1218
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.51	1.00		0.56	1.00
Satd. Flow (perm)	1787	3505	1242	1752	4661			857	1527		1009	1218
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	162	1261	173	165	667	95	161	78	198	140	111	253
RTOR Reduction (vph)	0	0	65	0	15	0	0	0	75	0	0	91
Lane Group Flow (vph)	162	1261	108	165	747	0	0	239	123	0	251	162
Confl. Peds. (#/hr)	123		71	71		123	237		43	43		237
Confl. Bikes (#/hr)			3			1			2			1
Heavy Vehicles (%)	1%	3%	0%	3%	4%	4%	0%	5%	0%	4%	3%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	13.2	52.4	52.4	15.5	54.7			37.6	37.6		37.6	37.6
Effective Green, g (s)	13.2	52.4	52.4	15.5	54.7			37.6	37.6		37.6	37.6
Actuated g/C Ratio	0.11	0.44	0.44	0.13	0.46			0.31	0.31		0.31	0.31
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	196	1530	542	226	2124			268	478		316	381
v/s Ratio Prot	c0.09	c0.36		0.09	0.16							
v/s Ratio Perm			0.09					c0.28	0.08		0.25	0.13
v/c Ratio	0.83	0.82	0.20	0.73	0.35			0.89	0.26		0.79	0.42
Uniform Delay, d1	52.3	29.7	20.9	50.2	21.2			39.3	30.8		37.7	32.6
Progression Factor	1.00	1.00	1.00	0.73	1.34			1.00	1.00		1.00	1.00
Incremental Delay, d2	22.9	5.2	0.8	9.4	0.4			28.1	0.1		12.1	0.3
Delay (s)	75.2	34.9	21.7	46.2	28.9			67.4	30.9		49.7	32.9
Level of Service	E	C	C	D	C			E	C		D	C
Approach Delay (s)		37.6			32.0			50.9			41.3	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	920	51	106	494	59	23	218	47	43	251	156
Future Volume (vph)	219	920	51	106	494	59	23	218	47	43	251	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1719	3504		1787	3383			3447			3454	1478
Flt Permitted	0.95	1.00		0.95	1.00			0.88			0.76	1.00
Satd. Flow (perm)	1719	3504		1787	3383			3048			2654	1478
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	243	1022	57	118	549	66	26	242	52	48	279	173
RTOR Reduction (vph)	0	3	0	0	7	0	0	15	0	0	0	142
Lane Group Flow (vph)	243	1076	0	118	608	0	0	305	0	0	327	31
Confl. Peds. (#/hr)	6		4	4		6	12		5	5		12
Confl. Bikes (#/hr)			2									3
Heavy Vehicles (%)	5%	2%	4%	1%	5%	3%	0%	1%	4%	2%	4%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	21.0	73.1		11.5	63.6			21.4			21.4	21.4
Effective Green, g (s)	21.0	73.1		11.5	63.6			21.4			21.4	21.4
Actuated g/C Ratio	0.18	0.61		0.10	0.53			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	300	2134		171	1792			543			473	263
v/s Ratio Prot	c0.14	c0.31		0.07	0.18							
v/s Ratio Perm								0.10			c0.12	0.02
v/c Ratio	0.81	0.50		0.69	0.34			0.56			0.69	0.12
Uniform Delay, d1	47.6	13.2		52.5	16.2			45.0			46.2	41.4
Progression Factor	0.88	0.97		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	11.8	0.6		9.3	0.5			0.8			3.5	0.1
Delay (s)	53.7	13.5		61.8	16.7			45.8			49.7	41.4
Level of Service	D	B		E	B			D			D	D
Approach Delay (s)		20.9			23.9			45.8			46.9	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

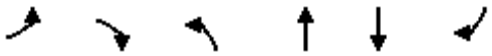


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	13	0	807	1321	12
Future Volume (Veh/h)	0	13	0	807	1321	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	0	877	1436	13
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)				444		
pX, platoon unblocked	0.79					
vC, conflicting volume	1890	734	1458			
vC1, stage 1 conf vol	1452					
vC2, stage 2 conf vol	438					
vCu, unblocked vol	1597	734	1458			
tC, single (s)	6.8	7.2	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	177	332	466			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	438	438	957	492
Volume Left	0	0	0	0	0
Volume Right	14	0	0	0	13
cSH	332	1700	1700	1700	1700
Volume to Capacity	0.04	0.26	0.26	0.56	0.29
Queue Length 95th (ft)	3	0	0	0	0
Control Delay (s)	16.3	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	16.3	0.0		0.0	
Approach LOS	C				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	46.9%	ICU Level of Service		A
Analysis Period (min)	15			

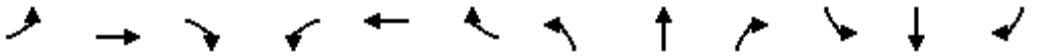
Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2	0	916	1146	25
Future Volume (Veh/h)	0	2	0	916	1146	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	2	0	1018	1273	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.84	0.73	0.73			
vC, conflicting volume	1796	650	1301			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	431	0	686			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	468	801	673			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	2	509	509	849	452
Volume Left	0	0	0	0	0
Volume Right	2	0	0	0	28
cSH	801	1700	1700	1700	1700
Volume to Capacity	0.00	0.30	0.30	0.50	0.27
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	9.5	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.5	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	42.5%	ICU Level of Service		A
Analysis Period (min)	15			



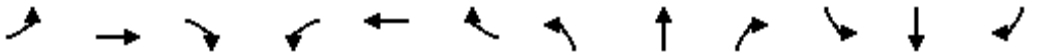
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	552	186	175	802	113	385	692	213	119	366	134
Future Volume (vph)	114	552	186	175	802	113	385	692	213	119	366	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	123	594	200	188	862	122	414	744	229	128	394	144
RTOR Reduction (vph)	0	0	91	0	9	0	0	0	91	0	0	111
Lane Group Flow (vph)	123	594	109	188	975	0	414	744	138	128	394	33
Confl. Peds. (#/hr)	12		11	11		12	6		5	5		6
Confl. Bikes (#/hr)			1			2			2			
Heavy Vehicles (%)	0%	2%	1%	2%	1%	0%	1%	1%	4%	0%	1%	2%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.2	44.9	44.9	11.4	46.1		17.3	31.5	31.5	13.2	27.4	27.4
Effective Green, g (s)	10.2	44.9	44.9	11.4	46.1		17.3	31.5	31.5	13.2	27.4	27.4
Actuated g/C Ratio	0.08	0.37	0.37	0.10	0.38		0.14	0.26	0.26	0.11	0.23	0.23
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	297	1324	584	326	1344		499	938	400	198	816	354
v/s Ratio Prot	0.04	0.17		c0.05	c0.28		c0.12	c0.21		0.07	0.11	
v/s Ratio Perm			0.07						0.09			0.02
v/c Ratio	0.41	0.45	0.19	0.58	0.73		0.83	0.79	0.35	0.65	0.48	0.09
Uniform Delay, d1	52.1	28.2	25.3	52.0	31.6		49.9	41.2	35.9	51.2	40.2	36.5
Progression Factor	1.18	0.70	0.38	0.93	0.75		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	1.1	0.7	1.3	2.9		10.9	4.9	0.7	7.1	0.6	0.2
Delay (s)	61.9	20.9	10.4	49.5	26.5		60.9	46.2	36.6	58.2	40.8	36.7
Level of Service	E	C	B	D	C		E	D	D	E	D	D
Approach Delay (s)		24.1			30.2			49.0			43.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	27	2	3	10	75	1214	3	47	720	19
Future Volume (Veh/h)	3	0	27	2	3	10	75	1214	3	47	720	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	3	0	28	2	3	10	78	1265	3	49	750	20
Pedestrians		10			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.75	0.75	0.93	0.75	0.75	0.71	0.93			0.71		
vC, conflicting volume	1668	2299	395	1930	2308	641	780			1275		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	807	1649	202	1157	1661	0	615			586		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	96	98	95	99	91			93		
cM capacity (veh/h)	171	63	749	96	62	774	898			709		

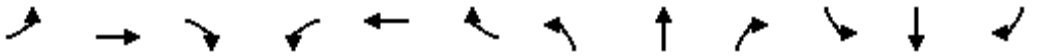
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	3	28	15	78	843	425	49	500	270
Volume Left	3	0	2	78	0	0	49	0	0
Volume Right	0	28	10	0	0	3	0	0	20
cSH	171	749	182	898	1700	1700	709	1700	1700
Volume to Capacity	0.02	0.04	0.08	0.09	0.50	0.25	0.07	0.29	0.16
Queue Length 95th (ft)	1	3	7	7	0	0	6	0	0
Control Delay (s)	26.5	10.0	26.5	9.4	0.0	0.0	10.5	0.0	0.0
Lane LOS	D	A	D	A			B		
Approach Delay (s)	11.6		26.5	0.5			0.6		
Approach LOS	B		D						

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	50.3%	ICU Level of Service		A
Analysis Period (min)	15			



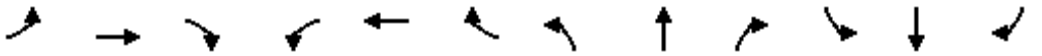
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	7	210	1	156	10	1116	142	99	644	1
Future Volume (vph)	6	0	7	210	1	156	10	1116	142	99	644	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.92		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3244		1715	1720	1578	1805	3503		1770	3538	
Flt Permitted		0.98		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3244		1715	1720	1578	1805	3503		1770	3538	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	6	0	7	223	1	166	11	1187	151	105	685	1
RTOR Reduction (vph)	0	13	0	0	0	135	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	0	111	113	31	11	1330	0	105	686	0
Confl. Peds. (#/hr)	1					1	8		7	7		8
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	2%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		1.7		14.5	14.5	14.5	1.7	35.8		10.0	44.1	
Effective Green, g (s)		1.7		14.5	14.5	14.5	1.7	35.8		10.0	44.1	
Actuated g/C Ratio		0.02		0.19	0.19	0.19	0.02	0.46		0.13	0.57	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		71		322	323	296	39	1624		229	2021	
v/s Ratio Prot		c0.00		0.06	c0.07		0.01	c0.38		c0.06	0.19	
v/s Ratio Perm						0.02						
v/c Ratio		0.00		0.34	0.35	0.11	0.28	0.82		0.46	0.34	
Uniform Delay, d1		36.9		27.2	27.3	26.0	37.1	17.9		31.1	8.8	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.2	0.2	0.1	1.4	3.2		0.5	0.0	
Delay (s)		36.9		27.5	27.5	26.0	38.6	21.1		31.6	8.8	
Level of Service		D		C	C	C	D	C		C	A	
Approach Delay (s)		36.9			26.9			21.2			11.9	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	19.2
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	11	70	12	31	11	141	1210	30	17	750	94
Future Volume (vph)	50	11	70	12	31	11	141	1210	30	17	750	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1716			1821		1787	3526		1805	3506	
Flt Permitted		0.89			0.94		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1549			1726		1787	3526		1805	3506	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	53	12	74	13	33	12	150	1287	32	18	798	100
RTOR Reduction (vph)	0	53	0	0	10	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	86	0	0	48	0	150	1318	0	18	893	0
Confl. Peds. (#/hr)	2					2	5					5
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	9%	0%	0%	0%	0%	1%	2%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		15.0			15.0		12.9	75.0		4.0	66.1	
Effective Green, g (s)		15.0			15.0		12.9	75.0		4.0	66.1	
Actuated g/C Ratio		0.14			0.14		0.12	0.71		0.04	0.63	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		220			245		218	2506		68	2196	
v/s Ratio Prot							c0.08	c0.37		0.01	0.25	
v/s Ratio Perm		c0.06			0.03							
v/c Ratio		0.39			0.19		0.69	0.53		0.26	0.41	
Uniform Delay, d1		41.1			39.9		44.4	7.0		49.3	9.9	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.1		7.0	0.8		0.8	0.6	
Delay (s)		41.5			40.1		51.4	7.8		50.1	10.4	
Level of Service		D			D		D	A		D	B	
Approach Delay (s)		41.5			40.1			12.3			11.2	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	0	73	5	0	1	228	1320	15	3	759	49
Future Volume (vph)	51	0	73	5	0	1	228	1320	15	3	759	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1592		1802	1615		1805	3568		1805	3539	
Flt Permitted	0.76	1.00		0.71	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1439	1592		1338	1615		1805	3568		1805	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	0	79	5	0	1	248	1435	16	3	825	53
RTOR Reduction (vph)	0	70	0	0	1	0	0	1	0	0	3	0
Lane Group Flow (vph)	55	9	0	5	0	0	248	1450	0	3	875	0
Confl. Peds. (#/hr)			2	2			2		2	2		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	11.4	11.4		11.4	11.4		17.1	74.2		2.4	59.5	
Effective Green, g (s)	11.4	11.4		11.4	11.4		17.1	74.2		2.4	59.5	
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.17	0.74		0.02	0.60	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	164	181		152	184		308	2647		43	2105	
v/s Ratio Prot		0.01			0.00		c0.14	c0.41		0.00	c0.25	
v/s Ratio Perm	c0.04			0.00								
v/c Ratio	0.34	0.05		0.03	0.00		0.81	0.55		0.07	0.42	
Uniform Delay, d1	40.8	39.5		39.4	39.3		39.8	5.6		47.7	10.9	
Progression Factor	1.00	1.00		1.00	1.00		0.90	1.15		1.00	1.00	
Incremental Delay, d2	0.4	0.0		0.0	0.0		10.2	0.6		0.3	0.6	
Delay (s)	41.3	39.5		39.4	39.3		46.2	7.1		48.0	11.5	
Level of Service	D	D		D	D		D	A		D	B	
Approach Delay (s)		40.2			39.4			12.8			11.6	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	228	204	264	0	1444	475	148	731	107
Future Volume (vph)	0	0	0	228	204	264	0	1444	475	148	731	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1805	1863	1615		3574	1565	1787	3487	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1805	1863	1615		3574	1565	1787	3487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	235	210	272	0	1489	490	153	754	110
RTOR Reduction (vph)	0	0	0	0	0	195	0	0	199	0	13	0
Lane Group Flow (vph)	0	0	0	235	210	77	0	1489	291	153	851	0
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	1%	1%	1%	1%	4%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				15.0	15.0	15.0		59.3	59.3	12.3	75.3	
Effective Green, g (s)				15.0	15.0	15.0		59.3	59.3	12.3	75.3	
Actuated g/C Ratio				0.15	0.15	0.15		0.59	0.59	0.12	0.75	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				270	279	242		2119	928	219	2625	
v/s Ratio Prot				c0.13	0.11	0.05		c0.42		c0.09	0.24	
v/s Ratio Perm									0.19			
v/c Ratio				0.87	0.75	0.32		0.70	0.31	0.70	0.32	
Uniform Delay, d1				41.5	40.7	37.9		14.2	10.2	42.1	4.0	
Progression Factor				1.00	1.00	1.00		0.66	0.67	0.80	1.25	
Incremental Delay, d2				24.2	9.7	0.3		1.5	0.7	7.3	0.3	
Delay (s)				65.8	50.5	38.2		10.9	7.5	40.9	5.3	
Level of Service				E	D	D		B	A	D	A	
Approach Delay (s)		0.0			50.8			10.1			10.7	
Approach LOS		A			D			B			B	

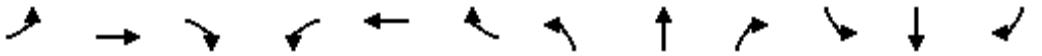
Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



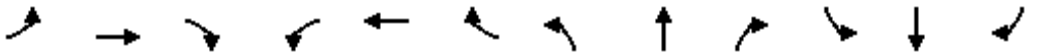
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	579	678	1241	322	0	959
Future Volume (vph)	579	678	1241	322	0	959
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	5.1		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00
Frt	0.95	0.85	1.00	0.85		1.00
Flt Protected	0.97	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3358	1455	3574	1487		5136
Flt Permitted	0.97	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3358	1455	3574	1487		5136
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	597	699	1279	332	0	989
RTOR Reduction (vph)	55	59	0	136	0	0
Lane Group Flow (vph)	829	353	1279	196	0	989
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	1%	1%	1%	6%	0%	1%
Turn Type	Prot	Prot	NA	Perm		NA
Protected Phases	8	8	2			6
Permitted Phases				2		
Actuated Green, G (s)	31.3	31.3	58.9	58.9		58.9
Effective Green, g (s)	31.3	31.3	58.9	58.9		58.9
Actuated g/C Ratio	0.31	0.31	0.59	0.59		0.59
Clearance Time (s)	4.7	4.7	5.1	5.1		5.1
Vehicle Extension (s)	2.5	2.5	3.0	3.0		3.0
Lane Grp Cap (vph)	1051	455	2105	875		3025
v/s Ratio Prot	c0.25	0.24	c0.36			0.19
v/s Ratio Perm				0.13		
v/c Ratio	0.79	0.78	0.61	0.22		0.33
Uniform Delay, d1	31.3	31.2	13.2	9.7		10.5
Progression Factor	1.00	1.00	1.43	4.77		1.50
Incremental Delay, d2	3.9	7.8	1.2	0.5		0.3
Delay (s)	35.2	38.9	20.0	46.9		15.9
Level of Service	D	D	C	D		B
Approach Delay (s)	36.4		25.6			15.9
Approach LOS	D		C			B

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



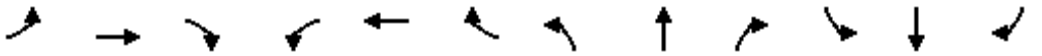
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	525	0	477	0	0	0	0	1038	666	0	1215	323
Future Volume (vph)	525	0	477	0	0	0	0	1038	666	0	1215	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		0.99					1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1505					5036	1566		3574	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1505					5036	1566		3574	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	541	0	492	0	0	0	0	1070	687	0	1253	333
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	541	0	492	0	0	0	0	1070	687	0	1253	333
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	0%	3%	1%	0%	1%	2%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	20.0		100.0					71.2	100.0		71.2	100.0
Effective Green, g (s)	20.0		100.0					71.2	100.0		71.2	100.0
Actuated g/C Ratio	0.20		1.00					0.71	1.00		0.71	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	686		1505					3585	1566		2544	1583
v/s Ratio Prot	c0.16							0.21			c0.35	
v/s Ratio Perm			0.33						0.44			0.21
v/c Ratio	0.79		0.33					0.30	0.44		0.49	0.21
Uniform Delay, d1	38.0		0.0					5.3	0.0		6.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.40	1.00
Incremental Delay, d2	5.6		0.6					0.2	0.9		0.6	0.3
Delay (s)	43.5		0.6					5.5	0.9		3.2	0.3
Level of Service	D		A					A	A		A	A
Approach Delay (s)		23.1			0.0			3.7			2.6	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



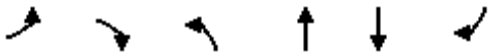
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	720	67	73	1114	88	48	26	49	57	29	104
Future Volume (vph)	103	720	67	73	1114	88	48	26	49	57	29	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.99	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1805	3539	1558	1805	5066			1829	1582		1806	1579
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.76	1.00		0.76	1.00
Satd. Flow (perm)	1805	3539	1558	1805	5066			1442	1582		1414	1579
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	111	774	72	78	1198	95	52	28	53	61	31	112
RTOR Reduction (vph)	0	0	27	0	5	0	0	0	44	0	0	92
Lane Group Flow (vph)	111	774	45	78	1288	0	0	80	9	0	92	20
Confl. Peds. (#/hr)	5		5	5		5	11		9	9		11
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	11.5	75.6	75.6	8.7	72.8			21.2	21.2		21.2	21.2
Effective Green, g (s)	11.5	75.6	75.6	8.7	72.8			21.2	21.2		21.2	21.2
Actuated g/C Ratio	0.10	0.63	0.63	0.07	0.61			0.18	0.18		0.18	0.18
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	172	2229	981	130	3073			254	279		249	278
v/s Ratio Prot	c0.06	c0.22		0.04	c0.25							
v/s Ratio Perm			0.03					0.06	0.01		c0.07	0.01
v/c Ratio	0.65	0.35	0.05	0.60	0.42			0.31	0.03		0.37	0.07
Uniform Delay, d1	52.3	10.5	8.5	54.0	12.4			43.1	40.9		43.5	41.2
Progression Factor	1.00	1.00	1.00	0.72	1.97			1.00	1.00		1.00	1.00
Incremental Delay, d2	6.1	0.4	0.1	3.4	0.3			0.3	0.0		0.3	0.0
Delay (s)	58.4	10.9	8.5	42.3	24.8			43.3	40.9		43.9	41.2
Level of Service	E	B	A	D	C			D	D		D	D
Approach Delay (s)		16.3			25.8			42.4			42.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	625	44	66	978	55	42	169	71	39	259	181
Future Volume (vph)	194	625	44	66	978	55	42	169	71	39	259	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1770	3502		1805	3539			3373			3551	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.75			0.78	1.00
Satd. Flow (perm)	1770	3502		1805	3539			2548			2800	1568
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	218	702	49	74	1099	62	47	190	80	44	291	203
RTOR Reduction (vph)	0	3	0	0	3	0	0	30	0	0	0	167
Lane Group Flow (vph)	218	748	0	74	1158	0	0	287	0	0	335	36
Confl. Peds. (#/hr)	11		15	15		11	5		14	14		5
Confl. Bikes (#/hr)			5			4			2			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	2%	5%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	20.0	76.2		8.6	64.8			21.2			21.2	21.2
Effective Green, g (s)	20.0	76.2		8.6	64.8			21.2			21.2	21.2
Actuated g/C Ratio	0.17	0.64		0.07	0.54			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	295	2223		129	1911			450			494	277
v/s Ratio Prot	c0.12	0.21		0.04	c0.33							
v/s Ratio Perm								0.11			c0.12	0.02
v/c Ratio	0.74	0.34		0.57	0.61			0.64			0.68	0.13
Uniform Delay, d1	47.5	10.2		53.9	18.9			45.8			46.2	41.6
Progression Factor	0.81	0.58		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	8.5	0.4		3.8	1.4			2.2			2.9	0.1
Delay (s)	46.8	6.2		57.7	20.3			48.0			49.1	41.7
Level of Service	D	A		E	C			D			D	D
Approach Delay (s)		15.4			22.6			48.0			46.3	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

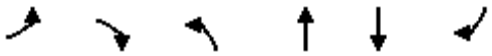


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	0	1269	748	1
Future Volume (Veh/h)	0	1	0	1269	748	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1	0	1322	779	1
Pedestrians	6					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				444		
pX, platoon unblocked	0.68					
vC, conflicting volume	1446	396	786			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	716	396	786			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	250	605	837			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	1	661	661	519	261
Volume Left	0	0	0	0	0
Volume Right	1	0	0	0	1
cSH	605	1700	1700	1700	1700
Volume to Capacity	0.00	0.39	0.39	0.31	0.15
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	11.0	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.0	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

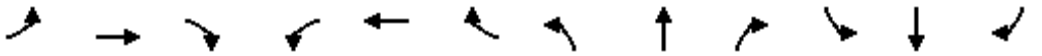


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	4	0	1268	857	4
Future Volume (Veh/h)	0	4	0	1268	857	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	4	0	1321	893	4
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.87	0.90	0.90			
vC, conflicting volume	1564	456	905			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	845	175	673			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	266	755	829			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	4	660	660	595	302
Volume Left	0	0	0	0	0
Volume Right	4	0	0	0	4
cSH	755	1700	1700	1700	1700
Volume to Capacity	0.01	0.39	0.39	0.35	0.18
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	9.8	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.8	0.0		0.0	
Approach LOS	A				

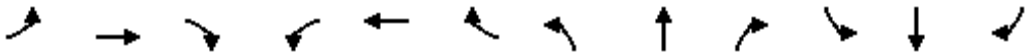
Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	38.4%	ICU Level of Service		A
Analysis Period (min)	15			

Appendix E
Year 2019 Existing Plus Project Conditions Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	851	399	188	361	55	267	446	236	163	784	152
Future Volume (vph)	149	851	399	188	361	55	267	446	236	163	784	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1551	3335	3333		3467	3539	1520	1770	3539	1531
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1551	3335	3333		3467	3539	1520	1770	3539	1531
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	157	896	420	198	380	58	281	469	248	172	825	160
RTOR Reduction (vph)	0	0	128	0	9	0	0	0	154	0	0	116
Lane Group Flow (vph)	157	896	292	198	429	0	281	469	94	172	825	44
Confl. Peds. (#/hr)	16		8	8		16	11		9	9		11
Confl. Bikes (#/hr)			2									
Heavy Vehicles (%)	3%	3%	2%	5%	6%	4%	1%	2%	4%	2%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.6	43.5	43.5	11.9	44.8		12.6	32.6	32.6	13.0	33.0	33.0
Effective Green, g (s)	10.6	43.5	43.5	11.9	44.8		12.6	32.6	32.6	13.0	33.0	33.0
Actuated g/C Ratio	0.09	0.36	0.36	0.10	0.37		0.10	0.27	0.27	0.11	0.28	0.28
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	300	1270	562	330	1244		364	961	412	191	973	421
v/s Ratio Prot	0.05	c0.26		c0.06	0.13		0.08	0.13		c0.10	c0.23	
v/s Ratio Perm			0.19						0.06			0.03
v/c Ratio	0.52	0.71	0.52	0.60	0.34		0.77	0.49	0.23	0.90	0.85	0.10
Uniform Delay, d1	52.3	32.8	30.0	51.8	27.0		52.3	36.7	33.9	52.9	41.1	32.5
Progression Factor	1.10	1.03	1.23	0.87	0.72		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	2.0	2.1	1.9	0.7		9.8	0.5	0.4	38.5	7.2	0.1
Delay (s)	57.8	35.9	39.1	47.1	20.3		62.1	37.2	34.3	91.4	48.4	32.6
Level of Service	E	D	D	D	C		E	D	C	F	D	C
Approach Delay (s)		39.1			28.6			43.5			52.6	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	91.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	13	258	9	2	11	86	865	13	143	1173	123
Future Volume (Veh/h)	61	13	258	9	2	11	86	865	13	143	1173	123
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	66	14	277	10	2	12	92	930	14	154	1261	132
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.83	0.83	0.80	0.83	0.83	0.94	0.80			0.94		
vC, conflicting volume	2323	2794	722	2348	2853	477	1419			949		
vC1, stage 1 conf vol	1661	1661		1126	1126							
vC2, stage 2 conf vol	662	1133		1222	1727							
vCu, unblocked vol	1843	2411	145	1874	2483	308	1018			812		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	31	82	59	68	94	98	83			80		
cM capacity (veh/h)	95	78	684	31	36	647	536			762		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	80	277	24	92	620	324	154	841	552
Volume Left	66	0	10	92	0	0	154	0	0
Volume Right	0	277	12	0	0	14	0	0	132
cSH	91	684	60	536	1700	1700	762	1700	1700
Volume to Capacity	0.87	0.41	0.40	0.17	0.36	0.19	0.20	0.49	0.32
Queue Length 95th (ft)	120	49	37	15	0	0	19	0	0
Control Delay (s)	143.8	13.8	99.4	13.1	0.0	0.0	10.9	0.0	0.0
Lane LOS	F	B	F	B			B		
Approach Delay (s)	42.9		99.4	1.2			1.1		
Approach LOS	E		F						

Intersection Summary				
Average Delay	6.9			
Intersection Capacity Utilization	65.9%	ICU Level of Service	C	
Analysis Period (min)	15			

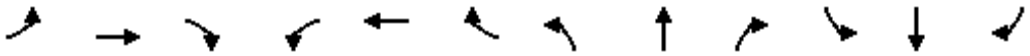
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	18	167	142	25	51	166	605	237	251	916	31
Future Volume (vph)	169	18	167	142	25	51	166	605	237	251	916	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.86	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.93		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3276		1698	1731	1381	1805	3359		1770	3487	
Flt Permitted		0.98		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3276		1698	1731	1381	1805	3359		1770	3487	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	186	20	184	156	27	56	182	665	260	276	1007	34
RTOR Reduction (vph)	0	159	0	0	0	42	0	42	0	0	2	0
Lane Group Flow (vph)	0	231	0	90	93	14	182	883	0	276	1039	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.4		26.1	26.1	26.1	13.1	28.4		16.0	31.3	
Effective Green, g (s)		12.4		26.1	26.1	26.1	13.1	28.4		16.0	31.3	
Actuated g/C Ratio		0.12		0.26	0.26	0.26	0.13	0.28		0.16	0.31	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		401		438	446	356	233	943		280	1079	
v/s Ratio Prot		c0.07		0.05	c0.05		0.10	0.26		c0.16	c0.30	
v/s Ratio Perm						0.01						
v/c Ratio		0.58		0.21	0.21	0.04	0.78	0.94		0.99	0.96	
Uniform Delay, d1		41.9		29.4	29.4	28.1	42.6	35.5		42.4	34.3	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3		0.1	0.1	0.0	14.4	15.9		49.3	18.9	
Delay (s)		43.1		29.5	29.5	28.1	57.0	51.3		91.7	53.2	
Level of Service		D		C	C	C	E	D		F	D	
Approach Delay (s)		43.1			29.2			52.3			61.3	
Approach LOS		D			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	53.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	101.1	Sum of lost time (s)	19.2
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	64	198	25	67	14	124	857	66	32	1069	126
Future Volume (vph)	138	64	198	25	67	14	124	857	66	32	1069	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.97	
Flpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.98		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1711			1803		1805	3499		1752	3384	
Flt Permitted		0.79			0.86		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1380			1568		1805	3499		1752	3384	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	162	75	233	29	79	16	146	1008	78	38	1258	148
RTOR Reduction (vph)	0	35	0	0	5	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	435	0	0	119	0	146	1081	0	38	1399	0
Confl. Peds. (#/hr)	20					20	110		4	4		110
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	2%	0%	3%	0%	0%	2%	0%	3%	2%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		35.9			33.5		12.6	44.6		6.0	41.3	
Effective Green, g (s)		35.9			33.5		12.6	44.6		6.0	41.3	
Actuated g/C Ratio		0.34			0.32		0.12	0.42		0.06	0.39	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		469			497		215	1479		99	1324	
v/s Ratio Prot							c0.08	c0.31		0.02	c0.41	
v/s Ratio Perm		c0.32			0.08							
v/c Ratio		0.93			0.24		0.68	0.73		0.38	1.06	
Uniform Delay, d1		33.5			26.6		44.5	25.4		48.0	32.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		24.2			0.1		6.5	3.2		0.9	41.1	
Delay (s)		57.7			26.7		51.1	28.7		48.9	73.2	
Level of Service		E			C		D	C		D	E	
Approach Delay (s)		57.7			26.7			31.3			72.6	
Approach LOS		E			C			C			E	

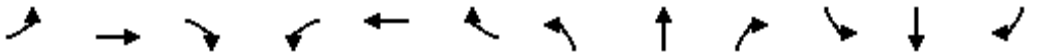
Intersection Summary			
HCM 2000 Control Delay	53.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	0	251	13	1	9	215	809	12	8	1193	75
Future Volume (vph)	175	0	251	13	1	9	215	809	12	8	1193	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.86		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1578		1804	1639		1787	3497		1805	3503	
Flt Permitted	0.75	1.00		0.22	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1424	1578		415	1639		1787	3497		1805	3503	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	206	0	295	15	1	11	253	952	14	9	1404	88
RTOR Reduction (vph)	0	240	0	0	9	0	0	1	0	0	4	0
Lane Group Flow (vph)	206	55	0	15	3	0	253	965	0	9	1488	0
Confl. Peds. (#/hr)			1	1			1		3	3		1
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	3%	0%	0%	2%	2%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	18.8	18.8		18.8	18.8		17.5	66.2		3.0	51.7	
Effective Green, g (s)	18.8	18.8		18.8	18.8		17.5	66.2		3.0	51.7	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.18	0.66		0.03	0.52	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	267	296		78	308		312	2315		54	1811	
v/s Ratio Prot		0.04			0.00		c0.14	0.28		0.00	c0.42	
v/s Ratio Perm	c0.14			0.04								
v/c Ratio	0.77	0.19		0.19	0.01		0.81	0.42		0.17	0.82	
Uniform Delay, d1	38.6	34.2		34.2	33.0		39.7	7.9		47.3	20.3	
Progression Factor	1.00	1.00		1.00	1.00		1.34	0.91		1.00	1.00	
Incremental Delay, d2	11.8	0.1		0.4	0.0		12.9	0.5		0.5	4.3	
Delay (s)	50.4	34.3		34.6	33.0		66.1	7.7		47.8	24.6	
Level of Service	D	C		C	C		E	A		D	C	
Approach Delay (s)		40.9			33.9			19.8			24.8	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



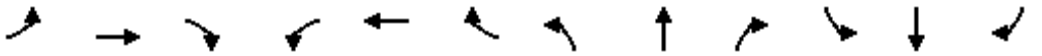
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	159	323	221	0	830	485	306	1103	415
Future Volume (vph)	0	0	0	159	323	221	0	830	485	306	1103	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.96	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1787	1845	1599		3539	1518	1752	3383	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1787	1845	1599		3539	1518	1752	3383	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	179	363	248	0	933	545	344	1239	466
RTOR Reduction (vph)	0	0	0	0	0	137	0	0	240	0	5	0
Lane Group Flow (vph)	0	0	0	179	363	111	0	933	305	344	1700	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	2%	4%	3%	2%	2%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				18.4	18.4	18.4		54.9	54.9	13.3	71.9	
Effective Green, g (s)				18.4	18.4	18.4		54.9	54.9	13.3	71.9	
Actuated g/C Ratio				0.18	0.18	0.18		0.55	0.55	0.13	0.72	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				328	339	294		1942	833	233	2432	
v/s Ratio Prot				0.10	c0.20	0.07		0.26		c0.20	c0.50	
v/s Ratio Perm									0.20			
v/c Ratio				0.55	1.07	0.38		0.48	0.37	1.48	0.70	
Uniform Delay, d1				37.0	40.8	35.8		13.8	12.7	43.4	7.9	
Progression Factor				1.00	1.00	1.00		0.77	1.95	0.91	1.81	
Incremental Delay, d2				1.0	69.0	0.3		0.7	1.1	231.6	1.3	
Delay (s)				38.0	109.8	36.1		11.4	25.9	271.1	15.7	
Level of Service				D	F	D		B	C	F	B	
Approach Delay (s)		0.0			70.4			16.7			58.5	
Approach LOS		A			E			B			E	

Intersection Summary			
HCM 2000 Control Delay	46.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	552	269	1047	416	0	1262
Future Volume (vph)	552	269	1047	416	0	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	4.0		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frt	0.99	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3386	1374	3539	1468		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3386	1374	3539	1468		5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	613	299	1163	462	0	1402
RTOR Reduction (vph)	4	83	0	0	0	0
Lane Group Flow (vph)	639	186	1163	462	0	1402
Heavy Vehicles (%)	3%	7%	2%	10%	0%	2%
Turn Type	Prot	Prot	NA	Free		NA
Protected Phases	8	8	2			6
Permitted Phases				Free		
Actuated Green, G (s)	24.0	24.0	66.2	100.0		66.2
Effective Green, g (s)	24.0	24.0	66.2	100.0		66.2
Actuated g/C Ratio	0.24	0.24	0.66	1.00		0.66
Clearance Time (s)	4.7	4.7	5.1			5.1
Vehicle Extension (s)	2.5	2.5	3.0			3.0
Lane Grp Cap (vph)	812	329	2342	1468		3366
v/s Ratio Prot	c0.19	0.14	c0.33			0.28
v/s Ratio Perm				0.31		
v/c Ratio	0.79	0.57	0.50	0.31		0.42
Uniform Delay, d1	35.6	33.4	8.5	0.0		7.9
Progression Factor	1.00	1.00	1.26	1.00		0.52
Incremental Delay, d2	4.9	1.8	0.7	0.5		0.3
Delay (s)	40.5	35.2	11.4	0.5		4.4
Level of Service	D	D	B	A		A
Approach Delay (s)	38.9		8.3			4.4
Approach LOS	D		A			A

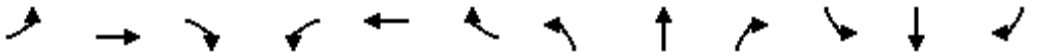
Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	457	0	366	0	0	0	0	1006	437	0	1257	556
Future Volume (vph)	457	0	366	0	0	0	0	1006	437	0	1257	556
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1495					4940	1568		3539	1566
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1495					4940	1568		3539	1566
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	491	0	394	0	0	0	0	1082	470	0	1352	598
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	491	0	394	0	0	0	0	1082	470	0	1352	598
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	5%	3%	0%	2%	1%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	18.6		100.0					72.6	100.0		72.6	100.0
Effective Green, g (s)	18.6		100.0					72.6	100.0		72.6	100.0
Actuated g/C Ratio	0.19		1.00					0.73	1.00		0.73	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	638		1495					3586	1568		2569	1566
v/s Ratio Prot	c0.14							0.22			c0.38	
v/s Ratio Perm			0.26						0.30			0.38
v/c Ratio	0.77		0.26					0.30	0.30		0.53	0.38
Uniform Delay, d1	38.7		0.0					4.8	0.0		6.1	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.52	1.00
Incremental Delay, d2	5.0		0.4					0.2	0.5		0.7	0.6
Delay (s)	43.7		0.4					5.0	0.5		3.8	0.6
Level of Service	D		A					A	A		A	A
Approach Delay (s)		24.4			0.0			3.7			2.8	
Approach LOS		C			A			A			A	

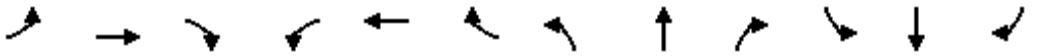
Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



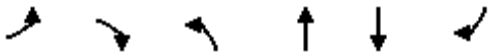
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	1086	161	140	579	81	149	66	168	119	94	215
Future Volume (vph)	138	1086	161	140	579	81	149	66	168	119	94	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.77	1.00	0.95			1.00	0.95		1.00	0.76
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.90	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1787	3505	1242	1752	4667			1628	1527		1759	1218
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.50	1.00		0.54	1.00
Satd. Flow (perm)	1787	3505	1242	1752	4667			849	1527		973	1218
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	162	1278	189	165	681	95	175	78	198	140	111	253
RTOR Reduction (vph)	0	0	70	0	15	0	0	0	71	0	0	91
Lane Group Flow (vph)	162	1278	119	165	761	0	0	253	127	0	251	162
Confl. Peds. (#/hr)	123		71	71		123	237		43	43		237
Confl. Bikes (#/hr)			3			1			2			1
Heavy Vehicles (%)	1%	3%	0%	3%	4%	4%	0%	5%	0%	4%	3%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	13.2	52.2	52.2	15.5	54.5			37.8	37.8		37.8	37.8
Effective Green, g (s)	13.2	52.2	52.2	15.5	54.5			37.8	37.8		37.8	37.8
Actuated g/C Ratio	0.11	0.44	0.44	0.13	0.45			0.31	0.31		0.31	0.31
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	196	1524	540	226	2119			267	481		306	383
v/s Ratio Prot	c0.09	c0.36		0.09	0.16							
v/s Ratio Perm			0.10					c0.30	0.08		0.26	0.13
v/c Ratio	0.83	0.84	0.22	0.73	0.36			0.95	0.26		0.82	0.42
Uniform Delay, d1	52.3	30.2	21.2	50.2	21.4			40.1	30.7		38.0	32.5
Progression Factor	1.00	1.00	1.00	0.72	1.40			1.00	1.00		1.00	1.00
Incremental Delay, d2	22.9	5.7	0.9	9.3	0.4			40.2	0.1		15.3	0.3
Delay (s)	75.2	35.8	22.1	45.6	30.3			80.3	30.8		53.2	32.8
Level of Service	E	D	C	D	C			F	C		D	C
Approach Delay (s)		38.2			33.0			58.6			42.9	
Approach LOS		D			C			E			D	

Intersection Summary			
HCM 2000 Control Delay	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	932	51	106	508	59	23	218	47	43	251	156
Future Volume (vph)	219	932	51	106	508	59	23	218	47	43	251	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1719	3505		1787	3384			3447			3454	1478
Flt Permitted	0.95	1.00		0.95	1.00			0.88			0.76	1.00
Satd. Flow (perm)	1719	3505		1787	3384			3048			2654	1478
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	243	1036	57	118	564	66	26	242	52	48	279	173
RTOR Reduction (vph)	0	3	0	0	6	0	0	15	0	0	0	142
Lane Group Flow (vph)	243	1090	0	118	624	0	0	305	0	0	327	31
Confl. Peds. (#/hr)	6		4	4		6	12		5	5		12
Confl. Bikes (#/hr)			2									3
Heavy Vehicles (%)	5%	2%	4%	1%	5%	3%	0%	1%	4%	2%	4%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	21.0	73.1		11.5	63.6			21.4			21.4	21.4
Effective Green, g (s)	21.0	73.1		11.5	63.6			21.4			21.4	21.4
Actuated g/C Ratio	0.18	0.61		0.10	0.53			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	300	2135		171	1793			543			473	263
v/s Ratio Prot	c0.14	c0.31		0.07	0.18							
v/s Ratio Perm								0.10			c0.12	0.02
v/c Ratio	0.81	0.51		0.69	0.35			0.56			0.69	0.12
Uniform Delay, d1	47.6	13.3		52.5	16.3			45.0			46.2	41.4
Progression Factor	0.88	0.93		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	11.6	0.6		9.3	0.5			0.8			3.5	0.1
Delay (s)	53.3	13.0		61.8	16.8			45.8			49.7	41.4
Level of Service	D	B		E	B			D			D	D
Approach Delay (s)		20.4			23.9			45.8			46.9	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

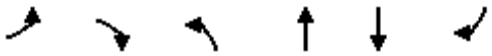


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	13	0	887	1429	12
Future Volume (Veh/h)	0	13	0	887	1429	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	0	964	1553	13
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)				444		
pX, platoon unblocked	0.79					
vC, conflicting volume	2050	792	1575			
vC1, stage 1 conf vol	1568					
vC2, stage 2 conf vol	482					
vCu, unblocked vol	1794	792	1575			
tC, single (s)	6.8	7.2	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	95	100			
cM capacity (veh/h)	153	303	420			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	482	482	1035	531
Volume Left	0	0	0	0	0
Volume Right	14	0	0	0	13
cSH	303	1700	1700	1700	1700
Volume to Capacity	0.05	0.28	0.28	0.61	0.31
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	17.5	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	17.5	0.0		0.0	
Approach LOS	C				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	49.9%	ICU Level of Service		A
Analysis Period (min)	15			

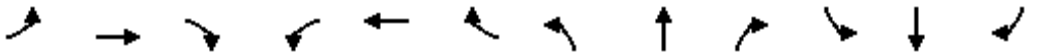
Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	39	0	1009	1189	36
Future Volume (Veh/h)	0	39	0	1009	1189	36
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	43	0	1121	1321	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.83	0.71	0.71			
vC, conflicting volume	1902	680	1361			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	312	0	682			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	551	771	651			

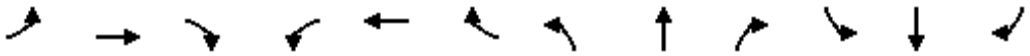
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	43	560	560	881	480
Volume Left	0	0	0	0	0
Volume Right	43	0	0	0	40
cSH	771	1700	1700	1700	1700
Volume to Capacity	0.06	0.33	0.33	0.52	0.28
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	9.9	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.9	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	44.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	552	188	177	802	113	389	707	217	119	373	134
Future Volume (vph)	114	552	188	177	802	113	389	707	217	119	373	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	123	594	202	190	862	122	418	760	233	128	401	144
RTOR Reduction (vph)	0	0	92	0	9	0	0	0	90	0	0	111
Lane Group Flow (vph)	123	594	110	190	975	0	418	760	143	128	401	33
Confl. Peds. (#/hr)	12		11	11		12	6		5	5		6
Confl. Bikes (#/hr)			1			2			2			
Heavy Vehicles (%)	0%	2%	1%	2%	1%	0%	1%	1%	4%	0%	1%	2%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.2	44.5	44.5	11.4	45.7		17.4	31.9	31.9	13.2	27.7	27.7
Effective Green, g (s)	10.2	44.5	44.5	11.4	45.7		17.4	31.9	31.9	13.2	27.7	27.7
Actuated g/C Ratio	0.08	0.37	0.37	0.10	0.38		0.14	0.27	0.27	0.11	0.23	0.23
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	297	1312	579	326	1333		502	950	405	198	824	358
v/s Ratio Prot	0.04	0.17		c0.06	c0.28		c0.12	c0.21		0.07	0.11	
v/s Ratio Perm			0.07						0.09			0.02
v/c Ratio	0.41	0.45	0.19	0.58	0.73		0.83	0.80	0.35	0.65	0.49	0.09
Uniform Delay, d1	52.1	28.5	25.6	52.0	31.9		49.9	41.1	35.7	51.2	40.0	36.3
Progression Factor	1.18	0.70	0.39	0.93	0.75		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	1.1	0.7	1.4	3.0		11.3	5.2	0.7	7.1	0.6	0.2
Delay (s)	61.9	21.2	10.7	49.7	27.0		61.2	46.2	36.4	58.2	40.6	36.4
Level of Service	E	C	B	D	C		E	D	D	E	D	D
Approach Delay (s)		24.3			30.7			49.0			43.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	89.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



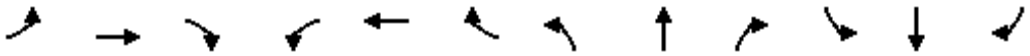
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	31	3	3	10	79	1232	5	47	729	21
Future Volume (Veh/h)	7	0	31	3	3	10	79	1232	5	47	729	21
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	32	3	3	10	82	1283	5	49	759	22
Pedestrians		10			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.73	0.73	0.93	0.73	0.73	0.69	0.93			0.69		
vC, conflicting volume	1695	2337	400	1966	2346	651	791			1295		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	770	1651	201	1142	1663	0	622			541		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	96	97	95	99	91			93		
cM capacity (veh/h)	175	60	747	95	59	751	891			715		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	7	32	16	82	855	433	49	506	275
Volume Left	7	0	3	82	0	0	49	0	0
Volume Right	0	32	10	0	0	5	0	0	22
cSH	175	747	168	891	1700	1700	715	1700	1700
Volume to Capacity	0.04	0.04	0.10	0.09	0.50	0.25	0.07	0.30	0.16
Queue Length 95th (ft)	3	3	8	8	0	0	6	0	0
Control Delay (s)	26.4	10.0	28.7	9.4	0.0	0.0	10.4	0.0	0.0
Lane LOS	D	B	D	A			B		
Approach Delay (s)	13.0		28.7	0.6			0.6		
Approach LOS	B		D						

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	51.2%	ICU Level of Service		A
Analysis Period (min)	15			

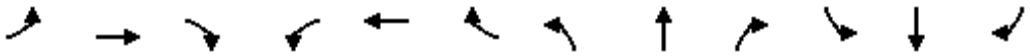
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	2	20	210	2	156	21	1116	142	99	645	2
Future Volume (vph)	30	2	20	210	2	156	21	1116	142	99	645	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.94		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3307		1715	1720	1578	1805	3503		1770	3537	
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3307		1715	1720	1578	1805	3503		1770	3537	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	2	21	223	2	166	22	1187	151	105	686	2
RTOR Reduction (vph)	0	19	0	0	0	136	0	8	0	0	0	0
Lane Group Flow (vph)	0	36	0	111	114	30	22	1330	0	105	688	0
Confl. Peds. (#/hr)	1					1	8		7	7		8
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	2%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		6.3		14.8	14.8	14.8	4.1	35.3		9.8	41.0	
Effective Green, g (s)		6.3		14.8	14.8	14.8	4.1	35.3		9.8	41.0	
Actuated g/C Ratio		0.08		0.18	0.18	0.18	0.05	0.43		0.12	0.50	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		255		311	312	286	90	1519		213	1781	
v/s Ratio Prot		c0.01		0.06	c0.07		0.01	c0.38		c0.06	0.19	
v/s Ratio Perm						0.02						
v/c Ratio		0.14		0.36	0.37	0.11	0.24	0.88		0.49	0.39	
Uniform Delay, d1		35.0		29.1	29.2	27.8	37.2	21.0		33.5	12.4	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1		0.3	0.3	0.1	0.5	5.8		0.7	0.1	
Delay (s)		35.1		29.4	29.4	27.8	37.7	26.8		34.1	12.5	
Level of Service		D		C	C	C	D	C		C	B	
Approach Delay (s)		35.1			28.7			27.0			15.4	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	81.4	Sum of lost time (s)	19.2
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	13	74	12	32	11	143	1220	30	17	772	96
Future Volume (vph)	51	13	74	12	32	11	143	1220	30	17	772	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1715			1822		1787	3526		1805	3506	
Flt Permitted		0.89			0.93		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1550			1719		1787	3526		1805	3506	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	54	14	79	13	34	12	152	1298	32	18	821	102
RTOR Reduction (vph)	0	54	0	0	10	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	93	0	0	49	0	152	1329	0	18	918	0
Confl. Peds. (#/hr)	2					2	5					5
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	9%	0%	0%	0%	0%	1%	2%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		15.1			15.1		13.0	74.9		4.0	65.9	
Effective Green, g (s)		15.1			15.1		13.0	74.9		4.0	65.9	
Actuated g/C Ratio		0.14			0.14		0.12	0.71		0.04	0.62	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		221			246		220	2503		68	2190	
v/s Ratio Prot							c0.09	c0.38		0.01	0.26	
v/s Ratio Perm		c0.06			0.03							
v/c Ratio		0.42			0.20		0.69	0.53		0.26	0.42	
Uniform Delay, d1		41.2			39.9		44.3	7.1		49.3	10.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.1		7.3	0.8		0.8	0.6	
Delay (s)		41.7			40.0		51.7	7.9		50.1	10.7	
Level of Service		D			D		D	A		D	B	
Approach Delay (s)		41.7			40.0			12.4			11.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	0	73	5	0	2	228	1329	15	5	777	55
Future Volume (vph)	54	0	73	5	0	2	228	1329	15	5	777	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1592		1802	1615		1805	3568		1805	3535	
Flt Permitted	0.76	1.00		0.71	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1437	1592		1338	1615		1805	3568		1805	3535	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	79	5	0	2	248	1445	16	5	845	60
RTOR Reduction (vph)	0	70	0	0	2	0	0	0	0	0	4	0
Lane Group Flow (vph)	59	9	0	5	0	0	248	1461	0	5	901	0
Confl. Peds. (#/hr)			2	2			2		2	2		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	11.3	11.3		11.3	11.3		17.1	74.1		2.6	59.6	
Effective Green, g (s)	11.3	11.3		11.3	11.3		17.1	74.1		2.6	59.6	
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.17	0.74		0.03	0.60	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	162	179		151	182		308	2643		46	2106	
v/s Ratio Prot		0.01			0.00		c0.14	c0.41		0.00	c0.25	
v/s Ratio Perm	c0.04			0.00								
v/c Ratio	0.36	0.05		0.03	0.00		0.81	0.55		0.11	0.43	
Uniform Delay, d1	41.0	39.6		39.5	39.3		39.8	5.7		47.6	11.0	
Progression Factor	1.00	1.00		1.00	1.00		0.91	1.15		1.00	1.00	
Incremental Delay, d2	0.5	0.0		0.0	0.0		10.1	0.6		0.4	0.6	
Delay (s)	41.5	39.6		39.5	39.3		46.3	7.1		47.9	11.6	
Level of Service	D	D		D	D		D	A		D	B	
Approach Delay (s)		40.4			39.5			12.8			11.8	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	228	204	266	0	1451	475	152	740	113
Future Volume (vph)	0	0	0	228	204	266	0	1451	475	152	740	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1805	1863	1615		3574	1565	1787	3484	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1805	1863	1615		3574	1565	1787	3484	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	235	210	274	0	1496	490	157	763	116
RTOR Reduction (vph)	0	0	0	0	0	194	0	0	200	0	14	0
Lane Group Flow (vph)	0	0	0	235	210	80	0	1496	290	157	865	0
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	1%	1%	1%	1%	4%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				15.0	15.0	15.0		59.2	59.2	12.4	75.3	
Effective Green, g (s)				15.0	15.0	15.0		59.2	59.2	12.4	75.3	
Actuated g/C Ratio				0.15	0.15	0.15		0.59	0.59	0.12	0.75	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				270	279	242		2115	926	221	2623	
v/s Ratio Prot				c0.13	0.11	0.05		c0.42		c0.09	0.25	
v/s Ratio Perm									0.19			
v/c Ratio				0.87	0.75	0.33		0.71	0.31	0.71	0.33	
Uniform Delay, d1				41.5	40.7	38.0		14.3	10.2	42.1	4.1	
Progression Factor				1.00	1.00	1.00		0.65	0.64	0.80	1.33	
Incremental Delay, d2				24.2	9.7	0.3		1.6	0.7	8.2	0.3	
Delay (s)				65.8	50.5	38.3		10.9	7.2	42.0	5.7	
Level of Service				E	D	D		B	A	D	A	
Approach Delay (s)		0.0			50.8			10.0			11.2	
Approach LOS		A			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

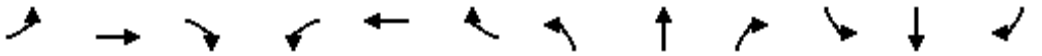


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	579	681	1245	322	0	968
Future Volume (vph)	579	681	1245	322	0	968
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	5.1		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00
Frt	0.95	0.85	1.00	0.85		1.00
Flt Protected	0.97	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3358	1455	3574	1487		5136
Flt Permitted	0.97	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3358	1455	3574	1487		5136
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	597	702	1284	332	0	998
RTOR Reduction (vph)	55	58	0	136	0	0
Lane Group Flow (vph)	830	356	1284	196	0	998
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	1%	1%	1%	6%	0%	1%
Turn Type	Prot	Prot	NA	Perm		NA
Protected Phases	8	8	2			6
Permitted Phases				2		
Actuated Green, G (s)	31.3	31.3	58.9	58.9		58.9
Effective Green, g (s)	31.3	31.3	58.9	58.9		58.9
Actuated g/C Ratio	0.31	0.31	0.59	0.59		0.59
Clearance Time (s)	4.7	4.7	5.1	5.1		5.1
Vehicle Extension (s)	2.5	2.5	3.0	3.0		3.0
Lane Grp Cap (vph)	1051	455	2105	875		3025
v/s Ratio Prot	c0.25	0.24	c0.36			0.19
v/s Ratio Perm				0.13		
v/c Ratio	0.79	0.78	0.61	0.22		0.33
Uniform Delay, d1	31.3	31.2	13.2	9.7		10.5
Progression Factor	1.00	1.00	1.44	4.80		1.52
Incremental Delay, d2	3.9	8.2	1.2	0.5		0.3
Delay (s)	35.2	39.4	20.2	47.2		16.2
Level of Service	D	D	C	D		B
Approach Delay (s)	36.6		25.7			16.2
Approach LOS	D		C			B

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

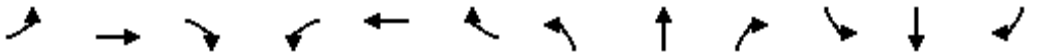
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	528	0	477	0	0	0	0	1040	666	0	1219	329
Future Volume (vph)	528	0	477	0	0	0	0	1040	666	0	1219	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		0.99					1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1505					5036	1566		3574	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1505					5036	1566		3574	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	544	0	492	0	0	0	0	1072	687	0	1257	339
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	544	0	492	0	0	0	0	1072	687	0	1257	339
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	0%	3%	1%	0%	1%	2%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	20.1		100.0					71.1	100.0		71.1	100.0
Effective Green, g (s)	20.1		100.0					71.1	100.0		71.1	100.0
Actuated g/C Ratio	0.20		1.00					0.71	1.00		0.71	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	690		1505					3580	1566		2541	1583
v/s Ratio Prot	c0.16							0.21			c0.35	
v/s Ratio Perm			0.33						0.44			0.21
v/c Ratio	0.79		0.33					0.30	0.44		0.49	0.21
Uniform Delay, d1	37.9		0.0					5.3	0.0		6.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.40	1.00
Incremental Delay, d2	5.5		0.6					0.2	0.9		0.6	0.3
Delay (s)	43.4		0.6					5.5	0.9		3.2	0.3
Level of Service	D		A					A	A		A	A
Approach Delay (s)		23.1			0.0			3.7			2.6	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



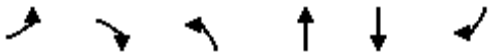
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	722	69	73	1118	88	52	26	49	57	29	104
Future Volume (vph)	103	722	69	73	1118	88	52	26	49	57	29	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.99	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1805	3539	1558	1805	5066			1827	1582		1806	1579
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.75	1.00		0.76	1.00
Satd. Flow (perm)	1805	3539	1558	1805	5066			1425	1582		1410	1579
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	111	776	74	78	1202	95	56	28	53	61	31	112
RTOR Reduction (vph)	0	0	27	0	5	0	0	0	44	0	0	92
Lane Group Flow (vph)	111	776	47	78	1292	0	0	84	9	0	92	20
Confl. Peds. (#/hr)	5		5	5		5	11		9	9		11
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	11.5	75.6	75.6	8.7	72.8			21.2	21.2		21.2	21.2
Effective Green, g (s)	11.5	75.6	75.6	8.7	72.8			21.2	21.2		21.2	21.2
Actuated g/C Ratio	0.10	0.63	0.63	0.07	0.61			0.18	0.18		0.18	0.18
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	172	2229	981	130	3073			251	279		249	278
v/s Ratio Prot	c0.06	c0.22		0.04	c0.26							
v/s Ratio Perm			0.03					0.06	0.01		c0.07	0.01
v/c Ratio	0.65	0.35	0.05	0.60	0.42			0.33	0.03		0.37	0.07
Uniform Delay, d1	52.3	10.5	8.5	54.0	12.5			43.2	40.9		43.5	41.2
Progression Factor	1.00	1.00	1.00	0.72	1.98			1.00	1.00		1.00	1.00
Incremental Delay, d2	6.1	0.4	0.1	3.4	0.3			0.3	0.0		0.3	0.0
Delay (s)	58.4	11.0	8.6	42.3	25.0			43.5	40.9		43.9	41.2
Level of Service	E	B	A	D	C			D	D		D	D
Approach Delay (s)		16.2			26.0			42.5			42.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	629	44	66	980	55	42	169	71	39	259	181
Future Volume (vph)	194	629	44	66	980	55	42	169	71	39	259	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1770	3502		1805	3539			3373			3551	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.75			0.78	1.00
Satd. Flow (perm)	1770	3502		1805	3539			2548			2800	1568
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	218	707	49	74	1101	62	47	190	80	44	291	203
RTOR Reduction (vph)	0	3	0	0	3	0	0	30	0	0	0	167
Lane Group Flow (vph)	218	753	0	74	1160	0	0	287	0	0	335	36
Confl. Peds. (#/hr)	11		15	15		11	5		14	14		5
Confl. Bikes (#/hr)			5			4			2			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	2%	5%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	20.0	76.2		8.6	64.8			21.2			21.2	21.2
Effective Green, g (s)	20.0	76.2		8.6	64.8			21.2			21.2	21.2
Actuated g/C Ratio	0.17	0.64		0.07	0.54			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	295	2223		129	1911			450			494	277
v/s Ratio Prot	c0.12	0.21		0.04	c0.33							
v/s Ratio Perm								0.11			c0.12	0.02
v/c Ratio	0.74	0.34		0.57	0.61			0.64			0.68	0.13
Uniform Delay, d1	47.5	10.2		53.9	18.9			45.8			46.2	41.6
Progression Factor	0.83	0.56		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	8.5	0.4		3.8	1.4			2.2			2.9	0.1
Delay (s)	48.1	6.1		57.7	20.3			48.0			49.1	41.7
Level of Service	D	A		E	C			D			D	D
Approach Delay (s)		15.5			22.6			48.0			46.3	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

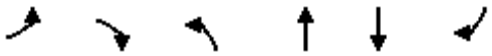


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	0	1293	761	1
Future Volume (Veh/h)	0	1	0	1293	761	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1	0	1347	793	1
Pedestrians	6					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				444		
pX, platoon unblocked	0.66					
vC, conflicting volume	1473	403	800			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	690	403	800			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	252	599	827			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	1	674	674	529	265
Volume Left	0	0	0	0	0
Volume Right	1	0	0	0	1
cSH	599	1700	1700	1700	1700
Volume to Capacity	0.00	0.40	0.40	0.31	0.16
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	11.0	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.0	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

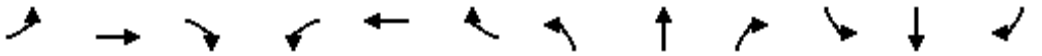


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	15	0	1279	870	5
Future Volume (Veh/h)	0	15	0	1279	870	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	16	0	1332	906	5
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.88	0.88	0.88			
vC, conflicting volume	1582	464	919			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	793	128	644			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	288	793	833			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	666	666	604	307
Volume Left	0	0	0	0	0
Volume Right	16	0	0	0	5
cSH	793	1700	1700	1700	1700
Volume to Capacity	0.02	0.39	0.39	0.36	0.18
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.6	0.0		0.0	
Approach LOS	A				

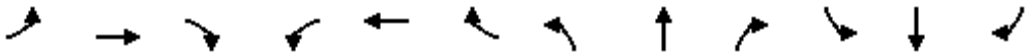
Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	38.7%	ICU Level of Service		A
Analysis Period (min)	15			

Appendix F
Year 2022 Near-Term Conditions
Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	887	397	184	395	69	263	410	233	194	751	166
Future Volume (vph)	157	887	397	184	395	69	263	410	233	194	751	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1551	3335	3324		3467	3539	1520	1770	3539	1531
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1551	3335	3324		3467	3539	1520	1770	3539	1531
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	165	934	418	194	416	73	277	432	245	204	791	175
RTOR Reduction (vph)	0	0	121	0	11	0	0	0	164	0	0	126
Lane Group Flow (vph)	165	934	297	194	478	0	277	432	81	204	791	49
Confl. Peds. (#/hr)	16		8	8		16	11		9	9		11
Confl. Bikes (#/hr)			2									
Heavy Vehicles (%)	3%	3%	2%	5%	6%	4%	1%	2%	4%	2%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.0	44.1	44.1	11.1	45.2		11.9	30.2	30.2	15.6	33.9	33.9
Effective Green, g (s)	10.0	44.1	44.1	11.1	45.2		11.9	30.2	30.2	15.6	33.9	33.9
Actuated g/C Ratio	0.08	0.37	0.37	0.09	0.38		0.10	0.25	0.25	0.13	0.28	0.28
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	283	1288	569	308	1252		343	890	382	230	999	432
v/s Ratio Prot	0.05	c0.27		c0.06	0.14		0.08	0.12		c0.12	c0.22	
v/s Ratio Perm			0.19						0.05			0.03
v/c Ratio	0.58	0.73	0.52	0.63	0.38		0.81	0.49	0.21	0.89	0.79	0.11
Uniform Delay, d1	53.0	32.7	29.7	52.5	27.2		52.9	38.3	35.5	51.3	39.8	31.9
Progression Factor	1.20	0.85	0.87	0.83	0.72		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	2.2	2.1	2.7	0.8		13.0	0.6	0.4	30.9	4.6	0.2
Delay (s)	65.0	30.0	27.8	46.3	20.5		65.9	38.8	35.9	82.2	44.4	32.1
Level of Service	E	C	C	D	C		E	D	D	F	D	C
Approach Delay (s)		33.2			27.8			46.0			49.1	
Approach LOS		C			C			D			D	

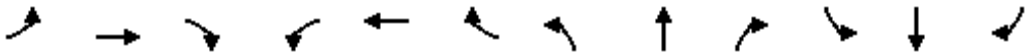
Intersection Summary			
HCM 2000 Control Delay	39.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	13	237	2	2	11	76	831	7	147	1142	112
Future Volume (Veh/h)	50	13	237	2	2	11	76	831	7	147	1142	112
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	54	14	255	2	2	12	82	894	8	158	1228	120
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.85	0.85	0.81	0.85	0.85	0.94	0.81			0.94		
vC, conflicting volume	2254	2701	700	2259	2757	456	1374			907		
vC1, stage 1 conf vol	1630	1630		1067	1067							
vC2, stage 2 conf vol	624	1071		1192	1690							
vCu, unblocked vol	1773	2302	173	1779	2368	280	1001			762		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	46	85	62	96	96	98	85			80		
cM capacity (veh/h)	100	91	669	48	51	674	555			794		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	68	255	16	82	596	306	158	819	529
Volume Left	54	0	2	82	0	0	158	0	0
Volume Right	0	255	12	0	0	8	0	0	120
cSH	98	669	161	555	1700	1700	794	1700	1700
Volume to Capacity	0.70	0.38	0.10	0.15	0.35	0.18	0.20	0.48	0.31
Queue Length 95th (ft)	88	45	8	13	0	0	18	0	0
Control Delay (s)	100.5	13.7	29.8	12.6	0.0	0.0	10.7	0.0	0.0
Lane LOS	F	B	D	B			B		
Approach Delay (s)	31.9		29.8	1.1			1.1		
Approach LOS	D		D						

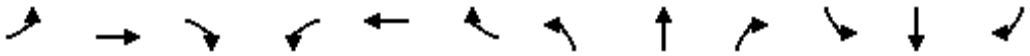
Intersection Summary				
Average Delay	4.8			
Intersection Capacity Utilization	63.4%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	12	124	146	18	53	73	626	244	259	940	20
Future Volume (vph)	89	12	124	146	18	53	73	626	244	259	940	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.86	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.92		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3247		1698	1724	1384	1805	3359		1770	3493	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3247		1698	1724	1384	1805	3359		1770	3493	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	98	13	136	160	20	58	80	688	268	285	1033	22
RTOR Reduction (vph)	0	120	0	0	0	43	0	40	0	0	1	0
Lane Group Flow (vph)	0	127	0	90	90	15	80	916	0	285	1054	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.1	26.1	26.1	9.4	30.4		13.0	34.0	
Effective Green, g (s)		12.0		26.1	26.1	26.1	9.4	30.4		13.0	34.0	
Actuated g/C Ratio		0.12		0.26	0.26	0.26	0.09	0.30		0.13	0.34	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		390		444	451	362	170	1024		230	1191	
v/s Ratio Prot		c0.04		c0.05	0.05		0.04	0.27		c0.16	c0.30	
v/s Ratio Perm						0.01						
v/c Ratio		0.33		0.20	0.20	0.04	0.47	0.89		1.24	0.88	
Uniform Delay, d1		40.2		28.7	28.7	27.5	42.8	33.1		43.4	31.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	0.1	0.0	0.8	9.9		139.0	7.9	
Delay (s)		40.3		28.8	28.7	27.5	43.5	43.0		182.4	38.9	
Level of Service		D		C	C	C	D	D		F	D	
Approach Delay (s)		40.3			28.4			43.1			69.4	
Approach LOS		D			C			D			E	

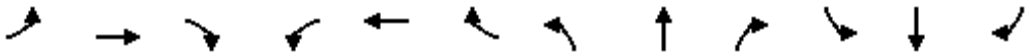
Intersection Summary			
HCM 2000 Control Delay	54.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	99.7	Sum of lost time (s)	19.2
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	60	192	26	62	14	113	797	68	33	1033	124
Future Volume (vph)	135	60	192	26	62	14	113	797	68	33	1033	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.97	
Flpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.98		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1710			1801		1805	3495		1752	3382	
Flt Permitted		0.80			0.85		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1386			1543		1805	3495		1752	3382	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	159	71	226	31	73	16	133	938	80	39	1215	146
RTOR Reduction (vph)	0	33	0	0	5	0	0	6	0	0	9	0
Lane Group Flow (vph)	0	423	0	0	115	0	133	1012	0	39	1352	0
Confl. Peds. (#/hr)	20					20	110		4	4		110
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	2%	0%	3%	0%	0%	2%	0%	3%	2%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		35.5			33.1		11.1	47.0		6.0	44.6	
Effective Green, g (s)		35.5			33.1		11.1	47.0		6.0	44.6	
Actuated g/C Ratio		0.34			0.31		0.11	0.45		0.06	0.42	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		466			484		189	1557		99	1429	
v/s Ratio Prot							c0.07	0.29		0.02	c0.40	
v/s Ratio Perm		c0.31			0.07							
v/c Ratio		0.91			0.24		0.70	0.65		0.39	0.95	
Uniform Delay, d1		33.4			26.8		45.6	22.8		48.0	29.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		20.7			0.1		9.3	2.1		0.9	14.0	
Delay (s)		54.2			26.9		54.9	25.0		48.9	43.3	
Level of Service		D			C		D	C		D	D	
Approach Delay (s)		54.2			26.9			28.4			43.5	
Approach LOS		D			C			C			D	

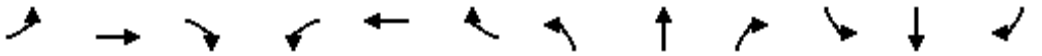
Intersection Summary			
HCM 2000 Control Delay	38.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	0	259	13	1	2	221	762	12	2	1173	59
Future Volume (vph)	158	0	259	13	1	2	221	762	12	2	1173	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1578		1804	1710		1787	3497		1805	3510	
Flt Permitted	0.76	1.00		0.22	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1436	1578		408	1710		1787	3497		1805	3510	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	186	0	305	15	1	2	260	896	14	2	1380	69
RTOR Reduction (vph)	0	248	0	0	2	0	0	1	0	0	3	0
Lane Group Flow (vph)	186	57	0	15	1	0	260	909	0	2	1446	0
Confl. Peds. (#/hr)			1	1			1		3	3		1
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	3%	0%	0%	2%	2%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	18.6	18.6		18.6	18.6		18.5	66.9		2.5	50.9	
Effective Green, g (s)	18.6	18.6		18.6	18.6		18.5	66.9		2.5	50.9	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.18	0.67		0.02	0.51	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	267	293		75	318		330	2339		45	1786	
v/s Ratio Prot		0.04			0.00		c0.15	0.26		0.00	c0.41	
v/s Ratio Perm	c0.13			0.04								
v/c Ratio	0.70	0.19		0.20	0.00		0.79	0.39		0.04	0.81	
Uniform Delay, d1	38.1	34.4		34.4	33.2		38.9	7.4		47.6	20.5	
Progression Factor	1.00	1.00		1.00	1.00		1.53	0.59		1.00	1.00	
Incremental Delay, d2	6.2	0.1		0.5	0.0		9.2	0.4		0.1	4.1	
Delay (s)	44.3	34.5		34.9	33.2		68.5	4.8		47.7	24.6	
Level of Service	D	C		C	C		E	A		D	C	
Approach Delay (s)		38.2			34.6			18.9			24.6	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



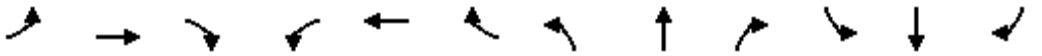
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	164	333	213	0	799	500	303	1112	409
Future Volume (vph)	0	0	0	164	333	213	0	799	500	303	1112	409
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.96	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1787	1845	1599		3539	1518	1752	3385	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1787	1845	1599		3539	1518	1752	3385	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	184	374	239	0	898	562	340	1249	460
RTOR Reduction (vph)	0	0	0	0	0	144	0	0	336	0	35	0
Lane Group Flow (vph)	0	0	0	184	374	95	0	898	226	340	1674	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	2%	4%	3%	2%	2%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				23.9	23.9	23.9		40.3	40.3	22.4	66.4	
Effective Green, g (s)				23.9	23.9	23.9		40.3	40.3	22.4	66.4	
Actuated g/C Ratio				0.24	0.24	0.24		0.40	0.40	0.22	0.66	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				427	440	382		1426	611	392	2247	
v/s Ratio Prot				0.10	c0.20	0.06		0.25		c0.19	c0.49	
v/s Ratio Perm									0.15			
v/c Ratio				0.43	0.85	0.25		0.63	0.37	0.87	0.75	
Uniform Delay, d1				32.3	36.3	30.8		23.9	21.0	37.4	11.2	
Progression Factor				1.00	1.00	1.00		0.72	0.86	0.97	0.41	
Incremental Delay, d2				0.3	13.7	0.1		1.9	1.5	14.4	1.8	
Delay (s)				32.5	50.1	30.9		19.0	19.6	50.6	6.4	
Level of Service				C	D	C		B	B	D	A	
Approach Delay (s)		0.0			40.3			19.3			13.8	
Approach LOS		A			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	569	254	1044	428	0	1275
Future Volume (vph)	569	254	1044	428	0	1275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	4.0		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frt	0.99	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3388	1374	3539	1468		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3388	1374	3539	1468		5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	632	282	1160	476	0	1417
RTOR Reduction (vph)	4	51	0	0	0	0
Lane Group Flow (vph)	656	203	1160	476	0	1417
Heavy Vehicles (%)	3%	7%	2%	10%	0%	2%
Turn Type	Prot	Prot	NA	Free		NA
Protected Phases	8	8	2			6
Permitted Phases				Free		
Actuated Green, G (s)	24.9	24.9	65.3	100.0		65.3
Effective Green, g (s)	24.9	24.9	65.3	100.0		65.3
Actuated g/C Ratio	0.25	0.25	0.65	1.00		0.65
Clearance Time (s)	4.7	4.7	5.1			5.1
Vehicle Extension (s)	2.5	2.5	3.0			3.0
Lane Grp Cap (vph)	843	342	2310	1468		3320
v/s Ratio Prot	c0.19	0.15	c0.33			0.28
v/s Ratio Perm				0.32		
v/c Ratio	0.78	0.59	0.50	0.32		0.43
Uniform Delay, d1	35.0	33.1	9.0	0.0		8.3
Progression Factor	1.00	1.00	1.17	1.00		0.67
Incremental Delay, d2	4.4	2.3	0.7	0.6		0.3
Delay (s)	39.4	35.4	11.2	0.6		5.9
Level of Service	D	D	B	A		A
Approach Delay (s)	38.3		8.1			5.9
Approach LOS	D		A			A

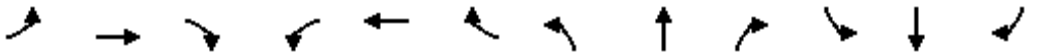
Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	448	0	377	0	0	0	0	1025	450	0	1290	554
Future Volume (vph)	448	0	377	0	0	0	0	1025	450	0	1290	554
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1495					4940	1568		3539	1566
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1495					4940	1568		3539	1566
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	482	0	405	0	0	0	0	1102	484	0	1387	596
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	482	0	405	0	0	0	0	1102	484	0	1387	596
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	5%	3%	0%	2%	1%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	18.4		100.0					72.8	100.0		72.8	100.0
Effective Green, g (s)	18.4		100.0					72.8	100.0		72.8	100.0
Actuated g/C Ratio	0.18		1.00					0.73	1.00		0.73	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	631		1495					3596	1568		2576	1566
v/s Ratio Prot	c0.14							0.22			c0.39	
v/s Ratio Perm			0.27						0.31			0.38
v/c Ratio	0.76		0.27					0.31	0.31		0.54	0.38
Uniform Delay, d1	38.7		0.0					4.8	0.0		6.1	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.32	1.00
Incremental Delay, d2	4.9		0.4					0.2	0.5		0.7	0.6
Delay (s)	43.7		0.4					5.0	0.5		2.7	0.6
Level of Service	D		A					A	A		A	A
Approach Delay (s)		23.9			0.0			3.6			2.1	
Approach LOS		C			A			A			A	

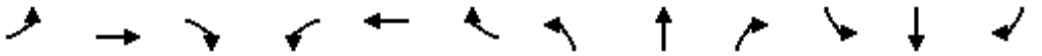
Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



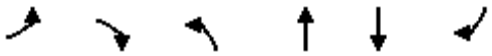
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	1118	151	144	616	83	141	68	173	123	97	221
Future Volume (vph)	142	1118	151	144	616	83	141	68	173	123	97	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.77	1.00	0.95			1.00	0.95		1.00	0.76
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.90	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1787	3505	1242	1752	4676			1635	1527		1758	1218
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.50	1.00		0.56	1.00
Satd. Flow (perm)	1787	3505	1242	1752	4676			851	1527		1003	1218
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	167	1315	178	169	725	98	166	80	204	145	114	260
RTOR Reduction (vph)	0	0	63	0	14	0	0	0	76	0	0	92
Lane Group Flow (vph)	167	1315	115	169	809	0	0	246	128	0	259	168
Confl. Peds. (#/hr)	123		71	71		123	237		43	43		237
Confl. Bikes (#/hr)			3			1			2			1
Heavy Vehicles (%)	1%	3%	0%	3%	4%	4%	0%	5%	0%	4%	3%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	14.4	53.4	53.4	13.3	52.3			38.8	38.8		38.8	38.8
Effective Green, g (s)	14.4	53.4	53.4	13.3	52.3			38.8	38.8		38.8	38.8
Actuated g/C Ratio	0.12	0.44	0.44	0.11	0.44			0.32	0.32		0.32	0.32
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	214	1559	552	194	2037			275	493		324	393
v/s Ratio Prot	0.09	c0.38		c0.10	0.17							
v/s Ratio Perm			0.09					c0.29	0.08		0.26	0.14
v/c Ratio	0.78	0.84	0.21	0.87	0.40			0.89	0.26		0.80	0.43
Uniform Delay, d1	51.3	29.6	20.4	52.5	23.1			38.7	30.0		37.0	31.9
Progression Factor	1.00	1.00	1.00	0.69	1.56			1.00	1.00		1.00	1.00
Incremental Delay, d2	15.5	5.8	0.9	29.3	0.5			28.0	0.1		12.1	0.3
Delay (s)	66.8	35.3	21.2	65.6	36.5			66.7	30.1		49.2	32.2
Level of Service	E	D	C	E	D			E	C		D	C
Approach Delay (s)		37.0			41.5			50.1			40.6	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	983	55	115	533	61	26	226	57	45	264	175
Future Volume (vph)	227	983	55	115	533	61	26	226	57	45	264	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1719	3504		1787	3385			3431			3454	1478
Flt Permitted	0.95	1.00		0.95	1.00			0.86			0.74	1.00
Satd. Flow (perm)	1719	3504		1787	3385			2952			2589	1478
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	252	1092	61	128	592	68	29	251	63	50	293	194
RTOR Reduction (vph)	0	2	0	0	6	0	0	18	0	0	0	159
Lane Group Flow (vph)	252	1151	0	128	654	0	0	325	0	0	343	35
Confl. Peds. (#/hr)	6		4	4		6	12		5	5		12
Confl. Bikes (#/hr)			2									3
Heavy Vehicles (%)	5%	2%	4%	1%	5%	3%	0%	1%	4%	2%	4%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	22.8	70.7		13.4	61.3			21.9			21.9	21.9
Effective Green, g (s)	22.8	70.7		13.4	61.3			21.9			21.9	21.9
Actuated g/C Ratio	0.19	0.59		0.11	0.51			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	326	2064		199	1729			538			472	269
v/s Ratio Prot	c0.15	c0.33		0.07	0.19							
v/s Ratio Perm								0.11			c0.13	0.02
v/c Ratio	0.77	0.56		0.64	0.38			0.60			0.73	0.13
Uniform Delay, d1	46.1	15.1		51.0	17.8			45.1			46.2	41.1
Progression Factor	0.95	0.67		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	8.1	0.8		5.2	0.6			1.3			4.7	0.1
Delay (s)	51.7	10.9		56.3	18.4			46.4			50.9	41.2
Level of Service	D	B		E	B			D			D	D
Approach Delay (s)		18.3			24.6			46.4			47.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

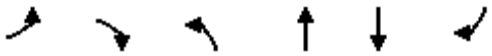


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	13	0	834	1368	12
Future Volume (Veh/h)	0	13	0	834	1368	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	0	907	1487	13
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)				444		
pX, platoon unblocked	0.79					
vC, conflicting volume	1956	759	1509			
vC1, stage 1 conf vol	1502					
vC2, stage 2 conf vol	454					
vCu, unblocked vol	1672	759	1509			
tC, single (s)	6.8	7.2	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	167	319	445			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	454	454	991	509
Volume Left	0	0	0	0	0
Volume Right	14	0	0	0	13
cSH	319	1700	1700	1700	1700
Volume to Capacity	0.04	0.27	0.27	0.58	0.30
Queue Length 95th (ft)	3	0	0	0	0
Control Delay (s)	16.8	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	16.8	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

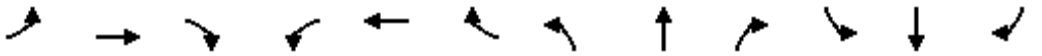
Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2	0	946	1188	25
Future Volume (Veh/h)	0	2	0	946	1188	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	2	0	1051	1320	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.82	0.71	0.71			
vC, conflicting volume	1860	674	1348			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	412	0	688			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	473	779	654			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	2	526	526	880	468
Volume Left	0	0	0	0	0
Volume Right	2	0	0	0	28
cSH	779	1700	1700	1700	1700
Volume to Capacity	0.00	0.31	0.31	0.52	0.28
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.6	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	43.6%	ICU Level of Service		A
Analysis Period (min)	15			



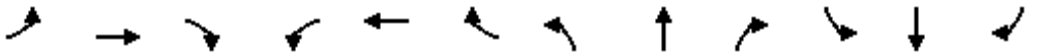
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	575	192	179	828	137	397	715	219	135	378	144
Future Volume (vph)	127	575	192	179	828	137	397	715	219	135	378	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3539	1563	3433	3490		3467	3574	1524	1805	3574	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3539	1563	3433	3490		3467	3574	1524	1805	3574	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	137	618	206	192	890	147	427	769	235	145	406	155
RTOR Reduction (vph)	0	0	91	0	11	0	0	0	91	0	0	117
Lane Group Flow (vph)	137	618	115	192	1026	0	427	769	144	145	406	38
Confl. Peds. (#/hr)	12		11	11		12	6		5	5		6
Confl. Bikes (#/hr)			1			2			2			
Heavy Vehicles (%)	0%	2%	1%	2%	1%	0%	1%	1%	4%	0%	1%	2%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.0	43.9	43.9	11.0	44.9		16.8	33.3	33.3	12.8	29.3	29.3
Effective Green, g (s)	10.0	43.9	43.9	11.0	44.9		16.8	33.3	33.3	12.8	29.3	29.3
Actuated g/C Ratio	0.08	0.37	0.37	0.09	0.37		0.14	0.28	0.28	0.11	0.24	0.24
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	291	1294	571	314	1305		485	991	422	192	872	379
v/s Ratio Prot	0.04	0.17		c0.06	c0.29		c0.12	c0.22		0.08	0.11	
v/s Ratio Perm			0.07						0.09			0.02
v/c Ratio	0.47	0.48	0.20	0.61	0.79		0.88	0.78	0.34	0.76	0.47	0.10
Uniform Delay, d1	52.5	29.2	26.1	52.4	33.3		50.6	39.9	34.6	52.1	38.7	35.1
Progression Factor	1.17	0.72	0.41	0.93	0.75		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	1.2	0.8	2.0	3.9		16.8	4.1	0.7	15.5	0.5	0.2
Delay (s)	61.9	22.2	11.5	50.6	29.0		67.4	44.0	35.3	67.5	39.2	35.3
Level of Service	E	C	B	D	C		E	D	D	E	D	D
Approach Delay (s)		25.5			32.3			49.6			44.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	28	2	3	10	77	1252	3	48	742	20
Future Volume (Veh/h)	3	0	28	2	3	10	77	1252	3	48	742	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	3	0	29	2	3	10	80	1304	3	50	773	21
Pedestrians		10			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.73	0.73	0.93	0.73	0.73	0.69	0.93			0.69		
vC, conflicting volume	1717	2368	407	1988	2376	660	804			1314		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	800	1693	209	1172	1706	0	637			566		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	96	98	95	99	91			93		
cM capacity (veh/h)	166	57	739	91	56	751	880			699		

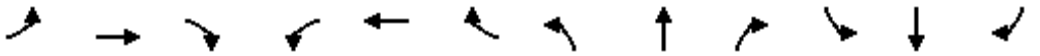
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	3	29	15	80	869	438	50	515	279
Volume Left	3	0	2	80	0	0	50	0	0
Volume Right	0	29	10	0	0	3	0	0	21
cSH	166	739	168	880	1700	1700	699	1700	1700
Volume to Capacity	0.02	0.04	0.09	0.09	0.51	0.26	0.07	0.30	0.16
Queue Length 95th (ft)	1	3	7	7	0	0	6	0	0
Control Delay (s)	27.1	10.1	28.5	9.5	0.0	0.0	10.5	0.0	0.0
Lane LOS	D	B	D	A			B		
Approach Delay (s)	11.7		28.5	0.5			0.6		
Approach LOS	B		D						

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	51.4%	ICU Level of Service		A
Analysis Period (min)	15			



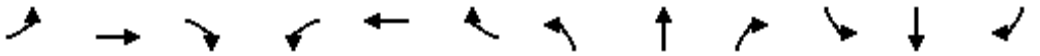
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	7	216	1	161	10	1151	146	102	664	1
Future Volume (vph)	6	0	7	216	1	161	10	1151	146	102	664	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.92		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3244		1715	1720	1578	1805	3503		1770	3538	
Flt Permitted		0.98		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3244		1715	1720	1578	1805	3503		1770	3538	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	6	0	7	230	1	171	11	1224	155	109	706	1
RTOR Reduction (vph)	0	13	0	0	0	139	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	0	115	116	32	11	1371	0	109	707	0
Confl. Peds. (#/hr)	1					1	8		7	7		8
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	2%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		1.7		14.5	14.5	14.5	1.7	35.0		10.0	43.3	
Effective Green, g (s)		1.7		14.5	14.5	14.5	1.7	35.0		10.0	43.3	
Actuated g/C Ratio		0.02		0.19	0.19	0.19	0.02	0.46		0.13	0.57	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		72		325	326	299	40	1604		231	2005	
v/s Ratio Prot		c0.00		0.07	c0.07		0.01	c0.39		c0.06	0.20	
v/s Ratio Perm						0.02						
v/c Ratio		0.00		0.35	0.36	0.11	0.28	0.85		0.47	0.35	
Uniform Delay, d1		36.5		26.9	26.9	25.6	36.7	18.4		30.8	9.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.2	0.2	0.1	1.4	4.5		0.6	0.0	
Delay (s)		36.5		27.1	27.1	25.7	38.1	23.0		31.3	9.0	
Level of Service		D		C	C	C	D	C		C	A	
Approach Delay (s)		36.5			26.5			23.1			12.0	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	19.2
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	11	72	12	32	11	145	1248	31	18	773	97
Future Volume (vph)	52	11	72	12	32	11	145	1248	31	18	773	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1716			1822		1787	3526		1805	3506	
Flt Permitted		0.88			0.94		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1544			1724		1787	3526		1805	3506	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	55	12	77	13	34	12	154	1328	33	19	822	103
RTOR Reduction (vph)	0	51	0	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	93	0	0	49	0	154	1360	0	19	919	0
Confl. Peds. (#/hr)	2					2	5					5
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	9%	0%	0%	0%	0%	1%	2%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		15.1			15.1		13.1	74.9		4.0	65.8	
Effective Green, g (s)		15.1			15.1		13.1	74.9		4.0	65.8	
Actuated g/C Ratio		0.14			0.14		0.12	0.71		0.04	0.62	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		220			246		221	2503		68	2186	
v/s Ratio Prot							c0.09	c0.39		0.01	0.26	
v/s Ratio Perm		c0.06			0.03							
v/c Ratio		0.42			0.20		0.70	0.54		0.28	0.42	
Uniform Delay, d1		41.2			39.9		44.3	7.2		49.3	10.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.1		7.5	0.9		0.8	0.6	
Delay (s)		41.7			40.0		51.8	8.1		50.2	10.7	
Level of Service		D			D		D	A		D	B	
Approach Delay (s)		41.7			40.0			12.5			11.5	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	0	75	5	0	1	235	1361	15	3	782	50
Future Volume (vph)	53	0	75	5	0	1	235	1361	15	3	782	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1592		1802	1615		1805	3568		1805	3539	
Flt Permitted	0.76	1.00		0.70	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1439	1592		1335	1615		1805	3568		1805	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	0	82	5	0	1	255	1479	16	3	850	54
RTOR Reduction (vph)	0	72	0	0	1	0	0	0	0	0	3	0
Lane Group Flow (vph)	58	10	0	5	0	0	255	1495	0	3	901	0
Confl. Peds. (#/hr)			2	2			2		2	2		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	12.0	12.0		12.0	12.0		17.8	74.2		1.8	58.2	
Effective Green, g (s)	12.0	12.0		12.0	12.0		17.8	74.2		1.8	58.2	
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.18	0.74		0.02	0.58	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	172	191		160	193		321	2647		32	2059	
v/s Ratio Prot		0.01			0.00		c0.14	c0.42		0.00	c0.25	
v/s Ratio Perm	c0.04			0.00								
v/c Ratio	0.34	0.05		0.03	0.00		0.79	0.56		0.09	0.44	
Uniform Delay, d1	40.4	39.0		38.9	38.7		39.3	5.7		48.3	11.7	
Progression Factor	1.00	1.00		1.00	1.00		0.97	1.29		1.00	1.00	
Incremental Delay, d2	0.4	0.0		0.0	0.0		8.3	0.6		0.5	0.7	
Delay (s)	40.8	39.0		38.9	38.7		46.3	8.0		48.8	12.4	
Level of Service	D	D		D	D		D	A		D	B	
Approach Delay (s)		39.7			38.9			13.6			12.5	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	235	210	272	0	1489	489	152	753	110
Future Volume (vph)	0	0	0	235	210	272	0	1489	489	152	753	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1805	1863	1615		3574	1565	1787	3487	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1805	1863	1615		3574	1565	1787	3487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	242	216	280	0	1535	504	157	776	113
RTOR Reduction (vph)	0	0	0	0	0	207	0	0	218	0	10	0
Lane Group Flow (vph)	0	0	0	242	216	73	0	1535	286	157	879	0
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	1%	1%	1%	1%	4%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				17.1	17.1	17.1		56.8	56.8	12.7	73.2	
Effective Green, g (s)				17.1	17.1	17.1		56.8	56.8	12.7	73.2	
Actuated g/C Ratio				0.17	0.17	0.17		0.57	0.57	0.13	0.73	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				308	318	276		2030	888	226	2552	
v/s Ratio Prot				c0.13	0.12	0.05		c0.43		c0.09	0.25	
v/s Ratio Perm									0.18			
v/c Ratio				0.79	0.68	0.26		0.76	0.32	0.69	0.34	
Uniform Delay, d1				39.7	38.9	36.0		16.4	11.4	41.8	4.8	
Progression Factor				1.00	1.00	1.00		0.76	1.44	0.81	1.60	
Incremental Delay, d2				11.5	4.5	0.2		2.0	0.7	6.9	0.4	
Delay (s)				51.2	43.4	36.2		14.5	17.2	40.6	8.0	
Level of Service				D	D	D		B	B	D	A	
Approach Delay (s)		0.0			43.2			15.2			12.9	
Approach LOS		A			D			B			B	

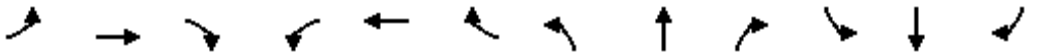
Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



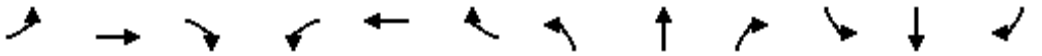
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	597	698	1280	332	0	988
Future Volume (vph)	597	698	1280	332	0	988
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	5.1		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00
Frt	0.95	0.85	1.00	0.85		1.00
Flt Protected	0.97	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3359	1455	3574	1487		5136
Flt Permitted	0.97	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3359	1455	3574	1487		5136
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	615	720	1320	342	0	1019
RTOR Reduction (vph)	18	18	0	151	0	0
Lane Group Flow (vph)	892	407	1320	191	0	1019
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	1%	1%	1%	6%	0%	1%
Turn Type	Prot	Prot	NA	Perm		NA
Protected Phases	8	8	2			6
Permitted Phases				2		
Actuated Green, G (s)	34.4	34.4	55.8	55.8		55.8
Effective Green, g (s)	34.4	34.4	55.8	55.8		55.8
Actuated g/C Ratio	0.34	0.34	0.56	0.56		0.56
Clearance Time (s)	4.7	4.7	5.1	5.1		5.1
Vehicle Extension (s)	2.5	2.5	3.0	3.0		3.0
Lane Grp Cap (vph)	1155	500	1994	829		2865
v/s Ratio Prot	0.27	c0.28	c0.37			0.20
v/s Ratio Perm				0.13		
v/c Ratio	0.77	0.81	0.66	0.23		0.36
Uniform Delay, d1	29.3	29.9	15.5	11.2		12.2
Progression Factor	1.00	1.00	1.47	3.99		1.59
Incremental Delay, d2	3.1	9.5	1.6	0.6		0.3
Delay (s)	32.4	39.4	24.5	45.3		19.7
Level of Service	C	D	C	D		B
Approach Delay (s)	34.7		28.8			19.7
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	28.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



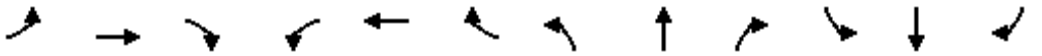
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	541	0	491	0	0	0	0	1072	686	0	1252	333
Future Volume (vph)	541	0	491	0	0	0	0	1072	686	0	1252	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		0.99					1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1505					5036	1566		3574	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1505					5036	1566		3574	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	558	0	506	0	0	0	0	1105	707	0	1291	343
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	558	0	506	0	0	0	0	1105	707	0	1291	343
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	0%	3%	1%	0%	1%	2%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	20.7		100.0					70.5	100.0		70.5	100.0
Effective Green, g (s)	20.7		100.0					70.5	100.0		70.5	100.0
Actuated g/C Ratio	0.21		1.00					0.70	1.00		0.70	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	710		1505					3550	1566		2519	1583
v/s Ratio Prot	c0.16							0.22			c0.36	
v/s Ratio Perm			0.34						0.45			0.22
v/c Ratio	0.79		0.34					0.31	0.45		0.51	0.22
Uniform Delay, d1	37.6		0.0					5.6	0.0		6.8	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.66	1.00
Incremental Delay, d2	5.3		0.6					0.2	0.9		0.7	0.3
Delay (s)	42.8		0.6					5.8	0.9		5.2	0.3
Level of Service	D		A					A	A		A	A
Approach Delay (s)		22.8			0.0			3.9			4.1	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



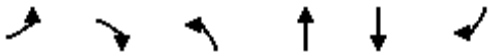
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	757	69	75	1155	91	49	27	50	59	30	107
Future Volume (vph)	106	757	69	75	1155	91	49	27	50	59	30	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.99	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1805	3539	1558	1805	5066			1829	1582		1806	1579
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.76	1.00		0.76	1.00
Satd. Flow (perm)	1805	3539	1558	1805	5066			1440	1582		1409	1579
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	114	814	74	81	1242	98	53	29	54	63	32	115
RTOR Reduction (vph)	0	0	28	0	5	0	0	0	44	0	0	95
Lane Group Flow (vph)	114	814	46	81	1335	0	0	82	10	0	95	20
Confl. Peds. (#/hr)	5		5	5		5	11		9	9		11
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	11.6	75.4	75.4	8.8	72.6			21.3	21.3		21.3	21.3
Effective Green, g (s)	11.6	75.4	75.4	8.8	72.6			21.3	21.3		21.3	21.3
Actuated g/C Ratio	0.10	0.63	0.63	0.07	0.60			0.18	0.18		0.18	0.18
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	174	2223	978	132	3064			255	280		250	280
v/s Ratio Prot	c0.06	c0.23		0.04	c0.26							
v/s Ratio Perm			0.03					0.06	0.01		c0.07	0.01
v/c Ratio	0.66	0.37	0.05	0.61	0.44			0.32	0.03		0.38	0.07
Uniform Delay, d1	52.3	10.8	8.5	54.0	12.7			43.0	40.8		43.5	41.1
Progression Factor	1.00	1.00	1.00	0.67	1.91			1.00	1.00		1.00	1.00
Incremental Delay, d2	6.6	0.5	0.1	3.7	0.3			0.3	0.0		0.4	0.0
Delay (s)	58.9	11.2	8.6	39.9	24.6			43.3	40.9		43.9	41.2
Level of Service	E	B	A	D	C			D	D		D	D
Approach Delay (s)		16.5			25.4			42.3			42.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	658	48	75	1028	56	46	176	76	38	267	186
Future Volume (vph)	201	658	48	75	1028	56	46	176	76	38	267	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1770	3501		1805	3540			3370			3552	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.73			0.78	1.00
Satd. Flow (perm)	1770	3501		1805	3540			2475			2782	1568
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	226	739	54	84	1155	63	52	198	85	43	300	209
RTOR Reduction (vph)	0	4	0	0	3	0	0	30	0	0	0	172
Lane Group Flow (vph)	226	789	0	84	1215	0	0	305	0	0	343	37
Confl. Peds. (#/hr)	11		15	15		11	5		14	14		5
Confl. Bikes (#/hr)			5			4			2			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	2%	5%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	20.0	75.8		8.7	64.5			21.5			21.5	21.5
Effective Green, g (s)	20.0	75.8		8.7	64.5			21.5			21.5	21.5
Actuated g/C Ratio	0.17	0.63		0.07	0.54			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	295	2211		130	1902			443			498	280
v/s Ratio Prot	c0.13	0.23		0.05	c0.34							
v/s Ratio Perm								0.12			c0.12	0.02
v/c Ratio	0.77	0.36		0.65	0.64			0.69			0.69	0.13
Uniform Delay, d1	47.8	10.5		54.2	19.5			46.1			46.1	41.4
Progression Factor	0.90	0.53		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	10.1	0.4		8.0	1.7			3.5			3.2	0.1
Delay (s)	53.3	5.9		62.1	21.2			49.6			49.3	41.5
Level of Service	D	A		E	C			D			D	D
Approach Delay (s)		16.4			23.8			49.6			46.3	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

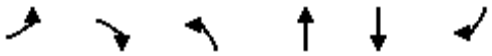


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	0	1309	771	1
Future Volume (Veh/h)	0	1	0	1309	771	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1	0	1364	803	1
Pedestrians	6					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				444		
pX, platoon unblocked	0.66					
vC, conflicting volume	1492	408	810			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	711	408	810			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	244	595	820			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	1	682	682	535	269
Volume Left	0	0	0	0	0
Volume Right	1	0	0	0	1
cSH	595	1700	1700	1700	1700
Volume to Capacity	0.00	0.40	0.40	0.31	0.16
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	11.1	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.1	0.0		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	39.5%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection Sign configuration not allowed in HCM analysis.

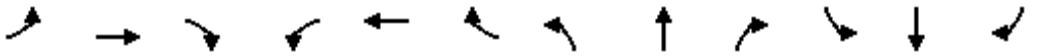


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	4	0	1308	883	4
Future Volume (Veh/h)	0	4	0	1308	883	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	4	0	1363	920	4
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.87	0.89	0.89			
vC, conflicting volume	1612	470	932			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	854	173	689			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	260	752	812			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	4	682	682	613	311
Volume Left	0	0	0	0	0
Volume Right	4	0	0	0	4
cSH	752	1700	1700	1700	1700
Volume to Capacity	0.01	0.40	0.40	0.36	0.18
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	9.8	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.8	0.0		0.0	
Approach LOS	A				

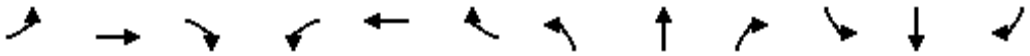
Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	39.5%	ICU Level of Service		A
Analysis Period (min)	15			

Appendix G
Year 2022 Near-Term Plus Project Conditions Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	887	411	199	395	69	275	458	245	194	809	166
Future Volume (vph)	157	887	411	199	395	69	275	458	245	194	809	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1551	3335	3324		3467	3539	1520	1770	3539	1531
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1551	3335	3324		3467	3539	1520	1770	3539	1531
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	165	934	433	209	416	73	289	482	258	204	852	175
RTOR Reduction (vph)	0	0	128	0	11	0	0	0	156	0	0	123
Lane Group Flow (vph)	165	934	305	209	478	0	289	482	102	204	852	52
Confl. Peds. (#/hr)	16		8	8		16	11		9	9		11
Confl. Bikes (#/hr)			2									
Heavy Vehicles (%)	3%	3%	2%	5%	6%	4%	1%	2%	4%	2%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.0	42.4	42.4	11.1	43.5		12.0	31.9	31.9	15.6	35.5	35.5
Effective Green, g (s)	10.0	42.4	42.4	11.1	43.5		12.0	31.9	31.9	15.6	35.5	35.5
Actuated g/C Ratio	0.08	0.35	0.35	0.09	0.36		0.10	0.27	0.27	0.13	0.30	0.30
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	283	1238	548	308	1204		346	940	404	230	1046	452
v/s Ratio Prot	0.05	c0.27		c0.06	0.14		0.08	0.14		c0.12	c0.24	
v/s Ratio Perm			0.20						0.07			0.03
v/c Ratio	0.58	0.75	0.56	0.68	0.40		0.84	0.51	0.25	0.89	0.81	0.11
Uniform Delay, d1	53.0	34.2	31.2	52.7	28.5		53.0	37.4	34.7	51.3	39.2	30.8
Progression Factor	1.22	0.85	0.86	0.83	0.73		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	2.6	2.4	4.3	0.9		15.8	0.6	0.4	30.9	5.2	0.2
Delay (s)	65.9	31.7	29.4	48.2	21.7		68.9	38.1	35.1	82.2	44.4	30.9
Level of Service	E	C	C	D	C		E	D	D	F	D	C
Approach Delay (s)		34.7			29.6			46.0			48.8	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	13	265	9	2	11	88	892	13	147	1213	127
Future Volume (Veh/h)	63	13	265	9	2	11	88	892	13	147	1213	127
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	68	14	285	10	2	12	95	959	14	158	1304	137
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.82	0.82	0.79	0.82	0.82	0.94	0.79			0.94		
vC, conflicting volume	2397	2882	746	2421	2944	492	1467			978		
vC1, stage 1 conf vol	1714	1714		1161	1161							
vC2, stage 2 conf vol	682	1168		1260	1783							
vCu, unblocked vol	1935	2524	163	1964	2598	328	1070			846		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	20	78	57	30	91	98	81			79		
cM capacity (veh/h)	85	65	664	14	23	629	511			741		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	82	285	24	95	639	334	158	869	572
Volume Left	68	0	10	95	0	0	158	0	0
Volume Right	0	285	12	0	0	14	0	0	137
cSH	81	664	30	511	1700	1700	741	1700	1700
Volume to Capacity	1.01	0.43	0.81	0.19	0.38	0.20	0.21	0.51	0.34
Queue Length 95th (ft)	140	54	67	17	0	0	20	0	0
Control Delay (s)	195.4	14.4	297.0	13.7	0.0	0.0	11.2	0.0	0.0
Lane LOS	F	B	F	B			B		
Approach Delay (s)	54.9		297.0	1.2			1.1		
Approach LOS	F		F						

Intersection Summary				
Average Delay	9.9			
Intersection Capacity Utilization	67.5%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	18	167	146	25	53	166	626	244	259	951	31
Future Volume (vph)	169	18	167	146	25	53	166	626	244	259	951	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.86	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.93		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3276		1698	1731	1383	1805	3359		1770	3488	
Flt Permitted		0.98		0.95	0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3276		1698	1731	1383	1805	3359		1770	3488	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	186	20	184	160	27	58	182	688	268	285	1045	34
RTOR Reduction (vph)	0	156	0	0	0	43	0	39	0	0	2	0
Lane Group Flow (vph)	0	234	0	93	94	15	182	917	0	285	1077	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.0	26.0	26.0	12.0	31.4		13.0	32.4	
Effective Green, g (s)		12.0		26.0	26.0	26.0	12.0	31.4		13.0	32.4	
Actuated g/C Ratio		0.12		0.26	0.26	0.26	0.12	0.31		0.13	0.32	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		390		438	447	357	215	1048		228	1123	
v/s Ratio Prot		c0.07		c0.05	0.05		0.10	0.27		c0.16	c0.31	
v/s Ratio Perm						0.01						
v/c Ratio		0.60		0.21	0.21	0.04	0.85	0.87		1.25	0.96	
Uniform Delay, d1		42.0		29.3	29.2	28.0	43.4	32.7		43.8	33.4	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.8		0.1	0.1	0.0	24.3	8.0		143.5	17.5	
Delay (s)		43.8		29.4	29.3	28.0	67.7	40.8		187.3	51.0	
Level of Service		D		C	C	C	E	D		F	D	
Approach Delay (s)		43.8			29.0			45.1			79.4	
Approach LOS		D			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	58.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.6	Sum of lost time (s)	19.2
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

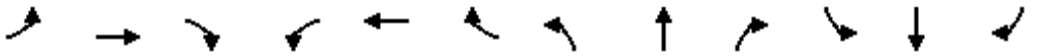
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	66	204	26	69	14	128	883	68	33	1107	130
Future Volume (vph)	142	66	204	26	69	14	128	883	68	33	1107	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.97	
Flpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.98		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1711			1804		1805	3499		1752	3385	
Flt Permitted		0.79			0.85		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1379			1550		1805	3499		1752	3385	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	167	78	240	31	81	16	151	1039	80	39	1302	153
RTOR Reduction (vph)	0	33	0	0	5	0	0	5	0	0	9	0
Lane Group Flow (vph)	0	452	0	0	123	0	151	1114	0	39	1446	0
Confl. Peds. (#/hr)	20					20	110		4	4		110
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	2%	0%	3%	0%	0%	2%	0%	3%	2%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		36.7			34.3		11.2	45.8		6.0	43.3	
Effective Green, g (s)		36.7			34.3		11.2	45.8		6.0	43.3	
Actuated g/C Ratio		0.35			0.33		0.11	0.43		0.06	0.41	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		479			503		191	1518		99	1389	
v/s Ratio Prot							c0.08	0.32		0.02	c0.43	
v/s Ratio Perm		c0.33			0.08							
v/c Ratio		0.94			0.25		0.79	0.73		0.39	1.04	
Uniform Delay, d1		33.4			26.1		46.0	24.8		48.0	31.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		27.3			0.1		18.4	3.2		0.9	35.6	
Delay (s)		60.7			26.2		64.5	28.0		48.9	66.7	
Level of Service		E			C		E	C		D	E	
Approach Delay (s)		60.7			26.2			32.3			66.2	
Approach LOS		E			C			C			E	

Intersection Summary			
HCM 2000 Control Delay	51.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	0	259	13	1	9	221	834	12	8	1234	77
Future Volume (vph)	179	0	259	13	1	9	221	834	12	8	1234	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.86		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1578		1804	1639		1787	3498		1805	3503	
Flt Permitted	0.75	1.00		0.22	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1424	1578		425	1639		1787	3498		1805	3503	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	211	0	305	15	1	11	260	981	14	9	1452	91
RTOR Reduction (vph)	0	244	0	0	9	0	0	1	0	0	4	0
Lane Group Flow (vph)	211	61	0	15	3	0	260	994	0	9	1539	0
Confl. Peds. (#/hr)			1	1			1		3	3		1
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	3%	0%	0%	2%	2%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	19.9	19.9		19.9	19.9		18.5	66.2		1.9	49.6	
Effective Green, g (s)	19.9	19.9		19.9	19.9		18.5	66.2		1.9	49.6	
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.18	0.66		0.02	0.50	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	283	314		84	326		330	2315		34	1737	
v/s Ratio Prot		0.04			0.00		c0.15	0.28		0.00	c0.44	
v/s Ratio Perm	c0.15			0.04								
v/c Ratio	0.75	0.19		0.18	0.01		0.79	0.43		0.26	0.89	
Uniform Delay, d1	37.7	33.4		33.3	32.1		38.9	8.0		48.4	22.7	
Progression Factor	1.00	1.00		1.00	1.00		1.54	0.53		1.00	1.00	
Incremental Delay, d2	9.0	0.1		0.4	0.0		8.8	0.5		1.5	7.1	
Delay (s)	46.7	33.5		33.6	32.1		68.7	4.7		49.9	29.7	
Level of Service	D	C		C	C		E	A		D	C	
Approach Delay (s)		38.9			33.0			17.9			29.9	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



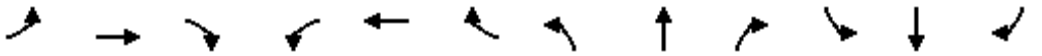
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	164	333	228	0	856	500	315	1142	427
Future Volume (vph)	0	0	0	164	333	228	0	856	500	315	1142	427
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.96	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1787	1845	1599		3539	1518	1752	3383	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1787	1845	1599		3539	1518	1752	3383	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	184	374	256	0	962	562	354	1283	480
RTOR Reduction (vph)	0	0	0	0	0	154	0	0	338	0	35	0
Lane Group Flow (vph)	0	0	0	184	374	102	0	962	224	354	1728	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	2%	4%	3%	2%	2%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				23.9	23.9	23.9		39.8	39.8	22.9	66.4	
Effective Green, g (s)				23.9	23.9	23.9		39.8	39.8	22.9	66.4	
Actuated g/C Ratio				0.24	0.24	0.24		0.40	0.40	0.23	0.66	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				427	440	382		1408	604	401	2246	
v/s Ratio Prot				0.10	c0.20	0.06		0.27		c0.20	c0.51	
v/s Ratio Perm									0.15			
v/c Ratio				0.43	0.85	0.27		0.68	0.37	0.88	0.77	
Uniform Delay, d1				32.3	36.3	30.9		24.9	21.3	37.3	11.5	
Progression Factor				1.00	1.00	1.00		0.76	1.29	0.99	0.40	
Incremental Delay, d2				0.3	13.7	0.1		2.3	1.5	15.1	1.9	
Delay (s)				32.5	50.1	31.1		21.3	28.8	51.9	6.6	
Level of Service				C	D	C		C	C	D	A	
Approach Delay (s)		0.0			40.1			24.1			14.1	
Approach LOS		A			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	569	276	1080	428	0	1306
Future Volume (vph)	569	276	1080	428	0	1306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	4.0		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frt	0.99	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3386	1374	3539	1468		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3386	1374	3539	1468		5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	632	307	1200	476	0	1451
RTOR Reduction (vph)	4	46	0	0	0	0
Lane Group Flow (vph)	659	230	1200	476	0	1451
Heavy Vehicles (%)	3%	7%	2%	10%	0%	2%
Turn Type	Prot	Prot	NA	Free		NA
Protected Phases	8	8	2			6
Permitted Phases				Free		
Actuated Green, G (s)	25.2	25.2	65.0	100.0		65.0
Effective Green, g (s)	25.2	25.2	65.0	100.0		65.0
Actuated g/C Ratio	0.25	0.25	0.65	1.00		0.65
Clearance Time (s)	4.7	4.7	5.1			5.1
Vehicle Extension (s)	2.5	2.5	3.0			3.0
Lane Grp Cap (vph)	853	346	2300	1468		3305
v/s Ratio Prot	c0.19	0.17	c0.34			0.29
v/s Ratio Perm				0.32		
v/c Ratio	0.77	0.66	0.52	0.32		0.44
Uniform Delay, d1	34.7	33.6	9.3	0.0		8.6
Progression Factor	1.00	1.00	1.18	1.00		0.71
Incremental Delay, d2	4.2	4.3	0.8	0.6		0.3
Delay (s)	39.0	37.9	11.8	0.6		6.4
Level of Service	D	D	B	A		A
Approach Delay (s)	38.6		8.6			6.4
Approach LOS	D		A			A

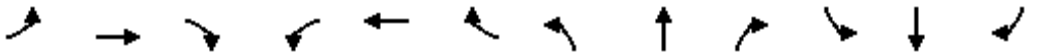
Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	470	0	377	0	0	0	0	1039	450	0	1302	572
Future Volume (vph)	470	0	377	0	0	0	0	1039	450	0	1302	572
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1495					4940	1568		3539	1566
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1495					4940	1568		3539	1566
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	505	0	405	0	0	0	0	1117	484	0	1400	615
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	505	0	405	0	0	0	0	1117	484	0	1400	615
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	5%	3%	0%	2%	1%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	19.1		100.0					72.1	100.0		72.1	100.0
Effective Green, g (s)	19.1		100.0					72.1	100.0		72.1	100.0
Actuated g/C Ratio	0.19		1.00					0.72	1.00		0.72	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	655		1495					3561	1568		2551	1566
v/s Ratio Prot	c0.15							0.23			c0.40	
v/s Ratio Perm			0.27						0.31			0.39
v/c Ratio	0.77		0.27					0.31	0.31		0.55	0.39
Uniform Delay, d1	38.4		0.0					5.0	0.0		6.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.31	1.00
Incremental Delay, d2	5.1		0.4					0.2	0.5		0.8	0.7
Delay (s)	43.5		0.4					5.3	0.5		2.8	0.7
Level of Service	D		A					A	A		A	A
Approach Delay (s)		24.3			0.0			3.8			2.1	
Approach LOS		C			A			A			A	

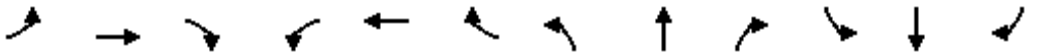
Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



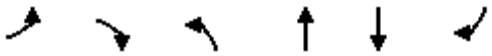
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	1132	166	144	628	83	153	68	173	123	97	221
Future Volume (vph)	142	1132	166	144	628	83	153	68	173	123	97	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.77	1.00	0.96			1.00	0.95		1.00	0.76
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.90	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1787	3505	1242	1752	4681			1630	1527		1759	1218
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.50	1.00		0.54	1.00
Satd. Flow (perm)	1787	3505	1242	1752	4681			848	1527		974	1218
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	167	1332	195	169	739	98	180	80	204	145	114	260
RTOR Reduction (vph)	0	0	63	0	13	0	0	0	71	0	0	91
Lane Group Flow (vph)	167	1332	132	169	824	0	0	260	133	0	259	169
Confl. Peds. (#/hr)	123		71	71		123	237		43	43		237
Confl. Bikes (#/hr)			3			1			2			1
Heavy Vehicles (%)	1%	3%	0%	3%	4%	4%	0%	5%	0%	4%	3%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	14.4	53.3	53.3	12.8	51.7			39.4	39.4		39.4	39.4
Effective Green, g (s)	14.4	53.3	53.3	12.8	51.7			39.4	39.4		39.4	39.4
Actuated g/C Ratio	0.12	0.44	0.44	0.11	0.43			0.33	0.33		0.33	0.33
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	214	1556	551	186	2016			278	501		319	399
v/s Ratio Prot	0.09	c0.38		c0.10	0.18							
v/s Ratio Perm			0.11					c0.31	0.09		0.27	0.14
v/c Ratio	0.78	0.86	0.24	0.91	0.41			0.94	0.27		0.81	0.42
Uniform Delay, d1	51.3	29.9	20.7	53.0	23.6			39.1	29.6		36.9	31.4
Progression Factor	1.00	1.00	1.00	0.68	1.61			1.00	1.00		1.00	1.00
Incremental Delay, d2	15.5	6.3	1.0	37.4	0.6			36.4	0.1		13.8	0.3
Delay (s)	66.8	36.2	21.8	73.5	38.6			75.4	29.8		50.7	31.7
Level of Service	E	D	C	E	D			E	C		D	C
Approach Delay (s)		37.5			44.4			55.3			41.2	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	42.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	996	55	115	547	61	26	226	57	45	264	175
Future Volume (vph)	227	996	55	115	547	61	26	226	57	45	264	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1719	3505		1787	3386			3431			3454	1478
Flt Permitted	0.95	1.00		0.95	1.00			0.86			0.74	1.00
Satd. Flow (perm)	1719	3505		1787	3386			2952			2589	1478
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	252	1107	61	128	608	68	29	251	63	50	293	194
RTOR Reduction (vph)	0	2	0	0	5	0	0	18	0	0	0	159
Lane Group Flow (vph)	252	1166	0	128	671	0	0	325	0	0	343	35
Confl. Peds. (#/hr)	6		4	4		6	12		5	5		12
Confl. Bikes (#/hr)			2									3
Heavy Vehicles (%)	5%	2%	4%	1%	5%	3%	0%	1%	4%	2%	4%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	22.8	70.7		13.4	61.3			21.9			21.9	21.9
Effective Green, g (s)	22.8	70.7		13.4	61.3			21.9			21.9	21.9
Actuated g/C Ratio	0.19	0.59		0.11	0.51			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	326	2065		199	1729			538			472	269
v/s Ratio Prot	c0.15	c0.33		0.07	0.20							
v/s Ratio Perm								0.11			c0.13	0.02
v/c Ratio	0.77	0.56		0.64	0.39			0.60			0.73	0.13
Uniform Delay, d1	46.1	15.2		51.0	17.9			45.1			46.2	41.1
Progression Factor	0.97	0.64		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	7.8	0.8		5.2	0.7			1.3			4.7	0.1
Delay (s)	52.4	10.6		56.3	18.6			46.4			50.9	41.2
Level of Service	D	B		E	B			D			D	D
Approach Delay (s)		18.0			24.6			46.4			47.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

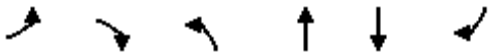


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	13	0	913	1476	12
Future Volume (Veh/h)	0	13	0	913	1476	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	0	992	1604	13
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)				444		
pX, platoon unblocked	0.79					
vC, conflicting volume	2116	818	1626			
vC1, stage 1 conf vol	1620					
vC2, stage 2 conf vol	496					
vCu, unblocked vol	1876	818	1626			
tC, single (s)	6.8	7.2	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	95	100			
cM capacity (veh/h)	144	291	402			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	496	496	1069	548
Volume Left	0	0	0	0	0
Volume Right	14	0	0	0	13
cSH	291	1700	1700	1700	1700
Volume to Capacity	0.05	0.29	0.29	0.63	0.32
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	18.0	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	18.0	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

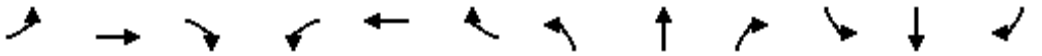
Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	39	0	1039	1231	36
Future Volume (Veh/h)	0	39	0	1039	1231	36
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	43	0	1154	1368	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.83	0.70	0.70			
vC, conflicting volume	1965	704	1408			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	330	0	714			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	533	760	624			

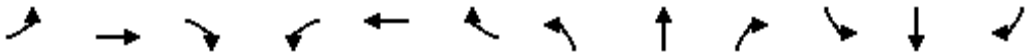
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	43	577	577	912	496
Volume Left	0	0	0	0	0
Volume Right	43	0	0	0	40
cSH	760	1700	1700	1700	1700
Volume to Capacity	0.06	0.34	0.34	0.54	0.29
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	10.0	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.0	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	575	193	181	828	137	400	729	223	135	385	144
Future Volume (vph)	127	575	193	181	828	137	400	729	223	135	385	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3539	1563	3433	3490		3467	3574	1524	1805	3574	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3539	1563	3433	3490		3467	3574	1524	1805	3574	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	137	618	208	195	890	147	430	784	240	145	414	155
RTOR Reduction (vph)	0	0	92	0	11	0	0	0	91	0	0	117
Lane Group Flow (vph)	137	618	116	195	1026	0	430	784	149	145	414	38
Confl. Peds. (#/hr)	12		11	11		12	6		5	5		6
Confl. Bikes (#/hr)			1			2			2			
Heavy Vehicles (%)	0%	2%	1%	2%	1%	0%	1%	1%	4%	0%	1%	2%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.0	43.5	43.5	11.0	44.5		16.8	33.7	33.7	12.8	29.7	29.7
Effective Green, g (s)	10.0	43.5	43.5	11.0	44.5		16.8	33.7	33.7	12.8	29.7	29.7
Actuated g/C Ratio	0.08	0.36	0.36	0.09	0.37		0.14	0.28	0.28	0.11	0.25	0.25
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	291	1282	566	314	1294		485	1003	427	192	884	384
v/s Ratio Prot	0.04	0.17		c0.06	c0.29		c0.12	c0.22		0.08	0.12	
v/s Ratio Perm			0.07						0.10			0.02
v/c Ratio	0.47	0.48	0.21	0.62	0.79		0.89	0.78	0.35	0.76	0.47	0.10
Uniform Delay, d1	52.5	29.5	26.3	52.5	33.6		50.7	39.8	34.4	52.1	38.4	34.8
Progression Factor	1.16	0.72	0.41	0.93	0.75		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	1.2	0.8	2.2	4.1		17.5	4.3	0.7	15.5	0.5	0.2
Delay (s)	61.5	22.5	11.7	50.9	29.5		68.1	44.0	35.1	67.5	39.0	35.0
Level of Service	E	C	B	D	C		E	D	D	E	D	C
Approach Delay (s)		25.7			32.9			49.7			43.9	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	89.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	31	3	3	10	81	1271	5	48	751	21
Future Volume (Veh/h)	7	0	31	3	3	10	81	1271	5	48	751	21
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	32	3	3	10	84	1324	5	50	782	22
Pedestrians		10			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.71	0.71	0.93	0.71	0.71	0.67	0.93			0.67		
vC, conflicting volume	1744	2407	412	2024	2416	672	814			1336		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	758	1696	208	1154	1708	0	641			518		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	96	97	94	99	90			93		
cM capacity (veh/h)	172	55	739	90	54	726	875			705		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	7	32	16	84	883	446	50	521	283
Volume Left	7	0	3	84	0	0	50	0	0
Volume Right	0	32	10	0	0	5	0	0	22
cSH	172	739	155	875	1700	1700	705	1700	1700
Volume to Capacity	0.04	0.04	0.10	0.10	0.52	0.26	0.07	0.31	0.17
Queue Length 95th (ft)	3	3	8	8	0	0	6	0	0
Control Delay (s)	26.8	10.1	30.8	9.6	0.0	0.0	10.5	0.0	0.0
Lane LOS	D	B	D	A			B		
Approach Delay (s)	13.1		30.8	0.6			0.6		
Approach LOS	B		D						

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	52.2%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	2	20	216	2	161	21	1151	146	102	665	2
Future Volume (vph)	30	2	20	216	2	161	21	1151	146	102	665	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.94		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3307		1715	1720	1578	1805	3503		1770	3538	
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3307		1715	1720	1578	1805	3503		1770	3538	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	2	21	230	2	171	22	1224	155	109	707	2
RTOR Reduction (vph)	0	19	0	0	0	140	0	8	0	0	0	0
Lane Group Flow (vph)	0	36	0	115	117	31	22	1371	0	109	709	0
Confl. Peds. (#/hr)	1					1	8		7	7		8
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	2%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		6.3		14.8	14.8	14.8	4.1	34.5		9.8	40.2	
Effective Green, g (s)		6.3		14.8	14.8	14.8	4.1	34.5		9.8	40.2	
Actuated g/C Ratio		0.08		0.18	0.18	0.18	0.05	0.43		0.12	0.50	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		258		314	315	289	91	1499		215	1764	
v/s Ratio Prot		c0.01		0.07	c0.07		0.01	c0.39		c0.06	0.20	
v/s Ratio Perm						0.02						
v/c Ratio		0.14		0.37	0.37	0.11	0.24	0.91		0.51	0.40	
Uniform Delay, d1		34.6		28.8	28.8	27.4	36.8	21.7		33.1	12.7	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1		0.3	0.3	0.1	0.5	8.8		0.7	0.1	
Delay (s)		34.7		29.1	29.1	27.5	37.3	30.4		33.8	12.7	
Level of Service		C		C	C	C	D	C		C	B	
Approach Delay (s)		34.7			28.4			30.5			15.5	
Approach LOS		C			C			C			B	

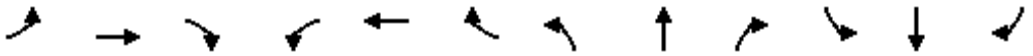
Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.6	Sum of lost time (s)	19.2
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	13	76	12	33	11	147	1259	31	18	795	99
Future Volume (vph)	52	13	76	12	33	11	147	1259	31	18	795	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1714			1824		1787	3526		1805	3506	
Flt Permitted		0.89			0.93		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1547			1719		1787	3526		1805	3506	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	55	14	81	13	35	12	156	1339	33	19	846	105
RTOR Reduction (vph)	0	51	0	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	99	0	0	50	0	156	1371	0	19	945	0
Confl. Peds. (#/hr)	2					2	5					5
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	9%	0%	0%	0%	0%	1%	2%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		15.2			15.2		13.1	74.8		4.0	65.7	
Effective Green, g (s)		15.2			15.2		13.1	74.8		4.0	65.7	
Actuated g/C Ratio		0.14			0.14		0.12	0.71		0.04	0.62	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		222			247		221	2499		68	2183	
v/s Ratio Prot							c0.09	c0.39		0.01	0.27	
v/s Ratio Perm		c0.06			0.03							
v/c Ratio		0.44			0.20		0.71	0.55		0.28	0.43	
Uniform Delay, d1		41.3			39.8		44.4	7.3		49.3	10.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.1		8.1	0.9		0.8	0.6	
Delay (s)		41.8			39.9		52.5	8.2		50.2	10.9	
Level of Service		D			D		D	A		D	B	
Approach Delay (s)		41.8			39.9			12.7			11.7	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	0	75	5	0	2	235	1370	15	5	801	56
Future Volume (vph)	55	0	75	5	0	2	235	1370	15	5	801	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1592		1802	1615		1805	3568		1805	3536	
Flt Permitted	0.76	1.00		0.70	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1437	1592		1335	1615		1805	3568		1805	3536	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	0	82	5	0	2	255	1489	16	5	871	61
RTOR Reduction (vph)	0	72	0	0	2	0	0	0	0	0	3	0
Lane Group Flow (vph)	60	10	0	5	0	0	255	1505	0	5	929	0
Confl. Peds. (#/hr)			2	2			2		2	2		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	12.0	12.0		12.0	12.0		17.8	74.2		1.8	58.2	
Effective Green, g (s)	12.0	12.0		12.0	12.0		17.8	74.2		1.8	58.2	
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.18	0.74		0.02	0.58	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	172	191		160	193		321	2647		32	2057	
v/s Ratio Prot		0.01			0.00		c0.14	c0.42		0.00	c0.26	
v/s Ratio Perm	c0.04			0.00								
v/c Ratio	0.35	0.05		0.03	0.00		0.79	0.57		0.16	0.45	
Uniform Delay, d1	40.4	39.0		38.9	38.7		39.3	5.8		48.4	11.8	
Progression Factor	1.00	1.00		1.00	1.00		0.98	1.28		1.00	1.00	
Incremental Delay, d2	0.4	0.0		0.0	0.0		8.3	0.6		0.8	0.7	
Delay (s)	40.9	39.0		38.9	38.7		46.7	7.9		49.2	12.6	
Level of Service	D	D		D	D		D	A		D	B	
Approach Delay (s)		39.8			38.8			13.6			12.8	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	235	210	274	0	1496	489	156	762	116
Future Volume (vph)	0	0	0	235	210	274	0	1496	489	156	762	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1805	1863	1615		3574	1565	1787	3484	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1805	1863	1615		3574	1565	1787	3484	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	242	216	282	0	1542	504	161	786	120
RTOR Reduction (vph)	0	0	0	0	0	206	0	0	218	0	11	0
Lane Group Flow (vph)	0	0	0	242	216	76	0	1542	286	161	895	0
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	1%	1%	1%	1%	4%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				17.1	17.1	17.1		56.7	56.7	12.8	73.2	
Effective Green, g (s)				17.1	17.1	17.1		56.7	56.7	12.8	73.2	
Actuated g/C Ratio				0.17	0.17	0.17		0.57	0.57	0.13	0.73	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				308	318	276		2026	887	228	2550	
v/s Ratio Prot				c0.13	0.12	0.05		c0.43		c0.09	0.26	
v/s Ratio Perm									0.18			
v/c Ratio				0.79	0.68	0.27		0.76	0.32	0.71	0.35	
Uniform Delay, d1				39.7	38.9	36.1		16.5	11.5	41.8	4.8	
Progression Factor				1.00	1.00	1.00		0.77	1.46	0.81	1.70	
Incremental Delay, d2				11.5	4.5	0.2		2.0	0.7	7.5	0.4	
Delay (s)				51.2	43.4	36.2		14.7	17.5	41.4	8.6	
Level of Service				D	D	D		B	B	D	A	
Approach Delay (s)		0.0			43.2			15.4			13.5	
Approach LOS		A			D			B			B	

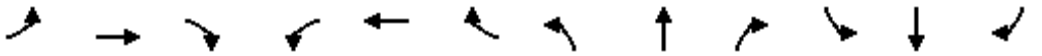
Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	597	701	1284	332	0	997
Future Volume (vph)	597	701	1284	332	0	997
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	5.1		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00
Frt	0.95	0.85	1.00	0.85		1.00
Flt Protected	0.97	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3358	1455	3574	1487		5136
Flt Permitted	0.97	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3358	1455	3574	1487		5136
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	615	723	1324	342	0	1028
RTOR Reduction (vph)	18	18	0	152	0	0
Lane Group Flow (vph)	893	409	1324	190	0	1028
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	1%	1%	1%	6%	0%	1%
Turn Type	Prot	Prot	NA	Perm		NA
Protected Phases	8	8	2			6
Permitted Phases				2		
Actuated Green, G (s)	34.5	34.5	55.7	55.7		55.7
Effective Green, g (s)	34.5	34.5	55.7	55.7		55.7
Actuated g/C Ratio	0.34	0.34	0.56	0.56		0.56
Clearance Time (s)	4.7	4.7	5.1	5.1		5.1
Vehicle Extension (s)	2.5	2.5	3.0	3.0		3.0
Lane Grp Cap (vph)	1158	501	1990	828		2860
v/s Ratio Prot	0.27	c0.28	c0.37			0.20
v/s Ratio Perm				0.13		
v/c Ratio	0.77	0.82	0.67	0.23		0.36
Uniform Delay, d1	29.2	29.9	15.6	11.3		12.3
Progression Factor	1.00	1.00	1.47	3.93		1.60
Incremental Delay, d2	3.1	9.7	1.7	0.6		0.3
Delay (s)	32.3	39.6	24.6	44.9		20.0
Level of Service	C	D	C	D		B
Approach Delay (s)	34.7		28.8			20.0
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

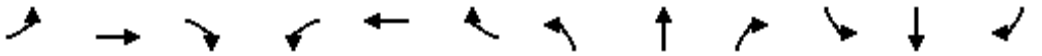


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	543	0	491	0	0	0	0	1073	686	0	1256	338
Future Volume (vph)	543	0	491	0	0	0	0	1073	686	0	1256	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		0.99					1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1505					5036	1566		3574	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1505					5036	1566		3574	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	560	0	506	0	0	0	0	1106	707	0	1295	348
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	560	0	506	0	0	0	0	1106	707	0	1295	348
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	0%	3%	1%	0%	1%	2%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	20.8		100.0					70.4	100.0		70.4	100.0
Effective Green, g (s)	20.8		100.0					70.4	100.0		70.4	100.0
Actuated g/C Ratio	0.21		1.00					0.70	1.00		0.70	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	714		1505					3545	1566		2516	1583
v/s Ratio Prot	c0.16							0.22			c0.36	
v/s Ratio Perm			0.34						0.45			0.22
v/c Ratio	0.78		0.34					0.31	0.45		0.51	0.22
Uniform Delay, d1	37.5		0.0					5.6	0.0		6.9	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.67	1.00
Incremental Delay, d2	5.2		0.6					0.2	0.9		0.7	0.3
Delay (s)	42.7		0.6					5.8	0.9		5.3	0.3
Level of Service	D		A					A	A		A	A
Approach Delay (s)		22.7			0.0			3.9			4.2	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

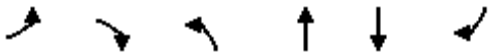
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	759	71	75	1159	91	53	27	50	59	30	107
Future Volume (vph)	106	759	71	75	1159	91	53	27	50	59	30	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.99	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1805	3539	1558	1805	5066			1828	1582		1806	1579
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.75	1.00		0.75	1.00
Satd. Flow (perm)	1805	3539	1558	1805	5066			1423	1582		1405	1579
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	114	816	76	81	1246	98	57	29	54	63	32	115
RTOR Reduction (vph)	0	0	28	0	5	0	0	0	44	0	0	95
Lane Group Flow (vph)	114	816	48	81	1339	0	0	86	10	0	95	20
Confl. Peds. (#/hr)	5		5	5		5	11		9	9		11
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	11.6	75.4	75.4	8.8	72.6			21.3	21.3		21.3	21.3
Effective Green, g (s)	11.6	75.4	75.4	8.8	72.6			21.3	21.3		21.3	21.3
Actuated g/C Ratio	0.10	0.63	0.63	0.07	0.60			0.18	0.18		0.18	0.18
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	174	2223	978	132	3064			252	280		249	280
v/s Ratio Prot	c0.06	c0.23		0.04	c0.26							
v/s Ratio Perm			0.03					0.06	0.01		c0.07	0.01
v/c Ratio	0.66	0.37	0.05	0.61	0.44			0.34	0.03		0.38	0.07
Uniform Delay, d1	52.3	10.8	8.6	54.0	12.7			43.2	40.8		43.5	41.1
Progression Factor	1.00	1.00	1.00	0.67	1.92			1.00	1.00		1.00	1.00
Incremental Delay, d2	6.6	0.5	0.1	3.7	0.3			0.3	0.0		0.4	0.0
Delay (s)	58.9	11.2	8.6	39.9	24.8			43.5	40.9		43.9	41.2
Level of Service	E	B	A	D	C			D	D		D	D
Approach Delay (s)		16.4			25.6			42.5			42.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	662	48	75	1029	56	46	176	76	38	267	186
Future Volume (vph)	201	662	48	75	1029	56	46	176	76	38	267	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1770	3501		1805	3540			3370			3552	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.73			0.78	1.00
Satd. Flow (perm)	1770	3501		1805	3540			2475			2782	1568
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	226	744	54	84	1156	63	52	198	85	43	300	209
RTOR Reduction (vph)	0	4	0	0	3	0	0	30	0	0	0	172
Lane Group Flow (vph)	226	794	0	84	1216	0	0	305	0	0	343	37
Confl. Peds. (#/hr)	11		15	15		11	5		14	14		5
Confl. Bikes (#/hr)			5			4			2			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	2%	5%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	20.0	75.8		8.7	64.5			21.5			21.5	21.5
Effective Green, g (s)	20.0	75.8		8.7	64.5			21.5			21.5	21.5
Actuated g/C Ratio	0.17	0.63		0.07	0.54			0.18			0.18	0.18
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	295	2211		130	1902			443			498	280
v/s Ratio Prot	c0.13	0.23		0.05	c0.34							
v/s Ratio Perm								0.12			c0.12	0.02
v/c Ratio	0.77	0.36		0.65	0.64			0.69			0.69	0.13
Uniform Delay, d1	47.8	10.5		54.2	19.6			46.1			46.1	41.4
Progression Factor	0.93	0.52		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	10.0	0.4		8.0	1.7			3.5			3.2	0.1
Delay (s)	54.7	5.9		62.1	21.2			49.6			49.3	41.5
Level of Service	D	A		E	C			D			D	D
Approach Delay (s)		16.6			23.9			49.6			46.3	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

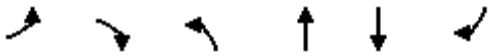


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	0	1333	784	1
Future Volume (Veh/h)	0	1	0	1333	784	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1	0	1389	817	1
Pedestrians	6					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				444		
pX, platoon unblocked	0.64					
vC, conflicting volume	1518	415	824			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	679	415	824			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	247	589	810			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	1	694	694	545	273
Volume Left	0	0	0	0	0
Volume Right	1	0	0	0	1
cSH	589	1700	1700	1700	1700
Volume to Capacity	0.00	0.41	0.41	0.32	0.16
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	11.1	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.1	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

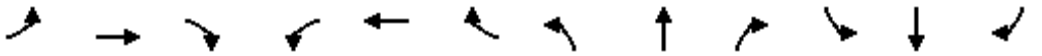


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	15	0	1319	896	5
Future Volume (Veh/h)	0	15	0	1319	896	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	16	0	1374	933	5
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.87	0.88	0.88			
vC, conflicting volume	1630	477	946			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	798	124	659			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	284	792	817			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	687	687	622	316
Volume Left	0	0	0	0	0
Volume Right	16	0	0	0	5
cSH	792	1700	1700	1700	1700
Volume to Capacity	0.02	0.40	0.40	0.37	0.19
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.6	0.0		0.0	
Approach LOS	A				

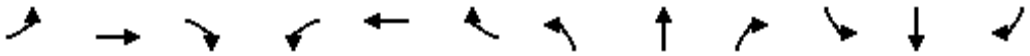
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix H
Year 2040 Cumulative Conditions
Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	1086	481	218	470	69	319	496	280	204	909	190
Future Volume (vph)	186	1086	481	218	470	69	319	496	280	204	909	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1551	3335	3336		3467	3539	1520	1770	3539	1531
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1551	3335	3336		3467	3539	1520	1770	3539	1531
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	196	1143	506	229	495	73	336	522	295	215	957	200
RTOR Reduction (vph)	0	0	125	0	10	0	0	0	158	0	0	132
Lane Group Flow (vph)	196	1143	381	229	558	0	336	522	137	215	957	68
Confl. Peds. (#/hr)	16		8	8		16	11		9	9		11
Confl. Bikes (#/hr)			2									
Heavy Vehicles (%)	3%	3%	2%	5%	6%	4%	1%	2%	4%	2%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	11.1	41.7	41.7	11.0	41.6		12.0	33.3	33.3	15.0	36.3	36.3
Effective Green, g (s)	11.1	41.7	41.7	11.0	41.6		12.0	33.3	33.3	15.0	36.3	36.3
Actuated g/C Ratio	0.09	0.35	0.35	0.09	0.35		0.10	0.28	0.28	0.12	0.30	0.30
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	314	1217	538	305	1156		346	982	421	221	1070	463
v/s Ratio Prot	0.06	c0.33		c0.07	0.17		0.10	0.15		c0.12	c0.27	
v/s Ratio Perm			0.25						0.09			0.04
v/c Ratio	0.62	0.94	0.71	0.75	0.48		0.97	0.53	0.33	0.97	0.89	0.15
Uniform Delay, d1	52.4	37.9	33.9	53.2	30.8		53.8	36.7	34.4	52.3	40.0	30.6
Progression Factor	1.26	0.83	0.82	0.94	0.64		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	8.7	4.0	8.0	1.3		40.5	0.7	0.6	52.5	10.0	0.2
Delay (s)	67.4	40.3	31.8	58.0	21.0		94.3	37.4	35.1	104.8	50.0	30.8
Level of Service	E	D	C	E	C		F	D	D	F	D	C
Approach Delay (s)		40.8			31.7			53.4			55.8	
Approach LOS		D			C			D			E	

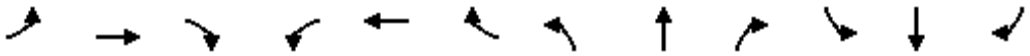
Intersection Summary			
HCM 2000 Control Delay	46.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	16	288	3	3	14	93	1005	9	179	1376	136
Future Volume (Veh/h)	61	16	288	3	3	14	93	1005	9	179	1376	136
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	64	17	303	3	3	15	98	1058	9	188	1448	143
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.84	0.84	0.76	0.84	0.84	0.84	0.76			0.84		
vC, conflicting volume	2663	3190	822	2675	3256	538	1617			1072		
vC1, stage 1 conf vol	1922	1922		1264	1264							
vC2, stage 2 conf vol	742	1268		1412	1993							
vCu, unblocked vol	1758	2389	125	1773	2469	85	1175			717		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	50	55	71	79	98	78			75		
cM capacity (veh/h)	62	34	669	10	14	810	445			745		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	81	303	21	98	705	362	188	965	626
Volume Left	64	0	3	98	0	0	188	0	0
Volume Right	0	303	15	0	0	9	0	0	143
cSH	53	669	40	445	1700	1700	745	1700	1700
Volume to Capacity	1.53	0.45	0.52	0.22	0.41	0.21	0.25	0.57	0.37
Queue Length 95th (ft)	189	59	46	21	0	0	25	0	0
Control Delay (s)	440.8	14.8	166.4	15.4	0.0	0.0	11.5	0.0	0.0
Lane LOS	F	B	F	C			B		
Approach Delay (s)	104.6		166.4	1.3			1.2		
Approach LOS	F		F						

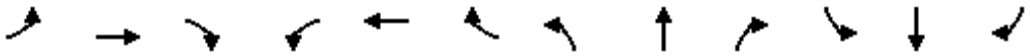
Intersection Summary				
Average Delay	14.1			
Intersection Capacity Utilization	73.8%	ICU Level of Service		D
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	12	124	178	18	64	91	756	296	314	1131	25
Future Volume (vph)	89	12	124	178	18	64	91	756	296	314	1131	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.92		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3248		1698	1720	1381	1805	3359		1770	3493	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3248		1698	1720	1381	1805	3359		1770	3493	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	94	13	131	187	19	67	96	796	312	331	1191	26
RTOR Reduction (vph)	0	115	0	0	0	50	0	39	0	0	1	0
Lane Group Flow (vph)	0	123	0	103	103	17	96	1069	0	331	1216	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.0	26.0	26.0	9.6	32.2		13.0	35.6	
Effective Green, g (s)		12.0		26.0	26.0	26.0	9.6	32.2		13.0	35.6	
Actuated g/C Ratio		0.12		0.26	0.26	0.26	0.09	0.32		0.13	0.35	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		384		435	441	354	170	1066		226	1226	
v/s Ratio Prot		c0.04		c0.06	0.06		0.05	0.32		c0.19	c0.35	
v/s Ratio Perm						0.01						
v/c Ratio		0.32		0.24	0.23	0.05	0.56	1.00		1.46	0.99	
Uniform Delay, d1		41.0		29.8	29.8	28.4	43.9	34.6		44.2	32.8	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	0.1	0.0	2.5	28.3		231.7	23.5	
Delay (s)		41.1		29.9	29.9	28.4	46.5	62.9		275.9	56.3	
Level of Service		D		C	C	C	D	E		F	E	
Approach Delay (s)		41.1			29.6			61.6			103.3	
Approach LOS		D			C			E			F	

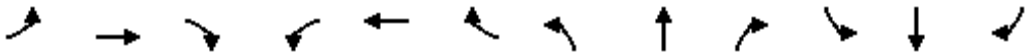
Intersection Summary			
HCM 2000 Control Delay	77.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	101.4	Sum of lost time (s)	19.2
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	164	73	233	31	75	18	138	964	83	40	1245	150
Future Volume (vph)	164	73	233	31	75	18	138	964	83	40	1245	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.97	
Flpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.98		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1711			1799		1805	3495		1752	3381	
Flt Permitted		0.79			0.84		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1372			1523		1805	3495		1752	3381	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	173	77	245	33	79	19	145	1015	87	42	1311	158
RTOR Reduction (vph)	0	33	0	0	5	0	0	6	0	0	9	0
Lane Group Flow (vph)	0	462	0	0	126	0	145	1096	0	42	1460	0
Confl. Peds. (#/hr)	20					20	110		4	4		110
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	2%	0%	3%	0%	0%	2%	0%	3%	2%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		36.7			34.3		11.2	45.8		6.0	43.3	
Effective Green, g (s)		36.7			34.3		11.2	45.8		6.0	43.3	
Actuated g/C Ratio		0.35			0.33		0.11	0.43		0.06	0.41	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		477			495		191	1517		99	1387	
v/s Ratio Prot							c0.08	0.31		0.02	c0.43	
v/s Ratio Perm		c0.34			0.08							
v/c Ratio		0.97			0.25		0.76	0.72		0.42	1.05	
Uniform Delay, d1		33.8			26.2		45.8	24.6		48.1	31.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		32.8			0.1		14.2	3.0		1.1	39.4	
Delay (s)		66.6			26.3		60.0	27.6		49.1	70.5	
Level of Service		E			C		E	C		D	E	
Approach Delay (s)		66.6			26.3			31.4			69.9	
Approach LOS		E			C			C			E	

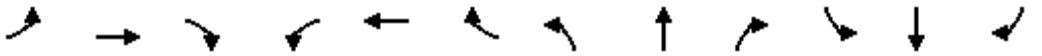
Intersection Summary			
HCM 2000 Control Delay	53.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	0	314	16	1	3	269	921	15	3	1415	71
Future Volume (vph)	191	0	314	16	1	3	269	921	15	3	1415	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.89		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1578		1804	1686		1787	3496		1805	3510	
Flt Permitted	0.76	1.00		0.21	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1435	1578		392	1686		1787	3496		1805	3510	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	201	0	331	17	1	3	283	969	16	3	1489	75
RTOR Reduction (vph)	0	264	0	0	2	0	0	1	0	0	3	0
Lane Group Flow (vph)	201	67	0	17	2	0	283	984	0	3	1561	0
Confl. Peds. (#/hr)			1	1			1		3	3		1
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	3%	0%	0%	2%	2%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	19.4	19.4		19.4	19.4		20.9	66.5		2.1	47.7	
Effective Green, g (s)	19.4	19.4		19.4	19.4		20.9	66.5		2.1	47.7	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.21	0.66		0.02	0.48	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	278	306		76	327		373	2324		37	1674	
v/s Ratio Prot		0.04			0.00		c0.16	0.28		0.00	c0.44	
v/s Ratio Perm	c0.14			0.04								
v/c Ratio	0.72	0.22		0.22	0.00		0.76	0.42		0.08	0.93	
Uniform Delay, d1	37.8	33.9		34.0	32.5		37.2	7.8		48.0	24.6	
Progression Factor	1.00	1.00		1.00	1.00		1.58	0.58		1.00	1.00	
Incremental Delay, d2	7.6	0.1		0.5	0.0		5.4	0.4		0.3	10.9	
Delay (s)	45.4	34.0		34.5	32.5		64.2	4.9		48.3	35.5	
Level of Service	D	C		C	C		E	A		D	D	
Approach Delay (s)		38.3			34.1			18.1			35.6	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



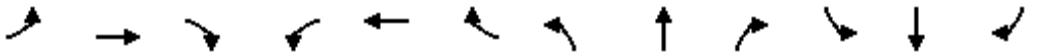
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	199	404	259	0	966	606	368	1340	496
Future Volume (vph)	0	0	0	199	404	259	0	966	606	368	1340	496
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.96	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1787	1845	1599		3539	1518	1752	3385	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1787	1845	1599		3539	1518	1752	3385	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	209	425	273	0	1017	638	387	1411	522
RTOR Reduction (vph)	0	0	0	0	0	142	0	0	398	0	37	0
Lane Group Flow (vph)	0	0	0	209	425	131	0	1017	240	387	1896	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	2%	4%	3%	2%	2%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				25.4	25.4	25.4		37.2	37.2	24.0	64.9	
Effective Green, g (s)				25.4	25.4	25.4		37.2	37.2	24.0	64.9	
Actuated g/C Ratio				0.25	0.25	0.25		0.37	0.37	0.24	0.65	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				453	468	406		1316	564	420	2196	
v/s Ratio Prot				0.12	c0.23	0.08		0.29		c0.22	c0.56	
v/s Ratio Perm									0.16			
v/c Ratio				0.46	0.91	0.32		0.77	0.43	0.92	0.86	
Uniform Delay, d1				31.5	36.2	30.3		27.7	23.4	37.1	14.0	
Progression Factor				1.00	1.00	1.00		0.88	2.45	0.97	0.51	
Incremental Delay, d2				0.3	20.8	0.2		3.6	1.9	20.2	3.6	
Delay (s)				31.8	56.9	30.5		27.9	59.2	56.1	10.8	
Level of Service				C	E	C		C	E	E	B	
Approach Delay (s)		0.0			43.2			40.0			18.3	
Approach LOS		A			D			D			B	

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	690	309	1264	520	0	1539
Future Volume (vph)	690	309	1264	520	0	1539
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	4.0		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frt	0.99	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3387	1374	3539	1468		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3387	1374	3539	1468		5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	726	325	1331	547	0	1620
RTOR Reduction (vph)	4	32	0	0	0	0
Lane Group Flow (vph)	755	260	1331	547	0	1620
Heavy Vehicles (%)	3%	7%	2%	10%	0%	2%
Turn Type	Prot	Prot	NA	Free		NA
Protected Phases	8	8	2			6
Permitted Phases				Free		
Actuated Green, G (s)	28.0	28.0	62.2	100.0		62.2
Effective Green, g (s)	28.0	28.0	62.2	100.0		62.2
Actuated g/C Ratio	0.28	0.28	0.62	1.00		0.62
Clearance Time (s)	4.7	4.7	5.1			5.1
Vehicle Extension (s)	2.5	2.5	3.0			3.0
Lane Grp Cap (vph)	948	384	2201	1468		3162
v/s Ratio Prot	c0.22	0.19	c0.38			0.32
v/s Ratio Perm				0.37		
v/c Ratio	0.80	0.68	0.60	0.37		0.51
Uniform Delay, d1	33.4	32.0	11.5	0.0		10.5
Progression Factor	1.00	1.00	1.03	1.00		0.91
Incremental Delay, d2	4.6	4.3	1.1	0.7		0.3
Delay (s)	37.9	36.3	12.9	0.7		9.9
Level of Service	D	D	B	A		A
Approach Delay (s)	37.5		9.3			9.9
Approach LOS	D		A			A

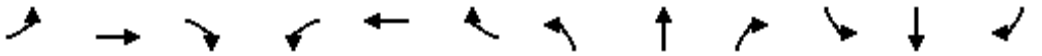
Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	544	0	458	0	0	0	0	1240	546	0	1556	673
Future Volume (vph)	544	0	458	0	0	0	0	1240	546	0	1556	673
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1495					4940	1568		3539	1566
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1495					4940	1568		3539	1566
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	573	0	482	0	0	0	0	1305	575	0	1638	708
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	573	0	482	0	0	0	0	1305	575	0	1638	708
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	5%	3%	0%	2%	1%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	21.0		100.0					70.2	100.0		70.2	100.0
Effective Green, g (s)	21.0		100.0					70.2	100.0		70.2	100.0
Actuated g/C Ratio	0.21		1.00					0.70	1.00		0.70	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	720		1495					3467	1568		2484	1566
v/s Ratio Prot	c0.17							0.26			c0.46	
v/s Ratio Perm			0.32						0.37			0.45
v/c Ratio	0.80		0.32					0.38	0.37		0.66	0.45
Uniform Delay, d1	37.5		0.0					6.0	0.0		8.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.38	1.00
Incremental Delay, d2	5.7		0.6					0.3	0.7		1.2	0.8
Delay (s)	43.2		0.6					6.3	0.7		4.3	0.8
Level of Service	D		A					A	A		A	A
Approach Delay (s)		23.7			0.0			4.6			3.2	
Approach LOS		C			A			A			A	

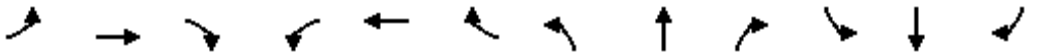
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



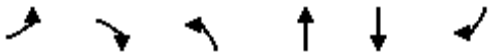
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	1362	184	175	727	101	171	83	210	149	118	269
Future Volume (vph)	173	1362	184	175	727	101	171	83	210	149	118	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.77	1.00	0.95			1.00	0.95		1.00	0.76
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.91	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1787	3505	1242	1752	4669			1643	1527		1760	1218
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.48	1.00		0.53	1.00
Satd. Flow (perm)	1787	3505	1242	1752	4669			817	1527		964	1218
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	182	1434	194	184	765	106	180	87	221	157	124	283
RTOR Reduction (vph)	0	0	59	0	14	0	0	0	75	0	0	91
Lane Group Flow (vph)	182	1434	136	184	857	0	0	267	146	0	281	192
Confl. Peds. (#/hr)	123		71	71		123	237		43	43		237
Confl. Bikes (#/hr)			3			1			2			1
Heavy Vehicles (%)	1%	3%	0%	3%	4%	4%	0%	5%	0%	4%	3%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	15.2	52.5	52.5	13.0	50.3			40.0	40.0		40.0	40.0
Effective Green, g (s)	15.2	52.5	52.5	13.0	50.3			40.0	40.0		40.0	40.0
Actuated g/C Ratio	0.13	0.44	0.44	0.11	0.42			0.33	0.33		0.33	0.33
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	226	1533	543	189	1957			272	509		321	406
v/s Ratio Prot	0.10	c0.41		c0.10	0.18							
v/s Ratio Perm			0.11					c0.33	0.10		0.29	0.16
v/c Ratio	0.81	0.94	0.25	0.97	0.44			0.98	0.29		0.88	0.47
Uniform Delay, d1	51.0	32.1	21.3	53.3	24.8			39.6	29.5		37.7	31.7
Progression Factor	1.00	1.00	1.00	0.60	1.71			1.00	1.00		1.00	1.00
Incremental Delay, d2	17.6	12.0	1.1	50.7	0.6			49.1	0.1		21.7	0.3
Delay (s)	68.5	44.2	22.4	82.6	42.9			88.7	29.6		59.4	32.0
Level of Service	E	D	C	F	D			F	C		E	C
Approach Delay (s)		44.3			49.8			62.0			45.6	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	48.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	1172	64	133	636	102	29	273	59	87	314	195
Future Volume (vph)	274	1172	64	133	636	102	29	273	59	87	314	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1719	3505		1787	3367			3446			3446	1479
Flt Permitted	0.95	1.00		0.95	1.00			0.84			0.68	1.00
Satd. Flow (perm)	1719	3505		1787	3367			2921			2358	1479
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	288	1234	67	140	669	107	31	287	62	92	331	205
RTOR Reduction (vph)	0	3	0	0	9	0	0	14	0	0	0	160
Lane Group Flow (vph)	288	1298	0	140	767	0	0	366	0	0	423	45
Confl. Peds. (#/hr)	6		4	4		6	12		5	5		12
Confl. Bikes (#/hr)			2									3
Heavy Vehicles (%)	5%	2%	4%	1%	5%	3%	0%	1%	4%	2%	4%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	25.0	65.8		13.6	54.4			26.6			26.6	26.6
Effective Green, g (s)	25.0	65.8		13.6	54.4			26.6			26.6	26.6
Actuated g/C Ratio	0.21	0.55		0.11	0.45			0.22			0.22	0.22
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	358	1921		202	1526			647			522	327
v/s Ratio Prot	c0.17	c0.37		0.08	0.23							
v/s Ratio Perm								0.13			c0.18	0.03
v/c Ratio	0.80	0.68		0.69	0.50			0.57			0.81	0.14
Uniform Delay, d1	45.2	19.4		51.2	23.2			41.6			44.3	37.5
Progression Factor	0.89	0.72		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	6.2	0.9		8.0	1.2			0.7			8.8	0.1
Delay (s)	46.6	15.0		59.2	24.4			42.2			53.1	37.6
Level of Service	D	B		E	C			D			D	D
Approach Delay (s)		20.7			29.7			42.2			48.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

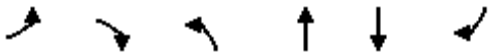


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	16	0	1009	1651	15
Future Volume (Veh/h)	0	16	0	1009	1651	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	17	0	1062	1738	16
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)				444		
pX, platoon unblocked	0.74					
vC, conflicting volume	2286	886	1763			
vC1, stage 1 conf vol	1755					
vC2, stage 2 conf vol	531					
vCu, unblocked vol	2031	886	1763			
tC, single (s)	6.8	7.2	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	93	100			
cM capacity (veh/h)	122	261	356			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	531	531	1159	595
Volume Left	0	0	0	0	0
Volume Right	17	0	0	0	16
cSH	261	1700	1700	1700	1700
Volume to Capacity	0.07	0.31	0.31	0.68	0.35
Queue Length 95th (ft)	5	0	0	0	0
Control Delay (s)	19.8	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	19.8	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

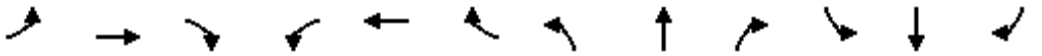
Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	3	0	1145	1433	31
Future Volume (Veh/h)	0	3	0	1145	1433	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	3	0	1205	1508	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.79	0.66	0.66			
vC, conflicting volume	2127	770	1541			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	416	0	782			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	448	718	556			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	3	602	602	1005	536
Volume Left	0	0	0	0	0
Volume Right	3	0	0	0	33
cSH	718	1700	1700	1700	1700
Volume to Capacity	0.00	0.35	0.35	0.59	0.32
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	10.0	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.0	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	723	242	228	1049	147	501	900	277	155	476	174
Future Volume (vph)	148	723	242	228	1049	147	501	900	277	155	476	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	156	761	255	240	1104	155	527	947	292	163	501	183
RTOR Reduction (vph)	0	0	94	0	9	0	0	0	89	0	0	133
Lane Group Flow (vph)	156	761	161	240	1250	0	527	947	203	163	501	50
Confl. Peds. (#/hr)	12		11	11		12	6		5	5		6
Confl. Bikes (#/hr)			1			2			2			
Heavy Vehicles (%)	0%	2%	1%	2%	1%	0%	1%	1%	4%	0%	1%	2%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.0	40.9	40.9	11.1	42.0		17.0	37.0	37.0	12.0	32.0	32.0
Effective Green, g (s)	10.0	40.9	40.9	11.1	42.0		17.0	37.0	37.0	12.0	32.0	32.0
Actuated g/C Ratio	0.08	0.34	0.34	0.09	0.35		0.14	0.31	0.31	0.10	0.27	0.27
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	291	1206	532	317	1225		491	1101	469	180	953	414
v/s Ratio Prot	0.04	0.22		c0.07	c0.36		c0.15	c0.26		0.09	0.14	
v/s Ratio Perm			0.10						0.13			0.03
v/c Ratio	0.54	0.63	0.30	0.76	1.02		1.07	0.86	0.43	0.91	0.53	0.12
Uniform Delay, d1	52.8	33.2	29.1	53.1	39.0		51.5	39.1	33.1	53.4	37.5	33.3
Progression Factor	1.20	0.79	0.68	0.96	0.71		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	2.3	1.3	5.9	26.0		61.7	7.2	0.9	41.0	0.7	0.2
Delay (s)	64.0	28.7	21.2	56.7	53.8		113.2	46.3	34.0	94.4	38.2	33.5
Level of Service	E	C	C	E	D		F	D	C	F	D	C
Approach Delay (s)		31.7			54.3			64.2			48.0	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	51.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

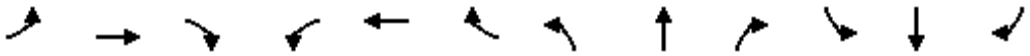
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	35	3	4	13	98	1578	4	61	936	25
Future Volume (Veh/h)	4	0	35	3	4	13	98	1578	4	61	936	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	0	36	3	4	14	102	1644	4	64	975	26
Pedestrians		10			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.65	0.65	0.90	0.65	0.65	0.60	0.90			0.60		
vC, conflicting volume	2168	2985	510	2508	2996	831	1011			1655		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1036	2294	238	1560	2311	0	794			758		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	95	92	79	98	86			88		
cM capacity (veh/h)	80	19	687	38	19	650	747			514		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	4	36	21	102	1096	552	64	650	351
Volume Left	4	0	3	102	0	0	64	0	0
Volume Right	0	36	14	0	0	4	0	0	26
cSH	80	687	67	747	1700	1700	514	1700	1700
Volume to Capacity	0.05	0.05	0.32	0.14	0.64	0.32	0.12	0.38	0.21
Queue Length 95th (ft)	4	4	29	12	0	0	11	0	0
Control Delay (s)	52.3	10.5	82.2	10.6	0.0	0.0	13.0	0.0	0.0
Lane LOS	F	B	F	B			B		
Approach Delay (s)	14.7		82.2	0.6			0.8		
Approach LOS	B		F						

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	60.9%	ICU Level of Service		B
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	7	273	1	203	13	1451	185	129	837	1
Future Volume (vph)	6	0	7	273	1	203	13	1451	185	129	837	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.92		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3244		1715	1720	1578	1805	3502		1770	3539	
Flt Permitted		0.98		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3244		1715	1720	1578	1805	3502		1770	3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	6	0	7	287	1	214	14	1527	195	136	881	1
RTOR Reduction (vph)	0	13	0	0	0	169	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	0	143	145	45	14	1714	0	136	882	0
Confl. Peds. (#/hr)	1					1	8		7	7		8
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	2%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		1.8		14.4	14.4	14.4	1.8	35.3		13.3	46.8	
Effective Green, g (s)		1.8		14.4	14.4	14.4	1.8	35.3		13.3	46.8	
Actuated g/C Ratio		0.02		0.18	0.18	0.18	0.02	0.44		0.17	0.58	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		72		308	309	284	40	1545		294	2070	
v/s Ratio Prot		c0.00		0.08	c0.08		0.01	c0.49		c0.08	0.25	
v/s Ratio Perm						0.03						
v/c Ratio		0.00		0.46	0.47	0.16	0.35	1.11		0.46	0.43	
Uniform Delay, d1		38.2		29.3	29.4	27.7	38.5	22.4		30.1	9.2	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.4	0.4	0.1	1.9	59.1		0.4	0.1	
Delay (s)		38.2		29.8	29.8	27.8	40.4	81.5		30.5	9.2	
Level of Service		D		C	C	C	D	F		C	A	
Approach Delay (s)		38.2			28.9			81.1			12.1	
Approach LOS		D			C			F			B	

Intersection Summary			
HCM 2000 Control Delay	51.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.2
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	14	91	16	40	14	183	1573	39	22	975	122
Future Volume (vph)	65	14	91	16	40	14	183	1573	39	22	975	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1716			1822		1787	3526		1805	3506	
Flt Permitted		0.85			0.89		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1477			1649		1787	3526		1805	3506	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	15	96	17	42	15	193	1656	41	23	1026	128
RTOR Reduction (vph)	0	50	0	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	129	0	0	64	0	193	1696	0	23	1148	0
Confl. Peds. (#/hr)	2					2	5					5
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	9%	0%	0%	0%	0%	1%	2%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		15.7			15.7		14.8	74.3		4.0	63.5	
Effective Green, g (s)		15.7			15.7		14.8	74.3		4.0	63.5	
Actuated g/C Ratio		0.15			0.15		0.14	0.70		0.04	0.60	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		219			245		250	2483		68	2110	
v/s Ratio Prot							c0.11	c0.48		0.01	0.33	
v/s Ratio Perm		c0.09			0.04							
v/c Ratio		0.59			0.26		0.77	0.68		0.34	0.54	
Uniform Delay, d1		41.9			39.8		43.7	8.9		49.5	12.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.6			0.2		12.6	1.5		1.1	1.0	
Delay (s)		44.5			40.0		56.3	10.4		50.5	13.4	
Level of Service		D			D		E	B		D	B	
Approach Delay (s)		44.5			40.0			15.1			14.2	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	0	95	7	0	1	296	1716	20	4	987	64
Future Volume (vph)	66	0	95	7	0	1	296	1716	20	4	987	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1592		1802	1615		1805	3567		1805	3539	
Flt Permitted	0.76	1.00		0.65	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1439	1592		1235	1615		1805	3567		1805	3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	69	0	100	7	0	1	312	1806	21	4	1039	67
RTOR Reduction (vph)	0	86	0	0	1	0	0	1	0	0	3	0
Lane Group Flow (vph)	69	14	0	7	0	0	312	1826	0	4	1103	0
Confl. Peds. (#/hr)			2	2			2		2	2		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	14.2	14.2		14.2	14.2		20.6	72.0		1.8	53.2	
Effective Green, g (s)	14.2	14.2		14.2	14.2		20.6	72.0		1.8	53.2	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.21	0.72		0.02	0.53	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	204	226		175	229		371	2568		32	1882	
v/s Ratio Prot		0.01			0.00		c0.17	c0.51		0.00	c0.31	
v/s Ratio Perm	c0.05			0.01								
v/c Ratio	0.34	0.06		0.04	0.00		0.84	0.71		0.12	0.59	
Uniform Delay, d1	38.7	37.1		37.0	36.8		38.1	8.0		48.3	15.9	
Progression Factor	1.00	1.00		1.00	1.00		0.94	1.40		1.00	1.00	
Incremental Delay, d2	0.4	0.0		0.0	0.0		6.1	0.6		0.6	1.3	
Delay (s)	39.0	37.2		37.1	36.8		42.1	11.9		49.0	17.3	
Level of Service	D	D		D	D		D	B		D	B	
Approach Delay (s)		37.9			37.0			16.3			17.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	296	265	343	0	1877	618	192	950	139
Future Volume (vph)	0	0	0	296	265	343	0	1877	618	192	950	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1805	1863	1615		3574	1565	1787	3487	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1805	1863	1615		3574	1565	1787	3487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	305	273	354	0	1935	637	198	979	143
RTOR Reduction (vph)	0	0	0	0	0	167	0	0	247	0	12	0
Lane Group Flow (vph)	0	0	0	305	273	187	0	1935	390	198	1110	0
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	1%	1%	1%	1%	4%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				17.8	17.8	17.8		56.6	56.6	12.2	72.5	
Effective Green, g (s)				17.8	17.8	17.8		56.6	56.6	12.2	72.5	
Actuated g/C Ratio				0.18	0.18	0.18		0.57	0.57	0.12	0.72	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				321	331	287		2022	885	218	2528	
v/s Ratio Prot				c0.17	0.15	0.12		c0.54		c0.11	0.32	
v/s Ratio Perm									0.25			
v/c Ratio				0.95	0.82	0.65		0.96	0.44	0.91	0.44	
Uniform Delay, d1				40.7	39.6	38.2		20.5	12.6	43.3	5.5	
Progression Factor				1.00	1.00	1.00		0.88	1.33	0.79	2.27	
Incremental Delay, d2				36.8	14.6	4.0		6.2	0.7	33.3	0.5	
Delay (s)				77.5	54.2	42.2		24.4	17.4	67.5	13.1	
Level of Service				E	D	D		C	B	E	B	
Approach Delay (s)		0.0			57.3			22.7			21.2	
Approach LOS		A			E			C			C	

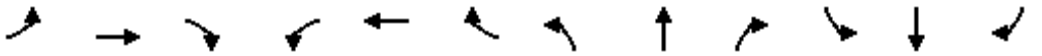
Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



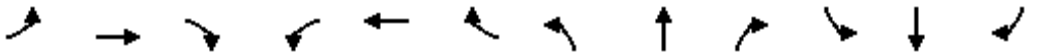
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	753	881	1613	419	0	1247
Future Volume (vph)	753	881	1613	419	0	1247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	5.1		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00
Frt	0.95	0.85	1.00	0.85		1.00
Flt Protected	0.97	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3359	1455	3574	1487		5136
Flt Permitted	0.97	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3359	1455	3574	1487		5136
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	776	908	1663	432	0	1286
RTOR Reduction (vph)	7	7	0	192	0	0
Lane Group Flow (vph)	1141	529	1663	240	0	1286
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	1%	1%	1%	6%	0%	1%
Turn Type	Prot	Prot	NA	Perm		NA
Protected Phases	8	8	2			6
Permitted Phases				2		
Actuated Green, G (s)	38.4	38.4	51.8	51.8		51.8
Effective Green, g (s)	38.4	38.4	51.8	51.8		51.8
Actuated g/C Ratio	0.38	0.38	0.52	0.52		0.52
Clearance Time (s)	4.7	4.7	5.1	5.1		5.1
Vehicle Extension (s)	2.5	2.5	3.0	3.0		3.0
Lane Grp Cap (vph)	1289	558	1851	770		2660
v/s Ratio Prot	0.34	c0.36	c0.47			0.25
v/s Ratio Perm				0.16		
v/c Ratio	0.88	0.95	0.90	0.31		0.48
Uniform Delay, d1	28.7	29.8	21.7	13.9		15.5
Progression Factor	1.00	1.00	1.16	1.72		1.65
Incremental Delay, d2	7.5	25.3	6.6	0.9		0.5
Delay (s)	36.3	55.2	31.8	24.8		26.1
Level of Service	D	E	C	C		C
Approach Delay (s)	42.3		30.4			26.1
Approach LOS	D		C			C

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



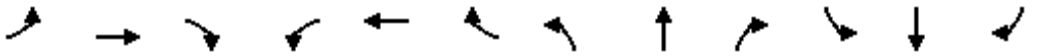
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	683	0	620	0	0	0	0	1349	866	0	1580	420
Future Volume (vph)	683	0	620	0	0	0	0	1349	866	0	1580	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		0.99					1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1505					5036	1566		3574	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1505					5036	1566		3574	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	704	0	639	0	0	0	0	1391	893	0	1629	433
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	704	0	639	0	0	0	0	1391	893	0	1629	433
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	0%	3%	1%	0%	1%	2%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	24.7		100.0					66.5	100.0		66.5	100.0
Effective Green, g (s)	24.7		100.0					66.5	100.0		66.5	100.0
Actuated g/C Ratio	0.25		1.00					0.66	1.00		0.66	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	847		1505					3348	1566		2376	1583
v/s Ratio Prot	c0.21							0.28			c0.46	
v/s Ratio Perm			0.42						0.57			0.27
v/c Ratio	0.83		0.42					0.42	0.57		0.69	0.27
Uniform Delay, d1	35.7		0.0					7.8	0.0		10.3	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.45	1.00
Incremental Delay, d2	6.7		0.9					0.4	1.5		1.3	0.3
Delay (s)	42.3		0.9					8.1	1.5		5.9	0.3
Level of Service	D		A					A	A		A	A
Approach Delay (s)		22.6			0.0			5.5			4.8	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



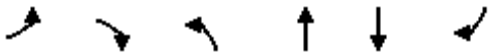
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	942	87	95	1454	114	62	34	64	74	38	135
Future Volume (vph)	134	942	87	95	1454	114	62	34	64	74	38	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.99	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1805	3539	1558	1805	5066			1830	1582		1806	1579
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.69	1.00		0.71	1.00
Satd. Flow (perm)	1805	3539	1558	1805	5066			1311	1582		1330	1579
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	141	992	92	100	1531	120	65	36	67	78	40	142
RTOR Reduction (vph)	0	0	35	0	5	0	0	0	55	0	0	116
Lane Group Flow (vph)	141	992	57	100	1646	0	0	101	12	0	118	26
Confl. Peds. (#/hr)	5		5	5		5	11		9	9		11
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	12.9	72.4	72.4	11.0	70.5			22.1	22.1		22.1	22.1
Effective Green, g (s)	12.9	72.4	72.4	11.0	70.5			22.1	22.1		22.1	22.1
Actuated g/C Ratio	0.11	0.60	0.60	0.09	0.59			0.18	0.18		0.18	0.18
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	194	2135	939	165	2976			241	291		244	290
v/s Ratio Prot	c0.08	0.28		0.06	c0.32							
v/s Ratio Perm			0.04					0.08	0.01		c0.09	0.02
v/c Ratio	0.73	0.46	0.06	0.61	0.55			0.42	0.04		0.48	0.09
Uniform Delay, d1	51.8	13.1	9.8	52.4	15.1			43.3	40.2		43.8	40.6
Progression Factor	1.00	1.00	1.00	0.68	1.90			1.00	1.00		1.00	1.00
Incremental Delay, d2	10.9	0.7	0.1	1.3	0.2			0.4	0.0		0.6	0.0
Delay (s)	62.7	13.8	9.9	36.7	29.0			43.7	40.3		44.4	40.7
Level of Service	E	B	A	D	C			D	D		D	D
Approach Delay (s)		19.2			29.4			42.3			42.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	818	57	86	1277	81	55	220	92	59	337	235
Future Volume (vph)	252	818	57	86	1277	81	55	220	92	59	337	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1770	3502		1805	3535			3374			3548	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.70			0.71	1.00
Satd. Flow (perm)	1770	3502		1805	3535			2366			2534	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	265	861	60	91	1344	85	58	232	97	62	355	247
RTOR Reduction (vph)	0	4	0	0	3	0	0	29	0	0	0	196
Lane Group Flow (vph)	265	917	0	91	1426	0	0	358	0	0	417	51
Confl. Peds. (#/hr)	11		15	15		11	5		14	14		5
Confl. Bikes (#/hr)			5			4			2			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	2%	5%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	21.1	70.4		10.9	60.2			24.7			24.7	24.7
Effective Green, g (s)	21.1	70.4		10.9	60.2			24.7			24.7	24.7
Actuated g/C Ratio	0.18	0.59		0.09	0.50			0.21			0.21	0.21
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	311	2054		163	1773			487			521	322
v/s Ratio Prot	c0.15	0.26		0.05	c0.40							
v/s Ratio Perm								0.15			c0.16	0.03
v/c Ratio	0.85	0.45		0.56	0.80			0.74			0.80	0.16
Uniform Delay, d1	47.9	13.9		52.2	25.0			44.6			45.3	39.1
Progression Factor	0.93	0.55		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	15.7	0.5		2.3	4.0			4.9			8.1	0.1
Delay (s)	60.3	8.2		54.6	29.0			49.5			53.4	39.2
Level of Service	E	A		D	C			D			D	D
Approach Delay (s)		19.8			30.5			49.5			48.1	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	32.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

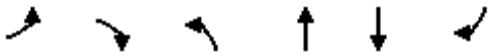


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	0	1650	972	1
Future Volume (Veh/h)	0	1	0	1650	972	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1	0	1719	1013	1
Pedestrians	6					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				444		
pX, platoon unblocked	0.57					
vC, conflicting volume	1879	513	1020			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1045	513	1020			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	130	509	684			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	1	860	860	675	339
Volume Left	0	0	0	0	0
Volume Right	1	0	0	0	1
cSH	509	1700	1700	1700	1700
Volume to Capacity	0.00	0.51	0.51	0.40	0.20
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	12.1	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.1	0.0		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	48.9%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection Sign configuration not allowed in HCM analysis.

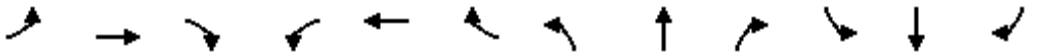


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	5	0	1648	1114	5
Future Volume (Veh/h)	0	5	0	1648	1114	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	5	0	1717	1160	5
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.78	0.86	0.86			
vC, conflicting volume	2029	590	1173			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	968	206	881			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	198	691	664			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	5	858	858	773	392
Volume Left	0	0	0	0	0
Volume Right	5	0	0	0	5
cSH	691	1700	1700	1700	1700
Volume to Capacity	0.01	0.51	0.51	0.45	0.23
Queue Length 95th (ft)	1	0	0	0	0
Control Delay (s)	10.3	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.3	0.0		0.0	
Approach LOS	B				

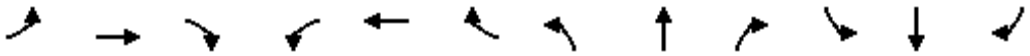
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix I
Year 2040 Cumulative Plus Project Conditions Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	1086	496	232	470	69	331	545	292	204	966	190
Future Volume (vph)	186	1086	496	232	470	69	331	545	292	204	966	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1551	3335	3336		3467	3539	1520	1770	3539	1531
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1551	3335	3336		3467	3539	1520	1770	3539	1531
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	196	1143	522	244	495	73	348	574	307	215	1017	200
RTOR Reduction (vph)	0	0	130	0	10	0	0	0	153	0	0	123
Lane Group Flow (vph)	196	1143	392	244	558	0	348	574	154	215	1017	77
Confl. Peds. (#/hr)	16		8	8		16	11		9	9		11
Confl. Bikes (#/hr)			2									
Heavy Vehicles (%)	3%	3%	2%	5%	6%	4%	1%	2%	4%	2%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	11.1	41.1	41.1	11.0	41.0		12.0	33.9	33.9	15.0	36.9	36.9
Effective Green, g (s)	11.1	41.1	41.1	11.0	41.0		12.0	33.9	33.9	15.0	36.9	36.9
Actuated g/C Ratio	0.09	0.34	0.34	0.09	0.34		0.10	0.28	0.28	0.12	0.31	0.31
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	314	1200	531	305	1139		346	999	429	221	1088	470
v/s Ratio Prot	0.06	c0.33		c0.07	0.17		0.10	0.16		c0.12	c0.29	
v/s Ratio Perm			0.25						0.10			0.05
v/c Ratio	0.62	0.95	0.74	0.80	0.49		1.01	0.57	0.36	0.97	0.93	0.16
Uniform Delay, d1	52.4	38.5	34.7	53.4	31.2		54.0	36.9	34.4	52.3	40.4	30.3
Progression Factor	1.26	0.84	0.82	0.94	0.64		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	10.0	4.5	11.9	1.3		49.8	1.0	0.7	52.5	14.4	0.2
Delay (s)	67.5	42.2	33.0	62.0	21.3		103.8	37.8	35.1	104.8	54.7	30.5
Level of Service	E	D	C	E	C		F	D	D	F	D	C
Approach Delay (s)		42.2			33.5			55.8			58.9	
Approach LOS		D			C			E			E	

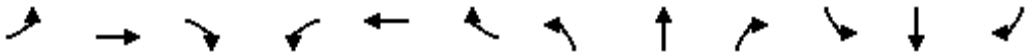
Intersection Summary			
HCM 2000 Control Delay	48.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	16	316	10	3	14	105	1066	15	179	1448	151
Future Volume (Veh/h)	73	16	316	10	3	14	105	1066	15	179	1448	151
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	77	17	333	11	3	15	111	1122	16	188	1524	159
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.82	0.82	0.74	0.82	0.82	0.84	0.74			0.84		
vC, conflicting volume	2805	3370	868	2836	3442	574	1709			1143		
vC1, stage 1 conf vol	2006	2006		1357	1357							
vC2, stage 2 conf vol	800	1365		1480	2085							
vCu, unblocked vol	1867	2557	114	1906	2644	101	1253			781		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	50	0	70	98	73			73		
cM capacity (veh/h)	52	11	663	0	10	784	405			699		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	94	333	29	111	748	390	188	1016	667
Volume Left	77	0	11	111	0	0	188	0	0
Volume Right	0	333	15	0	0	16	0	0	159
cSH	32	663	0	405	1700	1700	699	1700	1700
Volume to Capacity	2.97	0.50	Err	0.27	0.44	0.23	0.27	0.60	0.39
Queue Length 95th (ft)	275	71	Err	27	0	0	27	0	0
Control Delay (s)	1154.7	15.8	Err	17.2	0.0	0.0	12.0	0.0	0.0
Lane LOS	F	C	F	C			B		
Approach Delay (s)	266.5		Err	1.5			1.2		
Approach LOS	F		F						

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	78.0%	ICU Level of Service	D	
Analysis Period (min)	15			



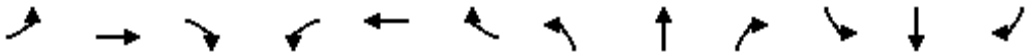
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	18	167	178	25	64	185	756	296	314	1142	36
Future Volume (vph)	169	18	167	178	25	64	185	756	296	314	1142	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.86	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.93		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3276		1698	1726	1383	1805	3359		1770	3488	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3276		1698	1726	1383	1805	3359		1770	3488	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	178	19	176	187	26	67	195	796	312	331	1202	38
RTOR Reduction (vph)	0	155	0	0	0	50	0	39	0	0	2	0
Lane Group Flow (vph)	0	218	0	107	106	17	195	1069	0	331	1238	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.0	26.0	26.0	12.0	31.4		13.0	32.4	
Effective Green, g (s)		12.0		26.0	26.0	26.0	12.0	31.4		13.0	32.4	
Actuated g/C Ratio		0.12		0.26	0.26	0.26	0.12	0.31		0.13	0.32	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		390		438	446	357	215	1048		228	1123	
v/s Ratio Prot		c0.07		c0.06	0.06		0.11	0.32		c0.19	c0.35	
v/s Ratio Perm						0.01						
v/c Ratio		0.56		0.24	0.24	0.05	0.91	1.02		1.45	1.10	
Uniform Delay, d1		41.8		29.5	29.5	28.0	43.7	34.6		43.8	34.1	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0		0.1	0.1	0.0	36.0	32.9		226.1	59.4	
Delay (s)		42.8		29.6	29.6	28.0	79.7	67.5		269.9	93.5	
Level of Service		D		C	C	C	E	E		F	F	
Approach Delay (s)		42.8			29.2			69.3			130.7	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM 2000 Control Delay	90.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.6	Sum of lost time (s)	19.2
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	79	245	31	82	18	152	1050	83	40	1318	156
Future Volume (vph)	171	79	245	31	82	18	152	1050	83	40	1318	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.97	
Flpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.98		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1711			1801		1805	3498		1752	3384	
Flt Permitted		0.78			0.83		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1362			1522		1805	3498		1752	3384	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	180	83	258	33	86	19	160	1105	87	42	1387	164
RTOR Reduction (vph)	0	33	0	0	5	0	0	6	0	0	9	0
Lane Group Flow (vph)	0	488	0	0	133	0	160	1186	0	42	1542	0
Confl. Peds. (#/hr)	20					20	110		4	4		110
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	1%	0%	2%	0%	3%	0%	0%	2%	0%	3%	2%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		36.7			34.3		11.2	45.8		6.0	43.3	
Effective Green, g (s)		36.7			34.3		11.2	45.8		6.0	43.3	
Actuated g/C Ratio		0.35			0.33		0.11	0.43		0.06	0.41	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		473			494		191	1518		99	1388	
v/s Ratio Prot							c0.09	0.34		0.02	c0.46	
v/s Ratio Perm		c0.36			0.09							
v/c Ratio		1.03			0.27		0.84	0.78		0.42	1.11	
Uniform Delay, d1		34.4			26.3		46.3	25.6		48.1	31.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		50.0			0.1		25.1	4.1		1.1	60.7	
Delay (s)		84.4			26.4		71.4	29.6		49.1	91.8	
Level of Service		F			C		E	C		D	F	
Approach Delay (s)		84.4			26.4			34.6			90.6	
Approach LOS		F			C			C			F	

Intersection Summary			
HCM 2000 Control Delay	66.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	0	314	16	1	10	269	993	15	9	1476	90
Future Volume (vph)	213	0	314	16	1	10	269	993	15	9	1476	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.86		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1578		1804	1639		1787	3497		1805	3504	
Flt Permitted	0.75	1.00		0.19	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1424	1578		367	1639		1787	3497		1805	3504	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	224	0	331	17	1	11	283	1045	16	9	1554	95
RTOR Reduction (vph)	0	259	0	0	9	0	0	1	0	0	4	0
Lane Group Flow (vph)	224	72	0	17	3	0	283	1060	0	9	1645	0
Confl. Peds. (#/hr)			1	1			1		3	3		1
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	3%	0%	0%	2%	2%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	20.7	20.7		20.7	20.7		20.5	65.5		1.8	46.8	
Effective Green, g (s)	20.7	20.7		20.7	20.7		20.5	65.5		1.8	46.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.20	0.66		0.02	0.47	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	294	326		75	339		366	2290		32	1639	
v/s Ratio Prot		0.05			0.00		c0.16	0.30		0.00	c0.47	
v/s Ratio Perm	c0.16			0.05								
v/c Ratio	0.76	0.22		0.23	0.01		0.77	0.46		0.28	1.00	
Uniform Delay, d1	37.3	33.0		33.0	31.5		37.6	8.5		48.5	26.6	
Progression Factor	1.00	1.00		1.00	1.00		1.57	0.51		1.00	1.00	
Incremental Delay, d2	10.0	0.1		0.6	0.0		5.8	0.4		1.8	23.1	
Delay (s)	47.4	33.1		33.6	31.5		64.7	4.7		50.2	49.7	
Level of Service	D	C		C	C		E	A		D	D	
Approach Delay (s)		38.8			32.7			17.4			49.7	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	35.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

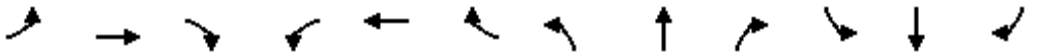
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	199	404	273	0	1024	606	380	1371	515
Future Volume (vph)	0	0	0	199	404	273	0	1024	606	380	1371	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.96	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1787	1845	1599		3539	1518	1752	3383	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1787	1845	1599		3539	1518	1752	3383	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	209	425	287	0	1078	638	400	1443	542
RTOR Reduction (vph)	0	0	0	0	0	149	0	0	398	0	37	0
Lane Group Flow (vph)	0	0	0	209	425	138	0	1078	240	400	1948	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	1%	3%	1%	0%	2%	4%	3%	2%	2%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				25.4	25.4	25.4		36.7	36.7	24.5	64.9	
Effective Green, g (s)				25.4	25.4	25.4		36.7	36.7	24.5	64.9	
Actuated g/C Ratio				0.25	0.25	0.25		0.37	0.37	0.24	0.65	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				453	468	406		1298	557	429	2195	
v/s Ratio Prot				0.12	c0.23	0.09		0.30		c0.23	c0.58	
v/s Ratio Perm									0.16			
v/c Ratio				0.46	0.91	0.34		0.83	0.43	0.93	0.89	
Uniform Delay, d1				31.5	36.2	30.5		28.8	23.8	36.9	14.5	
Progression Factor				1.00	1.00	1.00		0.90	2.47	0.98	0.50	
Incremental Delay, d2				0.3	20.8	0.2		5.0	1.9	20.5	4.1	
Delay (s)				31.8	56.9	30.6		30.8	60.8	56.7	11.3	
Level of Service				C	E	C		C	E	E	B	
Approach Delay (s)		0.0			43.0			42.0			18.9	
Approach LOS		A			D			D			B	

Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	690	330	1300	520	0	1569
Future Volume (vph)	690	330	1300	520	0	1569
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	4.0		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frt	0.99	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3386	1374	3539	1468		5085
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3386	1374	3539	1468		5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	726	347	1368	547	0	1652
RTOR Reduction (vph)	4	29	0	0	0	0
Lane Group Flow (vph)	757	283	1368	547	0	1652
Heavy Vehicles (%)	3%	7%	2%	10%	0%	2%
Turn Type	Prot	Prot	NA	Free		NA
Protected Phases	8	8	2			6
Permitted Phases				Free		
Actuated Green, G (s)	28.1	28.1	62.1	100.0		62.1
Effective Green, g (s)	28.1	28.1	62.1	100.0		62.1
Actuated g/C Ratio	0.28	0.28	0.62	1.00		0.62
Clearance Time (s)	4.7	4.7	5.1			5.1
Vehicle Extension (s)	2.5	2.5	3.0			3.0
Lane Grp Cap (vph)	951	386	2197	1468		3157
v/s Ratio Prot	c0.22	0.21	c0.39			0.32
v/s Ratio Perm				0.37		
v/c Ratio	0.80	0.73	0.62	0.37		0.52
Uniform Delay, d1	33.3	32.6	11.7	0.0		10.6
Progression Factor	1.00	1.00	1.02	1.00		0.96
Incremental Delay, d2	4.5	6.7	1.2	0.7		0.3
Delay (s)	37.8	39.2	13.2	0.7		10.5
Level of Service	D	D	B	A		B
Approach Delay (s)	38.2		9.6			10.5
Approach LOS	D		A			B

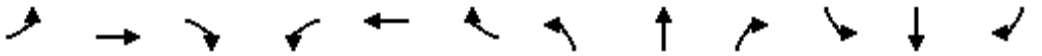
Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	565	0	458	0	0	0	0	1254	546	0	1568	691
Future Volume (vph)	565	0	458	0	0	0	0	1254	546	0	1568	691
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1495					4940	1568		3539	1566
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1495					4940	1568		3539	1566
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	595	0	482	0	0	0	0	1320	575	0	1651	727
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	595	0	482	0	0	0	0	1320	575	0	1651	727
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	5%	3%	0%	2%	1%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	21.6		100.0					69.6	100.0		69.6	100.0
Effective Green, g (s)	21.6		100.0					69.6	100.0		69.6	100.0
Actuated g/C Ratio	0.22		1.00					0.70	1.00		0.70	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	741		1495					3438	1568		2463	1566
v/s Ratio Prot	c0.17							0.27			c0.47	
v/s Ratio Perm			0.32						0.37			0.46
v/c Ratio	0.80		0.32					0.38	0.37		0.67	0.46
Uniform Delay, d1	37.2		0.0					6.3	0.0		8.7	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.36	1.00
Incremental Delay, d2	5.9		0.6					0.3	0.7		1.2	0.8
Delay (s)	43.1		0.6					6.6	0.7		4.4	0.8
Level of Service	D		A					A	A		A	A
Approach Delay (s)		24.1			0.0			4.8			3.3	
Approach LOS		C			A			A			A	

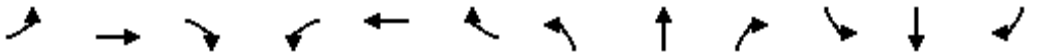
Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



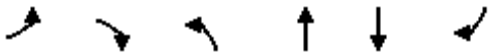
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	1376	198	175	740	101	183	83	210	149	118	269
Future Volume (vph)	173	1376	198	175	740	101	183	83	210	149	118	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.77	1.00	0.95			1.00	0.95		1.00	0.76
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.91	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1787	3505	1242	1752	4674			1640	1527		1760	1218
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.48	1.00		0.51	1.00
Satd. Flow (perm)	1787	3505	1242	1752	4674			809	1527		930	1218
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	182	1448	208	184	779	106	193	87	221	157	124	283
RTOR Reduction (vph)	0	0	59	0	13	0	0	0	71	0	0	91
Lane Group Flow (vph)	182	1448	150	184	872	0	0	280	150	0	281	192
Confl. Peds. (#/hr)	123		71	71		123	237		43	43		237
Confl. Bikes (#/hr)			3			1			2			1
Heavy Vehicles (%)	1%	3%	0%	3%	4%	4%	0%	5%	0%	4%	3%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	15.2	52.5	52.5	13.0	50.3			40.0	40.0		40.0	40.0
Effective Green, g (s)	15.2	52.5	52.5	13.0	50.3			40.0	40.0		40.0	40.0
Actuated g/C Ratio	0.13	0.44	0.44	0.11	0.42			0.33	0.33		0.33	0.33
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	226	1533	543	189	1959			269	509		310	406
v/s Ratio Prot	0.10	c0.41		c0.10	0.19							
v/s Ratio Perm			0.12					c0.35	0.10		0.30	0.16
v/c Ratio	0.81	0.94	0.28	0.97	0.44			1.04	0.29		0.91	0.47
Uniform Delay, d1	51.0	32.4	21.6	53.3	24.9			40.0	29.6		38.2	31.7
Progression Factor	1.00	1.00	1.00	0.60	1.69			1.00	1.00		1.00	1.00
Incremental Delay, d2	17.6	13.1	1.3	50.1	0.6			65.9	0.1		27.8	0.3
Delay (s)	68.5	45.5	22.8	81.9	42.6			105.9	29.7		66.0	32.0
Level of Service	E	D	C	F	D			F	C		E	C
Approach Delay (s)		45.2			49.3			72.3			48.9	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	50.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	1184	64	133	651	102	29	273	59	87	314	195
Future Volume (vph)	274	1184	64	133	651	102	29	273	59	87	314	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1719	3506		1787	3369			3446			3446	1479
Flt Permitted	0.95	1.00		0.95	1.00			0.84			0.68	1.00
Satd. Flow (perm)	1719	3506		1787	3369			2921			2358	1479
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	288	1246	67	140	685	107	31	287	62	92	331	205
RTOR Reduction (vph)	0	3	0	0	9	0	0	14	0	0	0	160
Lane Group Flow (vph)	288	1310	0	140	783	0	0	366	0	0	423	45
Confl. Peds. (#/hr)	6		4	4		6	12		5	5		12
Confl. Bikes (#/hr)			2									3
Heavy Vehicles (%)	5%	2%	4%	1%	5%	3%	0%	1%	4%	2%	4%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	25.0	65.8		13.6	54.4			26.6			26.6	26.6
Effective Green, g (s)	25.0	65.8		13.6	54.4			26.6			26.6	26.6
Actuated g/C Ratio	0.21	0.55		0.11	0.45			0.22			0.22	0.22
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	358	1922		202	1527			647			522	327
v/s Ratio Prot	c0.17	c0.37		0.08	0.23							
v/s Ratio Perm								0.13			c0.18	0.03
v/c Ratio	0.80	0.68		0.69	0.51			0.57			0.81	0.14
Uniform Delay, d1	45.2	19.5		51.2	23.4			41.6			44.3	37.5
Progression Factor	0.91	0.71		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	6.0	0.9		8.0	1.2			0.7			8.8	0.1
Delay (s)	46.9	14.8		59.2	24.6			42.2			53.1	37.6
Level of Service	D	B		E	C			D			D	D
Approach Delay (s)		20.6			29.8			42.2			48.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

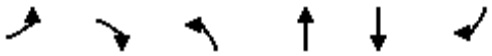


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	16	0	1088	1759	15
Future Volume (Veh/h)	0	16	0	1088	1759	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	17	0	1145	1852	16
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)				444		
pX, platoon unblocked	0.74					
vC, conflicting volume	2442	943	1877			
vC1, stage 1 conf vol	1869					
vC2, stage 2 conf vol	572					
vCu, unblocked vol	2244	943	1877			
tC, single (s)	6.8	7.2	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	93	100			
cM capacity (veh/h)	105	238	322			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	572	572	1235	633
Volume Left	0	0	0	0	0
Volume Right	17	0	0	0	16
cSH	238	1700	1700	1700	1700
Volume to Capacity	0.07	0.34	0.34	0.73	0.37
Queue Length 95th (ft)	6	0	0	0	0
Control Delay (s)	21.3	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	21.3	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

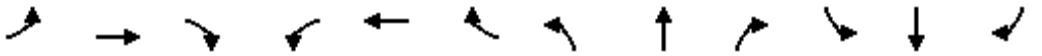
Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	39	0	1238	1475	42
Future Volume (Veh/h)	0	39	0	1238	1475	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	41	0	1303	1553	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.83	0.68	0.68			
vC, conflicting volume	2226	798	1597			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	487	0	947			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	95	100			
cM capacity (veh/h)	426	746	501			

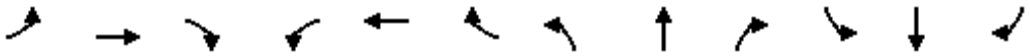
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	41	652	652	1035	562
Volume Left	0	0	0	0	0
Volume Right	41	0	0	0	44
cSH	746	1700	1700	1700	1700
Volume to Capacity	0.05	0.38	0.38	0.61	0.33
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	10.1	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.1	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	723	244	229	1049	147	504	914	281	155	483	174
Future Volume (vph)	148	723	244	229	1049	147	504	914	281	155	483	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3539	1563	3433	3501		3467	3574	1524	1805	3574	1554
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	156	761	257	241	1104	155	531	962	296	163	508	183
RTOR Reduction (vph)	0	0	95	0	9	0	0	0	88	0	0	133
Lane Group Flow (vph)	156	761	162	241	1250	0	531	962	208	163	508	50
Confl. Peds. (#/hr)	12		11	11		12	6		5	5		6
Confl. Bikes (#/hr)			1			2			2			
Heavy Vehicles (%)	0%	2%	1%	2%	1%	0%	1%	1%	4%	0%	1%	2%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	10.0	40.9	40.9	11.0	41.9		17.0	37.1	37.1	12.0	32.1	32.1
Effective Green, g (s)	10.0	40.9	40.9	11.0	41.9		17.0	37.1	37.1	12.0	32.1	32.1
Actuated g/C Ratio	0.08	0.34	0.34	0.09	0.35		0.14	0.31	0.31	0.10	0.27	0.27
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5		4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	291	1206	532	314	1222		491	1104	471	180	956	415
v/s Ratio Prot	0.04	0.22		c0.07	c0.36		c0.15	c0.27		0.09	0.14	
v/s Ratio Perm			0.10						0.14			0.03
v/c Ratio	0.54	0.63	0.30	0.77	1.02		1.08	0.87	0.44	0.91	0.53	0.12
Uniform Delay, d1	52.8	33.2	29.1	53.3	39.0		51.5	39.2	33.2	53.4	37.5	33.3
Progression Factor	1.19	0.79	0.69	0.96	0.71		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	2.3	1.4	6.5	26.7		64.4	7.9	0.9	41.0	0.7	0.2
Delay (s)	63.7	28.7	21.4	57.5	54.6		115.9	47.1	34.1	94.4	38.3	33.4
Level of Service	E	C	C	E	D		F	D	C	F	D	C
Approach Delay (s)		31.8			55.1			65.4			47.9	
Approach LOS		C			E			E			D	

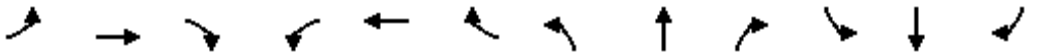
Intersection Summary			
HCM 2000 Control Delay	52.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	39	3	4	13	101	1597	6	61	945	26
Future Volume (Veh/h)	8	0	39	3	4	13	101	1597	6	61	945	26
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	41	3	4	14	105	1664	6	64	984	27
Pedestrians		10			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.67	0.67	0.90	0.67	0.67	0.62	0.90			0.62		
vC, conflicting volume	2194	3022	516	2545	3033	842	1021			1677		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1110	2354	237	1637	2369	0	799			853		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	100	94	91	77	98	86			87		
cM capacity (veh/h)	71	18	686	34	17	668	741			487		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	8	41	21	105	1109	561	64	656	355
Volume Left	8	0	3	105	0	0	64	0	0
Volume Right	0	41	14	0	0	6	0	0	27
cSH	71	686	62	741	1700	1700	487	1700	1700
Volume to Capacity	0.11	0.06	0.34	0.14	0.65	0.33	0.13	0.39	0.21
Queue Length 95th (ft)	9	5	31	12	0	0	11	0	0
Control Delay (s)	62.1	10.6	91.3	10.7	0.0	0.0	13.5	0.0	0.0
Lane LOS	F	B	F	B			B		
Approach Delay (s)	19.0		91.3	0.6			0.8		
Approach LOS	C		F						

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	61.5%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	2	20	273	2	203	24	1451	185	129	839	3
Future Volume (vph)	30	2	20	273	2	203	24	1451	185	129	839	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.94		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3307		1715	1720	1578	1805	3502		1770	3537	
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3307		1715	1720	1578	1805	3502		1770	3537	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	2	21	287	2	214	25	1527	195	136	883	3
RTOR Reduction (vph)	0	19	0	0	0	170	0	8	0	0	0	0
Lane Group Flow (vph)	0	36	0	143	146	44	25	1714	0	136	886	0
Confl. Peds. (#/hr)	1					1	8		7	7		8
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	2%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		6.6		14.5	14.5	14.5	4.2	34.4		13.3	43.5	
Effective Green, g (s)		6.6		14.5	14.5	14.5	4.2	34.4		13.3	43.5	
Actuated g/C Ratio		0.08		0.17	0.17	0.17	0.05	0.41		0.16	0.52	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		259		296	296	272	90	1434		280	1831	
v/s Ratio Prot		c0.01		0.08	c0.08		0.01	c0.49		c0.08	0.25	
v/s Ratio Perm						0.03						
v/c Ratio		0.14		0.48	0.49	0.16	0.28	1.20		0.49	0.48	
Uniform Delay, d1		36.0		31.4	31.4	29.6	38.4	24.8		32.2	13.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1		0.5	0.5	0.1	0.6	94.9		0.5	0.1	
Delay (s)		36.1		31.8	31.9	29.7	39.1	119.7		32.7	13.1	
Level of Service		D		C	C	C	D	F		C	B	
Approach Delay (s)		36.1			30.9			118.5			15.7	
Approach LOS		D			C			F			B	

Intersection Summary			
HCM 2000 Control Delay	72.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	19.2
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	16	95	16	41	14	185	1583	39	22	997	124
Future Volume (vph)	66	16	95	16	41	14	185	1583	39	22	997	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1715			1823		1787	3526		1805	3506	
Flt Permitted		0.85			0.89		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1480			1646		1787	3526		1805	3506	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	69	17	100	17	43	15	195	1666	41	23	1049	131
RTOR Reduction (vph)	0	50	0	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	136	0	0	65	0	195	1706	0	23	1174	0
Confl. Peds. (#/hr)	2					2	5					5
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	9%	0%	0%	0%	0%	1%	2%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		16.0			16.0		14.9	74.0		4.0	63.1	
Effective Green, g (s)		16.0			16.0		14.9	74.0		4.0	63.1	
Actuated g/C Ratio		0.15			0.15		0.14	0.70		0.04	0.60	
Clearance Time (s)		3.7			3.7		3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2			0.2		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		224			249		252	2473		68	2096	
v/s Ratio Prot							c0.11	c0.48		0.01	0.33	
v/s Ratio Perm		c0.09			0.04							
v/c Ratio		0.61			0.26		0.77	0.69		0.34	0.56	
Uniform Delay, d1		41.8			39.5		43.7	9.1		49.5	12.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2			0.2		12.6	1.6		1.1	1.1	
Delay (s)		45.0			39.7		56.3	10.7		50.5	13.9	
Level of Service		D			D		E	B		D	B	
Approach Delay (s)		45.0			39.7			15.4			14.6	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	15.5
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	0	95	7	0	2	296	1725	20	6	1005	69
Future Volume (vph)	69	0	95	7	0	2	296	1725	20	6	1005	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.85		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1592		1802	1615		1805	3568		1805	3536	
Flt Permitted	0.76	1.00		0.65	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1437	1592		1236	1615		1805	3568		1805	3536	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	73	0	100	7	0	2	312	1816	21	6	1058	73
RTOR Reduction (vph)	0	86	0	0	2	0	0	1	0	0	4	0
Lane Group Flow (vph)	73	14	0	7	0	0	312	1836	0	6	1127	0
Confl. Peds. (#/hr)			2	2			2		2	2		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	14.3	14.3		14.3	14.3		20.6	71.9		1.8	53.1	
Effective Green, g (s)	14.3	14.3		14.3	14.3		20.6	71.9		1.8	53.1	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.21	0.72		0.02	0.53	
Clearance Time (s)	4.2	4.2		4.2	4.2		3.7	4.1		3.7	4.1	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	205	227		176	230		371	2565		32	1877	
v/s Ratio Prot		0.01			0.00		c0.17	c0.51		0.00	c0.32	
v/s Ratio Perm	c0.05			0.01								
v/c Ratio	0.36	0.06		0.04	0.00		0.84	0.72		0.19	0.60	
Uniform Delay, d1	38.7	37.1		36.9	36.7		38.1	8.1		48.4	16.1	
Progression Factor	1.00	1.00		1.00	1.00		0.95	1.40		1.00	1.00	
Incremental Delay, d2	0.4	0.0		0.0	0.0		6.0	0.6		1.0	1.4	
Delay (s)	39.1	37.1		37.0	36.7		42.1	12.0		49.4	17.6	
Level of Service	D	D		D	D		D	B		D	B	
Approach Delay (s)		37.9			36.9			16.4			17.7	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	296	265	345	0	1884	618	196	959	145
Future Volume (vph)	0	0	0	296	265	345	0	1884	618	196	959	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Lane Util. Factor				1.00	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1805	1863	1615		3574	1565	1787	3485	
Flt Permitted				0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1805	1863	1615		3574	1565	1787	3485	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	305	273	356	0	1942	637	202	989	149
RTOR Reduction (vph)	0	0	0	0	0	167	0	0	246	0	12	0
Lane Group Flow (vph)	0	0	0	305	273	189	0	1942	391	202	1126	0
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	1%	1%	1%	1%	4%
Turn Type				Split	NA	Prot		NA	Perm	Prot	NA	
Protected Phases				8	8	8		2		1	6	
Permitted Phases									2			
Actuated Green, G (s)				17.8	17.8	17.8		56.5	56.5	12.3	72.5	
Effective Green, g (s)				17.8	17.8	17.8		56.5	56.5	12.3	72.5	
Actuated g/C Ratio				0.18	0.18	0.18		0.56	0.56	0.12	0.72	
Clearance Time (s)				5.1	5.1	5.1		4.6	4.6	3.7	4.6	
Vehicle Extension (s)				2.0	2.0	2.0		3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)				321	331	287		2019	884	219	2526	
v/s Ratio Prot				c0.17	0.15	0.12		c0.54		c0.11	0.32	
v/s Ratio Perm									0.25			
v/c Ratio				0.95	0.82	0.66		0.96	0.44	0.92	0.45	
Uniform Delay, d1				40.7	39.6	38.3		20.7	12.6	43.4	5.6	
Progression Factor				1.00	1.00	1.00		0.88	1.33	0.79	2.29	
Incremental Delay, d2				36.8	14.6	4.1		6.7	0.7	36.4	0.5	
Delay (s)				77.5	54.2	42.4		25.0	17.5	70.5	13.3	
Level of Service				E	D	D		C	B	E	B	
Approach Delay (s)		0.0			57.3			23.1			21.9	
Approach LOS		A			E			C			C	

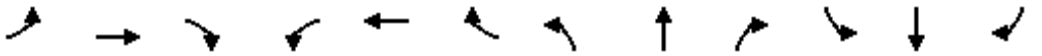
Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



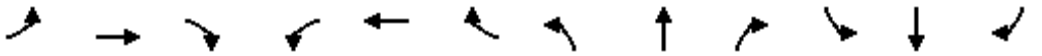
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	753	884	1618	419	0	1256
Future Volume (vph)	753	884	1618	419	0	1256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	5.1	5.1		5.1
Lane Util. Factor	0.97	0.91	0.95	1.00		0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00
Frt	0.95	0.85	1.00	0.85		1.00
Flt Protected	0.97	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3358	1455	3574	1487		5136
Flt Permitted	0.97	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3358	1455	3574	1487		5136
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	776	911	1668	432	0	1295
RTOR Reduction (vph)	7	7	0	191	0	0
Lane Group Flow (vph)	1143	530	1668	241	0	1295
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	1%	1%	1%	6%	0%	1%
Turn Type	Prot	Prot	NA	Perm		NA
Protected Phases	8	8	2			6
Permitted Phases				2		
Actuated Green, G (s)	38.4	38.4	51.8	51.8		51.8
Effective Green, g (s)	38.4	38.4	51.8	51.8		51.8
Actuated g/C Ratio	0.38	0.38	0.52	0.52		0.52
Clearance Time (s)	4.7	4.7	5.1	5.1		5.1
Vehicle Extension (s)	2.5	2.5	3.0	3.0		3.0
Lane Grp Cap (vph)	1289	558	1851	770		2660
v/s Ratio Prot	0.34	c0.36	c0.47			0.25
v/s Ratio Perm				0.16		
v/c Ratio	0.89	0.95	0.90	0.31		0.49
Uniform Delay, d1	28.8	29.9	21.8	13.9		15.5
Progression Factor	1.00	1.00	1.16	1.69		1.64
Incremental Delay, d2	7.6	25.7	6.7	0.9		0.5
Delay (s)	36.4	55.5	31.9	24.4		26.1
Level of Service	D	E	C	C		C
Approach Delay (s)	42.5		30.3			26.1
Approach LOS	D		C			C

Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



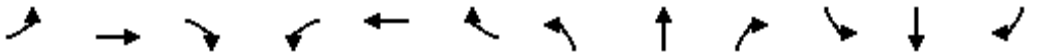
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	685	0	620	0	0	0	0	1351	866	0	1583	425
Future Volume (vph)	685	0	620	0	0	0	0	1351	866	0	1583	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2		4.0					4.6	4.0		4.6	4.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.95	1.00
Frpb, ped/bikes	1.00		0.99					1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1505					5036	1566		3574	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1505					5036	1566		3574	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	706	0	639	0	0	0	0	1393	893	0	1632	438
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	706	0	639	0	0	0	0	1393	893	0	1632	438
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	0%	3%	1%	0%	1%	2%
Turn Type	Prot		Free					NA	Free		NA	Free
Protected Phases	4							2			6	
Permitted Phases			Free						Free			Free
Actuated Green, G (s)	24.8		100.0					66.4	100.0		66.4	100.0
Effective Green, g (s)	24.8		100.0					66.4	100.0		66.4	100.0
Actuated g/C Ratio	0.25		1.00					0.66	1.00		0.66	1.00
Clearance Time (s)	4.2							4.6			4.6	
Vehicle Extension (s)	2.0							3.0			3.0	
Lane Grp Cap (vph)	851		1505					3343	1566		2373	1583
v/s Ratio Prot	c0.21							0.28			c0.46	
v/s Ratio Perm			0.42						0.57			0.28
v/c Ratio	0.83		0.42					0.42	0.57		0.69	0.28
Uniform Delay, d1	35.6		0.0					7.8	0.0		10.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.46	1.00
Incremental Delay, d2	6.4		0.9					0.4	1.5		1.3	0.3
Delay (s)	42.0		0.9					8.2	1.5		6.1	0.3
Level of Service	D		A					A	A		A	A
Approach Delay (s)		22.5			0.0			5.6			4.8	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



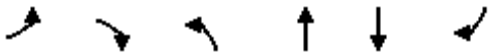
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	944	89	95	1458	114	66	34	64	74	38	135
Future Volume (vph)	134	944	89	95	1458	114	66	34	64	74	38	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			0.99	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00		0.97	1.00
Satd. Flow (prot)	1805	3539	1558	1805	5067			1829	1582		1806	1579
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.68	1.00		0.70	1.00
Satd. Flow (perm)	1805	3539	1558	1805	5067			1279	1582		1310	1579
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	141	994	94	100	1535	120	69	36	67	78	40	142
RTOR Reduction (vph)	0	0	36	0	5	0	0	0	55	0	0	116
Lane Group Flow (vph)	141	994	58	100	1650	0	0	105	12	0	118	26
Confl. Peds. (#/hr)	5		5	5		5	11		9	9		11
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4		4	4		4
Actuated Green, G (s)	12.9	72.4	72.4	11.0	70.5			22.1	22.1		22.1	22.1
Effective Green, g (s)	12.9	72.4	72.4	11.0	70.5			22.1	22.1		22.1	22.1
Actuated g/C Ratio	0.11	0.60	0.60	0.09	0.59			0.18	0.18		0.18	0.18
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5			5.0	5.0		5.0	5.0
Vehicle Extension (s)	1.0	4.0	4.0	2.0	4.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	194	2135	939	165	2976			235	291		241	290
v/s Ratio Prot	c0.08	0.28		0.06	c0.33							
v/s Ratio Perm			0.04					0.08	0.01		c0.09	0.02
v/c Ratio	0.73	0.47	0.06	0.61	0.55			0.45	0.04		0.49	0.09
Uniform Delay, d1	51.8	13.1	9.8	52.4	15.1			43.5	40.2		43.9	40.6
Progression Factor	1.00	1.00	1.00	0.68	1.90			1.00	1.00		1.00	1.00
Incremental Delay, d2	10.9	0.7	0.1	1.2	0.2			0.5	0.0		0.6	0.0
Delay (s)	62.7	13.9	9.9	36.7	29.0			44.0	40.3		44.5	40.7
Level of Service	E	B	A	D	C			D	D		D	D
Approach Delay (s)		19.2			29.5			42.6			42.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	822	57	86	1279	81	55	220	92	59	337	235
Future Volume (vph)	252	822	57	86	1279	81	55	220	92	59	337	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1770	3502		1805	3535			3374			3548	1568
Flt Permitted	0.95	1.00		0.95	1.00			0.70			0.71	1.00
Satd. Flow (perm)	1770	3502		1805	3535			2366			2534	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	265	865	60	91	1346	85	58	232	97	62	355	247
RTOR Reduction (vph)	0	4	0	0	3	0	0	29	0	0	0	196
Lane Group Flow (vph)	265	921	0	91	1428	0	0	358	0	0	417	51
Confl. Peds. (#/hr)	11		15	15		11	5		14	14		5
Confl. Bikes (#/hr)			5			4			2			1
Heavy Vehicles (%)	2%	2%	0%	0%	1%	2%	5%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases							4			4		4
Actuated Green, G (s)	21.1	70.4		10.9	60.2			24.7			24.7	24.7
Effective Green, g (s)	21.1	70.4		10.9	60.2			24.7			24.7	24.7
Actuated g/C Ratio	0.18	0.59		0.09	0.50			0.21			0.21	0.21
Clearance Time (s)	4.0	5.0		4.0	5.0			5.0			5.0	5.0
Vehicle Extension (s)	3.0	2.0		2.0	2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	311	2054		163	1773			487			521	322
v/s Ratio Prot	c0.15	0.26		0.05	c0.40							
v/s Ratio Perm								0.15			c0.16	0.03
v/c Ratio	0.85	0.45		0.56	0.81			0.74			0.80	0.16
Uniform Delay, d1	47.9	13.9		52.2	25.0			44.6			45.3	39.1
Progression Factor	0.93	0.55		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	15.7	0.5		2.3	4.0			4.9			8.1	0.1
Delay (s)	60.4	8.2		54.6	29.0			49.5			53.4	39.2
Level of Service	E	A		D	C			D			D	D
Approach Delay (s)		19.9			30.5			49.5			48.1	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	32.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

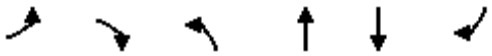


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	0	1674	986	1
Future Volume (Veh/h)	0	1	0	1674	986	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1	0	1744	1027	1
Pedestrians	6					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				444		
pX, platoon unblocked	0.60					
vC, conflicting volume	1906	520	1034			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1179	520	1034			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	111	503	676			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	1	872	872	685	343
Volume Left	0	0	0	0	0
Volume Right	1	0	0	0	1
cSH	503	1700	1700	1700	1700
Volume to Capacity	0.00	0.51	0.51	0.40	0.20
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	12.2	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.2	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	16	0	1660	1127	7
Future Volume (Veh/h)	0	16	0	1660	1127	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	17	0	1729	1174	7
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				225	242	
pX, platoon unblocked	0.79	0.84	0.84			
vC, conflicting volume	2050	598	1189			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	875	137	841			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	229	743	668			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	864	864	783	398
Volume Left	0	0	0	0	0
Volume Right	17	0	0	0	7
cSH	743	1700	1700	1700	1700
Volume to Capacity	0.02	0.51	0.51	0.46	0.23
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	10.0	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	10.0	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix J
SWITRS Crash Data

ID	CASE_ID	ACCIDENT_	COLLISION	COLLISION	COLLISION	PRIMARY_	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECT	COLLISION	NUMBER_	NUMBER_	TYPE_OF_C	PEDESTRIA	BICYCLE_A	MOTORCY	TRUCK_AC
1	7013173	2015	20150715	07	911	RT 84	THORNTON AV	2640	S	N	0	0	0	C				
1	7042849	2015	20150806	08	2101	FREMONT	THORNTON AV	40	N	N	0	0	0	A				
1	7114295	2015	20151104	11	1537	RT 84	THORNTON AV	6	S	N	4	0	1	D		Y		
1	7167975	2016	20160104	01	2056	RT 84	THORTON AV	0		Y	3	0	1	D				
1	7199830	2016	20160423	04	2320	RT 84	THORNTON AV	280	S	N	1	1	0	G	Y			
1	8018891	2016	20160419	04	1624	FREMONT	THORNTON AV	14	N	N	3	0	1	H		Y		
1	8097576	2016	20160726	07	1041	RT 84	FREMONT BL	0		Y	3	0	1	E		Y		
1	8188289	2016	20161119	11	2128	FREMONT	THORNTON AV	351	N	N	4	0	1	E				
1	8346932	2017	20170329	03	103	FREMONT	THORNTON AV	0		Y	0	0	0	E				
1	8351326	2017	20170408	04	2220	RT 84	FREMONT BL	20	W	N	3	0	1	G	Y			
1	8471958	2017	20170926	09	843	THORNTOI	RT 84	238	N	N	4	0	1	C				
1	8480340	2017	20171019	10	1509	RT 84	FREMONT BL	39	E	N	3	0	1	C				
1	8522026	2017	20171214	12	1130	RT 84 THO	RT 84 FREMONT BL	66	W	N	4	0	1	H				
1	8543629	2018	20180114	01	508	RT 84	THORNTON AV	227	S	N	3	0	1	E				
1	8596547	2018	20180329	03	1330	FREMONT	THORNTON AV	138	N	N	3	0	3	D				
1	8615691	2018	20180321	03	2035	RT 84	FREMONT BL	0		Y	3	0	1	A			Y	
1	8676737	2018	20180604	06	1130	RT 84	FREMONT BL	800	E	N	0	0	0	C				
3	8007639	2016	20160307	03	248	RT 84	DUSTERBERRY WY	382	E	N	4	0	1	E				
3	8030863	2016	20160430	04	1606	RT 84	DUSTERBERRY WY	51	E	N	4	0	1	G	Y			
3	8296212	2017	20170113	01	145	RT 84	DUSTERBERRY WY	0		Y	3	0	1	D				
3	8609593	2018	20180414	04	1925	THORNTOI	DUSTERBERRY WY	80	E	N	0	0	0	E				Y
3	8674462	2018	20180411	04	1749	RT 84	DUSTERBERRY WY	46	W	N	0	0	0	B				
4	7021919	2015	20150803	08	1333	THORTON	CORONADO DR	0		Y	3	0	1	-		Y		
4	8093002	2016	20160526	05	2053	RT 84	CONTRA COSTA RD	46	W	N	0	0	0	C				
4	8431784	2017	20170727	07	1949	RT 84	CONTRA COSTA AV	74	E	N	4	0	1	C				
4	8493125	2017	20171109	11	1843	THORNTOI	CONTRA COSTA AV	0		Y	3	0	3	D				
4	8530277	2018	20180109	01	1054	THORNTOI	CORONADO DR	0		Y	3	0	1	D				
4	8614938	2018	20180401	04	2151	THORNTOI	CONTRA COSTA AV	25	W	N	0	0	0	C				Y
4	8615639	2018	20180328	03	1150	RT 84	CONTRA COSTA AV	0		Y	4	0	1	D			Y	
5	7150565	2015	20151215	12	700	RT 84	CABRILLO CT	0		Y	4	0	1	G	Y			
5	7168464	2016	20160106	01	1255	RT 84	CABRILLO DR	455	W	N	0	0	0	C				
5	8084379	2016	20160613	06	2347	RT 84	CABRILLO DR	0		Y	3	0	1	H		Y		
5	8193571	2016	20161112	11	1507	THORNTOI	CABRILLO DR	0		Y	3	0	1	E	Y			
5	8358773	2017	20170325	03	2035	RT 84	CABRILLO DR	0		Y	3	0	1	G	Y			
5	8363582	2017	20170505	05	1703	THORNTOI	CABRILLO DR	211	W	N	4	0	2	C				
5	8493439	2017	20171109	11	2031	RT 84	CABRILLO DR	103	E	N	0	0	0	C				
5	8626203	2018	20180514	05	1249	THORNTOI	CABRILLO DR	0		Y	0	0	0	D				
5	8627832	2018	20180528	05	1750	RT 84	CABRILLO DR	20	W	N	3	0	2	D				
6	7170331	2016	20160107	01	845	RT 84	BLACOW RD	187	E	N	0	0	0	B				
6	8007647	2016	20160318	03	2045	RT 84	BLACOW RD	0		Y	4	0	1	H		Y		
6	8355973	2017	20170212	02	1112	BLACOW R	THORNTON AV	458	S	N	4	0	1	C				
6	8371190	2017	20170416	04	1629	RT 84	BLACOW RD	314	W	N	4	0	2	D				
6	8408848	2017	20170712	07	1628	BLACOW R	THORNTON AV	49	S	N	0	0	0	C				Y
6	8493341	2017	20171027	10	258	RT 84	BLACOW RD	0		N	4	0	1	F				
6	8507830	2017	20171201	12	1630	RT 84	BLACOW RD	0		Y	4	0	1	D				
6	8519350	2017	20171216	12	1011	THORNTOI	BLACOW RD	0		Y	4	0	1	D				

6	8563218	2018	20180206	02	2240	THORNTOI	BLACOW RD	159	W	N	3	0	1	B			Y	
6	8637137	2018	20180525	05	733	BLACOW R	THORNTON AV	280	S	N	4	0	4	C				
9	7124063	2015	20151102	11	1514	ALDER AV	FREMONT BL	216	E	N	4	0	1	A				
9	8296848	2017	20170116	01	1807	FREMONT	ALDER AV	125	S	N	4	0	1	C				
9	8315067	2017	20170113	01	1753	FREMONT	ALDER AV	242	S	N	3	0	3	B				
9	8412510	2017	20170815	08	910	FREMONT	ALDER AV	0		Y	3	0	3	D				
9	8439838	2017	20170815	08	2200	FREMONT	ALDER AV	45	N	N	0	0	0	E			Y	
10	8097366	2016	20160627	06	2019	FREMONT	PERALTA BL	225	S	N	3	0	1	G	Y			
10	8160006	2016	20161016	10	2059	RT 84	PERALTA BL	75	E	N	0	0	0	E				
10	8296771	2017	20170126	01	1509	RT 84	PERALTA BL	28	E	N	3	0	1	C				
10	8357983	2017	20170418	04	938	RT 84	PERALTA BL	0		Y	4	0	1	D				
10	8438468	2017	20170811	08	1130	FREMONT	PERALTA BL	27	S	N	4	0	1	G	Y			
10	8462105	2017	20170828	08	856	RT 84	PERALTA BL	0		Y	4	0	1	E				
10	8481703	2017	20170821	08	616	RT 84	PERALTA BL	0		Y	4	0	1	D				
10	8528807	2017	20171221	12	1119	FREMONT	PERALTA BL	11	S	N	4	0	1	G	Y			
10	8652105	2018	20180605	06	1709	FREMONT	PERALTA BL	0		Y	3	0	2	D				
10	8652315	2018	20180105	01	1647	RT 84	PERALTA BL	81	E	N	0	0	0	E				

New Format for SWITRS Raw Data

Beginning with first quarter 2002 SWITRS data, there was a change in format of raw data provided to SWITRS users.

The Statewide Integrated Traffic Records System (SWITRS) was re-engineered beginning with collisions dated January 2002. As part of this re-engineering, we have changed the format of the raw data provided upon request to SWITRS data users.

Beginning with first quarter 2002 data, the raw data will no longer be available in the format previously provided. The new format is in three separate files in ASCII fixed record length. The three files are the collision data file, party data file and victim data file. All three files are linked together with the same case ID# of each collision. The victim data is linked to the collision file by the case ID# and to their respective party by the party #.

Starting February 2013, the I-SWITRS raw data is now in Comma Separated Value (.txt) format, but the field values are the same. Previously when the raw data was in Comma Separated Value (.csv) format, the data in the case ID# field did not display correctly. For collisions before 2002, a value such as 3.40401E+18 would display instead of the 19 digit number. Also, a case ID# of 7 digits for collisions after 2001 would display without the leading zeroes.

Please see Appendix A for instructions on how to open the files in Excel.

Following is the raw data export layout for this new format. The new format is comma delimited and is available for prior years 2000 through 2009 as well as the available 2010 and available 2011.

Latitude and Longitude coordinates were added to SWITRS data beginning April 2006.

For any questions regarding this change, contact the Information Services Unit at (916) 843-4230.

SWITRS Collision Raw Data Export Layout

H:\DATA\042\ISU\SW.RAWDATANWrev2013.DOC
2/1/2013

Item Name	Datatype(Length)	Description	Possible Values
Case Id	Varchar2(19)	the unique identifier of the collision report (barcode beginning 2002; 19 digit code prior to 2002)	
Collision Year	Number(4)	the year when the collision occurred	
Process Date	Number(8)	(YYYYMMDD)	
Jurisdiction	Number(4)	Four numerics assigned by DOJ	
Collision Date	Number(8)	the date when the collision occurred (YYYYMMDD)	
Collision Time	Number(4)	the time when the collision occurred (24 hour time)	Data may appear with no leading zero(s).
Officer Id	Varchar2(8)		
Reporting District	Varchar2(5)		
Day of Week	Char(1)	the code for the day of the week when the collision occurred	1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday 7 - Sunday
CHP Shift	Char(1)		1 - 0600 thru 1359 2 - 1400 thru 2159 3 - 2200 thru 0559 4 - CHP Not Stated 5 - Not CHP
Population	Char(1)		1 - Incorporated (less than 2500) 2 - Incorporated (2500 - 10000) 3 - Incorporated (10000 - 25000) 4 - Incorporated (25000 - 50000) 5 - Incorporated (50000 - 100000) 6 - Incorporated (100000 - 250000) 7 - Incorporated (over 250000) 9 - Unincorporated (Rural) 0 - University (Private Property) - - Not Stated
County City Location	Varchar2(4)	the location code of where the collision occurred	Data may appear with no leading zero.
Special Condition	Char(1)		1 - Schoolbus on Public Roadway (CHP Beat or CHP Adm Beat 901)

			2 - State University (Also SFIA) 3 - Schoolbus Not on Public Roadway (CHP Adm Beat 903) 4 - Offroad (Unimproved) (CHP Adm Beat 906, 907) 5 - Vista Point or Rest Area (CHP Adm Beat 903) or Scales or Inspection Facility (CHP Com Beat 860-898) 6 - Other Public Access (Improved) (CHP Adm Beat 903) 0 - Not Above - - Not Stated
Beat Type	Char(1)		1 - CHP State Highway 2 - CHP County Road Line 3 - CHP County Road Area 4 - Schoolbus on City Roadway (CHP Adm Beat 901) 5 - Schoolbus not on Public Roadway (CHP Adm Beat 903) 6 - Offroad (Unimproved) (CHP Adm Beat 906, 907) 7 - Vista Point or Rest Area (CHP Adm Beat 903) or Scales or Inspection Facility (CHP Com Beat 860-898) 8 - Other Public Access (Improved) (CHP Adm Beat 903) 0 - Not CHP
CHP Beat Type	Char(1)		1 - Interstate 2 - US Highway 3 - State Route 4 - County Road Line 5 - County Road Area A - Safety Services Program Beats S - Administrative Beats (900's) 0 - Not CHP Contract City: 6 - US Highway 7 - State Route 8 - County Road Line 9 - County Road Area
City Division LAPD	Char(1)		Includes blanks and dashes as not stated.
CHP Beat Class	Char(1)		1 - CHP Primary 2 - CHP Other 0 - Not CHP

Beat Number	Varchar2(6)		
Primary Rd	Varchar2(50)		
Secondary Rd	Varchar2(50)		
Distance	Number(9,2)		distance converted to feet
Direction	Char(1)		N - North E - East S - South W - West - or blank - Not Stated, in Intersection
Intersection	Char(1)		Y - Intersection N - Not Intersection Blank - Not stated
Weather 1	Char(1)	the weather condition at the time of the collision	A - Clear B - Cloudy C - Raining D - Snowing E - Fog F - Other G - Wind - - Not Stated
Weather 2	Char(1)	the weather condition at the time of the collision, if a second description is necessary	same as weather 1 above
State Highway Indicator	Char(1)		Y - State Highway N - Not State Highway Blank - Not stated
Caltrans County	Char(3)		Includes blanks and nulls
Caltrans District	Number(2)		
State Route	Number(3)		0 = Not State Highway
Route Suffix	Char(1)		
Postmile Prefix	Char(1)		
Postmile	Number(6,3)		
Location Type	Char(1)		H - Highway I - Intersection R - Ramp (or Collector) - or blank - Not State Highway
Ramp Intersection	Char(1)		1 - Ramp Exit, Last 50 Feet 2 - Mid-Ramp 3 - Ramp Entry, First 50 Feet 4 - Not State Highway, Ramp-related, Within 100 Feet 5 - Intersection 6 - Not State Highway, Intersection-related, Within 250 Feet 7 - Highway

			8 - Not State Highway - - Not Stated
Side Of Highway	Char(1)	Code provided by Caltrans Coders; applies to divided highway, based on nominal direction of route; for single vehicle is same as nominal direction of travel, overruled by impact with second vehicle after crossing median	N - Northbound S - Southbound E - Eastbound W - Westbound Blank - Not stated/not state highway
Tow Away	Char(1)		Y - Yes N - No
Collision Severity	Char(1)	the injury level severity of the collision (highest level of injury in collision)	1 - Fatal 2 - Injury (Severe) 3 - Injury (Other Visible) 4 - Injury (Complaint of Pain) 0 - PDO
Killed victims	Number(3)	counts victims in the collision with degree of injury of 1	0 to N for each collision
Injured victims	Number(3)	counts victims in the collision with degree of injury of 2, 3, or 4	0 to N for each collision
Party Count	Number(3)	counts total parties in the collision	1 to N for each collision
Primary Collision Factor	Char(1)		A - (Vehicle) Code Violation B - Other Improper Driving C - Other Than Driver D - Unknown E - Fell Asleep - - Not Stated
PCF Violation Code	Char(1)		B - Business and Professions C - Vehicle H - City Health and Safety I - City Ordinance O - County Ordinance P - Penal S - Streets and Highways W - Welfare and Institutions - - Not Stated
PCF Violation Category	Char(2)		01 - Driving or Bicycling Under the Influence of Alcohol or Drug 02 - Impeding Traffic 03 - Unsafe Speed 04 - Following Too Closely 05 - Wrong Side of Road 06 - Improper Passing 07 - Unsafe Lane Change 08 - Improper Turning 09 - Automobile Right of Way

			10 - Pedestrian Right of Way 11 - Pedestrian Violation 12 - Traffic Signals and Signs 13 - Hazardous Parking 14 - Lights 15 - Brakes 16 - Other Equipment 17 - Other Hazardous Violation 18 - Other Than Driver (or Pedestrian) 19 - 20 - 21 - Unsafe Starting or Backing 22 - Other Improper Driving 23 - Pedestrian or "Other" Under the Influence of Alcohol or Drug 24 - Fell Asleep 00 - Unknown - - Not Stated
PCF Violation	Number (5)		
PCF Violation Subsection	Char(1)		Blank if no subsection.
Hit And Run	Char(1)		F - Felony M - Misdemeanor N - Not Hit and Run
Type of Collision	Char(1)		A - Head-On B - Sideswipe C - Rear End D - Broadside E - Hit Object F - Overturned G - Vehicle/Pedestrian H - Other - - Not Stated
Motor Vehicle Involved With	Char(1)		A - Non-Collision B - Pedestrian C - Other Motor Vehicle D - Motor Vehicle on Other Roadway E - Parked Motor Vehicle F - Train G - Bicycle H - Animal I - Fixed Object J - Other Object - - Not Stated

Ped Action	Char(1)		A - No Pedestrian Involved B - Crossing in Crosswalk at Intersection C - Crossing in Crosswalk Not at Intersection D - Crossing Not in Crosswalk E - In Road, Including Shoulder F - Not in Road G - Approaching/Leaving School Bus - - Not Stated
Road Surface	Char(1)		A - Dry B - Wet C - Snowy or Icy D - Slippery (Muddy, Oily, etc.) - - Not Stated
Road Condition 1	Char(1)		A - Holes, Deep Ruts B - Loose Material on Roadway C - Obstruction on Roadway D - Construction or Repair Zone E - Reduced Roadway Width F - Flooded G - Other H - No Unusual Condition - - Not Stated
Road Condition 2	Char(1)		same as road condition 1 above
Lighting	Char(1)		A - Daylight B - Dusk - Dawn C - Dark - Street Lights D - Dark - No Street Lights E - Dark - Street Lights Not Functioning - - Not Stated
Control Device	Char(1)		A - Functioning B - Not Functioning C - Obscured D - None - - Not Stated
CHP Road Type	Char(1)		May be blank
Pedestrian Collision	Char(1)	indicates whether the collision involved a pedestrian	Y or blank
Bicycle Collision	Char(1)	indicates whether the collision involved a bicycle	Y or blank
Motorcycle Collision	Char(1)	indicates whether the collision involved a motorcycle	Y or blank
Truck Collision	Char(1)	indicates whether the collision involved a big truck	Y or blank
Not Private	Char(1)	indicates whether the collision occurred on	Y or blank

Property		private property	
Alcohol Involved	Char(1)	indicates whether the collision involved a party that had been drinking	Y or blank
Statewide Vehicle Type At Fault	Char(1)	indicates the Statewide Vehicle Type of the party who is at fault	see Party folder Statewide Vehicle Type item
CHP Vehicle Type At Fault	Char(2)	indicates the CHP Vehicle Type of the party who is at fault	see Party folder CHP Vehicle Type Towing item
Severe Injury count	Number(3)	counts victims in the collision with degree of injury of 2	0 to N for each collision
Other Visible Injury count	Number(3)	counts victims in the collision with degree of injury of 3	0 to N for each collision
Complaint of Pain Injury count	Number(3)	counts victims in the collision with degree of injury of 4	0 to N for each collision
Pedestrian Killed count	Number(3)	Counts the victims in the collision with party type of 2 and degree of injury is 1	0 or 1 for each collision
Pedestrian Injured count	Number(3)	Counts the victims in the collision with party type of 2 and degree of injury is 2, 3, or 4	0 or 1 for each collision
Bicyclist Killed count	Number(3)	Counts the victims in the collision with party type of 4 and degree of injury is 1	0 to N for each collision
Bicyclist Injured count	Number(3)	Counts the victims in the collision with party type of 4 and degree of injury is 2, 3, or 4	0 to N for each collision
Motorcyclist Killed count	Number(3)	counts victims in the collision with statewide vehicle type of C or O and degree of injury of 1	0 to N for each collision
Motorcyclist Injured count	Number(3)	counts victims in the collision with statewide vehicle type of C or O and degree of injury of 2, 3, or 4	0 to N for each collision
Primary Ramp	Varchar2(2)		NO-NB On Ramp, NF-NB Off Ramp, SO-SB On Ramp, SF-SB Off Ramp, EO-EB On Ramp, EF-EB Off Ramp, WO-WB On Ramp, WF-WB Off Ramp, To, From, Transition, Collector, Connector & blank
Secondary Ramp	Varchar2(2)		Same as above
Latitude			
Longitude			

SWITRS Party Raw Data Export Layout

Case Id	Varchar2(19)	the unique identifier of the collision report (barcode beginning 2002; 19 digit code prior to 2002)	
Party Number	Number(3)		1 to 999
Party Type	Char(1)		1 - Driver (including Hit and Run) 2 - Pedestrian 3 - Parked Vehicle 4 - Bicyclist 5 - Other - - Not Stated
At Fault	Char(1)	indicates whether the party was at fault in the collision	Y
Party Sex	Char(1)	the code of the sex of the party	M - Male F - Female - - Not Stated
Party Age	Number(3)	the age of the party at the time of the collision	0 to 100+ (0 & blank = Not Stated)
Party Sobriety	Char(1)		A - Had Not Been Drinking B - Had Been Drinking, Under Influence C - Had Been Drinking, Not Under Influence D - Had Been Drinking, Impairment Unknown G - Impairment Unknown H - Not Applicable - - Not Stated
Party Drug Physical	Char(1)		E - Under Drug Influence F - Impairment - Physical H - Not Applicable I - Sleepy/Fatigued - - Not Stated
Direction Of Travel	Char(1)		N - North S - South E - East W - West - - Not Stated
Party Safety Equipment 1	Char(1)		A - None in Vehicle B - Unknown C - Lap Belt Used D - Lap Belt Not Used E - Shoulder Harness Used

			F - Shoulder Harness Not Used G - Lap/Shoulder Harness Used H - Lap/Shoulder Harness Not Used J - Passive Restraint Used K - Passive Restraint Not Used L - Air Bag Deployed M - Air Bag Not Deployed N - Other P - Not Required Q - Child Restraint in Vehicle Used R - Child Restraint in Vehicle Not Used S - Child Restraint in Vehicle, Use Unknown T - Child Restraint in Vehicle, Improper Use U - No Child Restraint in Vehicle V - Driver, Motorcycle Helmet Not Used W - Driver, Motorcycle Helmet Used X - Passenger, Motorcycle Helmet Not Used Y - Passenger, Motorcycle Helmet Used - or blank - Not Stated
Party Safety Equipment 2	Char(1)		same as Party Safety Equipment 1 above
Financial Responsibility	Char(1)		N - No Proof of Insurance Obtained Y - Yes, Proof of Insurance Obtained O - Not Applicable (used for parked cars, bicyclists, pedestrians, and party type others) E - Used if the officer is called away from the scene of the collision prior to obtaining the insurance information Blank - not stated
Special Information 1	Char(1)		A - Hazardous Materials - - Not Stated
Special Information 2	Char(1)		B - Cell Phone in Use (4/1/01) C - Cell Phone Not in Use (4/1/01) D - No Cell Phone/Unknown (4/1/01) - - Not Stated (4/1/01)
Special Information 3	Char(1)		E - School Bus Related (1/1/02) - - Not Stated (1/1/02)
OAF Violation Code	Char(1)		B - Business and Professions C - Vehicle H - City Health and Safety I - City Ordinance O - County Ordinance P - Penal

			S - Streets and Highways W - Welfare and Institutions - - Not Stated
OAF Violation Category	Char(2)		01 - Under Influence in Public (647F) 02 - County Ordinance 03 - City Ordinance 05 - Business/Professions Code 06 - Felony Penal Code 08 - Controlled Substances (Felony Health and Safety) 09 - Health/Safety Code (Misdemeanor) 10 - Penal Code (Misdemeanor) 11 - Streets/Highways Code 13 - Welfare/Institutions Code 15 - Manslaughter 16 - Non-Vehicle Code Not Specified Above 17 - Fish & Game Code 18 - Agriculture Code 19 - Hit and Run 20 - Driving or Bicycling Under the Influence of Alcohol or Drug 21 - Improper Lane Change 22 - Impeding Traffic 23 - Failure to Heed Stop Signal 24 - Failure to Heed Stop Sign 25 - Unsafe Speed 26 - Reckless Driving 27 - Wrong Side of Road 28 - Unsafe Lane Change 29 - Improper Passing 30 - Following Too Closely 31 - Improper Turning 33 - Automobile Right-of-Way 34 - Pedestrian Right-of-Way 35 - Pedestrian Violation 37 - 38 - Hazardous Parking 39 - Lights 40 - Brakes 43 - Other Equipment 44 - Other Hazardous Movement 46 - Improper Registration 47 - Other Non-Moving Violation 48 - Excessive Smoke 49 - Excessive Noise

			50 - Overweight 51 - Oversize 52 - Over Maximum Speed 53 - Unsafe Starting or Backing 60 - Off-Highway Vehicle Violation 61 - Child Restraint 62 - Seat Belt 63 - Seat Belt (Equipment) 00 or Blank - Not Stated
OAF Violation Section	Number(5)		
OAF Violation Suffix	Char(1)		Blank may appear if no suffix.
Other Associated Factor 1	Char(1)		A - Violation E - Vision Obscurements F - Inattention (beginning 1/1/01, inattention not stated) G - Stop and Go Traffic H - Entering/Leaving Ramp I - Previous Collision J - Unfamiliar With Road K - Defective Vehicle Equipment L - Uninvolved Vehicle M - Other N - None Apparent O - Runaway Vehicle P - Inattention, Cell Phone (1/1/01) Q - Inattention, Electronic Equip.(1/1/01) R - Inattention, Radio/CD (1/1/01) S - Inattention, Smoking (1/1/01) T - Inattention, Eating (1/1/01) U - Inattention, Children (1/1/01) V - Inattention, Animal (1/1/01) W - Inattention, Personal Hygiene (1/1/01) X - Inattention, Reading (1/1/01) Y - Inattention, Other (1/1/01) - - Not Stated
Other Associated Factor 2	Char(1)		same as OAF 1 above
Party Number Killed	Number(3)	counts victims in the party with degree of injury of 1	0 to N for each party
Party Number Injured	Number(3)	counts victims in the party with degree of injury of 2, 3, or 4	0 to N for each party
Movement	Char(1)		A - Stopped

Preceding Collision			B - Proceeding Straight C - Ran Off Road D - Making Right Turn E - Making Left Turn F - Making U-Turn G - Backing H - Slowing/Stopping I - Passing Other Vehicle J - Changing Lanes K - Parking Maneuver L - Entering Traffic M - Other Unsafe Turning N - Crossed Into Opposing Lane O - Parked P - Merging Q - Traveling Wrong Way R - Other - - Not Stated
Vehicle Year	Number(4)	the model year of the party's vehicle	9999 or blank = not stated
Vehicle Make	Varchar2(50)	the full description of the make of the party's vehicle	
Statewide Vehicle Type	Char(1)		A - Passenger Car/Station Wagon B - Passenger Car with Trailer C - Motorcycle/Scooter D - Pickup or Panel Truck E - Pickup or Panel Truck with Trailer F - Truck or Truck Tractor G - Truck or Truck Tractor with Trailer H - Schoolbus I - Other Bus J - Emergency Vehicle K - Highway Construction Equipment L - Bicycle M - Other Vehicle N - Pedestrian O - Moped - or blank - Not Stated
CHP Vehicle Type Towing	Char(2)		01 - Passenger Car, Station Wagon, or Jeep 02 - Motorcycle 03 - Motor-Driven Cycle (< 15 hp) 04 - Bicycle 05 - Motorized Bicycle 06 - All-Terrain Vehicle (ATV) 07 - Sport Utility Vehicle

			08 - Minivan 09 - Paratransit Bus 10 - Tour Bus 11 - Other Commercial Bus 12 - Non-Commercial Bus 13 - Schoolbus Public I (eff. 2002) 14 - Schoolbus Public II (eff. 2002) 15 - Schoolbus Private I (eff. 2002) 16 - Schoolbus Private II (eff. 2002) 17 - Schoolbus Contractual I (eff. 2002) 18 - Schoolbus Contractual II (eff. 2002 19 – General Public Paratransit Vehicle (eff 2002 20 - Public Transit Authority 21 - Two-Axle Tank Truck 22 - Pickup or Panel Truck 23 - Pickup Truck With Camper 24 - Three-Axle Tank Truck 25 - Truck Tractor 26 - Two-Axle Truck 27 - Three-Axle Truck 41 - Ambulance 42 - Dune Buggy 43 - Fire Truck (not rescue) 44 - Forklift 45 - Highway Construction Equipment (only while not in construction area) 46 - Implement of Husbandry 47 - Motor Home (40 ft or less) 48 - CHP, Police, or Sheriff Car (emergency service or not) 49 - CHP, Police, or Sheriff Motorcycle (emergency service or not) 50 - Mobile Equipment 51 - Farm Labor Vehicle (certified) 55 - Two-Axle Tow Truck 56 - Three-Axle Tow Truck 57 - Farm Labor Vehicle (non-certified) 58 - Farm Labor Transporter 59 - Motorhome (over 40 ft) 60 - Pedestrian (includes motorized wheelchair) 61 - School Pupil Activity Bus I (prior to 2002)

			62 - School Pupil Activity Bus II (prior to 2002 63 - "Youth" Bus 64 - School Pupil Activity Bus I (eff. 2002) 65 - School Pupil Activity Bus II (eff. 2002) 66 – School Bus – No Pupils on Board (eff 2002) 71 - Passenger Car - Hazardous Materials Only 72 - Pickups and Panels - Hazardous Materials Only 73 - Pickups and Campers - Hazardous Materials Only 75 - Truck Tractor - Hazardous Materials Only 76 - Two-Axle Truck - Hazardous Materials Only 77 - Three or More Axle Truck - Hazardous Materials Only 78 - Two-Axle Tank Truck - Hazardous Materials Only 79 - Three-Axle Tank Truck - Hazardous Materials Only 81 - Passenger Car - Hazardous Waste or Waste/Material Combo 82 - Pickups and Panels - Hazardous Waste or Waste/Material Combo 83 - Pickups and Campers - Hazardous Waste or Waste/Material Combo 85 - Truck Tractor - Hazardous Waste or Waste/Material Combo 86 - Two-Axle Truck - Hazardous Waste or Waste/Material Combo 87 - Three or More Axle Truck - Hazardous Waste or Waste/Material Combo 88 - Two-Axle Tank Truck - Hazardous Waste or Waste/Material Combo 89 - Three-Axle Tank Truck - Hazardous Waste or Waste/Material Combo 94 - Motorized Transportation Device 95 - Miscellaneous Non-Motorized Vehicle(Ridden Animal, Animal-Drawn Conveyance, Train, Or Building) With Victim 96 - Miscellaneous Motorized Vehicle (Golf Cart)

			97 - Low Speed Vehicle 99 or dash - Not Stated or Unknown (Hit and Run)
CHP Vehicle Type Towed	Char(2)		same as CHP vehicle type towing above with the following additions: 28 - Semi-Tank Trailer 29 - Pull-Tank Trailer 30 - Two-Tank Trailer 31 - Semi-Trailer 32 - Pull Trailer (includes dolly) 33 - Two Trailers (or 31 + 32) 34 - Boat Trailer 35 - Utility Trailer 36 - Trailer Coach 37 - Extralegal Permit Load 38 - Pole, Pipe, or Logging Dolly 39 - Three Trailers (or 31 + 33) 40 - Federally Legal Semi-Trailer 52 - Federally Legal Double Cargo Combo (over 75 ft) 53 - Fifth Wheel Trailer 54 - Container Chassis 98 – Emergency Vehicle on an Emergency Run
Party Race	Char(1)		A - Asian O - Other B - Black W - White H - Hispanic Blank - Not stated Eff. 1/1/2002

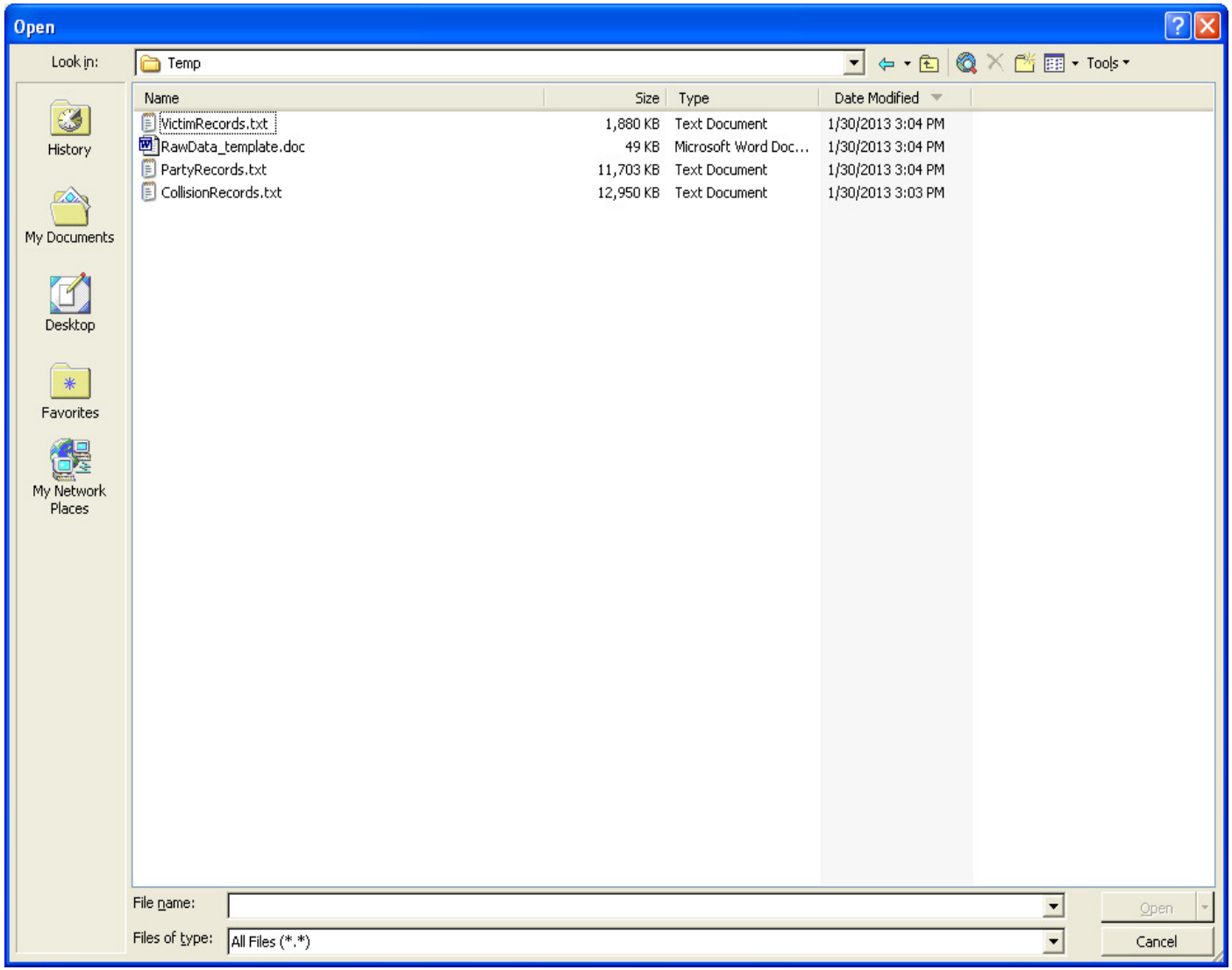
SWITRS Victim Raw Data Export Layout

Case Id	Varchar2(19)	the unique identifier of the collision report (barcode beginning 2002; 19 digit code prior to 2002)	
Party Number	Number (3)		1 to 999
Victim Role	Char(1)		1 - Driver 2 - Passenger (includes non-operator on bicycle or any victim on/in parked vehicle or multiple victims on/in non-motor vehicle) 3 - Pedestrian 4 - Bicyclist 5 - Other (single victim on/in non-motor vehicle; e.g. ridden animal, horse-drawn carriage, train, or building) 6 - Non-Injured Party
Victim Sex	Char(1)		M - Male F - Female - - Not Stated
Victim Age	Number(3)	the age of the victim at the time of the collision	0 – 125 998 – Not Stated 999 – Fatal Fetus
Victim Degree of Injury	Char(1)		1 - Killed 2 - Severe Injury 3 - Other Visible Injury 4 - Complaint of Pain 0 - No Injury
Victim Seating Position	Char(1)		1 - Driver 2 thru 6 - Passengers 7 - Station Wagon Rear 8 - Rear Occupant of Truck or Van 9 - Position Unknown 0 - Other Occupants A thru Z - Bus Occupants - - Not Stated
Victim Safety Equipment 1	Char(1)		A - None in Vehicle B - Unknown C - Lap Belt Used D - Lap Belt Not Used E - Shoulder Harness Used F - Shoulder Harness Not Used G - Lap/Shoulder Harness Used H - Lap/Shoulder Harness Not Used

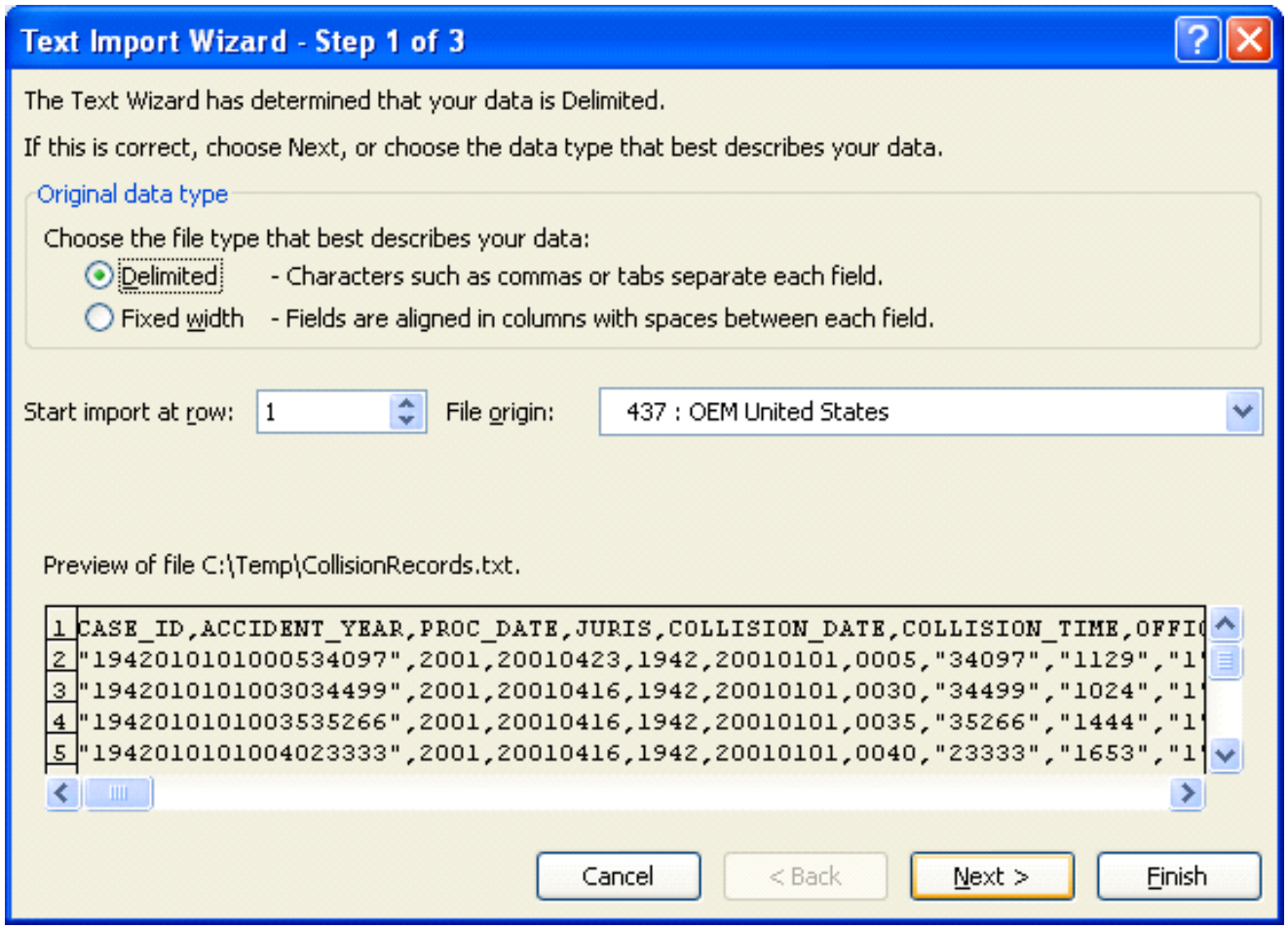
			J - Passive Restraint Used K - Passive Restraint Not Used L - Air Bag Deployed M - Air Bag Not Deployed N - Other P - Not Required Q - Child Restraint in Vehicle Used R - Child Restraint in Vehicle Not Used S - Child Restraint in Vehicle, Use Unknown T - Child Restraint in Vehicle, Improper Use U - No Child Restraint in Vehicle V - Driver, Motorcycle Helmet Not Used W - Driver, Motorcycle Helmet Used X - Passenger, Motorcycle Helmet Not Used Y - Passenger, Motorcycle Helmet Used - or blank - Not Stated
Victim Safety Equipment 2	Char(1)		same as Victim Safety Equipment 1 above (eff. Jan 2002)
Victim Ejected	Char(1)		0 - Not Ejected 1 - Fully Ejected 2 - Partially Ejected 3 - Unknown - - Not Stated

APPENDIX A – How to Open the Files in Excel

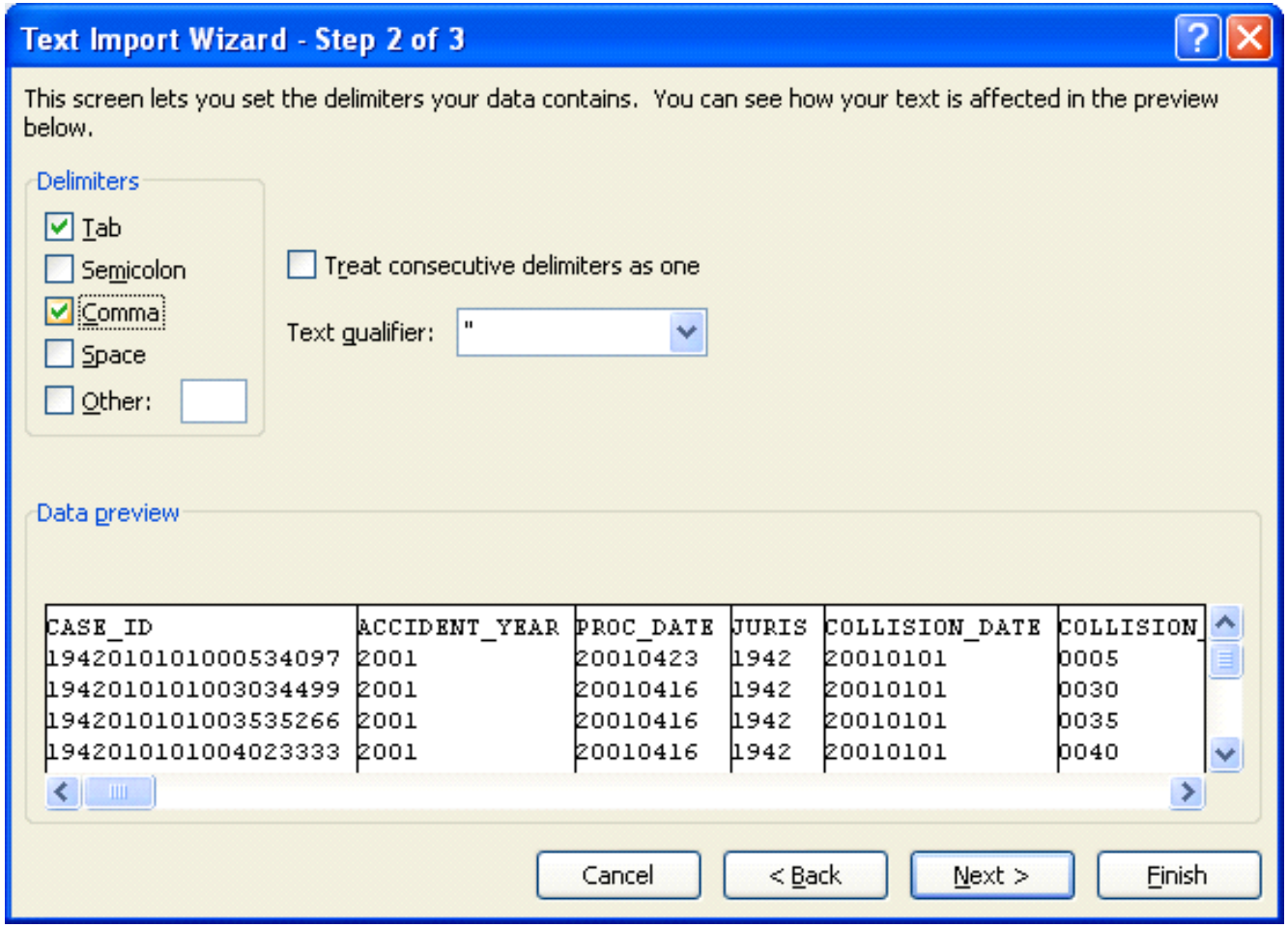
First, you must extract all 3 files (CollisionRecords.txt, PartyRecords.txt, VictimRecords.txt) to a directory on your hard drive. Next, start Excel and open any of the three files. In the dialogue box, make sure you select All Files(*.*) for Files of type:, otherwise only Excel files will be displayed.



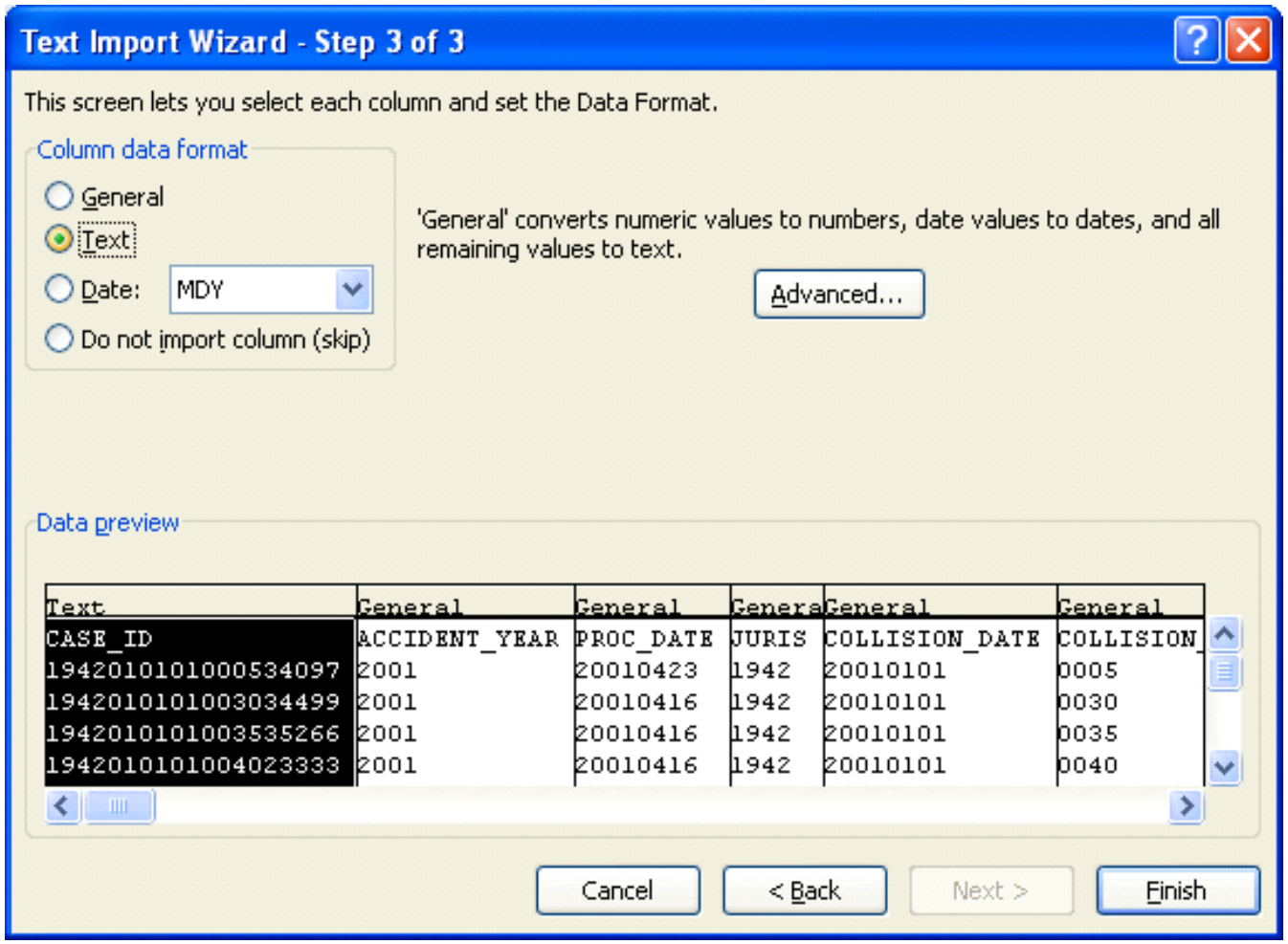
A wizard will immediately appear as follows:



Click the Next> button

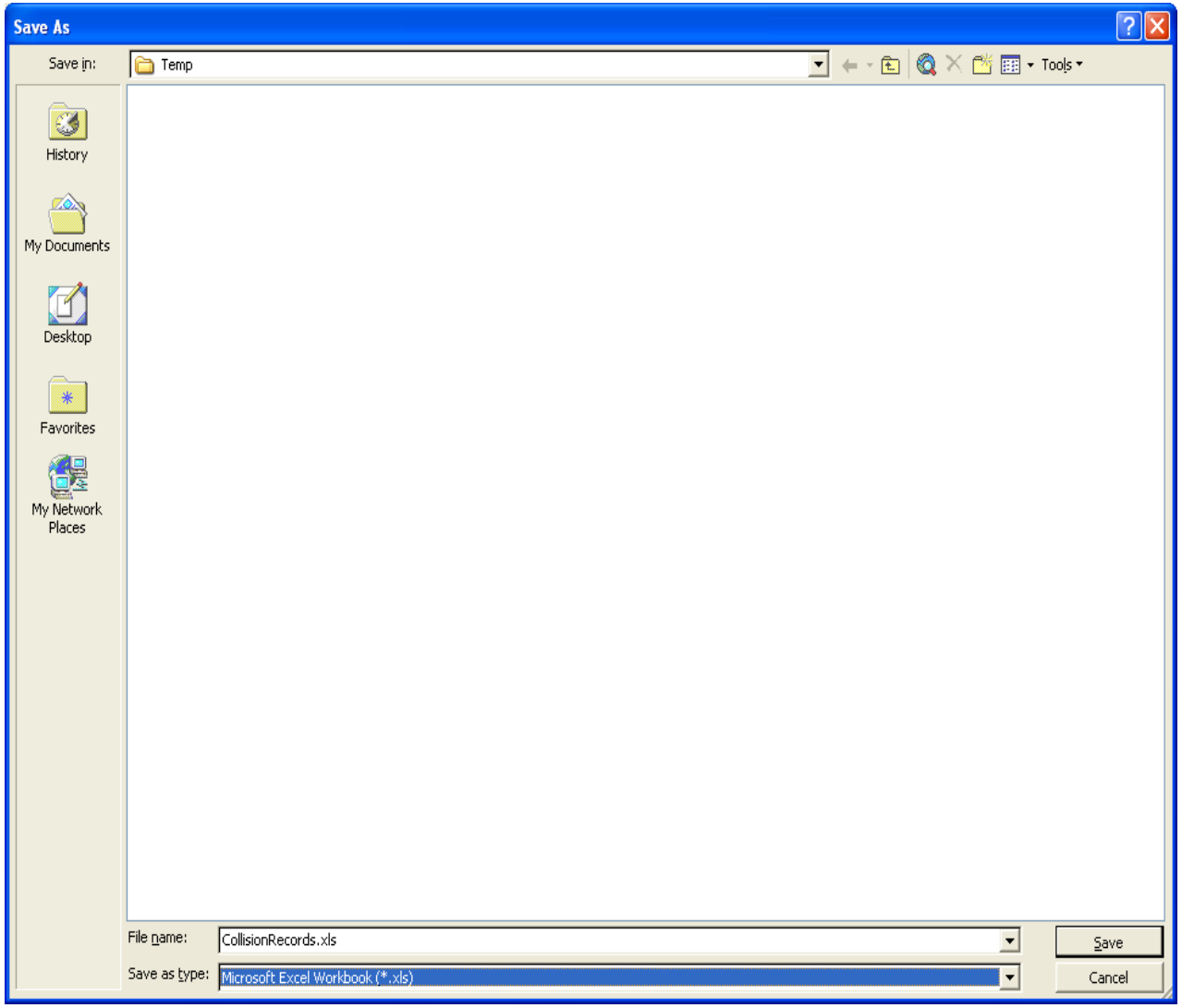


Select checkbox for Comma and click the Next>button.



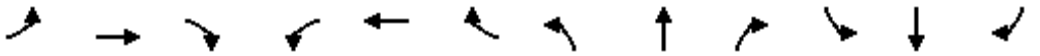
Select radio button for Text and click Finish. The CASE_ID field now displays as a 19 digits (if the accident date is in 2001 or earlier, or as 7 digits with leading zeroes if the collision date is later than 2001).

Save the file as an .xls Excel file. Repeat the steps for the other 2 files.



Appendix K
Alternatives Analysis Worksheets – Existing Plus Alternative Project

HCM Unsignalized Intersection Capacity Analysis 2019 Existing + Lower Growth Alt_AM Peak
2: Thornton Ave & Oak St

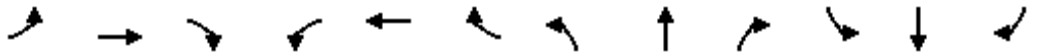


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	13	248	6	2	11	82	842	11	143	1147	118
Future Volume (Veh/h)	57	13	248	6	2	11	82	842	11	143	1147	118
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	61	14	267	6	2	12	88	905	12	154	1233	127
Pedestrians		26			5							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		2			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								955			994	
pX, platoon unblocked	0.83	0.83	0.80	0.83	0.83	0.93	0.80			0.93		
vC, conflicting volume	2272	2728	706	2290	2786	464	1386			922		
vC1, stage 1 conf vol	1630	1630		1092	1092							
vC2, stage 2 conf vol	642	1098		1198	1694							
vCu, unblocked vol	1770	2320	126	1793	2389	286	978			777		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	40	84	62	87	96	98	84			80		
cM capacity (veh/h)	102	87	704	46	47	666	556			783		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	75	267	20	88	603	314	154	822	538
Volume Left	61	0	6	88	0	0	154	0	0
Volume Right	0	267	12	0	0	12	0	0	127
cSH	99	704	105	556	1700	1700	783	1700	1700
Volume to Capacity	0.76	0.38	0.19	0.16	0.35	0.18	0.20	0.48	0.32
Queue Length 95th (ft)	101	44	17	14	0	0	18	0	0
Control Delay (s)	111.4	13.2	47.2	12.7	0.0	0.0	10.7	0.0	0.0
Lane LOS	F	B	E	B			B		
Approach Delay (s)	34.7		47.2	1.1			1.1		
Approach LOS	D		E						

Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	64.4%	ICU Level of Service	C	
Analysis Period (min)	15			

Appendix L
Alternatives Analysis Worksheets – Cumulative Plus Alternative Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	16	151	178	23	64	150	756	296	314	1138	32
Future Volume (vph)	139	16	151	178	23	64	150	756	296	314	1138	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.93		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3269		1698	1724	1374	1805	3359		1770	3490	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3269		1698	1724	1374	1805	3359		1770	3490	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	153	18	166	196	25	70	165	831	325	345	1251	35
RTOR Reduction (vph)	0	146	0	0	0	53	0	40	0	0	2	0
Lane Group Flow (vph)	0	191	0	110	111	17	165	1116	0	345	1284	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.3		26.0	26.0	26.0	12.9	32.2		16.0	35.3	
Effective Green, g (s)		12.3		26.0	26.0	26.0	12.9	32.2		16.0	35.3	
Actuated g/C Ratio		0.12		0.25	0.25	0.25	0.12	0.31		0.15	0.34	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		384		421	428	341	222	1033		270	1176	
v/s Ratio Prot		c0.06		c0.06	0.06		0.09	0.33		c0.19	c0.37	
v/s Ratio Perm						0.01						
v/c Ratio		0.50		0.26	0.26	0.05	0.74	1.08		1.28	1.09	
Uniform Delay, d1		43.3		31.6	31.6	30.0	44.3	36.2		44.4	34.7	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4		0.1	0.1	0.0	11.1	52.3		150.5	55.0	
Delay (s)		43.7		31.8	31.7	30.0	55.4	88.5		194.8	89.7	
Level of Service		D		C	C	C	E	F		F	F	
Approach Delay (s)		43.7			31.3			84.4			111.9	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	88.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	104.7	Sum of lost time (s)	19.2
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

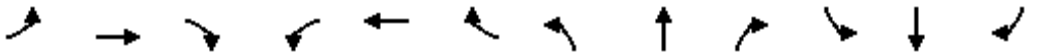
HCM Signalized Intersection Capacity Analysis Cumulative + Lower Growth Alt + Mit_AM Peak
3: Thornton Ave & Loop Dwy/Dusterberry Wy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	16	151	178	23	64	150	756	296	314	1138	32
Future Volume (vph)	139	16	151	178	23	64	150	756	296	314	1138	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.83	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.93		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3269		1698	1724	1348	1805	3358		1770	3490	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3269		1698	1724	1348	1805	3358		1770	3490	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	153	18	166	196	25	70	165	831	325	345	1251	35
RTOR Reduction (vph)	0	146	0	0	0	54	0	34	0	0	2	0
Lane Group Flow (vph)	0	191	0	110	111	16	165	1122	0	345	1284	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.0	26.0	26.0	12.4	38.4		22.4	48.4	
Effective Green, g (s)		12.0		26.0	26.0	26.0	12.4	38.4		22.4	48.4	
Actuated g/C Ratio		0.10		0.22	0.22	0.22	0.11	0.33		0.19	0.41	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		335		377	383	299	191	1102		338	1443	
v/s Ratio Prot		c0.06		c0.06	0.06		0.09	c0.33		c0.19	0.37	
v/s Ratio Perm						0.01						
v/c Ratio		0.57		0.29	0.29	0.05	0.86	1.02		1.02	0.89	
Uniform Delay, d1		50.0		37.8	37.8	35.8	51.5	39.3		47.3	31.8	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3		0.2	0.2	0.0	30.0	31.7		54.3	6.9	
Delay (s)		51.4		38.0	38.0	35.8	81.5	71.0		101.6	38.8	
Level of Service		D		D	D	D	F	E		F	D	
Approach Delay (s)		51.4			37.5			72.3			52.1	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	58.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	117.0	Sum of lost time (s)	19.2
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

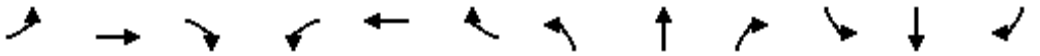
c Critical Lane Group

Appendix M
Mitigated Level-of-Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	13	258	9	2	11	86	865	13	143	1173	123
Future Volume (vph)	61	13	258	9	2	11	86	865	13	143	1173	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1825	1599		1736		1805	3497		1787	3430	
Flt Permitted		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1825	1599		1736		1805	3497		1787	3430	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	66	14	277	10	2	12	92	930	14	154	1261	132
RTOR Reduction (vph)	0	0	245	0	11	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	80	32	0	13	0	92	944	0	154	1389	0
Confl. Peds. (#/hr)							26		5	5		26
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	3%	0%	1%	3%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		11.6	11.6		6.6		8.2	51.4		13.3	56.5	
Effective Green, g (s)		11.6	11.6		6.6		8.2	51.4		13.3	56.5	
Actuated g/C Ratio		0.11	0.11		0.07		0.08	0.51		0.13	0.56	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		209	183		113		146	1781		235	1920	
v/s Ratio Prot		c0.04			c0.01		0.05	0.27		c0.09	c0.40	
v/s Ratio Perm			0.02									
v/c Ratio		0.38	0.17		0.11		0.63	0.53		0.66	0.72	
Uniform Delay, d1		41.3	40.3		44.4		44.9	16.6		41.6	16.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.2	0.5		0.4		8.6	1.1		6.4	2.4	
Delay (s)		42.5	40.8		44.8		53.4	17.8		48.1	18.8	
Level of Service		D	D		D		D	B		D	B	
Approach Delay (s)		41.2			44.8			20.9			21.7	
Approach LOS		D			D			C			C	

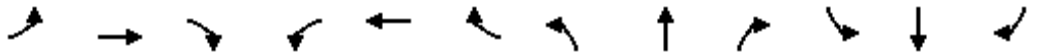
Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	31	3	3	10	79	1232	5	47	729	21
Future Volume (vph)	7	0	31	3	3	10	79	1232	5	47	729	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.92		1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1805	1615		1724		1805	3572		1805	3522	
Flt Permitted		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1805	1615		1724		1805	3572		1805	3522	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	7	0	32	3	3	10	82	1283	5	49	759	22
RTOR Reduction (vph)	0	0	30	0	9	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	7	2	0	7	0	82	1288	0	49	780	0
Confl. Peds. (#/hr)							10		7	7		10
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		5.9	5.9		4.6		6.7	47.5		2.8	43.6	
Effective Green, g (s)		5.9	5.9		4.6		6.7	47.5		2.8	43.6	
Actuated g/C Ratio		0.07	0.07		0.06		0.09	0.60		0.04	0.55	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		135	120		100		153	2153		64	1948	
v/s Ratio Prot		c0.00			c0.00		c0.05	c0.36		0.03	0.22	
v/s Ratio Perm			0.00									
v/c Ratio		0.05	0.02		0.07		0.54	0.60		0.77	0.40	
Uniform Delay, d1		33.9	33.8		35.1		34.6	9.7		37.7	10.1	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.1		0.3		3.6	0.5		41.2	0.1	
Delay (s)		34.0	33.8		35.3		38.1	10.2		78.9	10.2	
Level of Service		C	C		D		D	B		E	B	
Approach Delay (s)		33.9			35.3			11.8			14.3	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	78.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

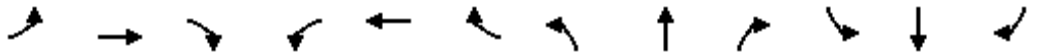
HCM Signalized Intersection Capacity Analysis 2022 Background+Project Mitigated_AM Peak
2: Thornton Ave & Oak St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	13	265	9	2	11	88	892	13	147	1213	127
Future Volume (vph)	63	13	265	9	2	11	88	892	13	147	1213	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1824	1599		1736		1805	3497		1787	3444	
Flt Permitted		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1824	1599		1736		1805	3497		1787	3444	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	68	14	285	10	2	12	95	959	14	158	1304	137
RTOR Reduction (vph)	0	0	253	0	11	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	82	32	0	13	0	95	972	0	158	1436	0
Confl. Peds. (#/hr)							26		5	5		26
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	3%	0%	1%	3%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		9.7	9.7		5.3		7.1	41.3		12.2	46.4	
Effective Green, g (s)		9.7	9.7		5.3		7.1	41.3		12.2	46.4	
Actuated g/C Ratio		0.11	0.11		0.06		0.08	0.48		0.14	0.54	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		204	179		106		148	1669		252	1847	
v/s Ratio Prot		c0.04			c0.01		0.05	0.28		c0.09	c0.42	
v/s Ratio Perm			0.02									
v/c Ratio		0.40	0.18		0.12		0.64	0.58		0.63	0.78	
Uniform Delay, d1		35.7	34.8		38.4		38.5	16.4		35.0	15.9	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.5		0.5		9.2	0.5		4.8	2.1	
Delay (s)		37.0	35.3		38.9		47.6	16.9		39.8	18.1	
Level of Service		D	D		D		D	B		D	B	
Approach Delay (s)		35.7			38.9			19.6			20.2	
Approach LOS		D			D			B			C	

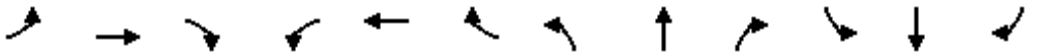
Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	86.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis 2022 Background+Project Mitigated_PM Peak
2: Thornton Ave & Oak St



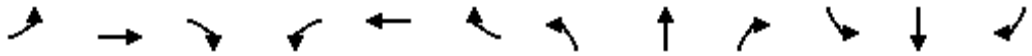
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	31	3	3	10	81	1271	5	48	751	21
Future Volume (vph)	7	0	31	3	3	10	81	1271	5	48	751	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.92		1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1805	1615		1724		1805	3572		1805	3522	
Flt Permitted		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1805	1615		1724		1805	3572		1805	3522	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	7	0	32	3	3	10	84	1324	5	50	782	22
RTOR Reduction (vph)	0	0	30	0	9	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	7	2	0	7	0	84	1329	0	50	803	0
Confl. Peds. (#/hr)							10		7	7		10
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		5.9	5.9		4.6		6.8	47.5		2.8	43.5	
Effective Green, g (s)		5.9	5.9		4.6		6.8	47.5		2.8	43.5	
Actuated g/C Ratio		0.07	0.07		0.06		0.09	0.60		0.04	0.55	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		135	120		100		155	2153		64	1944	
v/s Ratio Prot		c0.00			c0.00		c0.05	c0.37		0.03	0.23	
v/s Ratio Perm			0.00									
v/c Ratio		0.05	0.02		0.07		0.54	0.62		0.78	0.41	
Uniform Delay, d1		33.9	33.8		35.1		34.5	9.9		37.7	10.2	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.1		0.3		3.8	0.5		45.0	0.1	
Delay (s)		34.0	33.8		35.3		38.3	10.4		82.7	10.4	
Level of Service		C	C		D		D	B		F	B	
Approach Delay (s)		33.9			35.3			12.1			14.6	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	78.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	16	316	10	3	14	105	1066	15	179	1448	151
Future Volume (vph)	73	16	316	10	3	14	105	1066	15	179	1448	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1825	1599		1734		1805	3497		1787	3441	
Flt Permitted		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1825	1599		1734		1805	3497		1787	3441	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	77	17	333	11	3	15	111	1122	16	188	1524	159
RTOR Reduction (vph)	0	0	298	0	14	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	94	35	0	15	0	111	1138	0	188	1678	0
Confl. Peds. (#/hr)							26		5	5		26
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	3%	0%	1%	3%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		11.4	11.4		7.0		9.2	57.2		15.7	63.7	
Effective Green, g (s)		11.4	11.4		7.0		9.2	57.2		15.7	63.7	
Actuated g/C Ratio		0.10	0.10		0.06		0.08	0.52		0.14	0.58	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		190	166		111		151	1830		256	2005	
v/s Ratio Prot		c0.05			c0.01		0.06	0.33		c0.11	c0.49	
v/s Ratio Perm			0.02									
v/c Ratio		0.49	0.21		0.13		0.74	0.62		0.73	0.84	
Uniform Delay, d1		46.2	44.8		48.3		48.9	18.4		44.8	18.6	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.0	0.6		0.6		16.9	0.7		10.4	3.2	
Delay (s)		48.3	45.5		48.8		65.7	19.1		55.2	21.8	
Level of Service		D	D		D		E	B		E	C	
Approach Delay (s)		46.1			48.8			23.2			25.1	
Approach LOS		D			D			C			C	

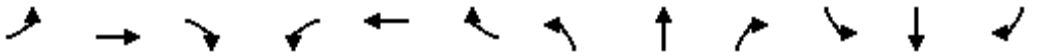
Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	109.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	18	167	178	25	64	185	756	296	314	1142	36
Future Volume (vph)	169	18	167	178	25	64	185	756	296	314	1142	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Lane Util. Factor		0.95		0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.83	1.00	0.99		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.93		1.00	1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3276		1698	1726	1348	1805	3358		1770	3488	
Flt Permitted		0.98		0.95	0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3276		1698	1726	1348	1805	3358		1770	3488	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	178	19	176	187	26	67	195	796	312	331	1202	38
RTOR Reduction (vph)	0	135	0	0	0	52	0	34	0	0	2	0
Lane Group Flow (vph)	0	238	0	107	106	15	195	1074	0	331	1238	0
Confl. Peds. (#/hr)	116					116	5		6	6		5
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	1%	2%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		12.0		26.0	26.0	26.0	14.0	38.2		22.6	46.8	
Effective Green, g (s)		12.0		26.0	26.0	26.0	14.0	38.2		22.6	46.8	
Actuated g/C Ratio		0.10		0.22	0.22	0.22	0.12	0.33		0.19	0.40	
Clearance Time (s)		3.7		3.7	3.7	3.7	3.7	4.1		3.7	4.1	
Vehicle Extension (s)		0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)		336		377	383	299	215	1096		341	1395	
v/s Ratio Prot		c0.07		c0.06	0.06		0.11	c0.32		c0.19	0.36	
v/s Ratio Perm						0.01						
v/c Ratio		0.71		0.28	0.28	0.05	0.91	0.98		0.97	0.89	
Uniform Delay, d1		50.8		37.8	37.7	35.8	50.9	39.0		46.9	32.7	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.5		0.2	0.1	0.0	36.0	22.0		40.6	7.0	
Delay (s)		56.3		37.9	37.9	35.8	86.8	61.0		87.4	39.7	
Level of Service		E		D	D	D	F	E		F	D	
Approach Delay (s)		56.3			37.4			64.9			49.7	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	117.0	Sum of lost time (s)	19.2
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	0	39	3	4	13	101	1597	6	61	945	26
Future Volume (vph)	8	0	39	3	4	13	101	1597	6	61	945	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.91		1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1805	1615		1717		1805	3572		1805	3522	
Flt Permitted		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1805	1615		1717		1805	3572		1805	3522	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	8	0	41	3	4	14	105	1664	6	64	984	27
RTOR Reduction (vph)	0	0	39	0	13	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	8	2	0	8	0	105	1670	0	64	1010	0
Confl. Peds. (#/hr)							10		7	7		10
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		6.1	6.1		6.2		11.3	67.5		6.3	62.5	
Effective Green, g (s)		6.1	6.1		6.2		11.3	67.5		6.3	62.5	
Actuated g/C Ratio		0.06	0.06		0.06		0.11	0.65		0.06	0.60	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		105	94		102		195	2316		109	2114	
v/s Ratio Prot		c0.00			c0.00		c0.06	c0.47		0.04	0.29	
v/s Ratio Perm			0.00									
v/c Ratio		0.08	0.03		0.08		0.54	0.72		0.59	0.48	
Uniform Delay, d1		46.3	46.2		46.2		43.9	12.1		47.6	11.7	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.1		0.3		2.8	1.1		7.8	0.2	
Delay (s)		46.6	46.3		46.6		46.8	13.2		55.5	11.8	
Level of Service		D	D		D		D	B		E	B	
Approach Delay (s)		46.4			46.6			15.2			14.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	104.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Appendix N
Peak Hour Signal Warrant Worksheets

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday AM Peak Hour**

Intersection: **Thornton Avenue & Oak Street**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
   (4.25 hours ; one lane)
   YES ☒ NO ☐

2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
   (333 vph ; one lane)
   YES ☒ NO ☐

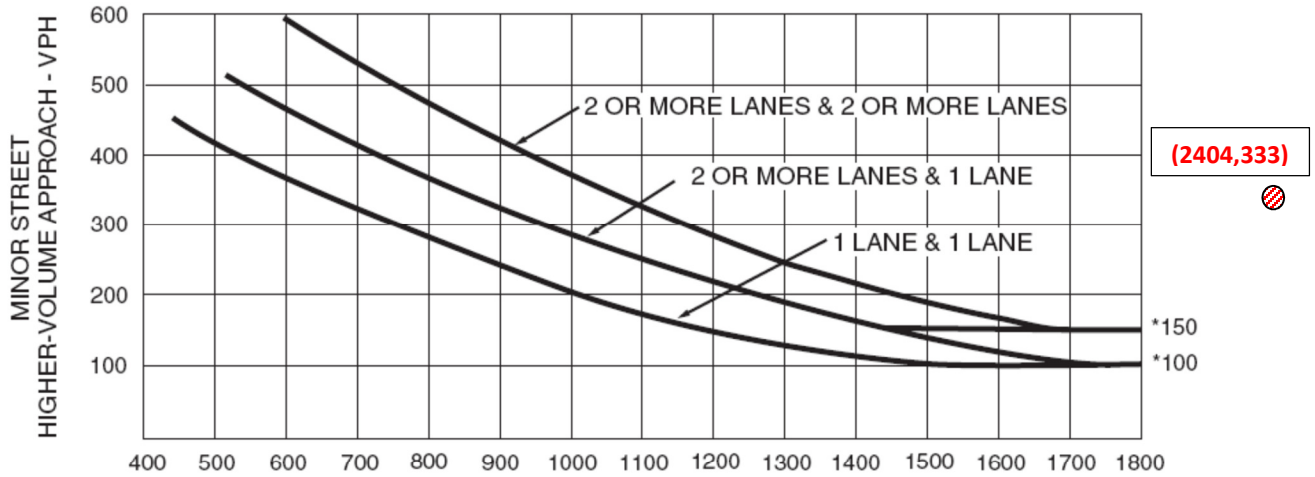
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.
   (2759 vph ; 4 approach)
   YES ☒ NO ☐

PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	2	2404
Highest Approaches – Minor Street	1	333

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-3.

Figure 4C-3.Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday PM Peak Hour**

Intersection: **Thornton Avenue & Oak Street**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

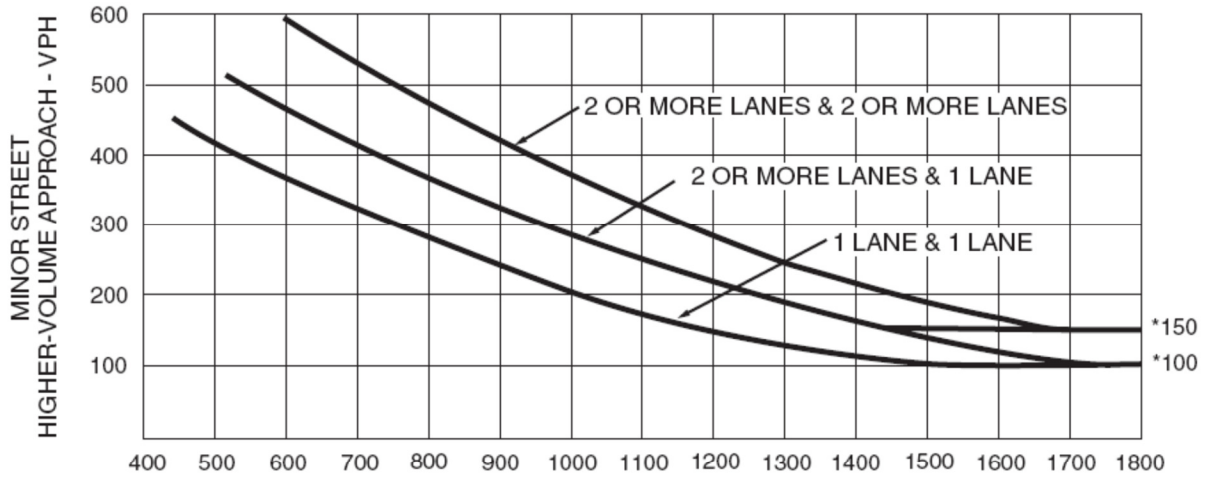
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
   (0.12 hours ; one lane)
   YES ☐ NO ☒
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
   (8 vph ; one lane)
   YES ☐ NO ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.
   (2165 vph ; 4 approach)
   YES ☒ NO ☐

PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	2	2112
Highest Approaches – Minor Street	1	37

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-3.

Figure 4C-3.Warrant 3, Peak Hour



(2112,37)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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Portland, Oregon 97205
(503) 228-5230
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Project #: 23355
Project Name: Thornton Junior High Expansion
Analyst: Kittelson and Associates, Inc.
Date: 5/9/2019
File: \\kittelson.com\fs\H_Projects\23\23355 - Fremont Thornton Middle School IS_MND\Analysis\excel\signal warrant\[23355_sig warrant_exam int 2.xls]Data Input

Intersection: Thornton Avenue/oak Street
Scenario: Existing Plus Project Conditions - AM Peak Hour

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	Yes
#2	Four-Hour Vehicular volume	Yes	Yes
#3	Peak Hour	Yes	Yes
#4	Pedestrian Volume	No	-
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

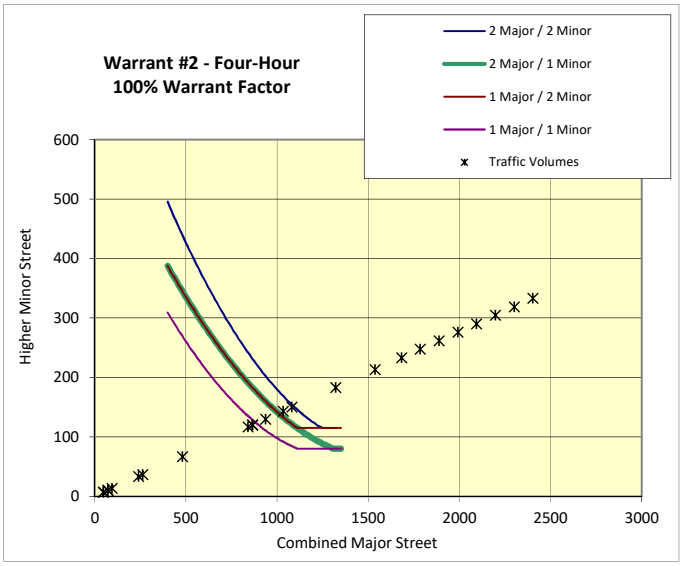
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
7:40 AM	8:40 AM	965	1439	333	22
2nd	Highest Hour	924	1377	319	21
3rd	Highest Hour	882	1316	304	20
4th	Highest Hour	841	1254	290	19
5th	Highest Hour	800	1192	276	18
6th	Highest Hour	758	1131	262	17
7th	Highest Hour	717	1069	247	16
8th	Highest Hour	676	1007	233	15
9th	Highest Hour	618	921	213	14
10th	Highest Hour	531	791	183	12
11th	Highest Hour	434	648	150	10
12th	Highest Hour	415	619	143	9
13th	Highest Hour	376	561	130	9
14th	Highest Hour	347	518	120	8
15th	Highest Hour	347	518	120	8
16th	Highest Hour	338	504	117	8
17th	Highest Hour	193	288	67	4
18th	Highest Hour	106	158	37	2
19th	Highest Hour	97	144	33	2
20th	Highest Hour	39	58	13	1
21st	Highest Hour	29	43	10	1
22nd	Highest Hour	29	43	10	1
23rd	Highest Hour	19	29	7	0
24th	Highest Hour	19	29	7	0

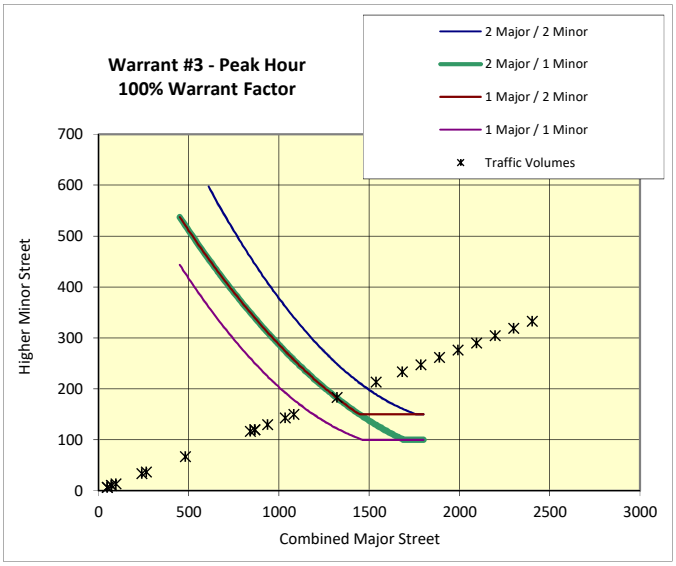
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	No
Warrant Factor	100%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	600	150	11	Yes	**Yes**
	B	900	75	13	Yes	
80%	A	480	120	15	Yes	**Yes**
	B	720	60	16	Yes	
70%	A	420	105	16	Yes	**Yes**
	B	630	53	16	Yes	





KITTELSON & ASSOCIATES, INC.
610 SW Alder, Suite 700
Portland, Oregon 97205
(503) 228-5230
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Project #: 23355
Project Name: Thornton Junior High Expansion
Analyst: Kittelson and Associates, Inc.
Date: 5/9/2019
File: \\kittelson.com\fs\H_Projects\23\23355 - Fremont Thornton Middle School IS_MND\Analysis\excel\signal warrant\[23355_sig warrant_expm int 2.xls]Data Input

Intersection: Thornton Avenue/oak Street
Scenario: Existing Plus Project Conditions - PM Peak Hour

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	-
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

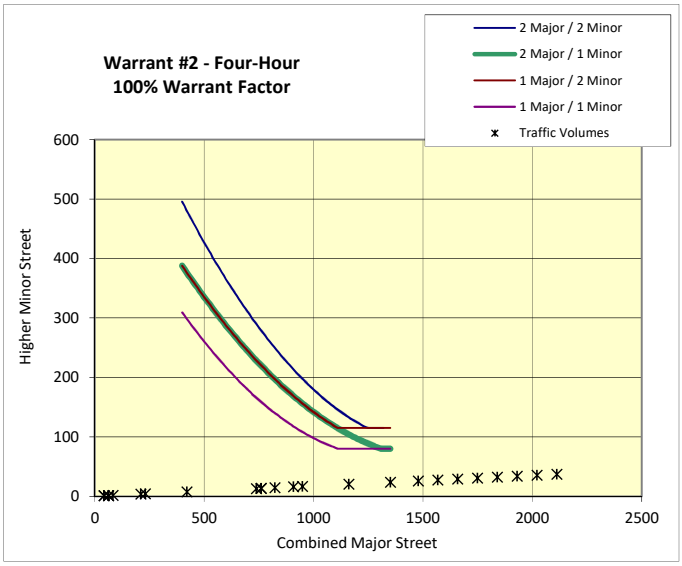
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
5:00 PM	6:00 PM	1316	796	37	16
2nd	Highest Hour	1260	762	35	15
3rd	Highest Hour	1203	728	34	15
4th	Highest Hour	1147	694	32	14
5th	Highest Hour	1090	660	31	13
6th	Highest Hour	1034	625	29	13
7th	Highest Hour	978	591	27	12
8th	Highest Hour	921	557	26	11
9th	Highest Hour	842	509	24	10
10th	Highest Hour	724	438	20	9
11th	Highest Hour	592	358	17	7
12th	Highest Hour	566	342	16	7
13th	Highest Hour	513	310	14	6
14th	Highest Hour	474	287	13	6
15th	Highest Hour	474	287	13	6
16th	Highest Hour	461	279	13	6
17th	Highest Hour	263	159	7	3
18th	Highest Hour	145	88	4	2
19th	Highest Hour	132	80	4	2
20th	Highest Hour	53	32	1	1
21st	Highest Hour	39	24	1	0
22nd	Highest Hour	39	24	1	0
23rd	Highest Hour	26	16	1	0
24th	Highest Hour	26	16	1	0

Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	No
Warrant Factor	100%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	600	150	0	No	**No**
	B	900	75	0	No	
80%	A	480	120	0	No	**No**
	B	720	60	0	No	
70%	A	420	105	0	No	**No**
	B	630	53	0	No	





Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Cumulative Plus Project Conditions – Weekday AM Peak Hour**

Intersection: **Thornton Avenue & Oak Street**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
   (30.06 hours ; one lane)
   YES ☒ NO ☐

2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
   (406 vph ; one lane)
   YES ☒ NO ☐

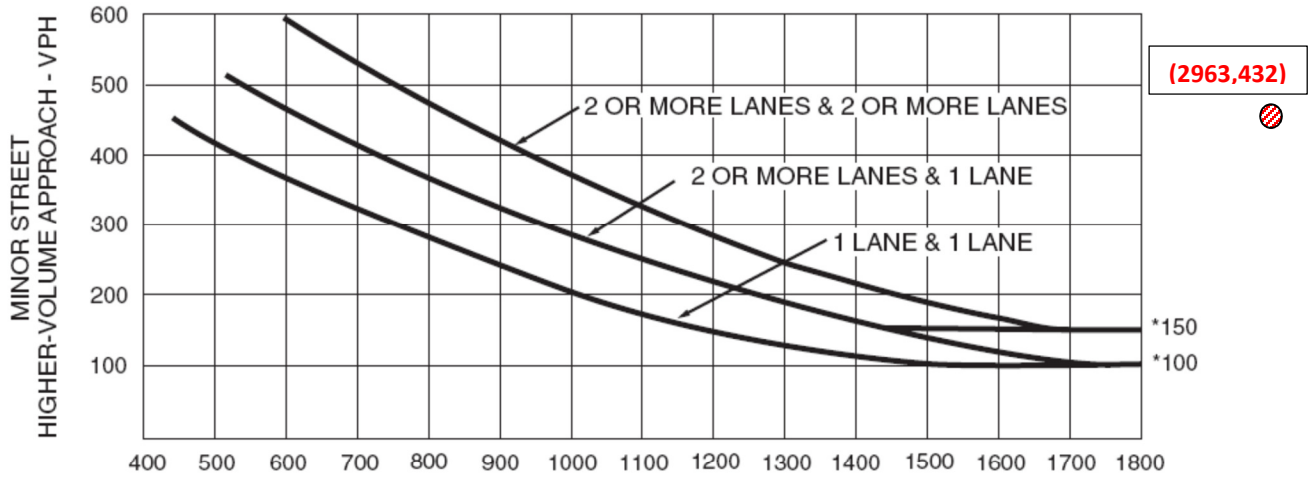
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.
   (3395 vph ; 4 approach)
   YES ☒ NO ☐

PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	2	2963
Highest Approaches – Minor Street	1	432

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-3.

Figure 4C-3.Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Cumulative Plus Project Conditions – Weekday PM Peak Hour**

Intersection: **Thornton Avenue & Oak Street**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
   (0.24 hours ; one lane)
   YES ☐ NO ☒

2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
   (47 vph ; one lane)
   YES ☐ NO ☒

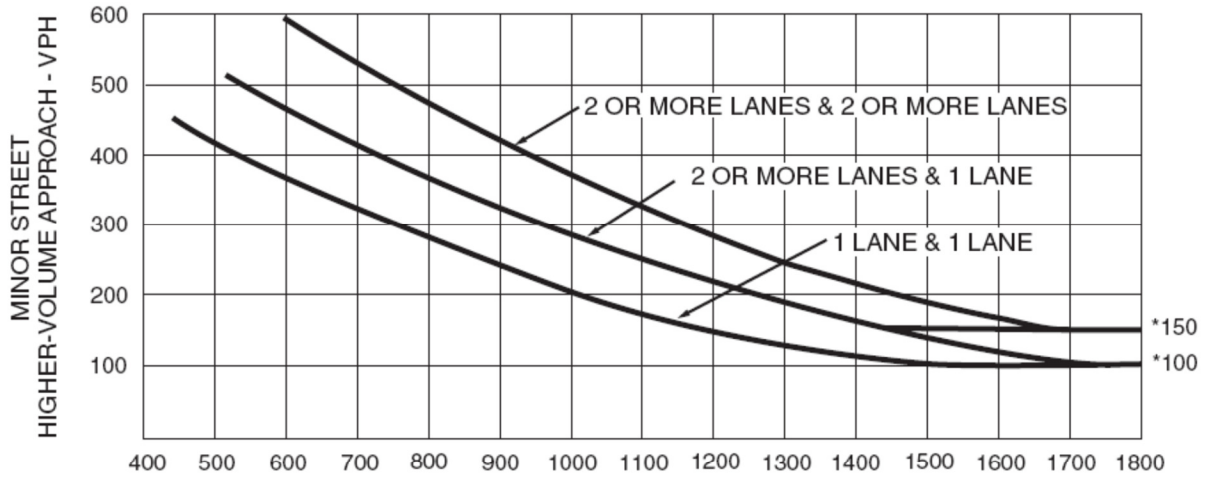
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.
   (2802 vph ; 4 approach)
   YES ☒ NO ☐

PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	2	2736
Highest Approaches – Minor Street	1	67

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-3.

Figure 4C-3.Warrant 3, Peak Hour



(2736,67)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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Portland, Oregon 97205
(503) 228-5230
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Project #: 23355
Project Name: Thornton Junior High Expansion
Analyst: Kittelson and Associates, Inc.
Date: 5/9/2019
File: \\kittelson.com\fs\H_Projects\23\23355 - Fremont Thornton Middle School IS_MND\Analysis\excel\signal warrant\[23355_sig warrant_cumam int 2.xls]Data Input

Intersection: Thornton Avenue/oak Street
Scenario: Cumulative Plus Project Conditions - AM Peak Hour

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	Yes
#2	Four-Hour Vehicular volume	Yes	Yes
#3	Peak Hour	Yes	Yes
#4	Pedestrian Volume	No	-
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

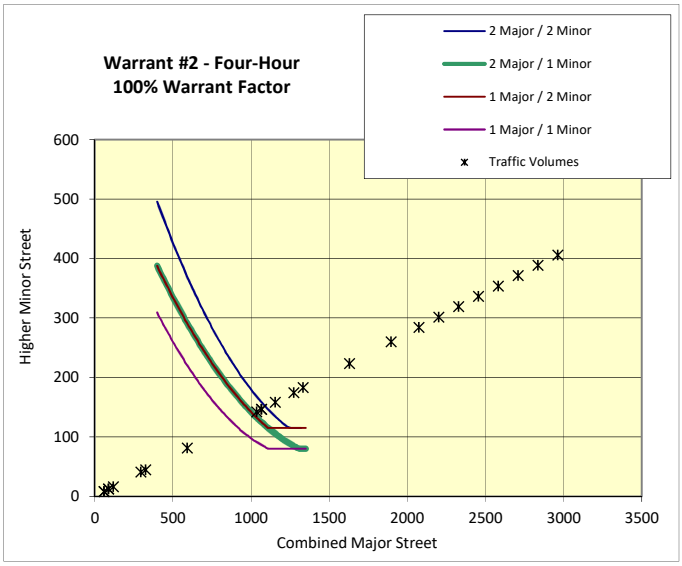
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
7:40 AM	8:40 AM	1186	1777	406	26
2nd	Highest Hour	1135	1701	389	25
3rd	Highest Hour	1084	1625	371	24
4th	Highest Hour	1034	1549	354	23
5th	Highest Hour	983	1472	336	22
6th	Highest Hour	932	1396	319	20
7th	Highest Hour	881	1320	302	19
8th	Highest Hour	830	1244	284	18
9th	Highest Hour	759	1137	260	17
10th	Highest Hour	652	977	223	14
11th	Highest Hour	534	800	183	12
12th	Highest Hour	510	764	175	11
13th	Highest Hour	463	693	158	10
14th	Highest Hour	427	640	146	9
15th	Highest Hour	427	640	146	9
16th	Highest Hour	415	622	142	9
17th	Highest Hour	237	355	81	5
18th	Highest Hour	130	195	45	3
19th	Highest Hour	119	178	41	3
20th	Highest Hour	47	71	16	1
21st	Highest Hour	36	53	12	1
22nd	Highest Hour	36	53	12	1
23rd	Highest Hour	24	36	8	1
24th	Highest Hour	24	36	8	1

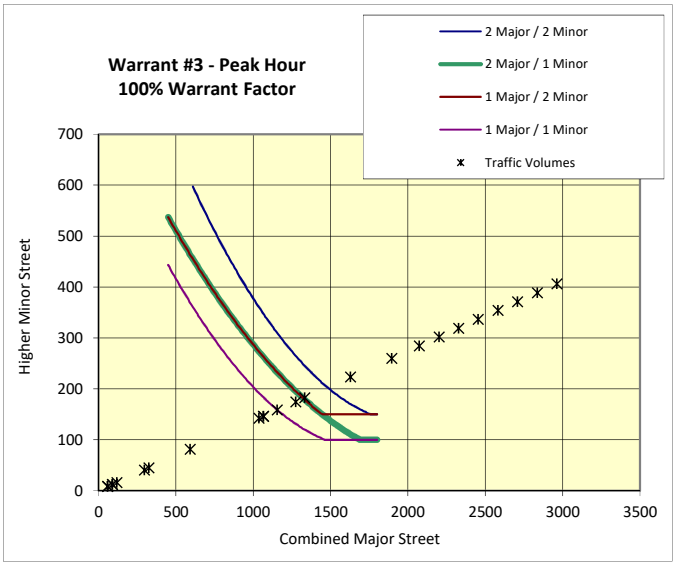
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	No
Warrant Factor	100%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	600	150	13	Yes	**Yes**
	B	900	75	16	Yes	
80%	A	480	120	16	Yes	**Yes**
	B	720	60	16	Yes	
70%	A	420	105	16	Yes	**Yes**
	B	630	53	16	Yes	





KITTELSON & ASSOCIATES, INC.
610 SW Alder, Suite 700
Portland, Oregon 97205
(503) 228-5230
Fax: (503) 273-8169

Project #: 23355
Project Name: Thornton Junior High Expansion
Analyst: Kittelson and Associates, Inc.
Date: 5/9/2019
File: \\kittelson.com\fs\H_Projects\23\23355 - Fremont Thornton Middle School IS_MND\Analysis\excel\signal warrant\[23355_sig warrant_cumpm int 2.xls]Data Input

Intersection: Thornton Avenue/oak Street
Scenario: Cumulative Plus Project Conditions - PM Peak Hour

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	-
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

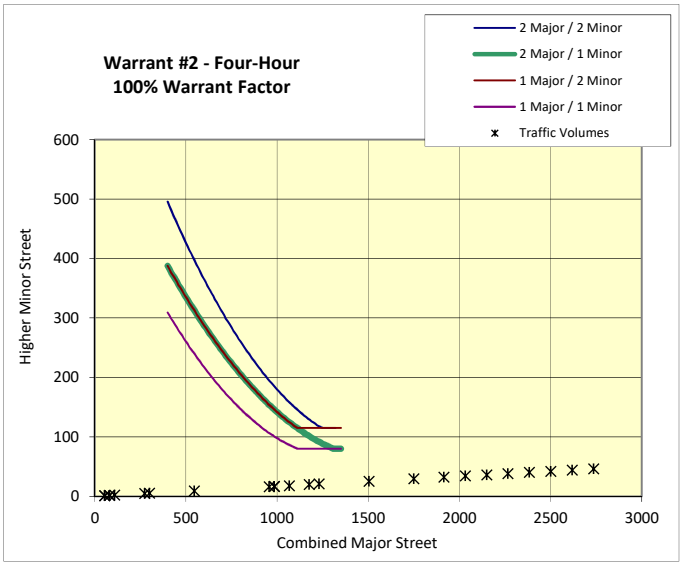
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
5:00 PM	6:00 PM	1704	1032	46	20
2nd	Highest Hour	1631	988	44	19
3rd	Highest Hour	1558	944	42	18
4th	Highest Hour	1485	899	40	17
5th	Highest Hour	1412	855	38	17
6th	Highest Hour	1339	811	36	16
7th	Highest Hour	1266	767	34	15
8th	Highest Hour	1193	722	32	14
9th	Highest Hour	1091	660	29	13
10th	Highest Hour	937	568	25	11
11th	Highest Hour	767	464	21	9
12th	Highest Hour	733	444	20	9
13th	Highest Hour	665	402	18	8
14th	Highest Hour	613	372	17	7
15th	Highest Hour	613	372	17	7
16th	Highest Hour	596	361	16	7
17th	Highest Hour	341	206	9	4
18th	Highest Hour	187	114	5	2
19th	Highest Hour	170	103	5	2
20th	Highest Hour	68	41	2	1
21st	Highest Hour	51	31	1	1
22nd	Highest Hour	51	31	1	1
23rd	Highest Hour	34	21	1	0
24th	Highest Hour	34	21	1	0

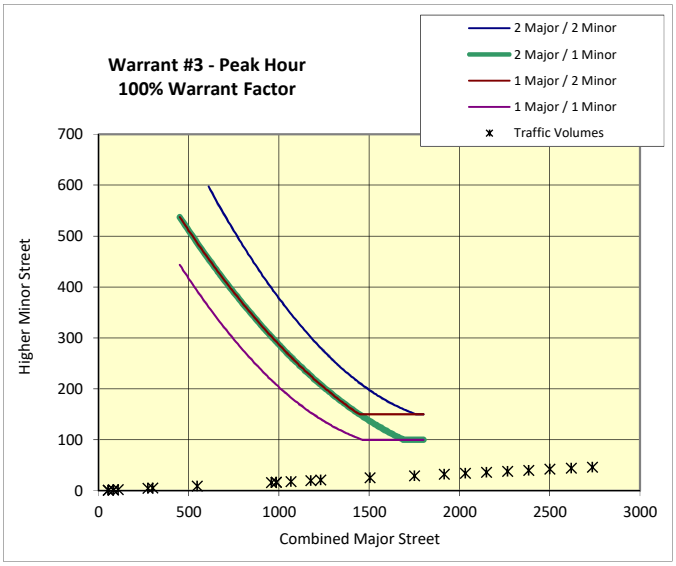
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	No
Warrant Factor	100%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	600	150	0	No	**No**
	B	900	75	0	No	
80%	A	480	120	0	No	**No**
	B	720	60	0	No	
70%	A	420	105	0	No	**No**
	B	630	53	0	No	





APPENDIX H

AB 52 CONSULTATION

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

March 4, 2019

Greg Goodfellow
PlaceWorks

VIA Email to: ggoodfellow@placeworks.com

RE: Thornton Middle School Conversion Project, City of Fremont; Hayward and Newark USGS Quadrangles, Alameda County, California.

Dear Mr. Goodfellow:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Alameda County
3/4/2019

Amah MutsunTribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org

Costanoan
Northern Valley
Yokut

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA, 91766
Phone: (909) 629 - 6081
Fax: (909) 524-8041
rumsen@aol.com

Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyon.org

Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

Costanoan

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net

Costanoan
Northern Valley
Yokut

The Ohlone Indian Tribe
Andrew Galvan,
P.O. Box 3388
Fremont, CA, 94539
Phone: (510) 882 - 0527
Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Ohlone
Patwin
Plains Miwok

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Thornton Middle School Conversion Project, Alameda County.

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
P.O. Box 5008
Fremont, CA 94538
(510) 657-2350
www.fremont.k12.ca.us

March 6, 2019

Tony Cerda, Chairperson
Costanoan Rumsen Carmel Tribe
244 E. 1st Street
Pomona, CA, 91766

SUBJECT: AB 52 Consultation Notification for the Thornton Middle School Conversion Project, Fremont, California

Dear Mr. Cerda,

The Fremont Unified School District (District) proposes to convert existing Thornton Junior High School, located at 4357 Thornton Avenue in the City of Fremont, into a middle school by adding 6th grade to the currently 7th and 8th grade school. The conversion process would result in a student body increase of just over 900 students. To support the expanded capacity, the proposed project would include construction of new buildings and additions, renovation and reconfiguration of existing buildings and campus features, new parking and circulation areas, and campus-wide technology upgrades. All components would be limited to the existing footprint of the 18-acre campus.

The District is the lead agency responsible for the California Environmental Quality Act (CEQA). As such, the District would like to provide you with an opportunity to communicate concerns you might have regarding places within the project area that may be important to your community. The District requests your participation in the protection of cultural resources, sacred lands or other heritage sites, with the understanding that you or other members of the community might possess specialized knowledge of the project area. The District requested a Sacred Lands File search, which was completed by NAHC Associate Governmental Program Analyst Gayle Totton, B.S., M.A., Ph. D on March 4, 2019, with negative results.

Please respond within 30 days, pursuant to PRC 21080.3.1(d) if you would like to consult on this project. Please consider this letter and preliminary project information as formal notification of a proposed project as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52).

If you or any of your tribal members have any questions or concerns regarding this project, please contact me at 510-295-9784 or via e-mail at jchwastyk@fremont.k12.ca.us. Thank you for your consideration of this request.

Board of Education
Michele Berke, Ph.D.
Desrie Campbell
Larry Sweeney
Ann Crosbie
Dianne Jones

Superintendent
Kim Wallace, Ed.D.
(510) 659-2542
Associate Superintendent
Raul A. Parungao
(510) 659-2572

Assistant Superintendent, Instruction
Debbie Ashmore
(510) 659-2583
Assistant Superintendent, Human Resources
Raúl M. Zamora, Ed.D.
(510) 659-2556

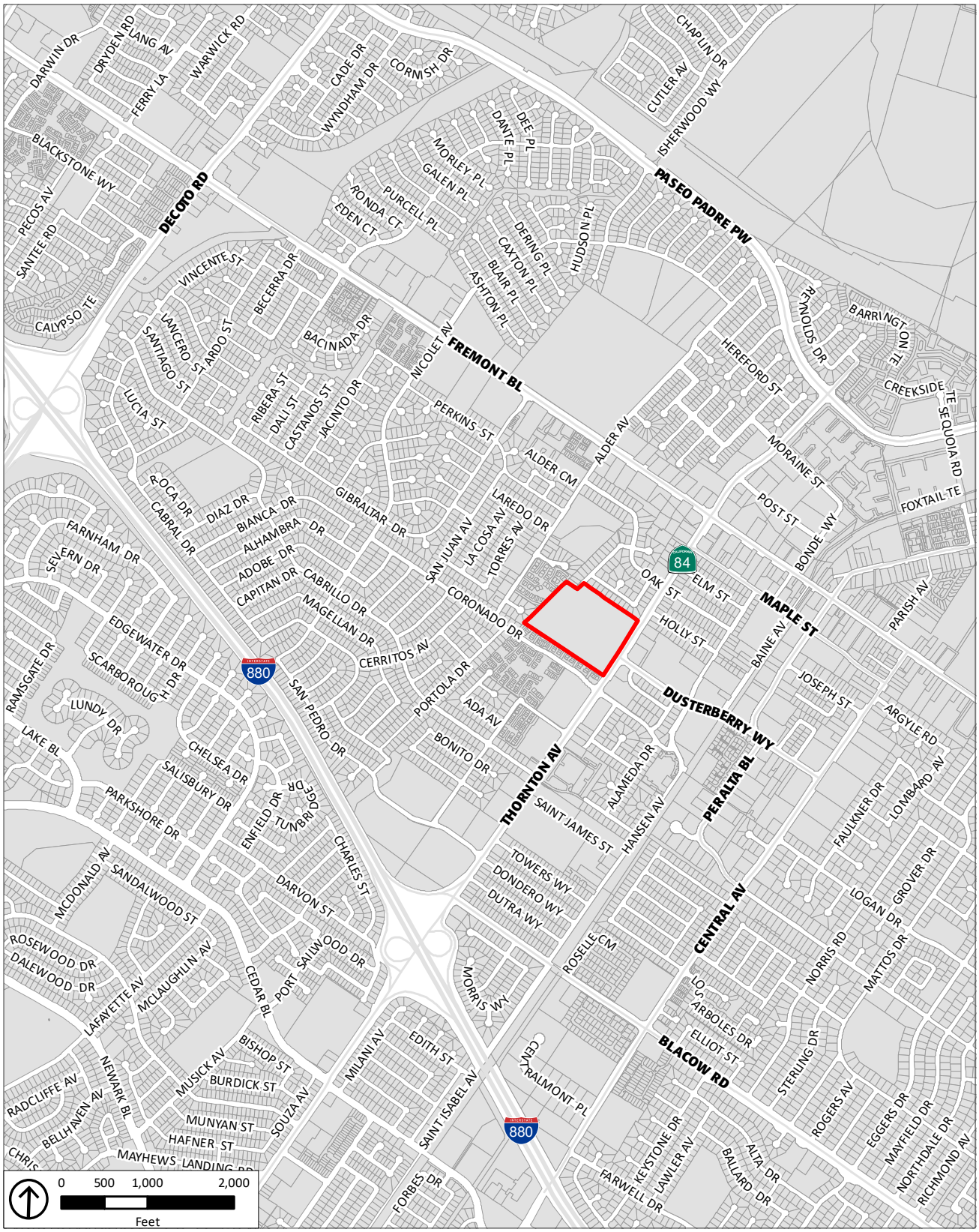
Sincerely,

John Chwastyk, Director of Facilities

Fremont Unified School District

Attachments:
Figure 1: Local Vicinity Map

Figure 2: Proposed Site Plan

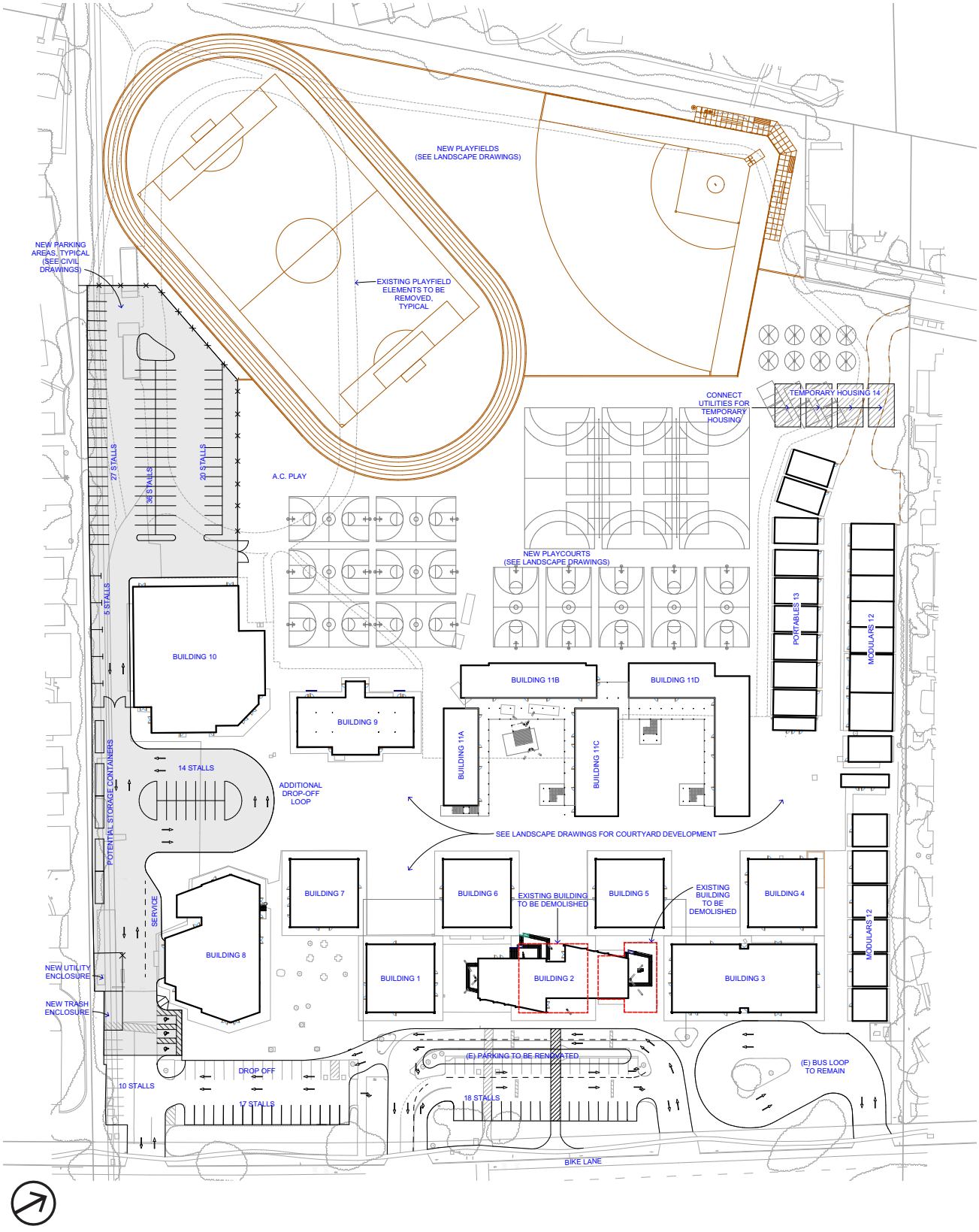


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
P.O. Box 5008
Fremont, CA 94538
(510) 657-2350
www.fremont.k12.ca.us

March 6, 2019

Andrew Galvan, Chairperson
The Ohlone Indian Tribe
P.O. Box 3388
Fremont, CA, 94539

SUBJECT: AB 52 Consultation Notification for the Thornton Middle School Conversion Project, Fremont, California

Dear Mr. Galvan,

The Fremont Unified School District (District) proposes to convert existing Thornton Junior High School, located at 4357 Thornton Avenue in the City of Fremont, into a middle school by adding 6th grade to the currently 7th and 8th grade school. The conversion process would result in a student body increase of just over 900 students. To support the expanded capacity, the proposed project would include construction of new buildings and additions, renovation and reconfiguration of existing buildings and campus features, new parking and circulation areas, and campus-wide technology upgrades. All components would be limited to the existing footprint of the 18-acre campus.

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If you or any of your tribal members have any questions or concerns regarding this project, please contact me at 510-295-9784 or via e-mail at jchwastyk@fremont.k12.ca.us. Thank you for your consideration of this request.

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Desrie Campbell
Larry Sweeney
Ann Crosbie
Dianne Jones

Superintendent
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Associate Superintendent
Raul A. Parungao
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(510) 659-2583
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Raúl M. Zamora, Ed.D.
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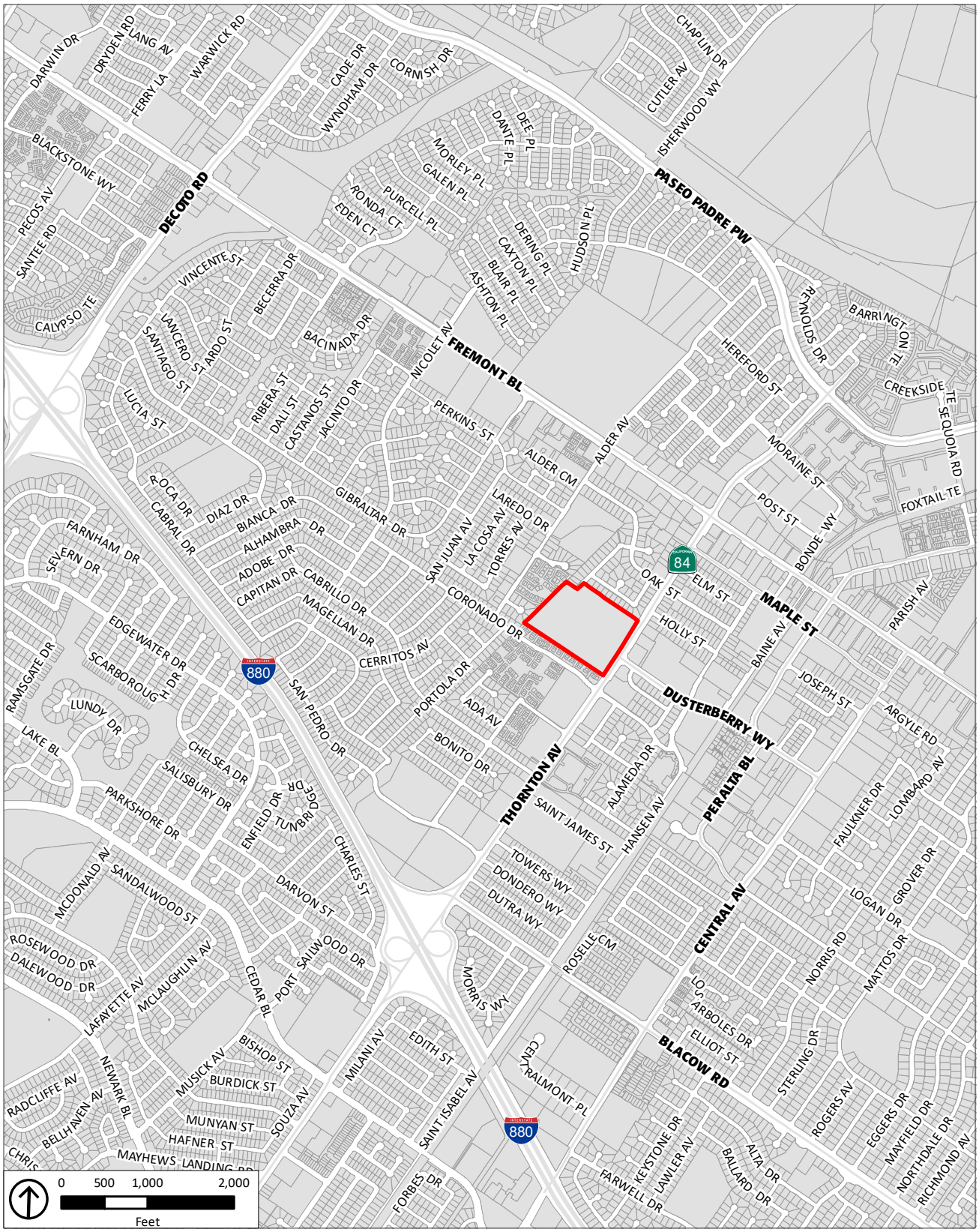
Sincerely,

John Chwastyk, Director of Facilities

Fremont Unified School District

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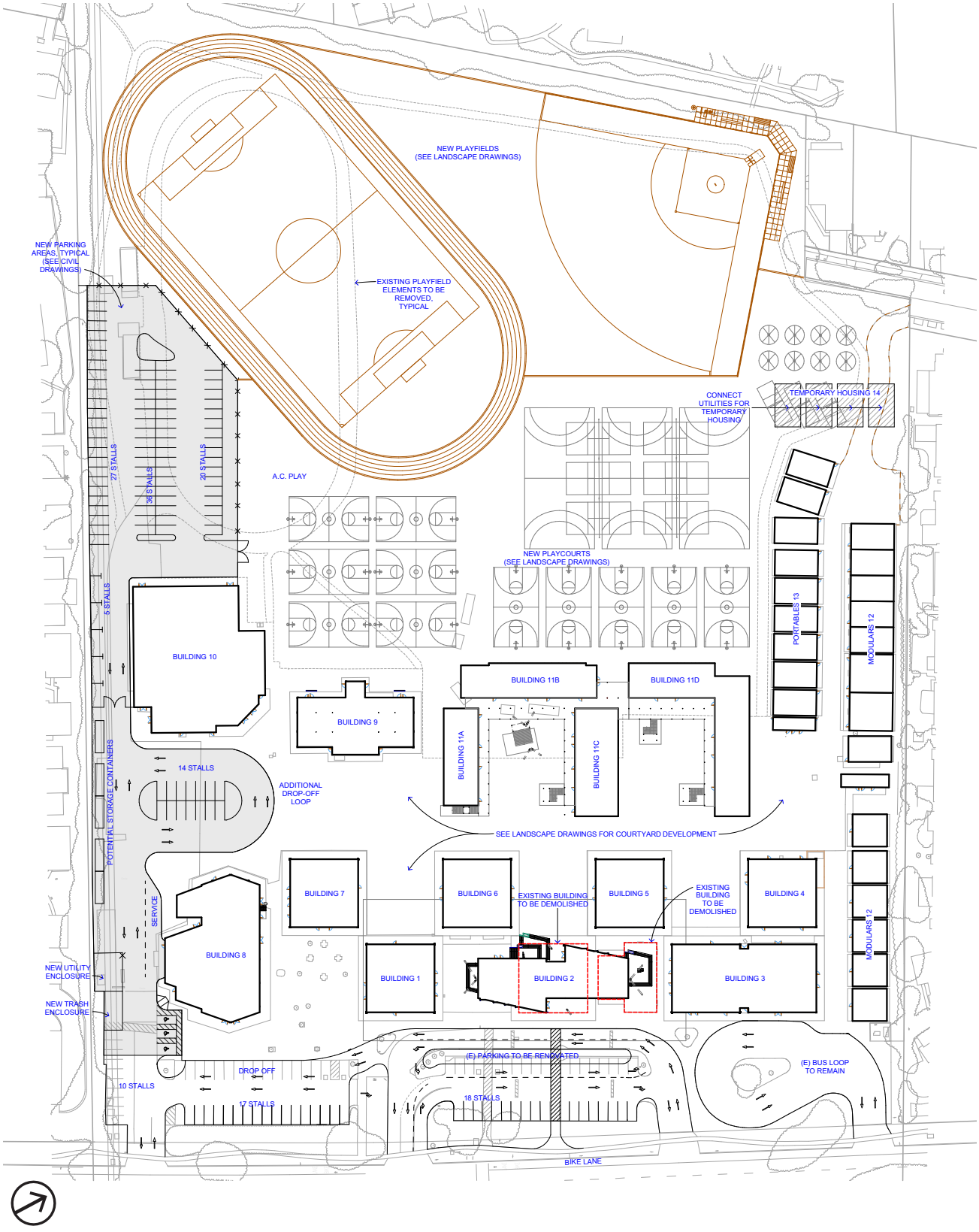


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
P.O. Box 5008
Fremont, CA 94538
(510) 657-2350
www.fremont.k12.ca.us

March 6, 2019

Charlene Nijmeh, Chairperson
Muwekma Ohlone Indian Tribe
of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

SUBJECT: AB 52 Consultation Notification for the Thornton Middle School Conversion Project, Fremont, California

Dear Ms. Nijmeh,

The Fremont Unified School District (District) proposes to convert existing Thornton Junior High School, located at 4357 Thornton Avenue in the City of Fremont, into a middle school by adding 6th grade to the currently 7th and 8th grade school. The conversion process would result in a student body increase of just over 900 students. To support the expanded capacity, the proposed project would include construction of new buildings and additions, renovation and reconfiguration of existing buildings and campus features, new parking and circulation areas, and campus-wide technology upgrades. All components would be limited to the existing footprint of the 18-acre campus.

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If you or any of your tribal members have any questions or concerns regarding this project, please contact me at 510-295-9784 or via e-mail at jchwastyk@fremont.k12.ca.us. Thank you for your consideration of this request.

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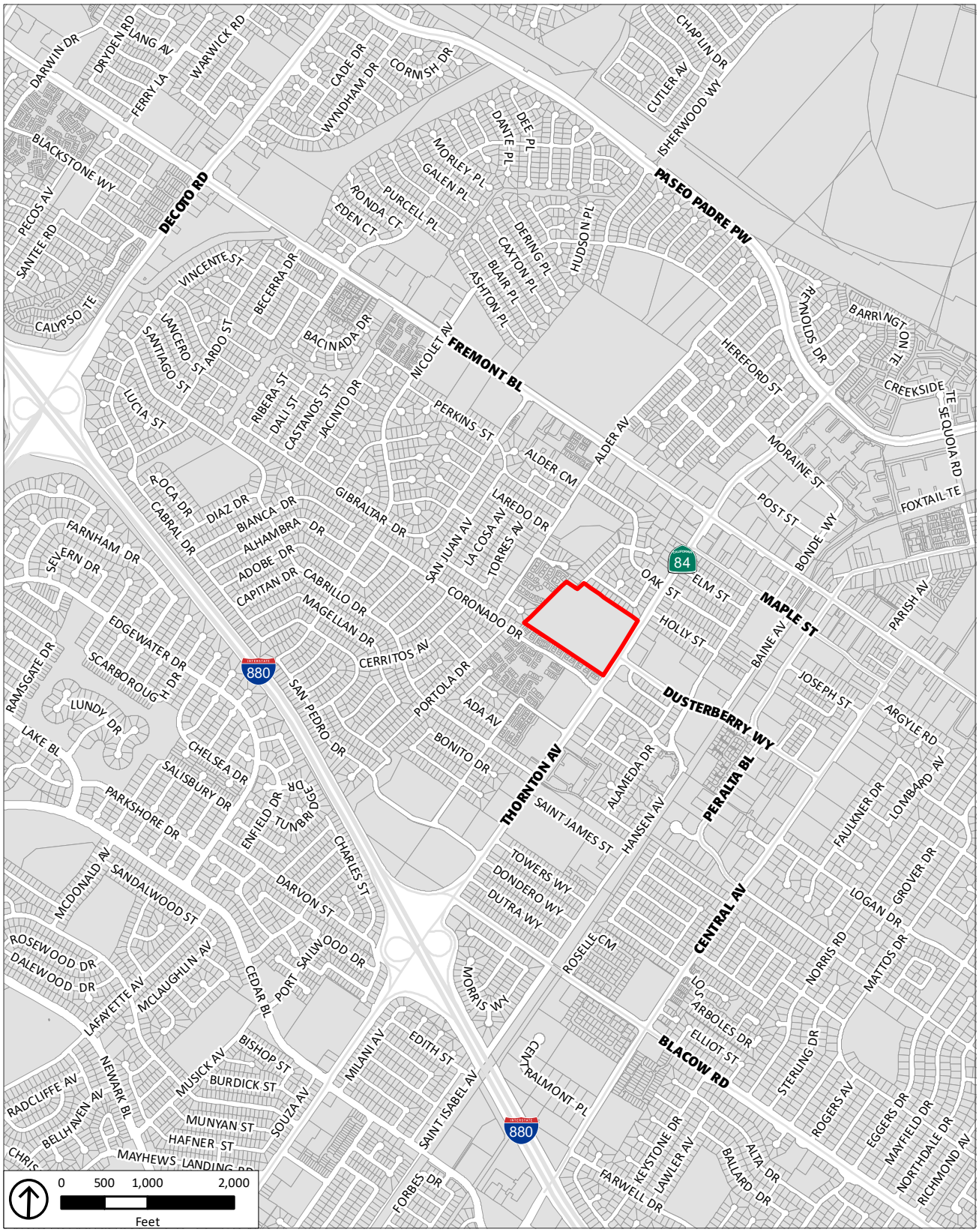
Sincerely,

John Chwastyk, Director of Facilities

Fremont Unified School District

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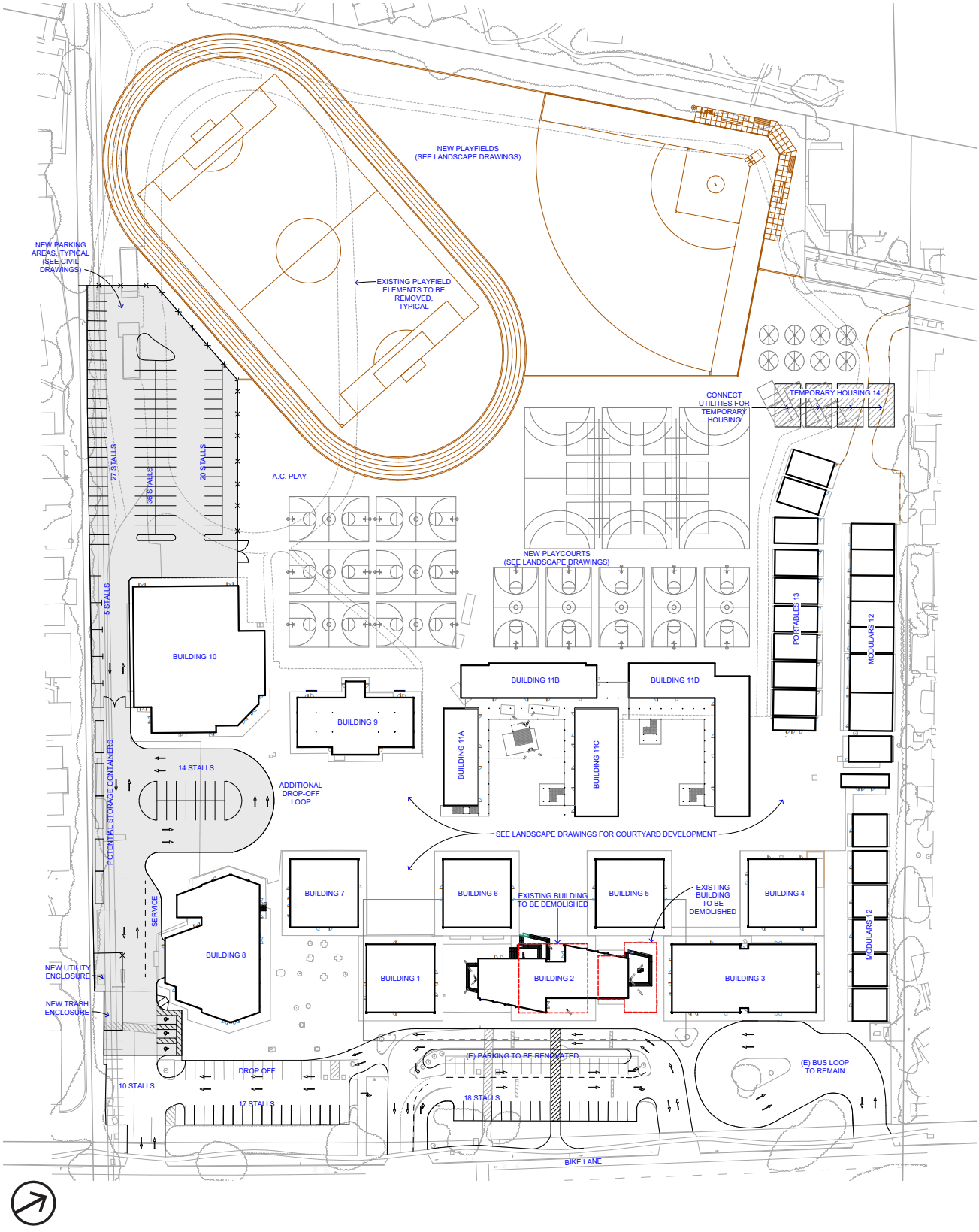


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
P.O. Box 5008
Fremont, CA 94538
(510) 657-2350
www.fremont.k12.ca.us

March 6, 2019

Katherine Erolinda Perez, Chairperson
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA, 95236

SUBJECT: AB 52 Consultation Notification for the Thornton Middle School Conversion Project, Fremont, California

Dear Ms. Erolinda Perez,

The Fremont Unified School District (District) proposes to convert existing Thornton Junior High School, located at 4357 Thornton Avenue in the City of Fremont, into a middle school by adding 6th grade to the currently 7th and 8th grade school. The conversion process would result in a student body increase of just over 900 students. To support the expanded capacity, the proposed project would include construction of new buildings and additions, renovation and reconfiguration of existing buildings and campus features, new parking and circulation areas, and campus-wide technology upgrades. All components would be limited to the existing footprint of the 18-acre campus.

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Please respond within 30 days, pursuant to PRC 21080.3.1(d) if you would like to consult on this project. Please consider this letter and preliminary project information as formal notification of a proposed project as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52).

If you or any of your tribal members have any questions or concerns regarding this project, please contact me at 510-295-9784 or via e-mail at jchwastyk@fremont.k12.ca.us. Thank you for your consideration of this request.

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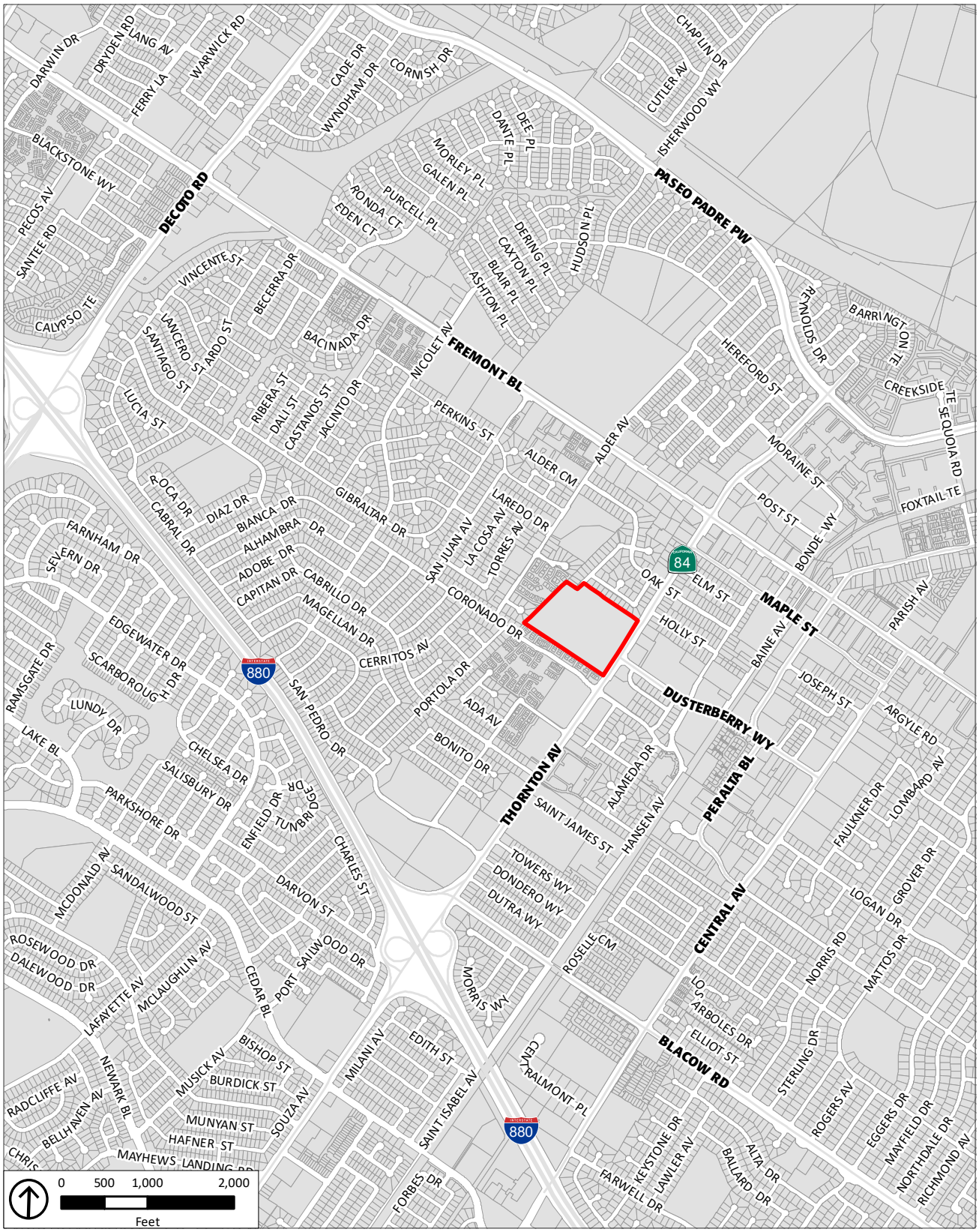
Sincerely,

John Chwastyk, Director of Facilities

Fremont Unified School District

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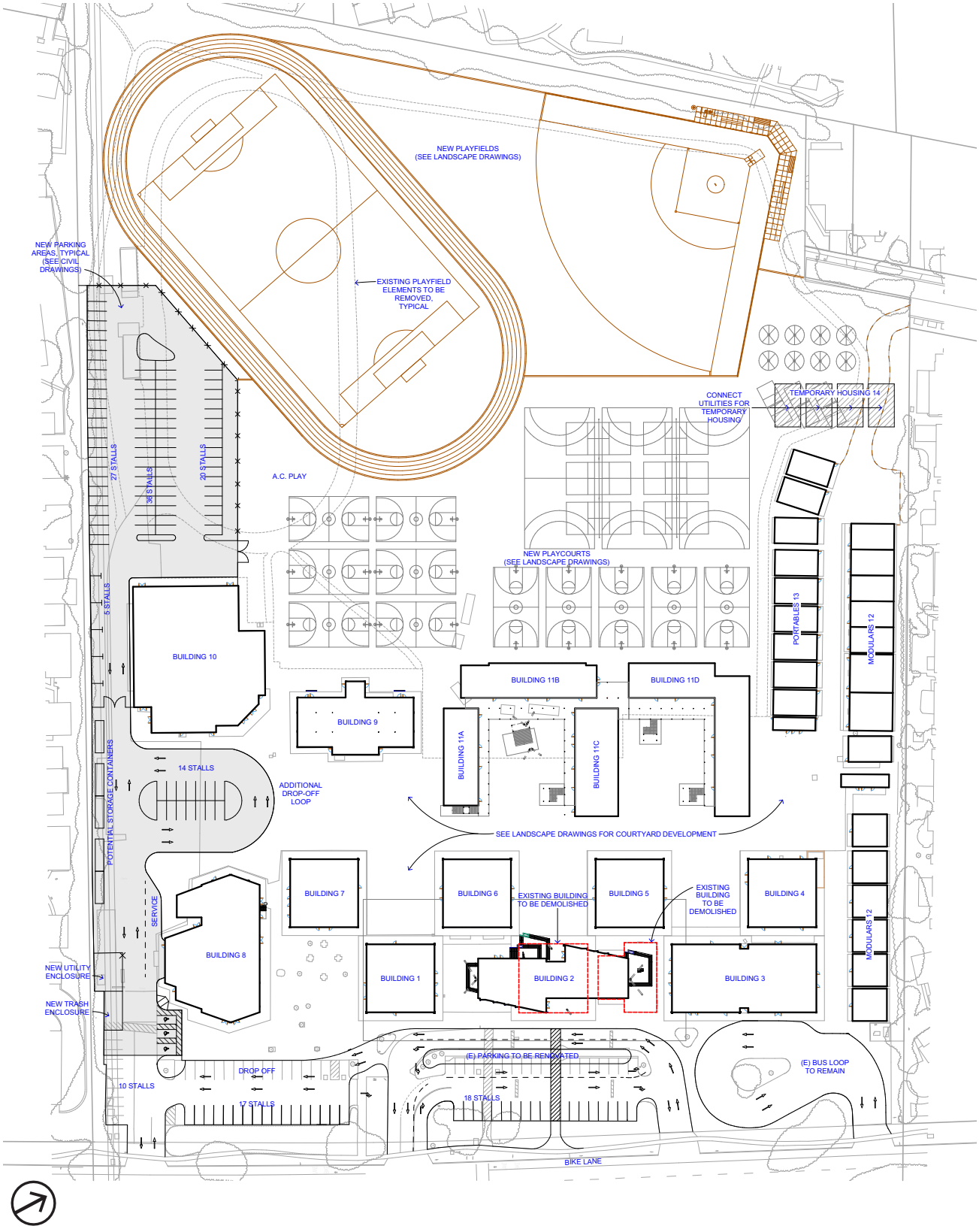


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
P.O. Box 5008
Fremont, CA 94538
(510) 657-2350
www.fremont.k12.ca.us

March 6, 2019

Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of
Costanoan
P.O. Box 28
Hollister, CA, 95024

SUBJECT: AB 52 Consultation Notification for the Thornton Middle School Conversion Project, Fremont, California

Dear Ms. Sayers,

The Fremont Unified School District (District) proposes to convert existing Thornton Junior High School, located at 4357 Thornton Avenue in the City of Fremont, into a middle school by adding 6th grade to the currently 7th and 8th grade school. The conversion process would result in a student body increase of just over 900 students. To support the expanded capacity, the proposed project would include construction of new buildings and additions, renovation and reconfiguration of existing buildings and campus features, new parking and circulation areas, and campus-wide technology upgrades. All components would be limited to the existing footprint of the 18-acre campus.

The District is the lead agency responsible for the California Environmental Quality Act (CEQA). As such, the District would like to provide you with an opportunity to communicate concerns you might have regarding places within the project area that may be important to your community. The District requests your participation in the protection of cultural resources, sacred lands or other heritage sites, with the understanding that you or other members of the community might possess specialized knowledge of the project area. The District requested a Sacred Lands File search, which was completed by NAHC Associate Governmental Program Analyst Gayle Totton, B.S., M.A., Ph. D on March 4, 2019, with negative results.

Please respond within 30 days, pursuant to PRC 21080.3.1(d) if you would like to consult on this project. Please consider this letter and preliminary project information as formal notification of a proposed project as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52).

If you or any of your tribal members have any questions or concerns regarding this project, please contact me at 510-295-9784 or via e-mail at jchwastyk@fremont.k12.ca.us. Thank you for your consideration of this request.

Board of Education
Michele Berke, Ph.D.
Desrie Campbell
Larry Sweeney
Ann Crosbie
Dianne Jones

Superintendent
Kim Wallace, Ed.D.
(510) 659-2542
Associate Superintendent
Raul A. Parungao
(510) 659-2572

Assistant Superintendent, Instruction
Debbie Ashmore
(510) 659-2583
Assistant Superintendent, Human Resources
Raúl M. Zamora, Ed.D.
(510) 659-2556

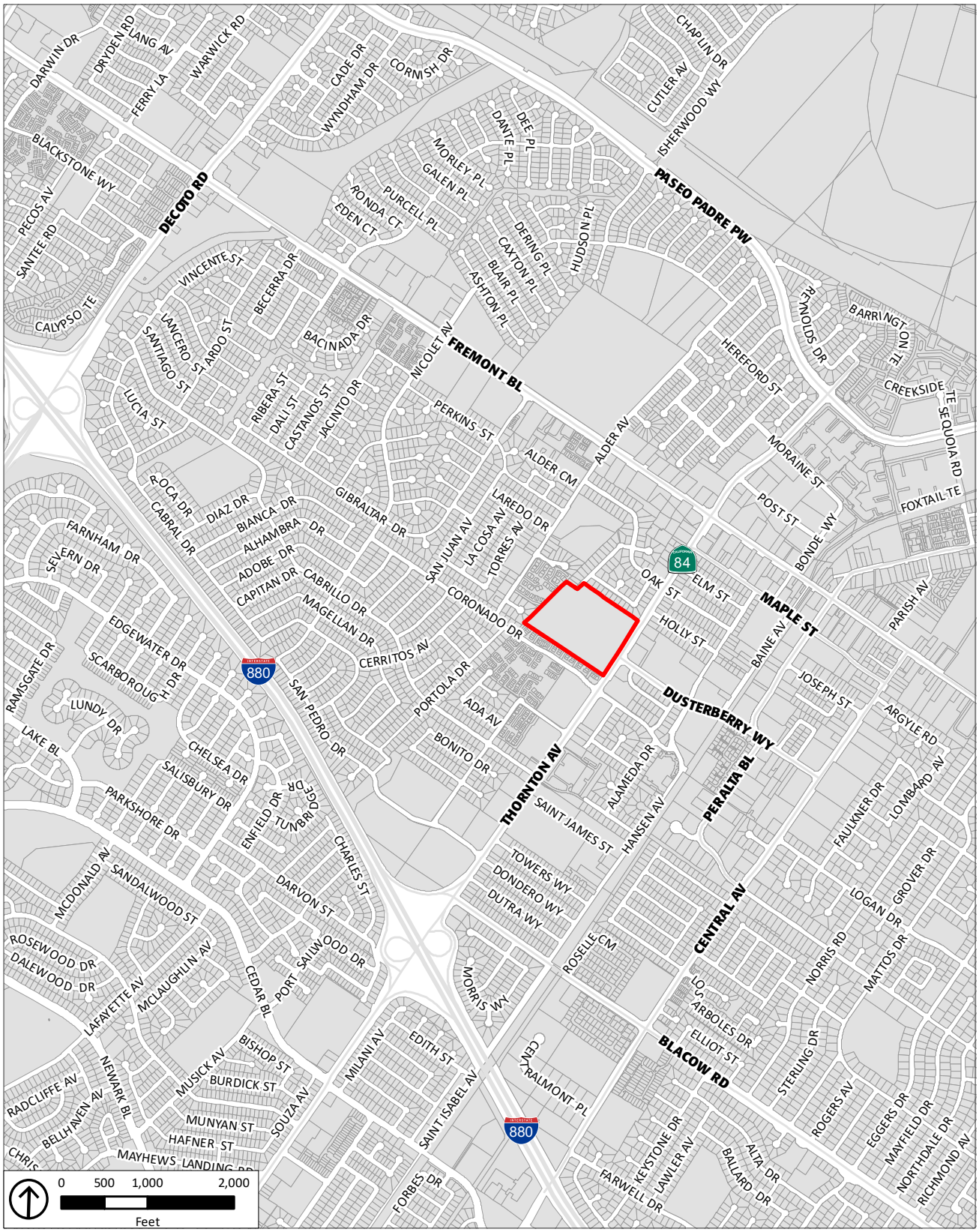
Sincerely,

John Chwastyk, Director of Facilities

Fremont Unified School District

Attachments:
Figure 1: Local Vicinity Map

Figure 2: Proposed Site Plan

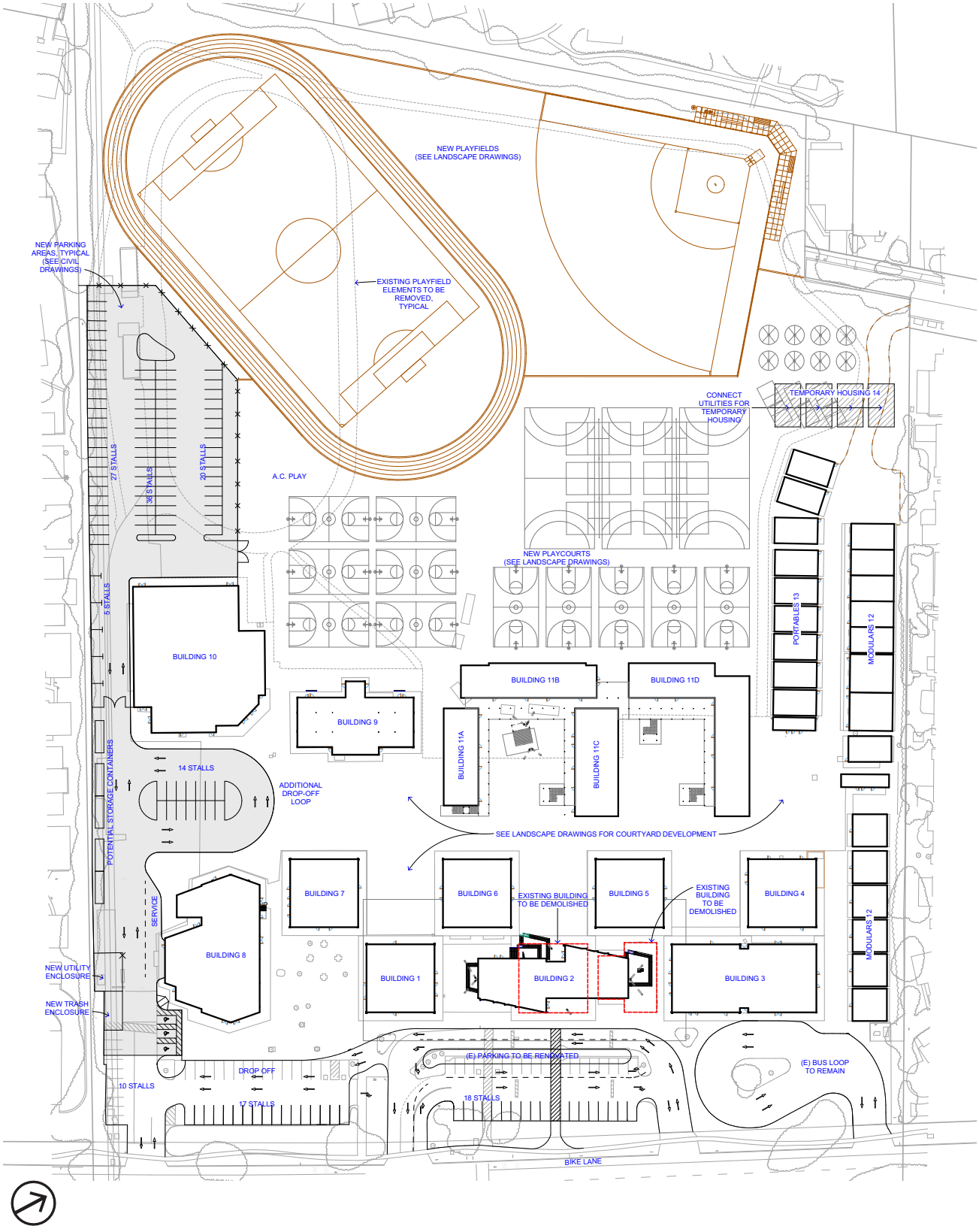


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan

FREMONT UNIFIED
SCHOOL DISTRICT

4210 Technology Drive
P.O. Box 5008
Fremont, CA 94538
(510) 657-2350
www.fremont.k12.ca.us

March 6, 2019

Irenne Zwierlein, Chairperson
Amah MutsunTribal Band of
Mission San Juan Bautista
789 Canada Road
Woodside, CA, 94062

SUBJECT: AB 52 Consultation Notification for the Thornton Middle School Conversion Project, Fremont, California

Dear Ms. Zwierlein,

The Fremont Unified School District (District) proposes to convert existing Thornton Junior High School, located at 4357 Thornton Avenue in the City of Fremont, into a middle school by adding 6th grade to the currently 7th and 8th grade school. The conversion process would result in a student body increase of just over 900 students. To support the expanded capacity, the proposed project would include construction of new buildings and additions, renovation and reconfiguration of existing buildings and campus features, new parking and circulation areas, and campus-wide technology upgrades. All components would be limited to the existing footprint of the 18-acre campus.

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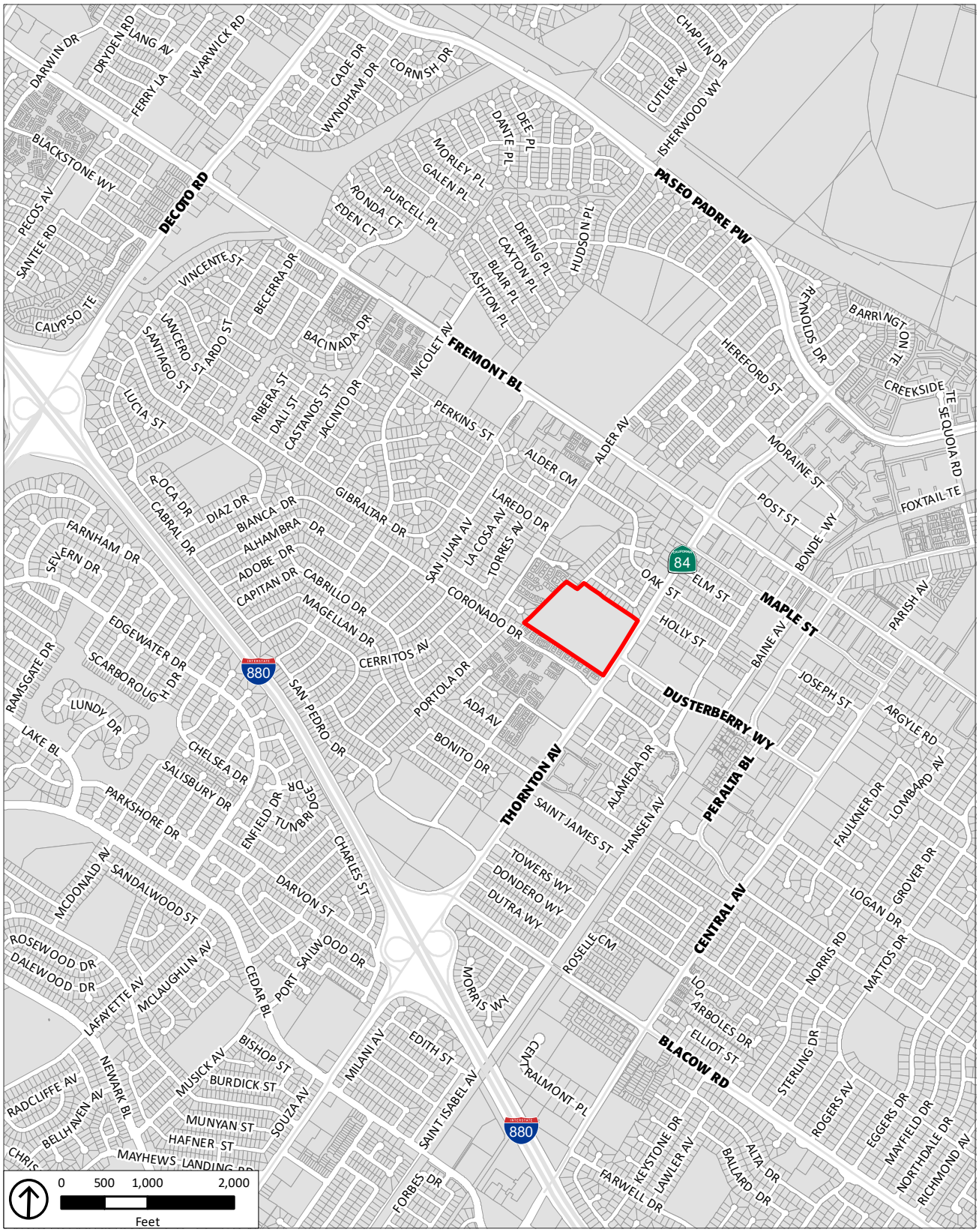
Sincerely,

John Chwastyk, Director of Facilities

Fremont Unified School District

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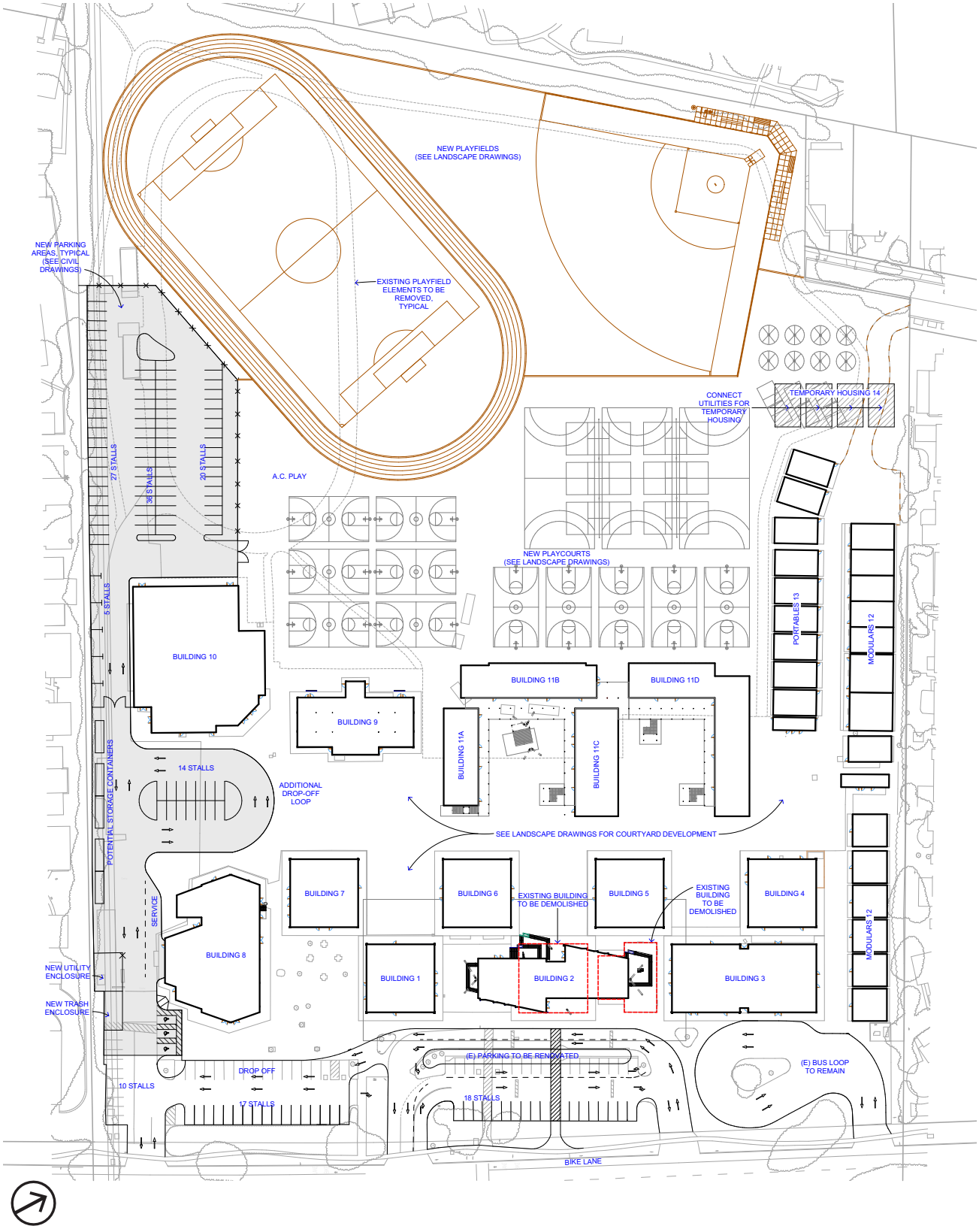


Source:ESRI, 2019; City of Fremont, 2019; PlaceWorks, 2019.

Project Site

Local Vicinity

PROJECT DESCRIPTION



Source: Quattrocchi Kwok Architects; January 10, 2019

Proposed Site Plan