

June 2017 | Addendum No. 2 to General Plan and Zoning Code Update
EIR No. 330
and
Housing Opportunities Sites Rezoning Project EIR No. 346

Olson East Street Townhomes Project

DEV2016-00138

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1. Introduction

The Olson Company (Applicant) proposes to demolish two commercial buildings at 633 and 711 South East Street (Project Site) in the City of Anaheim and construct the proposed Olson East Street Townhomes Project (Proposed Project), consisting of 42 for-sale two- and three-bedroom condominiums in three-story buildings. Each unit would include a two-car garage, centralized courtyards; and private decks and patios. Open space would include a passive shaded open space area in the western portion of the site.

The 1.8-acre Project Site is currently designated for Low-Medium Density land use by the General Plan and is within the Industrial (I) and Residential Opportunity (RO) Overlay Zone. The Proposed Project would be developed in accordance with the RO Overlay Zone, which allows housing development opportunities consistent with a property's General Plan land use designation. The Proposed Project includes a General Plan Amendment (GPA2016-00512) to change the General Plan land use designation from the current Low-Medium Density to Medium Density Residential. The Low-Medium Density Residential land use designation allows development of up to 18 dwelling units per acre on the site; the proposed Medium Density Residential land use designation would allow up to 36 dwelling units per acre. The Proposed Project would be developed at a density of 23.3 dwelling units per acre. Additional discretionary actions associated with the Proposed Project include approval of a Conditional Use Permit (CUP2016-05902) to allow a Planned Unit Development and a Tentative Tract Map (SUBTM18088) to create one lot, 42-unit residential subdivision for condominium purposes.

In May 2004, the City of Anaheim certified the General Plan and Zoning Code Update Program EIR No. 330 (EIR No. 330). EIR No. 330 evaluated impacts associated with implementation of the Anaheim General Plan and Zoning Code Update (Update Project) and created a Mitigation Monitoring Program No. 122 to mitigate those impacts. The Project Site was designated for Low-Medium Density Residential land use as a part of this project.

In September 2013, the City of Anaheim certified Supplemental Environmental Impact Report No. 346 (SEIR No. 346) for the Anaheim Housing Opportunities Site Rezoning Project (Rezoning Project). The City approved Mitigation Monitoring Program No. 122A as part of SEIR No. 346. SEIR No. 346 supplemented EIR No. 330 in the areas of air quality, greenhouse gas emissions, noise, and transportation and traffic.

The Rezoning Project implemented a key strategy of the City's 2006-2014 General Plan Housing Element by rezoning the properties identified as Housing Opportunities Sites in the Housing Element. The proposed rezoning of these approximately 166 sites allowed "by-right" housing development at these locations by applying one of two overlay zones to these properties: the RO Overlay Zone or the Mixed Use (MU) Overlay Zone. The Project Site was reclassified to the RO Overlay Zone as a part of the Rezoning Project.

1. Introduction

This document is an Addendum to both EIR No. 330 and SEIR No. 346. The City of Anaheim is the lead agency responsible for EIR No. 330, SEIR No. 346, and this Addendum for the proposed Olson East Street Townhomes Project.

1.1 PURPOSE OF ADDENDUM

1.1.1 CEQA Requirements

According to Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines, when an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR or negative declaration shall be prepared for the project unless the lead agency determines that one or more of the following conditions are met:

1. Substantial project changes are proposed that will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes would occur with respect to the circumstances under which the project is undertaken that require major revisions to the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the negative declaration was adopted shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration.
 - b. Significant effects previously examined will be substantially more severe than identified in the previous EIR.
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives.
 - d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

Preparation of an Addendum to an EIR is appropriate when none of the conditions specified in Section 15162 (above) are present and some minor technical changes to the previously certified EIR are necessary.

1. Introduction

After careful consideration of the potential environmental impacts of the Proposed Project, the City of Anaheim has determined that 1) none of the conditions requiring preparation of a subsequent or supplement to an EIR have occurred, and 2) the circumstances described in Section 15164 of the CEQA Guidelines exist. Therefore, an Addendum to the EIR No. 330 and SEIR No. 346 has been deemed appropriate.

1.1.2 Scope of Analysis in This Addendum

In order to implement the Proposed Project, a number of discretionary approvals from the City of Anaheim are required, including a General Plan Amendment, Conditional Use Permit and a Tentative Tract Map and a Final Site Plan. As lead agency under CEQA, the City of Anaheim is required to evaluate the environmental impacts associated with these discretionary approvals. The scope of the review for project-related impacts for this Addendum is limited to changes between the Update and Rezoning Projects (Approved Project) and the Proposed Project. The previously certified EIR No. 330 and SEIR No. 346 (collectively referred to as the “Certified EIR”) and related approved mitigation for impacts associated with the Approved Project, therefore, effectively serve as the “baseline” for the environmental impact analysis. The baseline mitigation includes all applicable mitigation measures from Mitigation and Monitoring Program (MMP) No. 122 approved in conjunction with EIR No. 330 and from MMP No. 122A, approved in conjunction with SEIR No. 346. As required by CEQA, this Addendum also addresses changes in circumstances or new information that would potentially involve new environmental impacts.

1.2 CONTENT AND ORGANIZATION OF THIS ADDENDUM

This Addendum relies on the City of Anaheim’s CEQA checklist, which addresses environmental issues section by section. The completed checklist is included in Section 5.0, Environmental Analysis. Each environmental topic has the following subheadings:

- Summary of Previous Environmental Analysis (including EIR No. 330, SEIR No. 346, and previous CEQA documentation; see description under Subsection 3.1, *Project Background*, of this Addendum)
- Impacts Associated with the Proposed Project (including environmental checklist)
- Adopted Mitigation Measures Applicable to the Proposed Project

1.3 PREVIOUS ENVIRONMENTAL DOCUMENTATION

For a detailed description of adopted land use planning documents for the Update and Rezoning Projects and associated environmental documentation, see Section 3.1, *Project Background*, of this Addendum.

1. Introduction

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2. Environmental Setting

2.1 PROJECT LOCATION

2.1.1 City of Anaheim

As shown on Figure 1, the City of Anaheim is located in north Orange County, approximately 35 miles southeast of downtown Los Angeles. The Project Site is located in the City of Anaheim, about 0.8 miles east of the Anaheim Civic Center and 1.4 miles northeast of the Disneyland Resort. Regional access to the site is from the Interstate 5 (I-5) freeway via Ball Road (See Figure 1, *Regional Location*).

2.1.2 Project Site

As shown in Figures 2, *Local Vicinity*, and 3, *Aerial Photograph*, the 1.79-acre Project Site is on the west side of South East Street about 170 feet north of East South Street at 633 and 711 South East Street. The Project Site is one parcel, APN 037-130-21. Local access to the Project Site is provided via East and South streets. The project site is in Housing Opportunities Site 93 addressed by the aforementioned Rezoning Project.

2.2 ENVIRONMENTAL SETTING

2.2.1 Landform and Geography

The Project Site is relatively flat and at an elevation of about 166 feet above mean sea level; and is currently occupied by two commercial buildings. The site and surrounding areas have a west slope of about 0.4 percent.

2.2.2 Existing Land Use

The Project Site is currently occupied by two businesses; an auto auction company, Quartz Dealer Direct, at 633 South East Street, and a Digital Arts/Sign Company, McLogan Supply Company, at 711 South East Street. Each business occupies one building; the two buildings total approximately 12,000 square feet. Most of the site is paved surface parking used by the auto auction company. There is one metal freight container on the part of the site occupied by McLogan Supply Company (see Figure 3, *Aerial Photograph*, and 4, *Site Photographs*).

2.2.3 Surrounding Land Use

The project site is surrounded by industrial uses to the north; by a recycling facility to the west; by a gas station, industrial uses, and multi-family residential uses to the south; and by detached single-family residences

2. Environmental Setting

opposite East Street to the east (see Figure 3, *Aerial Photograph*). The LOSSAN corridor (Los Angeles to San Diego) railroad track passes about 810 feet west of the Project Site.¹

2.2.4 General Plan and Zoning

Anaheim General Plan

The General Plan land use designation for the Project Site is Low-Medium Density Residential. This designation is intended to provide for a wide range of residential land uses, including small-lot single-family residences, attached single-family residences, duplexes, townhomes, and mobile home parks. The Low-Medium Density Residential designation was applied to the Project Site as part of the aforementioned Update Project.

Zoning

The Project Site is within the Industrial (I) Zone and Residential Opportunity (RO) Overlay Zone. The Industrial Zone is intended to provide for and encourage the development of industrial uses and their related facilities, recognize the unique and valuable existing industrial land resources, and encourage industrial employment opportunities within the City. Targeted industries include research and development, repair services, wholesale activities, distribution centers, and manufacturing and fabrication (City of Anaheim Municipal Code Section 18.10.020). The RO Overlay Zone is intended to be applied to properties that are currently zoned and/or developed with non-residential uses but designated for multiple-family residential uses by the City's General Plan.

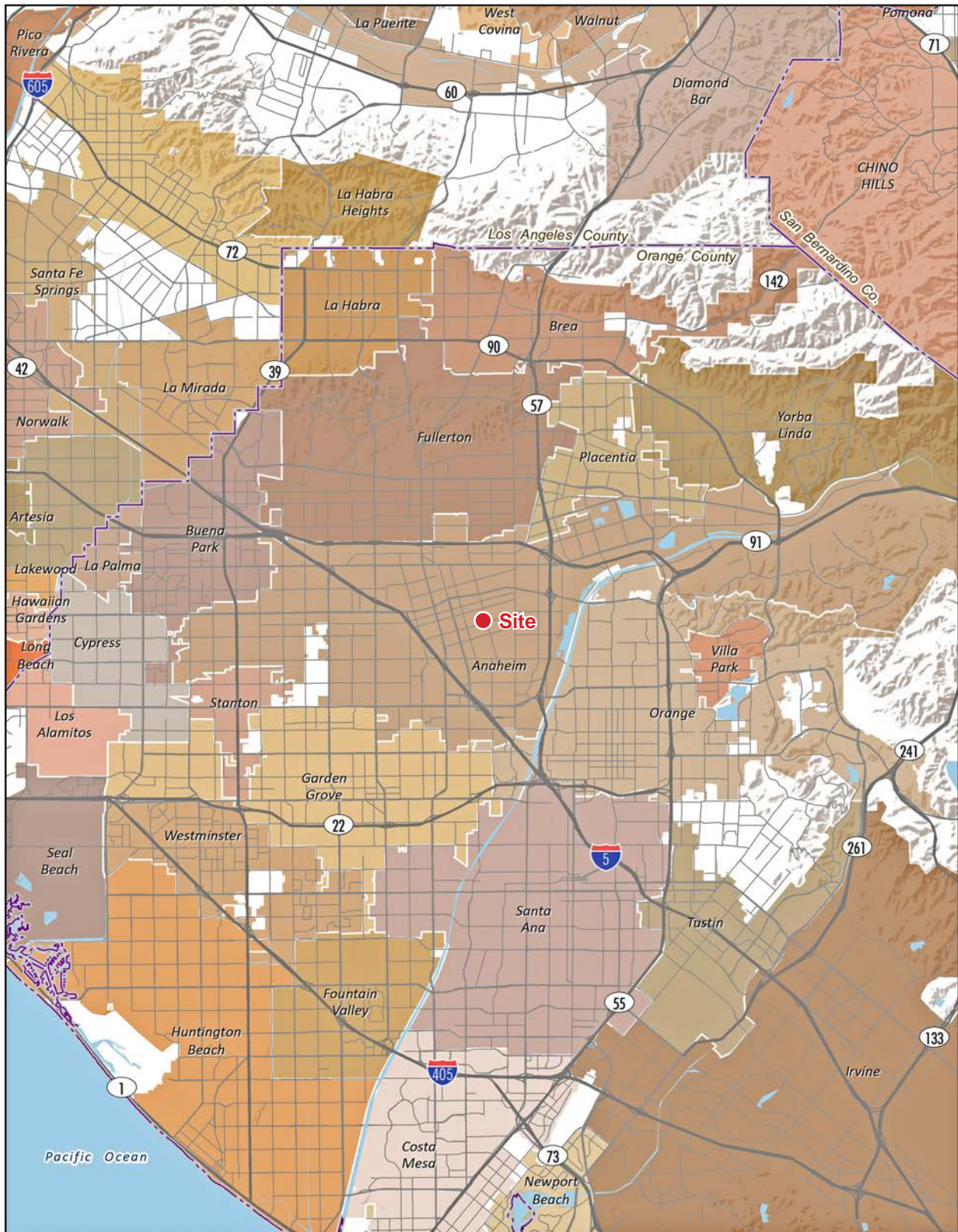
The RO Overlay Zone allows housing development opportunities consistent with a property's General Plan land use designation. The Overlay Zone is further intended to serve as an implementation tool of the City's Housing Element of the General Plan by facilitating residential development on identified "housing opportunity sites" (City of Anaheim Municipal Code Section 18.34.010). The Project Site's Low-Medium Density Residential land use designation allows development of up to 18 dwelling units per acre. With implementation of the RO Overlay Zone, development of up to 32 residential units would be permitted onsite. The RO Overlay Zone was applied to the Project Site by the aforementioned Rezoning Project. The addition of the Overlay Zone did not affect the current or future non-residential development rights for the property and did not obligate the owner of the site to develop the property with housing.

Anaheim Colony Historic District

The project site is in Anaheim's largest historic district, the Anaheim Colony Historic District (District). The boundaries of the 1.8-square-mile District match the original German Colony founded in 1857 (North, South, East and West Streets).

¹ The railroad track carries Amtrak intercity passenger trains, Metrolink commuter trains, and BNSF Railway freight traffic.

Figure 1 - Regional Location
2. Environmental Setting



Note: Unincorporated county areas are shown in white.

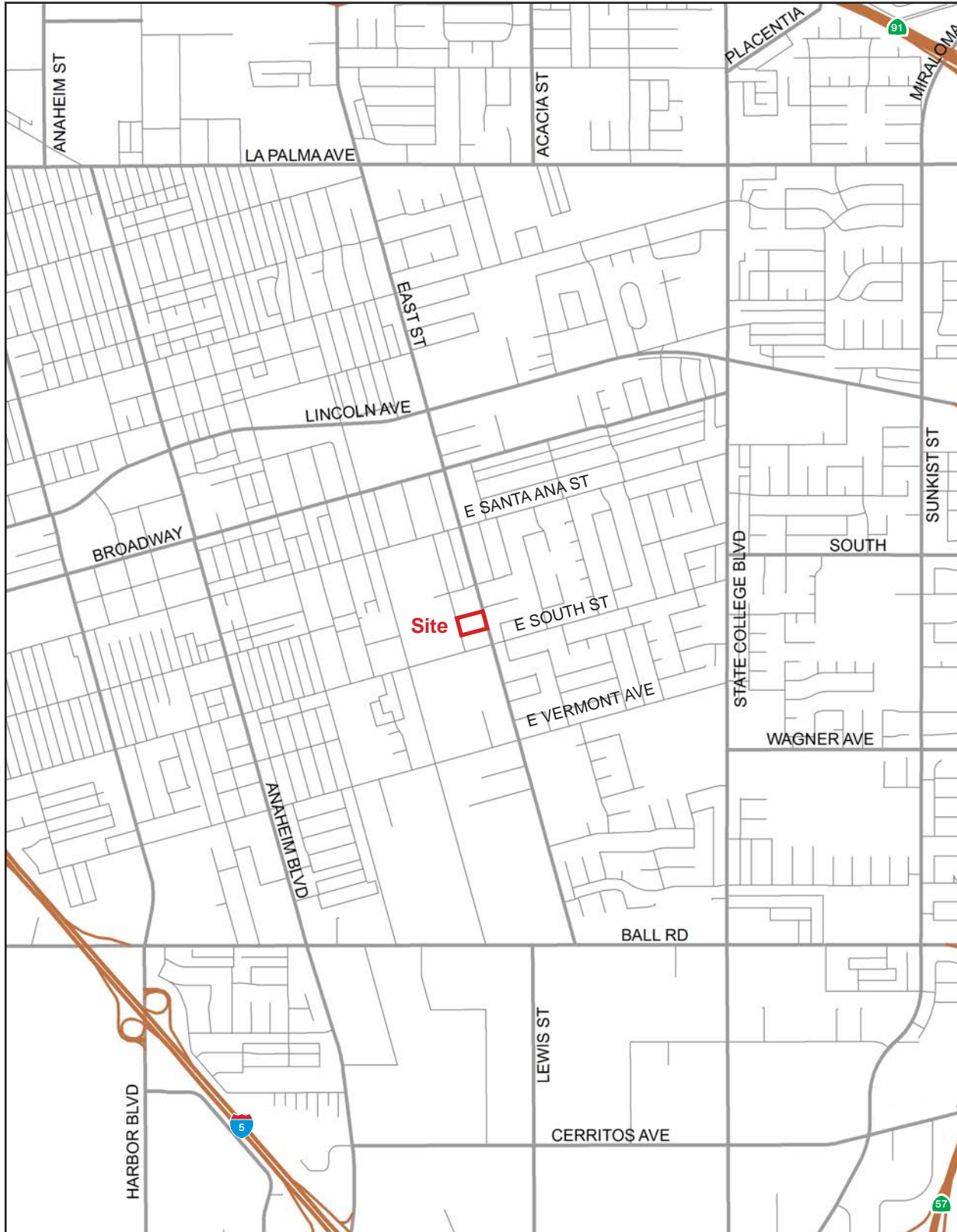


Base Map Source: ESRI, USGS, NOAA, 2017

2. Environmental Setting

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Figure 2 - Local Vicinity
2. Environmental Setting



— Project Boundary

0 2,000
Scale (Feet)

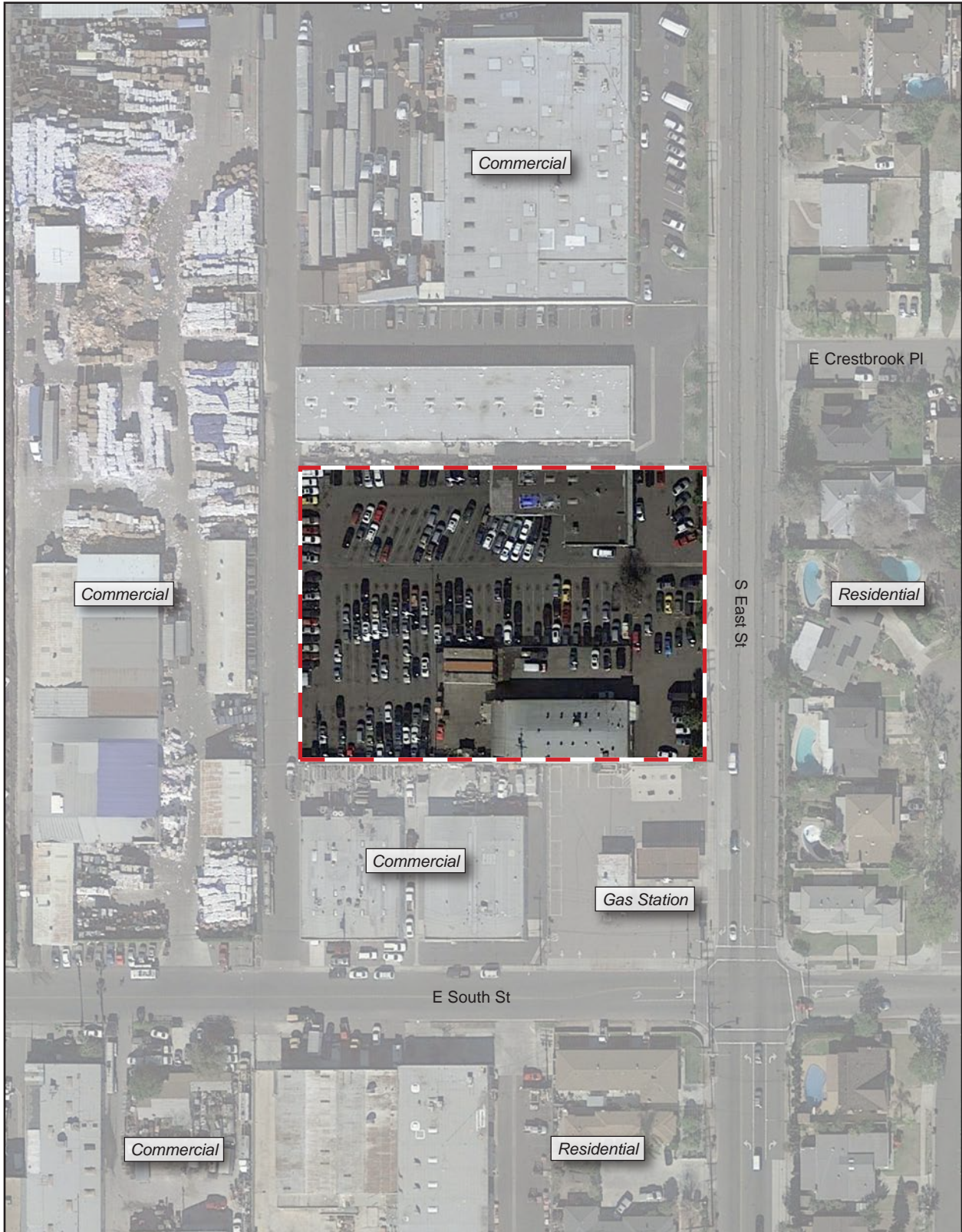


Base Map Source: ESRI, USGS, NOAA, 2017

2. Environmental Setting

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Figure 3 - Aerial Photograph
2. Environmental Setting



— Project Boundary

0 125
Scale (Feet)



Base Map Source: Google Earth Pro, 2017

2. Environmental Setting

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Figure 4a - Site Photographs
2. Environmental Setting



Photo 1. View looking northwest from the east part of the site showing the Quartz Auto Auction building at 633 South East Street.



Photo 2. View looking southwest from the east part of the site showing the McLogan Supply Company building at 711 South East Street.

2. Environmental Setting

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Figure 4b - Site Photographs
2. Environmental Setting



Photo 1. View looking southeast across the site from the northwest part of the site.



Photo 2. View looking northeast across the site from the southwest part of the site.

2. Environmental Setting

2. Environmental Setting

2.2.5 Environmental Resources

The Project Site area is completely developed and there are no native biological resources within the area. The Project Site contains no historic buildings, housing, scenic resources, mineral resources, notable trees, or water bodies. Additional information regarding environmental resources—or the lack of such resources—on the Project Site can be found in Section 5, Environmental Analysis, of this Addendum under each respective environmental topic.

3. Project Description

3.1 PROJECT BACKGROUND

In May 2004, the City of Anaheim certified the General Plan and Zoning Code Update Program EIR No. 330 (EIR No. 330). EIR No. 330 evaluated impacts associated with implementation of the Anaheim General Plan and Zoning Code Update (Update Project) and created a Mitigation Monitoring Program No. 122 to mitigate those impacts. The Project Site was designated for Low-Medium Density Residential land use as a part of the Update Project.

In September 2013, the City of Anaheim certified Supplemental Environmental Impact Report No. 346 (SEIR No. 346) for the Anaheim Housing Opportunities Site Rezoning Project (Rezoning Project). The City approved Mitigation Monitoring Program No. 122A as part of SEIR No. 346. SEIR No. 346 supplemented EIR No. 330 in the areas of air quality, greenhouse gas emissions, noise, and transportation and traffic. The Rezoning Project implemented a key strategy of the City's 2006-2014 General Plan Housing Element by rezoning the properties identified as Housing Opportunities Sites in the Housing Element. The proposed rezoning of these approximately 166 sites allowed "by-right" housing development at these locations by applying one of two overlay zones to these properties: the RO Overlay Zone or the Mixed Use (MU) Overlay Zone. The Project Site was reclassified to the RO Overlay Zone as a part of the Rezoning Project.

Mitigation Monitoring Program (MMP) No. 122 was approved as part of EIR No. 330, and Updated and Modified MMP No. 122A was approved as part of SEIR No. 346. EIR No. 330 and SEIR No. 346 are collectively referred as the "Certified EIR." The Update Project and the Rezoning Project are collectively referred to as the "Approved Project." The City has determined that an Addendum to the Certified EIR would be the appropriate environmental review for the Proposed Project, consistent with Section 15162 and 15163 of the CEQA Guidelines. Applicable Mitigation Measures from Updated and Modified MMP No. 122A have been incorporated into Mitigation Monitoring Plan [MMP] No. 347 for the Proposed Project.

3.1.1 Previous Environmental Analysis

3.1.1.1 EIR NO. 330 FOR THE UPDATE PROJECT

The Update Project identified the City's vision for its build-out through 2035. The Update Project included revisions to the existing Land Use Element (including new and re-named land use designations); the Redevelopment Element (now incorporated into the Economic Development Element); Circulation (which would thenceforth contain the existing Scenic Highways Element); Environmental Resource and Management section (incorporated into the Green Element); Growth Management Element; Parks, Recreation and Community Services Element (incorporated into the new Green Element); Noise; and, Safety

3. Project Description

and Seismic Safety Element (combined into one Safety Element). In addition to the topics addressed in the previous General Plan Elements, new goals, policies and programs were developed to address community design, economic development, and public services and facilities in the form of new Elements for each topic. The new Green Element combined two required elements of the General Plan (Open Space and Conservation which are part of the existing Environmental Resource and Management section) with an optional element, Parks, Recreation and Community Services. The Project Site was designated for Low-Medium Density Residential land use as a part of this project.

The Update Project also involved a comprehensive update to Title 18 of the Anaheim Municipal Code, which contains the City's zoning regulations. Title 18 was amended to implement the updated General Plan (e.g., creation of development standards to implement the proposed Mixed-Use and Corridor Residential land use designations, creation of development standards that are consistent with the Community Design Element, etc.) and included innovative zoning solutions that convey community expectations for future development. Other actions included amendments to the Anaheim Stadium Master Land Use Plan and/or the development of an overlay zone for this area (which was subsequently implemented as the Platinum Triangle Master Land Use Plan and the Platinum Triangle Mixed Use Overlay Zone), Anaheim Resort Specific Plan, the Northeast Area Specific Plan (including associated zoning reclassifications) and zoning reclassifications within the Cypress Canyon Specific Plan Area, and portions of the Anaheim Colony Historical District consistent with and necessary to implement the General Plan and Zoning Code Update.

3.1.1.2 SEIR NO. 346 FOR THE REZONING PROJECT

The Rezoning Project implemented a key strategy of the City's 2006-2014 General Plan Housing Element by rezoning the properties identified as Housing Opportunities Sites in the Housing Element. The proposed rezoning of these approximately 166 sites allowed "by-right" housing development at these locations by applying one of two overlay zones to these properties: the Residential Opportunities Overlay Zone or the Mixed Use Overlay Zone. The identified properties were already designated for residential use by the City's General Plan, but were zoned for and/or developed with, non-residential uses. The addition of the overlay zone did not affect the current or future non-residential development rights that exist on the property today and did not obligate any owner of these sites to develop their property with housing. The Rezoning Project also included a proposed amendment to the City's Zoning Code (Title 18 of the Anaheim Municipal Code) to permit "by-right" residential development on Housing Opportunity Sites located within the Mixed Use Overlay Zone. The Project Site was reclassified to the RO Overlay Zone as a part of this project.

The Rezoning Project further included an update of General Plan Land Use Element Tables LU-5: Residential Build-Out Estimates and LU-6: Non-Residential Build-Out Estimates to reflect all General Plan Amendments that had been adopted since the City's General Plan was adopted in May 2004.

Certification of SEIR No. 346 also enabled the City to utilize the Statutory Infill Housing Exemption allowed under the California Environmental Quality Act (CEQA) and take advantage of other CEQA streamlining authorized per Senate Bill 226 (Chapter 469, Statutes of 2011) by providing updated community level environmental review.

3. Project Description

3.2 PROJECT DESCRIPTION

The Proposed Project would include the demolition of the existing buildings at the Project Site and the development of 42 for-sale, two- and three-bedroom condominiums in eight 3-story buildings.

Site Plan

The units would be in eight 3-story buildings about 38 feet high and containing either four or six units each. One row of three buildings would be built north of a proposed central east-west driveway; a second row of three buildings would be built south of the driveway; and two buildings would be built in the west end of the site (see Figure 5, *Site Plan*). Building exteriors would consist of stucco with tile roofs (see Figure 6, *Elevations, 6-Unit Building*).

Floor Plans

Units would range from two bedrooms with 2.5 baths to three bedrooms with 3.5 baths, and from 1,355 to 1,707 gross square feet of living area.² Each unit would be three levels with garages on the first level; living room, dining room, and kitchen on the second level; and two bedrooms with bathrooms on the third level. Some unit plans would have a third bedroom with bathroom on the first or second level. Two floor plans are shown on Figure 7, *Floor Plans 3 and 4*.

Project Access and Circulation

Access to the Project Site would be provided along East Street via one main driveway about 305 feet north of South Street. Three driveways would branch off the main driveway: one north-south driveway in the west part of the site providing access to the four buildings in the west half of the site, and two north-south driveways in the east part of the site providing access to the remaining four buildings. The main driveway would be a fire lane, and the intersection of the main driveway with the westerly north-south driveway would be a fire turnaround.

Parking

Two garage parking spaces would be provided for each unit in either two-car or tandem garages, and 27 open parking spaces would be provided, for a total of 111 spaces - the total required by City of Anaheim Municipal Code Section 18.42.030.

Landscaping

The project would provide 16,263 square feet of open space (0.37 acre, or about 21 percent of the Project Site), to include about 5,872 square feet of common open space and 10,391 square feet of private patios and yards. Common open space would include a seating area for small gatherings and a wood shade structure, both in the west-central part of the Project Site (see Figure 5, *Site Plan*).

² Living area excludes garages, porches, and decks.

3. Project Description

3.3 DISCRETIONARY ACTIONS

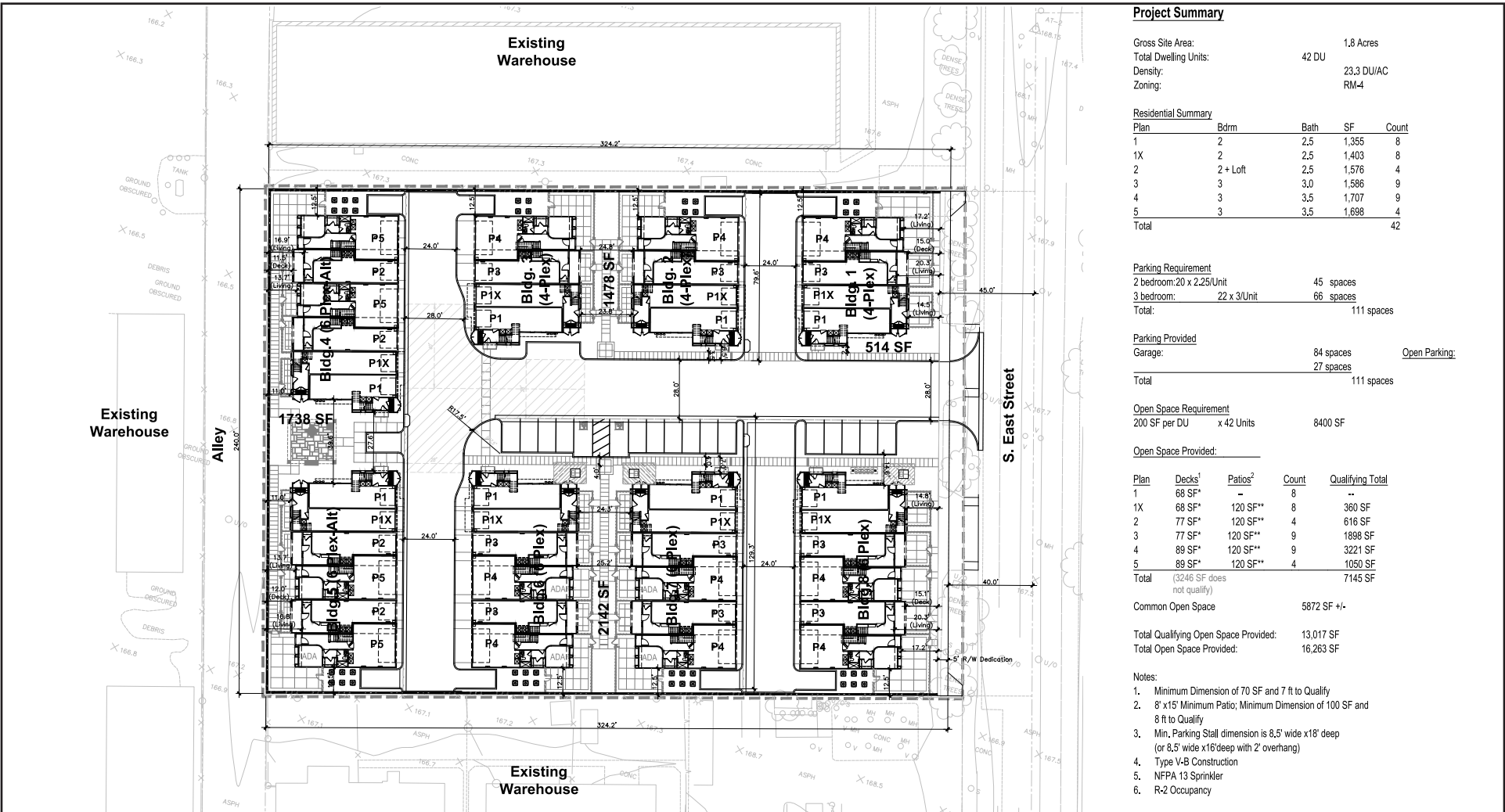
This Addendum to EIR No. 330 and SEIR No. 346 is intended to serve as the primary environmental document for all future actions associated with the Proposed Project, including all discretionary approvals requested or required to implement the Proposed Project. In addition, this Addendum is the primary reference document for the formulation and implementation of a mitigation monitoring plan (Mitigation Monitoring Plan No. 347) for the Proposed Project. All applicable measures from the mitigation and monitoring programs approved in conjunction with EIR No. 330 and SEIR No. 346 have been incorporated into this document. This document is intended to provide sufficient information to allow the City of Anaheim and any other permitting agencies to evaluate the potential impacts from construction and implementation of the Proposed Project. The following discretionary actions have been requested by the Project Applicant:

- **General Plan Amendment (GPA 2017-00512).** The Proposed Project includes a General Plan Amendment to change the General Plan land use designation for the Project Site from Low-Medium Density Residential to Medium Density Residential. The Low-Medium Density Residential land use designation allows development of up to 18 dwelling units per acre on the site; the proposed Medium Density Residential land use designation would allow up to 36 dwelling units per acre. The Proposed Project would be developed at a density of 23.3 dwelling units per acre.
- **Conditional Use Permit (CUP2016-05902).** The applicant is requesting approval of Conditional Use Permit to allow a Planned Unit Development.
- **Tentative Tract Map (SUBTM18088).** The applicant is requesting approval of a Tentative Tract Map to create one lot, 42-unit residential subdivision for condominium purposes.

3. Project Description

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Figure 5 - Site Plan
3. Project Description



Project Summary

Gross Site Area: 1.8 Acres
 Total Dwelling Units: 42 DU
 Density: 23.3 DU/AC
 Zoning: RM-4

Residential Summary

Plan	Bdrn	Bath	SF	Count
1	2	2.5	1,355	8
1X	2	2.5	1,403	8
2	2 + Loft	2.5	1,576	4
3	3	3.0	1,586	9
4	3	3.5	1,707	9
5	3	3.5	1,698	4
Total				42

Parking Requirement
 2 bedroom: 20 x 2.25/Unit 45 spaces
 3 bedroom: 22 x 3/Unit 66 spaces
Total: 111 spaces

Parking Provided
 Garage: 84 spaces **Open Parking:** 27 spaces
Total 111 spaces

Open Space Requirement
 200 SF per DU x 42 Units 8400 SF

Open Space Provided:

Plan	Decks ¹	Patios ²	Count	Qualifying Total
1	68 SF*	-	8	--
1X	68 SF*	120 SF**	8	360 SF
2	77 SF*	120 SF**	4	616 SF
3	77 SF*	120 SF**	9	1898 SF
4	89 SF*	120 SF**	9	3221 SF
5	89 SF*	120 SF**	4	1050 SF
Total				7145 SF

Common Open Space 5872 SF +/-
 Total Qualifying Open Space Provided: 13,017 SF
 Total Open Space Provided: 16,263 SF

- Notes:**
- Minimum Dimension of 70 SF and 7 ft to Qualify
 - 8' x 15' Minimum Patio; Minimum Dimension of 100 SF and 8 ft to Qualify
 - Min. Parking Stall dimension is 8.5' wide x 18' deep (or 8.5' wide x 16' deep with 2' overhang)
 - Type V-B Construction
 - NFPA 13 Sprinkler
 - R-2 Occupancy



Base Map Source: KGTy, 2016

3. Project Description

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Figure 6 - Elevations, 6-Unit Building
3. Project Description

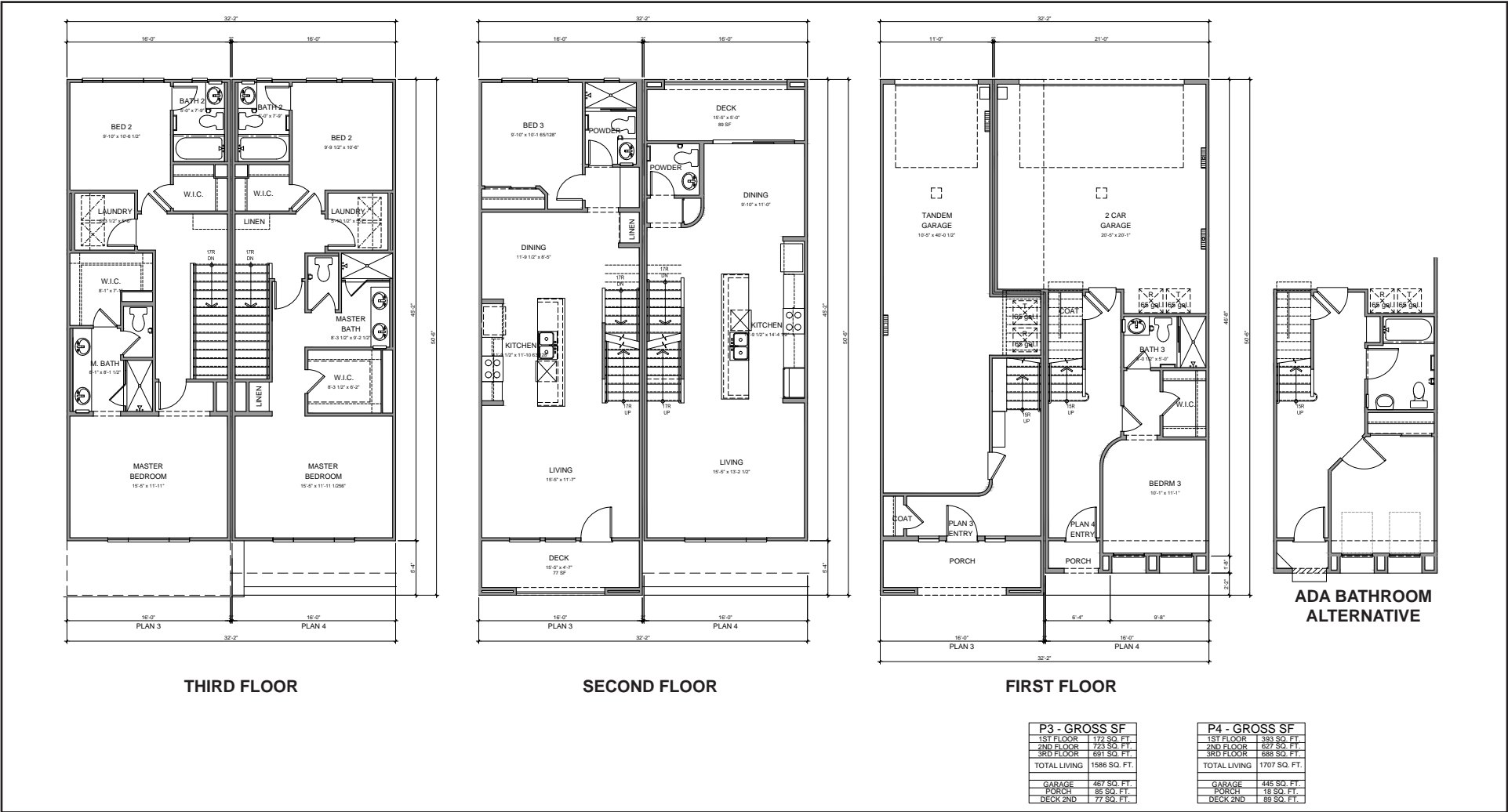


Base Map Source: KGTY, 2016

3. Project Description

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Figure 7 - Floor Plans 3 and 4
3. Project Description



3. Project Description

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4. Environmental Checklist

4.1 BACKGROUND

1. **Project Title:** Olson East Street Townhomes Project

2. **Lead Agency Name and Address:**

City of Anaheim
Planning and Building Department
200 South Anaheim Boulevard
Anaheim, CA 92805

3. **Contact Person and Phone Number:**

Christine Saunders, Associate Planner
(714) 765-5238

4. **Project Location:**

The 1.79-acre Project Site is on the west side of East Street at 633 and 711 South East Street. Local access to the Project Site is via East Street and South Street.

5. **Project Sponsor's Name and Address:**

The Olson Company

3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740

6. **General Plan Designation:** Low-Medium Density Residential

7. **Zoning:** Industrial (I) Zone and a Residential Opportunity (RO) Overlay Zone

8. **Description of Project:**

The Proposed Project would include the demolition of the existing buildings at the site and the development of 42 two and three-bedroom townhomes in eight three-story buildings. The project would include both common and private open space areas and 111 parking spaces: 84 garaged spaces and 27 surface spaces. The Approved Project permits development of up to 32 residential units onsite; thus, impacts analyzed in Chapter 5 of this Addendum are those of development of the net increase of 10 units.

9. **Surrounding Land Uses and Setting:**

The Project Site is currently occupied by two businesses, an auto auction company at 633 South East Street and a Digital Arts/Sign Company at 711 South East Street. Each business occupies one building;

4. Environmental Checklist

the two buildings total approximately 12,000 square feet. Most of the site is paved surface parking used by the auto auction company.

The project site is surrounded by industrial uses to the north; by a recycling facility to the west; by a gas station, industrial uses, and multifamily residential use to the south; and by detached single-family residences opposite East Street to the east.

-
- 10. Other Public Agencies Whose Approval Is Required** (e.g., permits, financing approval, or participation agreement):
None.

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4.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that would represent a new significant environmental effect, a substantial increase in the severity of a significant impact previously identified, or new information of substantial importance, as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural and Forest Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

4.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the Proposed Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Signature

Date

Printed Name

For

4. Environmental Checklist

4.4 EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) **Earlier Analyses Used.** Identify and state where they are available for review.
 - b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

4. Environmental Checklist

- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

4. Environmental Checklist

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5. Environmental Analysis

As discussed previously, this document is an addendum to both EIR No. 330 and SEIR No. 346. Therefore, this document incorporates applicable analysis from both EIR No. 330 and SEIR No. 346. This section provides the evidence that no new significant impacts would occur as a result of the Proposed Olson East Street Townhomes Project (Proposed Project) in comparison to the Anaheim General Plan and Zoning Code Update (Update Project) and the Anaheim Housing Opportunities Site Rezoning Project (Rezoning Project), collectively referred to as the “Approved Project,” or whether a change in circumstances has occurred in relation to the Approved Project, as analyzed by EIR No. 330 and SEIR No. 346, collectively referred to as the “Certified EIR.” In accordance with Section 21166 of CEQA and 15162 of the CEQA Guidelines, and relevant case law, the baseline for this determination is the Approved Project. The section will briefly summarize the conclusions of EIR No. 330 and SEIR No. 346 and then discuss whether or not the Proposed Project is consistent with the findings in those documents. Applicable mitigation measures from EIR No. 330 and SEIR No. 346 are also incorporated into this section and will be compiled into Mitigation Monitoring Plan No. 347. The components of the mitigation program are described below.

- **Standard Requirements (SRs).** Existing SRs are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical SRs include compliance with the provisions of the California and local building codes, South Coast Air Quality Management District rules, City ordinances, and local agency impact fees, among others.
- **Mitigation Measures (MMs).** Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant through the application of SRs, mitigation measures have been provided. All applicable measures from the mitigation and monitoring programs approved in conjunction with EIR No. 330 and SEIR No. 346 have been incorporated into this document. In the instances that mitigation measures identified in SEIR No. 346 are comparable to mitigation measures identified in EIR No. 330, this document incorporates the more recently adopted measures from SEIR No. 346. These mitigation measures have been incorporated into Mitigation Monitoring Plan No. 347 for this Addendum. Any modifications to the mitigation measures from EIR No. 330 and SEIR No. 346 are shown as ~~strikethrough~~ for deleted text and **bold** for new, inserted text.

The City may substitute, at its discretion, any mitigation measure (and timing thereof) that has:(1)The same or superior result as the original mitigation measure and (2) the same or superior effect on the environment. The City of Anaheim Planning Department, in conjunction with any appropriate agencies or City departments, shall determine the adequacy of any proposed “environmental equivalent timing” and, if deemed necessary, may refer said determination to the Planning Commission. Any costs associated with information required in order to make a determination of equivalency/timing shall be borne by the Property Owner/Developer.

5. Environmental Analysis

5.1 AESTHETICS

5.1.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

Implementation of the Update Project was found to have less than significant impacts on scenic vistas. The City is largely built out. The City contains two major open space features: the Hill and Canyon Area in the east part of the City, and the Santa Ana River. The segment of State Route (SR) 91 between SR-55 and the east city boundary is a designated State scenic highway. The Update Project included policies to protect view corridors and scenic resources within the SR-91 scenic highway, including designating 7,788 acres in the City as Open Space/Recreation, to include 5,093 acres of Open Space.

SEIR No. 346 for the Rezoning Project

The Rezoning Project was found to have less than significant impacts on visual character, scenic vistas, and scenic resources, as the rezoning would be consistent with the General Plan land use designations analyzed in EIR No. 330 for the Update Project.

5.1.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Have a substantial adverse effect on a scenic vista?				X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?					X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X	

The project site is surrounded by industrial uses to the north; by a recycling facility to the west; by a gas station, industrial uses, and multifamily residential use to the south; and by detached single-family residences opposite East Street to the east.

No scenic vistas are visible from the site, as views of the Santa Ana Mountains are blocked by houses and trees opposite East Street and views of the San Gabriel Mountains are blocked by industrial buildings to the north.

There are no scenic resources onsite. The two commercial buildings onsite are not historical buildings. One mature tree in front of 633 South East Street is an ornamental landscape tree common to urban areas and is not a scenic resource.

Light sources onsite consist of exterior and interior building lights, parking lot lights, and vehicle lights.

Comments:

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

There are no scenic vistas visible from the project site, as views of the Santa Ana Mountains are blocked by houses and trees opposite East Street and views of the San Gabriel Mountains are blocked by industrial buildings to the north. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Project Site does not contain scenic resources such as trees, rock outcroppings, or historic buildings. Furthermore, the Project Site is not visible from the nearest state-designated scenic highway, SR-91, about 4.5 miles to the northeast. Therefore, as under the Approved Project, no impact would occur due to implementation of the Proposed Project, and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The Project Site is built out with commercial uses, consisting of two buildings and paved surface parking. The Proposed Project consists of development of townhomes including common and private open spaces and a landscape plan. Thus, the Proposed Project would improve the visual character of the Project Site.

No changes proposed by the Proposed Project would result in new impacts to visual character or quality. No impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur, and no changes or new information would require preparation of a subsequent EIR.

5. Environmental Analysis

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.
The Project Site contains building lights and parking lot lights. The Proposed Project would involve installation of lighting including interior and exterior building lights. Therefore, consistent with the conclusions in EIR No. 330 and SEIR No. 346, the continuation of nighttime illumination features would not represent a new, significant impact with regard to lighting or glare.

5.1.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related aesthetics were outlined in the Certified EIR.

5.2 AGRICULTURE AND FOREST RESOURCES

5.2.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 identified areas in the City designated as Prime and Unique Farmland by the California Resources Agency. However, implementation of the General Plan would not change land use designations on any mapped farmland. In addition, there were no Williamson Act contracts in effect in the City at the time or the Update Project or currently. No impact would occur.

SEIR No. 346 for the Rezoning Project

The findings of SEIR No. 346 regarding impacts to agriculture and forest resources were the same as those of EIR No. 330. No impact would occur.

5.2.2 Impacts Associated with the Proposed Project

Would the project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?					X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?					X

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?					X
d) Result in the loss of forest land or conversion of forest land to non-forest use?					X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?					X

Comments:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. As indicated above, the Project Site is currently developed and does not contain farmland or other agricultural uses. Like the Approved Project, the Proposed Project would not convert important farmland to nonagricultural use. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. The Project Site is not zoned for agricultural use and is not subject to a Williamson Act contract. As under the Approved Project, implementation of the Proposed Project would not conflict with agricultural zones or a Williamson Act contract. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

5. Environmental Analysis

No Impact. As discussed above, the Project Site is developed with commercial uses and is not forested. As with the Approved Project, the Proposed Project would not conflict with zoning for forest land timberland. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest land is present on the Project Site. As under the Approved Project, implementation of the Proposed Project would not result in the loss of forest land or the conversion of forest land to non-forest uses. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project Site and surrounding area contain no farmland or forest land. As under the Approved Project, implementation of the Proposed Project would not result in the loss of forest land or the conversion of forest land to non-forest uses. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in EIR No. 330 or SEIR No. 346 would occur. No changes or new information would require preparation of a subsequent EIR.

5.2.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to agricultural resources were outlined in the Certified EIR.

5.3 AIR QUALITY

5.3.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 concluded that some major construction activity could be occurring at any given time over the life of the General Plan, which could exceed South Coast Air Quality Management District's (SCAQMD) significance thresholds even with implementation of all identified mitigation measures. Actual significance would need to be determined on a project by project basis as future development applications are submitted. The Anaheim City Council adopted a Statement of Overriding Considerations with regard to this potential impact.

EIR No. 330 concluded that, even with implementation of all identified mitigation measures, operational emissions from local and regional vehicle sources, natural gas, landscape maintenance equipment, and consumer goods, would exceed SCAQMD's significance thresholds for carbon monoxide (CO), nitrogen

oxides (NO_x), volatile organic compounds (VOCs) (ROG), and particulate matter with a diameter of 10 microns or less (PM₁₀). The Anaheim City Council adopted a Statement of Overriding Considerations with regard to this potential impact.

EIR No. 330 determined that since the 2003 Air Quality Management Plan (AQMP) recognizes that emissions due to trips and mode choices are not only a function of the transportation system, but also relate to the proximity of housing and job-generating land uses, and proximity of jobs to transportation infrastructure and transit, the Update Project is consistent with the 2003 AQMP as the Update Project facilitates the development of housing opportunities in close proximity with regional employment and transportation centers. The Update Project is also considered consistent with the Goals and Policies of Southern California Association of Governments' (SCAG) 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

EIR No. 330 identified that while no CO exceedance would be caused by the project, the City could place sensitive land uses proximate to areas with elevated CO concentrations. However, implementation of General Plan goals and policies would ensure that mitigation would reduce impacts to less than significant levels.

EIR No. 330 demonstrated that there would be no CO exceedances caused by vehicular emissions when idling at intersections, therefore localized CO hot spot impacts would be less than significant. Also, odors generated within the City would not affect a substantial number of people and impacts would be less than significant.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 concluded that construction emissions associated with buildout of the Rezoning Project could result in a substantial increase in criteria air pollutants that would exceed SCAQMD's significance thresholds even with implementation of all identified mitigation measures. Actual significance would need to be determined on a project by project basis. The Anaheim City Council adopted a Statement of Overriding Considerations with regard to this potential impact.

SEIR No. 346 determined that operational emissions associated with the buildout of the Rezoning Project would exceed SCAQMD's significance thresholds even with implementation of all identified mitigation measures. The Anaheim City Council adopted a Statement of Overriding Considerations with regard to this potential impact.

SEIR No. 346 demonstrated that operation of the Rezoning Project may result in placement of sensitive land uses proximate to major sources of air pollution. However, implementation of mitigation measures would reduce impacts to less than significant levels.

SEIR No. 346 identified that operation of the Rezoning Project would not have a significant impact related to exposure of sensitive receptors to elevated concentrations of CO at intersections.

5. Environmental Analysis

5.3.2 Impacts Associated with the Proposed Project

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X	
d) Expose sensitive receptors to substantial pollutant concentrations?				X	
e) Create objectionable odors affecting a substantial number of people?				X	

Methodology

Methodology to evaluate air quality impacts under CEQA has been updated since the EIR No. 330 and SEIR No. 346 were certified, in 2004 and 2013, respectively. SCAQMD has published updates to the Air Quality Analysis Guidance Handbook that provides local governments with guidance for analyzing and mitigating project-specific air quality impacts. These updates include a 2015 update to the SCAQMD Air Quality Significance Thresholds, and a 2006 update to the Localized Significance Thresholds. SCAQMD's most recent air quality analysis model, CalEEMod Version 2016.3.1., was utilized to model emissions under the Proposed Project, and these results were used to compare the impacts of the Approved Project to the Proposed Project.

Under the Approved Project, the project site would be developed with 32 units, and the Proposed Project increases the scope of development by 10 units for a total of 42 units. For purposes of this analysis, construction and operation-phase emissions calculated for the Proposed Project represent the total emissions for the proposed 42-unit development. This approach yields a conservative estimate for operation-phase emissions since modeling represents more than the net increase of 10 units. The net change of 10 units from

the approved 32-unit development under the Approved Project would result in even fewer emissions. In addition, it is assumed that construction of a 42-unit residential development compared to a 32-unit development would require similar construction processes. Thus, the construction emissions quantified for the Proposed Project would be representative of emissions associated with the Approved 32-unit development. Resulting construction and operational phase emissions are compared to the significance thresholds adopted by the SCAQMD. Air quality modeling results are included in Appendix A.

Comments:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

EIR No. 330 determined that the Update Project would not increase the frequency or severity of air quality violations in the SoCAB and would not exceed the assumptions of the AQMP. As a result, impacts of the Update Project were considered less than significant. In addition, as analyzed in the Initial Study in support of the Notice of Preparation prepared for SEIR No. 346, it was also determined that the Rezoning Project, as considered, would also be consistent with the AQMP and result in a less than significant impact.

SCAQMD is directly responsible for regulating the reduction of emissions from area, stationary, and mobile sources in the SoCAB to achieve National and California Ambient Air Quality Standards (AAQS). March 3, 2017, the SCAQMD Governing Board adopted the 2016 AQMP. The Proposed Project would result in changes to the Approved Project.

The two principal criteria for conformance to an AQMP are:

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards and
2. Whether the project would exceed the assumptions in the AQMP.

With respect to the first criterion, the analyses in responses to 5.3(b) and 5.3(c) below demonstrate that the Proposed Project would not generate short-term or long-term emissions of criteria pollutants that could potentially cause an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards beyond those impacts considered in the Certified EIR.

SCAG determines whether a project is regionally significant per CEQA Guidelines Section 15206(b), which states that the lead agency shall determine that a Proposed Project is of statewide, regional, or area-wide significance if the project is a residential development of more than 500 dwelling units. Therefore, the Proposed Project, which includes 42 dwelling units, is not considered regionally significant by SCAG and the Proposed Project would not have the potential to substantially affect SCAG's demographic projections. As discussed in Chapter 5.13, the population, housing, and employment growths introduced by the Proposed Project would be within the citywide net increase in population growth estimated for Approved Project buildout. Therefore, with respect to the second criterion, the Proposed Project would not increase or modify

5. Environmental Analysis

SCAG's population, housing, or employment projections beyond what was already anticipated for the area in the Certified EIR. Therefore, the Proposed Project would be consistent with the region's AQMP. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No changes or new information would require preparation of a subsequent EIR.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The following describes changes in regional impacts from short-term construction activities and long-term operation of the Proposed Project compared to construction and operation of the Approved Project.

Construction-Related Impacts

The Certified EIR identified that criteria air pollutant emissions generated during construction activities could generate emissions that exceeded the SCAQMD regional thresholds. Mitigation measures were incorporated into the Certified EIR to reduce impacts. However, actual significance would need to be determined on a project by project basis.

Table 1, *Maximum Daily Regional Construction Emissions*, shows the maximum daily construction emissions of the Approved Project identified in SEIR No. 346 as well as the maximum daily construction emissions for the Proposed Project. SEIR No. 346 identified that criteria air pollutant emissions generated during construction activities could generate emissions that exceeded the SCAQMD thresholds. Mitigation measures were incorporated into the Certified EIR to reduce impacts, to the extent feasible. However, air quality emissions related to construction activities must be addressed on a project-by-project basis to determine whether individual projects would result in the exceedance of SCAQMD's short-term regional or localized construction emissions thresholds. As stated in Section 5.3.1, Summary of Previous Environmental Analysis, the Anaheim City Council adopted a Statement of Overriding Considerations with regard to this potential impact.

As shown in Table 1, the highest construction emissions associated with the Proposed Project would occur during grading activities, which are anticipated to occur in 2018. Criteria air pollutants, including VOCs, NO_x, CO, PM₁₀, and PM_{2.5}, would not be significant for the Proposed Project. Consequently, the Proposed Project would not result in an increase in the severity of any previously identified significant impacts compared to those identified in the Certified EIR. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No changes or new information would require preparation of a subsequent EIR.

Operation-Related Impacts

The Certified EIR found that operational emissions from local and regional vehicle sources, natural gas, landscape maintenance equipment, and consumer goods, would exceed SCAQMD's significance thresholds. Table 2, *Maximum Daily Regional Operational Phase Emissions*, shows the maximum daily operational emissions associated with the Approved Project as identified in the Certified EIR as well as the maximum daily

operation emissions for the Proposed Project. As previously stated, the total Proposed Project emissions represent the entire 42-unit development rather than the 10 unit increase from the 32-unit development allowed under the Approved Project. The Proposed Project would increase operational emissions generated by the project site by approximately 24 percent, as compared to the 32 dwelling units assumed for the site in the Approved Project. However, as shown in Table 2, operational emissions for the Approved Project and Proposed Project are below the SCAQMD regional operation thresholds and are not considered significant. Consequently, the Proposed Project would not result in a new significant impact or an increase in the severity of any previously identified significant impacts compared to those identified in the Certified EIR. No changes or new information would require preparation of a subsequent EIR.

Table 1 Maximum Daily Regional Construction Emissions

Construction Phase	Pollutants (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
City-wide Emissions Identified in EIR No. 346¹						
Construction	377	2,590	2,260	3	161	159
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	Yes	Yes	Yes	No	Yes	Yes
Proposed Project^{2,3}						
2017 Building Demolition + Haul	1	15	8	<1	4	1
2017 Asphalt Demolition	<1	4	5	<1	<1	<1
2018 Asphalt Demo + Haul	<1	12	7	<1	3	1
2018 Site Preparation	<1	6	6	<1	<1	<1
2018 Rough Grading + Haul	2	34	29	<1	7	3
2018 Fine Grading + Haul	<1	11	7	<1	2	<1
2018 Utility Trenching	<1	5	6	<1	<1	<1
2018 Building Construction	2	14	18	<1	2	1
2019 Building Construction	2	14	18	<1	1	1
2019 Paving	<1	8	9	<1	<1	<1
2019 Architectural Coating & Finishing	14	5	7	<1	<1	<1
2019 Building + Paving + Coating/Finishing	16	27	34	<1	2	2
Maximum Daily Emissions	14	35	29	<1	7	3
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No
Net Change Compared to the Approved Project						
¹ Net Change in Maximum Daily Emissions	-367	-2,556	-2,231	-2	-154	6

Notes: Totals may not equal 100 percent due to rounding. **Bold** = Exceeds SCAQMD threshold.

¹ Anaheim 2013. Table 5.1-8, Summary Comparison of the Proposed Project to the 2004 Approved Project.

² CalEEMod Version 2016.3.1. Based on the preliminary information provided by the Applicant.

³ Includes implementation of fugitive dust control measures consistent with SCAQMD under Rule 403, including, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, street sweeping with Rule 1186-compliant sweepers, as well as use of Tier 3 construction equipment for equipment 50 hp or greater, soil stabilizer for unpaved roads, and watering disturbed areas a minimum of three times per day.

⁴ Net change is shown for informational purposes only to highlight the scale of the proposed 42-unit project compared to the larger overall project.

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Table 2 Maximum Daily Regional Operational Phase Emissions

Source	Criteria Air Pollutants (lbs/day)					
	ROG (VOC)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
City-wide Emissions Identified in SEIR No. 346¹						
Area	2,433	1,778	38,491	4	204	202
Energy	348	3082	2049	19	240	240
Mobile	4,978	8,045	38,785	197	2,216	999
Total	7,759	12,905	79,325	220	2,660	1,441
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	Yes	Yes	Yes
Approved Project (32 units)²						
Area	1	<1	2	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	4	<1	1	<1
Total	1	<1	6	<1	1	<1
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Proposed Project (42 units)²						
Area	2	<1	3	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	1	6	<1	2	<1
Total	2	1	9	<1	2	<1
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Note: Totals may not equal 100 percent due to rounding.

¹ Anaheim 2013, Table 5.1-8, Summary Comparison of the Proposed Project to the 2004 Approved Project (excludes construction emissions)

² CalEEMod, Version 2016.3.1. Highest summer or winter emissions.

- c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS, nonattainment for PM₁₀ under the California AAQS, and nonattainment for lead under the National AAQS (CARB 2016). According to SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (SCAQMD 1993).

As stated in threshold 5.3(b), no increase in regional emissions is anticipated compared to that analyzed in the SEIR No. 346, and the cumulative impact would be less than significant.

As discussed under Threshold “b” above, the Proposed Project would not result in a substantial increase in regional construction or operational emissions when compared to the previous analyses. Because direct impacts were previously determined to exceed SCAQMD thresholds, cumulative impacts were determined to

be significant and unavoidable. The Anaheim City Council adopted a Statement of Overriding Considerations for the Approved Project. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No changes or new information would require preparation of a subsequent EIR.

The Certified EIR found that the increase in nonattainment pollutants could result in cumulatively considerable impacts that would be significant and unavoidable. The development of 10 additional dwelling units under Proposed Project would not significantly contribute toward the impacts that were identified in the Certified EIR for the Approved Project. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The Certified EIR found that short-term localized exposure of persons to PM₁₀ and PM_{2.5} would be a significant and unavoidable impact. Construction and operation of the Proposed Project could generate pollutant emissions and expose sensitive receptors to elevated pollutant concentrations. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects. The following describes changes in localized impacts from short-term construction activities and long-term operation of the Proposed Project.

Localized Construction Impacts

LSTs are based on the California AAQS, which are the most stringent AAQS that have been established to provide a margin of safety in the protection of public health and welfare. They are designated to protect those sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. Construction LSTs are based on the size of the project site, distance to the nearest sensitive receptor, and Source Receptor Area (SRA). Receptors proximate to the Proposed Project site include nearby residences approximately 90 feet (28 meters) to the east along South East Street and non-sensitive receptors at the adjacent self-storage facility approximately 80 feet (25 meters) to the north.

Air pollutant emissions generated by construction activities are anticipated to cause temporary increases in air pollutant concentrations. Table 3, *Localized Construction Emissions*, shows the maximum daily emissions (lbs. per day) generated by on-site construction activities compared with the SCAQMD's LSTs. As shown in the table, the maximum daily PM₁₀, NO_x, CO, and PM_{2.5} emissions generated from on-site construction-related activities would be less than their respective SCAQMD LSTs. Therefore, project-related construction activities not expose sensitive receptors to substantial pollutant concentrations.

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Table 3 Localized Construction Emissions

Source	Pollutants(lbs/day) ^{1,2}			
	NO _x	CO	PM ₁₀	PM _{2.5}
2017 Demolition + Demo Debris Haul	4	5	2.84	0.64
2018 Asphalt Demolition	54	5	0.24	0.24
2018 Asphalt Demolition + Haul	4	5	2.27	0.55
2017 Site Preparation	5	6	0.19	0.19
2018 Fine Grading + Haul	5	6	1.51	0.33
2018 Utility Trenching	4	6	0.23	0.23
2018 Building Construction	13	16	0.83	0.83
2019 Building Construction	13	16	0.79	0.79
2019 Architectural Coating + Finishing	5	9	0.38	0.38
2019 Paving	7	9	0.38	0.38
2019 Building + Paving + Coating/Finishing	25	31	1.51	1.51
SCAQMD ≤1-acre LST	81	485	4.78	3.10
Exceeds LST?	No	No	No	No
2018 Rough Grading + Haul	22	25	6.59	2.54
SCAQMD ≤1.8 -acre LST	108	669	6.77	3.98
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2016.3.2; SCAQMD 2011; and SCAQMD 2008.

Notes: LSTs are based on residential receptors within 90 feet (27 meters) and commercial receptors within 82 feet (25 meters) of a 1.8-acre site in SRA 17.

¹ Air quality modeling based on construction information provided by the Applicant. Where specific construction information was not available, construction assumptions were based on CalEEMod defaults.

² Includes implementation of fugitive dust control measures consistent with SCAQMD under Rule 403, including, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, street sweeping with Rule 1186-compliant sweepers, as well as use of Tier 3 construction equipment for equipment 50 hp or greater, soil stabilizer for unpaved roads, and watering disturbed areas a minimum of three times per day.

Localized Construction Impacts - Health Risk

SCAQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Emissions from construction equipment primarily consist of diesel particulate matter (DPM), which is a toxic air contaminant (TAC). The Office of Environmental Health Hazards Assessment (OEHHA) adopted guidance for the preparation of health risk assessments in February 2015. OEHHA has developed a cancer risk factor and non-cancer chronic reference exposure level for DPM, but these factors are based on continuous long-term (i.e. 30 years) exposure averaged over a 70-year time frame. No short-term acute exposure levels have been developed for DPM. Nevertheless, the Proposed Project would be developed in approximately 16 months, which is less than the 30-year exposure period for DPM and risk accumulated over a 70-year lifetime, and would limit the exposure to off-site receptors. In addition, construction activities would not exceed LST significance thresholds. For the reasons stated above, it is anticipated that construction emissions would not pose a threat to nearby sensitive receptors.

Localized Operational Impacts

Operation of the Proposed Project would not generate substantial emissions from on-site, stationary sources. Land uses that have the potential to generate substantial stationary-source emissions would require a permit

from SCAQMD and include industrial land uses such as chemical processing and warehousing operations where substantial truck idling could occur on-site. The Proposed Project does not fall within this category of uses. Operation of the Proposed Project would entail the use of standard mechanical equipment (such as heating, ventilation, and air conditioning units) and the occasional use of landscaping equipment for project site maintenance. Air pollutant emissions generated from these activities would be below the SCAQMD LST threshold, as shown in Table 4, *Localized Operation Emissions*. Therefore, localized air quality impacts related to stationary-source emissions would be less than significant.

Table 4 Localized Operation Emissions

Source	Pollutants (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area	<1	3	<1	<1
Energy	<1	<1	<1	<1
Maximum Daily On-site Operation Emissions	<1	3	<1	<1
SCAQMD LST	91	664	1.29	1.10
Exceeds LST?	No	No	No	No

Source: CalEEMod 2016.3.1; SCAQMD 2006, Appendix A.

In accordance with SCAQMD methodology, only on-site stationary sources and on-site mobile equipment are included in the analysis. LSTs are based on residential receptors within 90 feet (27 meters) and commercial receptors within 82 feet (25 meters) of a 1.8-acre site in SRA 17.

Carbon Monoxide Hotspots

The Certified EIR concluded that local concentrations of CO would be below the maximum allowable concentrations in state and federal standards, and impacts related to localized CO levels would be less than significant.

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. Typically, for an intersection to exhibit a significant CO concentration, it would need operate at level of service (LOS) E or worse without improvements (Caltrans 1997).

However, at the time of the 1993 SCAQMD Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by SCAQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak

5. Environmental Analysis

morning and afternoon periods.³ As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2011). Once constructed and occupied, the Proposed Project would generate up to 244 average daily trips (LSA Associates 2017). Therefore, the Proposed Project would not produce the volume of traffic required to generate a CO hotspot.

Health Risks from Existing Air Emissions Near the Project Site

Since Certification of SEIR No. 346, the court has clarified that the purpose of an environmental evaluation is to identify the significant effects of the Proposed Project on the environment, not the significant effects of the environment on the Proposed Project (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal.4th 369 [Case No. S213478]). CEQA does not require an analysis of the Proposed Project's environmental effects on potential future sensitive receptors at a project site. However, a health risk assessment (HRA) has been prepared under a separate cover to satisfy this mitigation requirement of SEIR No. 346.

The City of Anaheim requires that developers of residential projects within 1,000 feet of a use that can release substantial amounts of airborne hazardous materials (determined to be "Category 1, 2, or 3" hazardous materials) implement certain mitigation measures to reduce hazards to residents of the Proposed Projects, set forth as EIR No. 330 MM 5.6-2 and SEIR No. 346 MM 5.2-7.

A Health Risk Assessment for the Proposed Project was completed by PlaceWorks in April 2017 pursuant to the aforementioned requirement. This discussion is provided for information only and for compliance with such requirement; health risks from nearby existing sources on future project applicants is not considered a CEQA impact, and no significance determination is made.

Eight emissions sources within 1,000 feet of the Proposed Project site were evaluated: a City of Anaheim facility; five industrial uses; one commercial use – the gas station next to the south site boundary – and locomotives on the LOSSAN Corridor track about 810 feet west of the site. Contaminants evaluated included diesel particulate matter (DPM); a variety of hydrocarbons, including petroleum hydrocarbons; several metals; and ammonia.

As described in the HRA, the residential health risk values from exposures to off-site sources of air emissions were determined based on the 2015 OEHHA adopted guidance. The determined incremental cancer risks are based on maximum ground level concentrations from emissions sources, conservatively assuming a 30-year,

³ The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

24-hour per day outdoor exposure and averaged over a 70-year lifetime. The incremental cancer risk from all hazardous substances emitted by all eight sources – assuming 24 hour-per-day outdoor exposure – is estimated as 20.5 in one million, and is above the SCAQMD threshold of 10 in one million. In addition to the 24-hour outdoor exposure scenario, the HRA evaluated a scenario where project occupants would spend 2 hours per day outside their residence and the remainder of the time inside the residence with the benefit of enhance air filtration with air filters of a Minimum Efficiency Rating Value (MERV) of 11 or higher. MERV 11 filters capable of removing approximately 73 percent of diesel particulate matter. For the scenario assuming 22 hours per day indoors and 2 hours per day of outdoors, the incremental cancer risk was calculated as 6.9 per million, which is below the SCAQMD threshold.

Non-carcinogenic risks were estimated by estimating health risks of each hazardous substance from each source to each target organ system for that substance; and then summing all the resulting ratios for each organ system. The sum, or hazard index, is considered to indicate a significant impact when the hazard index is 1.0 or greater. Two non-carcinogenic hazard indices were calculated: acute, for one-hour outdoor exposure; and chronic, for long-term outdoor exposure. The acute and chronic hazard indices for the 24-hour outdoor exposure scenario were 0.049 and 0.066, respectively; that is, below SCAQMD thresholds.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

According to the SCAQMD’s CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified by the SCAQMD as being associated with odors and therefore would not produce objectionable odors. As such, the Proposed Project would have no impact related to objectionable odors. This would be consistent with what was identified in SEIR No. 330; therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects.

Overall, the Proposed Project would be consistent with the Approved Project as analyzed in the Certified EIR. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No changes or new information would require preparation of a subsequent EIR.

5.3.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347. Clarifying language added to MM 5.2-7 as a result of the findings of the HRA, required by said mitigation measure, are shown in underline.

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Construction

MM 5.2-1 Prior to the issuance of grading permits, the property owner/developer shall include a note on all grading plans which requires the construction contractor to implement the following measures during grading. These measures shall also be discussed at the pre-grade conference.

- Use low emission mobile construction equipment.
- Maintain construction equipment engines by keeping them tuned.
- Use low sulfur fuel for stationary construction equipment.
- Utilize existing power sources (i.e., power poles) when feasible.
- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes. When feasible, construction should be planned so that lane closures on existing streets are kept to a minimum.
- Schedule construction operations affecting traffic for off-peak hours.
- Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).

Operation

MM 5.2-5 The City will encourage the incorporation of energy conservation techniques (i.e. installation of energy saving devices, construction of electric vehicle charging stations, use of sunlight filtering window coatings or double-paned windows, utilization of light-colored roofing materials as opposed to dark-colored roofing materials, and placement of shady trees next to habitable structures) in new developments.

MM 5.2-6 The City will encourage the incorporation of bus stands, bicycle racks, bicycle lanes, and other alternative transportation related infrastructure in new developments.

MM 5.2-7 Prior to the issuance of building permits, the property owner/developer for residential or residential mixed-use projects within: 1) 1,000 feet from the truck bays of an existing distribution centers that accommodate more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units, or where transport refrigeration unit operations exceed 300 hours per week; 2) 1,000 feet of an industrial facility which emits toxic air contaminants; or 3) 500 feet of Interstate 5 (I-5), State Route 91 (SR-91), State Route 57 (SR-57) or State Route 55 (SR-55), shall submit a health risk assessment (HRA) prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District (SCAQMD).

The HRA shall be submitted to the Anaheim Planning Department prior to the issuance of building permits for any future residential or residential mixed-use project. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05), or the appropriate noncancer hazard index exceeds 1.0, or if the PM₁₀ or PM_{2.5} ambient air quality standard exceeds 2.5 µg/m³, the HRA shall identify the level of high-efficiency Minimum Efficiency Reporting Value (MERV) filter required to reduce indoor air concentrations of pollutants to achieve the cancer and/or noncancer and/or ambient air quality threshold.

The HRA completed for the Proposed Project concluded that a MERV-11 filter shall be required to reduce indoor air concentrations of pollutants to achieve the cancer and/or noncancer and/or ambient air quality threshold. Heating, ventilation, and air conditioning systems for units that are installed with MERV-11 filters shall maintain positive pressure within the building's filtered ventilation system to reduce infiltration of unfiltered outdoor air. The property owner/developer shall be required to install high efficiency MERV-11 filters in the intake of residential ventilation systems, consistent with the recommendations of the HRA. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV filter. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the following shall occur:

- a) Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk for affected units.
- b) For rental units, the owner/property manager shall maintain and replace MERV-11 filters in accordance with the manufacturer's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates when windows are open.
- c) For residential owned units, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV-11 filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowners of increased risk of exposure to diesel particulates when windows are open.
- d) For projects within 500 feet of the freeway, air intakes on residential buildings shall be placed as far from the freeway as possible.
- e) For projects within 500 feet of the freeway, the residential buildings should be designed to limit the use of operable windows and/or balconies on portions of the site adjacent to and facing the freeway.

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5.4 BIOLOGICAL RESOURCES

5.4.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 concluded that implementation of the Update Project would include development of residential land uses in large vacant areas, which would adversely impact sensitive species through habitat loss and habitat modification. Buildout of the Update Project was identified as potentially impacting riparian areas and/or wetlands through development in the Hill and Canyon Area and along the Santa Ana River. Developments in the Hill and Canyon Area pursuant to the Update Project were identified as impacting wildlife movement in that area. EIR No. 330 concluded that implementation of the Update Project would comply with City tree preservation policies and the Orange County Central/Coastal Natural Communities Conservation Plan. Impacts to sensitive species, riparian areas, wetlands, and wildlife movement were identified as less than significant after implementation of mitigation, while the remaining impacts were identified as less than significant without mitigation.

SEIR No. 346 for the Rezoning Project

No further impacts to biological resources were identified in SEIR No. 346, as the proposed Rezoning Project was consistent with the Update Project, and development of those sites was envisioned in the Update Project.

5.4.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					X

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?					X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?					X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?					X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?					X

The Project Site is in a built-out portion of Anaheim that contains few biological resources. The Project Site is currently developed with commercial uses. The only biological resources on the Project Site are ornamental trees and shrubs, including street trees, near the east end of the site along East Street. The Project Site is not located with the plan area of an adopted habitat conservation plan and it is not subject to a local policy or ordinance protecting biological resources.

Comments:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No Impact. The Project Site does not contain habitat for candidate, sensitive, or special status species. Therefore, the Proposed Project would have no impact on these types of species. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in the Certified EIR would occur. No changes or new information would require preparation of a subsequent EIR.

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- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No Impact. As analyzed in the SEIR No. 346, the Project Site does not contain riparian habitat or other sensitive natural community. Therefore, the Proposed Project would have no impact on these communities and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in the Certified EIR would occur. No changes or new information would require preparation of a subsequent EIR.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. Wetlands are defined under the Federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. The Project Site does not contain wetlands. Therefore, Proposed Project development would not adversely affect wetlands. No impact would occur and no mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in the Certified EIR would occur. No changes or new information would require preparation of a subsequent EIR.

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No Impact. The Project Site is not in a wildlife movement corridor and does not contain native wildlife nursery sites. Project development would not affect these types of biological resources. Project development would include removal of ornamental trees and shrubs in the eastern part of the site. Such trees and shrubs could be used for nesting by migratory birds protected under the federal Migratory Bird Treaty Act and California Fish and Game Code Section 3503. Implementation of Mitigation Measure 5.3-4 set forth in EIR No. 330 would reduce this impact to less than significant.

No new significant impacts or impacts of greater severity than those previously identified in the Certified EIR would occur. No changes or new information would require preparation of a subsequent EIR.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No Impact. The Anaheim City Council may designate landmark trees on public property; removal of landmark trees is prohibited without prior approval of the City Council (Anaheim Municipal Code Chapter 11.12). Removal or trimming of street trees is prohibited without first having secured written permission from the Director of Community Services or his or her designee (Anaheim Municipal Code Chapter 13.12).

The Project Site is not subject to a City tree preservation ordinance or other local regulation protecting biological resources. Project development would not conflict with these types of policies or ordinances and

no impact would occur. No mitigation is necessary. Accordingly, no new significant impacts or impacts of greater severity than those previously identified in the Certified EIR would occur. No changes or new information would require preparation of a subsequent EIR.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project Site is in the Plan Area of the Orange County Transportation Authority M2 Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which encompasses all of Orange County. The NCCP/HCP was finalized by the OCTA Board of Directors in November 2016, after certification of SEIR No. 346. The Project Site is not in or near a preserve or restoration project established under the NCCP/HCP (OCTA 2014). No impact would occur and no changes or new information would require preparation of a subsequent EIR.

5.4.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347.

MM 5.3-3 If construction activity is timed to occur during the nesting season (typically between March 1 and July 1), developers will be required to provide focused surveys for nesting birds pursuant to California Department of Fish and Game requirements. Such surveys shall identify avoidance measures taken to protect active nests.

MM 5.3-4 Removal of nonnative trees shall be permitted only outside the nesting season.

5.5 CULTURAL RESOURCES

5.5.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 concluded that the Update Project would not result in significant cultural resources impacts related to historical resources, archaeological resources, and paleontological resources upon implementation of regulatory requirements, General Plan goals and policies, and mitigation measures identified MMP No. 122 as listed in Section 5.5.3 of this Addendum.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 determined that the Rezoning Project would be consistent with land use designations identified for those sites in the Update Project, and because EIR No. 330 already contemplated buildout of the housing opportunity sites proposed by the Rezoning Project, impacts to cultural resources would not be greater than identified under the EIR No. 330.

5. Environmental Analysis

5.5.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	
d) Disturb any human remains, including those interred outside of formal cemeteries?				X	

The Project Site is in the Anaheim Colony Historic District. The two buildings onsite were built between 1953 and 1963 based on review of historic aerial photographs (NETR 2017). The site is shown cultivated with an orchard in the 1953 aerial photograph. The site is shown as vacant on a 1935 topographic map; East Street and South Street are present; one building is present on the site of the existing gas station abutting the south side of the project site; and an Atchison Topeka & Santa Fe (now OCTA) railroad track is shown about 800 feet west of the site (USGS 1935). The site is shown as vacant on a 1901 topographic map (USGS 1901).

Thus, the two buildings are over 50 years old. Both buildings onsite are single-story constructed of cement block. The front of the 633 South East Street building consists of wood panel and stone veneers, windows, and a door. Neither building is listed on the National Register of Historic Places (NRHP), and the Project Site is not in a National Historic District (NPS 2017). Neither building is listed as a California State Historic Landmark or as a California Point of Historical Interest (OHP 2017). A 140-acre portion of the Anaheim Colony Historic District, 0.4 miles northwest of the Project Site, is designated the Kroger-Melrose National Historic District (NPS 2017). Neither building is listed by the City of Anaheim as a contributing structure to the Colony Historic District; a Qualified Historical Structure; a Citywide Historically Significant Structure; or a Citywide Structure of Historical Interest (Anaheim 2016a).⁴ The owner of the site does not participate in the Mills Act Program, under which property taxes may be reduced in exchange for owners restoring their building exteriors and maintaining them in historically accurate condition (Anaheim 2016b).

⁴ A Qualified Historical Structure qualifies for participation in the Mills Act Program, under which property taxes may be reduced in exchange for owners restoring their building exteriors and maintaining them in historically accurate condition.

Comments:

- a) **Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?**

Less than Significant Impact. The Project Site is in the Anaheim Colony Historic District. The two industrial buildings onsite were built between 1953 and 1963. The buildings have not been identified by the City of Anaheim as historical structures, and are not listed on the NRHP or as State Historical Landmarks or State Points of Historical Interest. Project development would include demolition of both structures onsite. There are no significant historical structures onsite, and impacts would be less than significant. Redevelopment of the project site with residential uses was analyzed in the Certified EIR. No changes or new information would require preparation of a subsequent EIR.

- b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Project Site is currently developed and not known to contain important archaeological resources. It is assumed here that implementation of the Approved Project on the Project Site would have involved grading and excavation to generally similar depths than would be required for the Proposed Project. Thus, no substantial incremental impact on buried archaeological resources would occur. Mitigation measures 5.4-2 and MM 5.4-3 from MMP 122A from the Certified EIR also apply to the Proposed Project. Therefore, no changes or new information would require preparation of a subsequent EIR.

- c) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Project Site is currently developed and not known to contain important paleontological resources. The Project Site is not underlain by a rock formation noted in EIR No. 330 as being fossil-bearing. The Proposed Project is not expected to involve a substantial increase in depth of grading or excavation compared to implementation of the Approved Project, as explained in Section 5.5.2.b above. MM 5.4-2 and MM 5.4-3 from the Certified EIR also apply to the Proposed Project. Therefore, no changes or new information would require preparation of a subsequent EIR.

- d) **Disturb any human remains, including those interred outside of formal cemeteries?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Project Site is currently developed and not expected to contain any human remains. California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be

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those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. The project would comply with existing law, and potential impacts to human remains would be less than significant. As a result, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects related to cultural resources.

5.5.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347.

MM 5.4-2 City staff shall require property owners/developers to provide studies to document the presence/absence of archaeological and/or paleontological resources for areas with documented or inferred resource presence. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified specialist.

MM 5.4-3 All archaeological resources shall be subject to the provisions of CEQA (Public Resources Code) Section 21083.2.

5.6 GEOLOGY AND SOILS

5.6.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 determined that the Update Project would not expose future residents to hazards from groundshaking, liquefaction, expansive soils, landslides, erosion, and loss of topsoil provided that the General Plan goals and policies, existing codes and regulations, and MM 5.5-1 are implemented.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 concluded that upon implementation of regulatory requirements and General Plan goals and policies and MM 5.5-1, the Rezoning Project would not result in significant impacts related to geology and soils. Because the EIR No. 330 contemplated development of the housing opportunity sites for residential and mixed uses, impacts related to geology and soils resulting from the Rezoning Project was determined to be less than significant.

5.6.2 Impacts Associated with the Proposed Project

The information in this Section is based partly on the Geotechnical Due-Diligence Investigation, Proposed Multi-Family Residential Development, 711 S. East Street, Anaheim, California by Albus-Keefe & Associates, Inc. dated August 11, 2016. A complete copy of this report is included as Appendix B to this Addendum.

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.					X
ii) Strong seismic ground shaking?				X	
iii) Seismic-related ground failure, including liquefaction?				X	
iv) Landslides?					X
b) Result in substantial soil erosion or the loss of topsoil?				X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2013), creating substantial risks to life or property?				X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?					X

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Comments:

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act requires the state geologist to delineate earthquake fault zones along faults that are “sufficiently active” and “well defined.” The act requires that cities and counties withhold development permits for sites in an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacements from future faulting. Pursuant to this act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault. Active faults are those showing surface expression of displacement within about the last 11,000 years. There are no Alquist-Priolo Earthquake Fault Zones in the City of Anaheim. The Proposed Project would not expose people or buildings to hazards from surface rupture of a known active fault, and no impact would occur. No changes or new information would require preparation of a subsequent EIR.

ii) **Strong seismic ground shaking?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. As disclosed in the Certified EIR, the principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California. Eight faults within 10 miles of the project site identified in the Geotechnical Report are listed below with their distances from the project site:

- The Puente Hills (Coyote Hills) fault, 3.1 miles
- Five segments of the Elsinore Fault Zone, each 7.4 miles
- San Joaquin Hills, 9.4 miles
- Puente Hills (Santa Fe Springs), 9.75 miles

The peak ground acceleration onsite with a two percent chance of exceedance in 50 years – that is, an average return period of 2,475 years – is 0.528g, where g is the acceleration of gravity. Ground acceleration of 0.528g corresponds to an intensity of VIII on the Modified Mercalli Intensity (MMI) Scale (Wald et. al. 1999), a subjective scale of how earthquakes are felt by people and the effects of earthquakes on buildings. The MMI Scale is a 12-point scale where Intensity I earthquakes are generally not felt by people; in Intensity XII earthquakes damage is total, and objects are thrown into the air (USGS 2017).

In an intensity VIII earthquake, damage is slight in specially designed structures; considerable damage occurs in ordinary substantial buildings with partial collapse; and damage is great in poorly built

structures. Chimneys, factory stacks, columns, monuments, and walls fall, and heavy furniture is overturned (USGS 2017).

Structures for human occupancy must be designed to meet or exceed California Building Code (CBC) standards for earthquake resistance. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motion with a specified probability at the site. The CBC is updated on a three-year cycle; the 2016 CBC took effect on January 1 2017. The geotechnical investigation for the project would calculate seismic design parameters, pursuant to CBC requirements, that must be used in the design of the proposed building.

Therefore, impacts would be less than significant and no impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. No groundwater was encountered in three borings to depths of up to 36.5 feet below ground surface (bgs) conducted as part of the geotechnical investigation for the project. Historical high groundwater under the site is more than 50 feet deep. The project site is not in a Zone of Required Investigation for Liquefaction mapped by the California Geological Survey. Therefore, liquefaction potential beneath the site is considered to be very low. However, as with the Certified EIR, compliance with the regulatory requirements and General Plan goals and policies, and implementation of MM 5.5-1 would ensure that impacts related to ground failure are reduced to a less than significant level. No impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

iv) Landslides?

No Impact. The site is not in a Zone of Required Investigation for Earthquake-Induced Landslides mapped by the California Geologic Survey (CGS). No impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Due to the location of the Project Site within a relatively flat and developed area, the Proposed Project is not anticipated to result in substantial erosion or loss of topsoil. The Project Site is currently developed and covered with impervious surfaces, including buildings, concrete, and paving. Once construction is complete, the project site shall comply with best management practices (BMPs) identified in the preliminary water quality management plan prepared for the Proposed Project – included as Appendix D to this Addendum – to reduce erosion effects to less than significant levels, as discussed in Section 5.9, *Hydrology and Water Quality*, of this Addendum. Furthermore, construction activities would be performed pursuant to the current

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National Pollutant Discharge Elimination System permit requirements. Therefore, no impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Liquefaction and Lateral Spreading

Liquefaction potential under the site is considered very low, as substantiated above in Section 5.6.2.a.iii of this Addendum. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The potential for lateral spreading onsite is estimated to be very low, due to the very low potential for liquefaction under the site.

Landslides

Landslides are not anticipated at the site (see Section 5.6.2.a.iv of this Addendum).

Subsidence

The major cause of ground subsidence is the excessive withdrawal of groundwater. The project site sits above the Main Orange County Groundwater Basin (Basin). The OCWD manages groundwater levels in the Basin within a specified operating range pursuant to state law. Thus, there is little potential for considerable future subsidence in the Basin (OCWD 2015). Project development would not subject workers, visitors, or structures to substantial hazards arising from ground subsidence. No impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

Collapsible Soils

Collapsible soils shrink upon being wetted and/or being subject to a load. Existing site soils to a depth of about three feet bgs were determined to be unsuitable to support the proposed residences. Removal of such soils – that is, artificial fill soils plus the uppermost one foot of underlying alluvial soils – and replacement with engineered, moistened, and compacted fill soils is recommended in the project geotechnical report. Project design, grading, and construction would comply with the aforementioned recommendations. Project development would not subject people or structures to substantial hazards from collapsible soils. No impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

- d) Be located on expansive soil, as defined in Table 19-1-B of the Uniform Building Code (2013), creating substantial risks to life or property?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Near-surface site soils are expected to have a very low expansion potential. The geotechnical report recommends additional testing for expansion potential before rough grading and again before construction of foundations and concrete flatwork. Project site grading would comply with the aforementioned recommendations, and project development would not expose people or structures to substantial hazards arising from expansive soils. No impacts of greater severity than those previously identified in the Certified EIR would occur. Preparation of a subsequent EIR would not be necessary.

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. As under the Approved Project, implementation of the Proposed Project would not involve the construction or use of septic tanks or other alternative wastewater disposal system. Project development would involve construction of sewer laterals connecting to existing sewer mains. No impact would occur and no changes or new information would require preparation of a subsequent EIR.

5.6.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347. Clarifying language added to MM 5.5-1 as a result of the geotechnical investigation, required by said mitigation measure, is shown in underline.

MM 5.5-1 The City shall require geologic and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental or development review process. All grading operations will be conducted in conformance with the recommendations contained in the applicable geotechnical investigation.

The requirement for a geotechnical investigation set forth in this mitigation measure has been satisfied by the completion of the geotechnical investigation report for the Proposed Project included as Appendix B to the Addendum prepared for the Proposed Project. All grading operations shall comply with recommendations of the aforementioned report. Proof of intent to comply with these operations, such as applicable notes on plans, shall be provided by the Property Owner/Developer prior to issuance of grading permits.

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5.7 GREENHOUSE GAS EMISSIONS

5.7.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 did not evaluate greenhouse gas (GHG) emissions impacts because, prior to Senate Bill 97 which went into effect January 1, 2010, this was not included in the CEQA Guidelines Appendix G checklist and the City did not have adopted thresholds at the time of preparation.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 determined that the Approved Project would be consistent with applicable state and regional GHG reduction plans which include the California Air Resources Board (CARB) Scoping Plan and the Southern California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). However, even with incorporation of mitigation (MM 5.2-2 through MM 5.2-12), the Approved Project was determined to have significant and unavoidable regarding GHG emissions impacts. A Statement of Overriding Considerations was adopted related to GHG emissions impacts.

5.7.2 Impacts Associated with the Proposed Project

Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, CO₂, methane (CH₄), and O₃—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).^{5,6}

The regulatory settings for the Proposed Project have changed since the certification of SEIR No. 346. The following discussion is provided to update conditions relative to development of the Proposed Project.

⁵ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

⁶ Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels. Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2013).

Regulatory Setting

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal of Executive Order B-30-15 as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, “Safeguarding California,” in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed Senate Bill 32 (SB 32) and Assembly Bill 197 (AB 197) into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On January 20, 2017, CARB released the *Draft 2017 Climate Change Scoping Plan Update* with adoption hearings planned for June of 2017. The *Draft 2017 Climate Change Scoping Plan Update* includes the potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The *Draft 2017 Scoping Plan* establishes a new emissions limit of 260 MMTCO_{2e} for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017a).

California’s climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California’s local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources.

The *2017 Climate Change Scoping Plan* also identified local governments as essential partners in achieving the State’s long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 MTCO_{2e} or less per capita by 2030 and 2 MTCO_{2e} or less per capita by 2050.

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For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State’s long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a climate action plan or other plan to reduce GHG emissions is appropriate (CARB 2017a).

Modeling Methodology

SCAQMD’s most recent air quality analysis model, CalEEMod Version 2016.3.1., was utilized to compare the impacts of the Proposed Project to that identified in the SEIR No. 346. GHG modeling results are included in Appendix A.

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X	

Comments:

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

A project does not generate enough GHG emissions on its own to influence global climate change; therefore, GHG emissions impacts are a measure of a project’s contribution to the cumulative environmental impact.

The Proposed Project would contribute to global climate change through direct emissions of GHG from onsite area sources and vehicle trips generated by the Project, and indirectly through offsite energy production required for onsite activities, water use/wastewater generation, and waste disposal. Annual GHG emissions were calculated for operation of the Proposed Project (see Appendix A) and compared to emissions associated with the Approved Project identified in the Certified EIR. GHG emissions associated with the Proposed Project are shown in Table 5, *Operational Phase GHG Emissions*. As shown in the table, the Proposed Project at buildout would generate 527 MTCO_{2e} of GHG emissions per year. In the table, Citywide

GHG emissions under the Approved Project are shown for reference. As compared to the Approved Project, the Proposed Project would increase GHG emissions by approximately 24 percent due to the 10-unit increase. However, the total GHG emissions generated from either the Approved Project or Proposed Project would not exceed SCAQMD Working Group's bright-line threshold of 3,000 MTCO_{2e}. Consequently, the Proposed Project would not result in an increase in the severity of any previously identified significant impacts compared to those identified in the Certified EIR. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No changes or new information would require preparation of a subsequent EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

CARB Scoping Plan

In accordance with Assembly Bill 32 (AB 32), CARB developed the 2008 Scoping Plan to outline the state's strategy to achieve 1990 level emissions by year 2020. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts. On January 20, 2017, CARB released the Draft 2017 Climate Change Scoping Plan to address the new interim GHG emissions target under Senate Bill 32 (SB 32), which requires the state to reduce its greenhouse gas emissions 40 percent below 1990 levels by 2030. The Draft 2017 Climate Change Scoping Plan has adoption hearings planned for June 2017 and provides the strategies for the state to meet the 2030 GHG reduction target under SB 32.

The statewide GHG emissions reduction measures that are being implemented, including requirements to improve building energy performance, would reduce the Proposed Project's GHG emissions. The proposed buildings would meet the current Building and Energy Efficiency Standards, which became effective January 1, 2017. The 2016 Standards are 33.5 percent more energy efficient than the 2008 standards for non-residential buildings. In addition, the Proposed Project would also be constructed in conformance with the California Green Building Standards Code (CALGreen), which requires high-efficiency water fixtures for indoor plumbing and water-efficient irrigation systems. The Proposed Project would comply with these GHG emissions reduction measures, since they are statewide strategies. However, the Scoping Plan itself is not directly applicable to the Proposed Project. Therefore, the Proposed Project would not obstruct implementation of the CARB Scoping Plan, and impacts would be less than significant.

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Table 5 Operational Phase GHG Emissions

Source	GHG Emissions	
	MTCO ₂ e ¹	Percent Change
City-wide Emissions Identified in SEIR No. 346¹		
Area	57,458	45%
Energy	1,869,058	15%
Mobile	1,776,187	33%
Solid Waste	86,928	2%
Water	139,692	4%
Construction-Amortized ⁴	n/a	n/a
Total All Sector	3,929,323	100%
SCAQMD Bright-Line Threshold	3,000 MTCO ₂ e	n/a
Exceeds Threshold?	Yes	n/a
Proposed Project²		
Area	1	0%
Energy ³	193	37%
Mobile	281	53%
Solid Waste	10	2%
Water	34	6%
Construction-Amortized ⁴	9	2%
Total All Sectors	527	100%
SCAQMD Bright-Line Threshold	3,000 MTCO ₂ e	n/a
Exceeds Threshold?	No	n/a

Note: Totals may not equal 100 percent due to rounding.

¹ Anaheim 2013, Table 5.2-5, Proposed Project's 2035 GHG Emissions Inventory Compared to the 2004 Approved Project.

² CalEEMod, Version 2016.3.1. Based on year 2019 emissions (Proposed Project buildout)

³ The 2016 Standards are 28% more energy efficient for residential buildings than the 2013 Building and Energy Efficiency Standards.

⁴ Construction emissions are amortized over a 30-year project lifetime per recommended SCAQMD methodology.

SCAG RTP/SCS

SCAG's 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategies (RTP/SCS) was adopted April 7, 2016. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in the 2016-2040 RTP/SCS is to provide for a plan that allows the southern California region to grow in more compact communities in existing urban areas; provide neighborhoods with efficient and plentiful public transit and abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands (SCAG 2016). The Proposed Project involves development of 42 townhomes onsite, a net increase of 10 units from Approved Project. Therefore, the Proposed Project would not affect the growth forecast for the City as assumed under the 2016-2040 RTP/SCS. Therefore, the Proposed Project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2016-2040 RTP/SCS to achieve the GHG reduction goals and strategies for passenger vehicles.

Consequently, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No changes or new information would require preparation of a subsequent EIR.

5.7.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to greenhouse gas emissions that were identified in the Certified EIR are applicable to the Proposed Project.

5.8 HAZARDS AND HAZARDOUS MATERIALS

5.8.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 concluded that the Update Project would involve a small increase in the number of residences next to railways and thus subject to hazards from transportation of hazardous materials by rail. Some commercial and industrial businesses in the City use or generate hazardous materials. Two former solid waste disposal sites are in the City. The use, storage, disposal, and transport of hazardous materials is regulated by several agencies. Impacts related to hazardous materials were identified as less than significant after compliance with existing regulations, General Plan goals and policies, and implementation of MM 5.6-1 through MM 5.6-3 of the Certified EIR.

Parts of the City were identified as being in airport land use plans of two airports, Fullerton Municipal Airport and the Los Alamitos Joint Forces Training Base. Hazards related to the two airports were determined to be less than significant after implementation of MM 5.6-4 through MM 5.6-6 of the Certified EIR.

The part of the City east of SR-55 and south of SR-91 was identified as subject to wildfire hazards; this impact was identified as less than significant after implementation of the General Plan policies.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 concluded that upon compliance with the existing regulatory requirements and General Plan goals and policies, implementation of MM 5.6-1 through MM 5.6-6, buildout of the Rezoning Project would not result in significant impacts related to hazards and hazardous materials.

5.8.2 Impacts Associated with the Proposed Project

The information in this Section is based in part on the Phase I and II Environmental Site Assessment (ESA), 633 and 711 South East St, Anaheim, California by Stantec Consulting Services Inc. dated August 12, 2016; a complete copy of this Report is included as Appendix C to this Addendum.

Would the Proposed Project:

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Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?					X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?					X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?					X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?					X

EIR No. 330 and SEIR No. 346 were both programmatic-level documents, citywide in scope; neither involved detailed site-specific investigation for hazardous materials or other hazards. Phase I and Phase II ESAs were completed for the project site by Stantec Consulting Services Inc. on August 12, 2016.

Phase I Environmental Site Assessment

Historical Uses of Project Site

The Property and surrounding area has been utilized for industrial purposes since the late 1950s. These uses are believed to have included the use of hazardous materials such as fuels, solvents, and petroleum products. Two features of significance were identified in a 1959 aerial photograph. These features included 1) a concrete slab visible at the southwest portion of the building, and 2) a dark black square feature visible in the southwest portion of the Property that resembles a mud pit or earthen sump. Although there is no other evidence (*i.e.*, city/county records, interviews, or visual evidence) to support the presence of an underground storage tank (UST) or sumps at the Property, the concrete pad resembles the approximate size of a UST pad and the dark black square resembles a mud pit or earthen sump.

The project site appears to have been cultivated as an orchard in aerial photographs dated 1938 and 1953; the density of trees is somewhat reduced in the 1953 photograph compared to 1938.

Regulatory Agency Environmental Database Listings

The project site was listed on the following regulatory agency environmental databases:

- ECHO: Enforcement and Compliance History Information: US Environmental Protection Agency (USEPA)
- Haznet: hazardous waste shipment manifests: California Department of Toxic Substances Control (DTSC)
- Resource Conservation and Recovery Act (RCRA) NonGen/NLR (Non-Generator, No Longer Regulated): USEPA

These listings are for the storage and disposal off-site of off-specification, aged, or surplus organics and laboratory waste chemicals. No violations were reported for the hazardous wastes. No additional information regarding these listings was provided in the environmental database report.

The Phase I ESA identified the following issues potentially affecting the project site:

- Historic industrial uses
- The concrete slab, about the size of a UST pad
- The dark black square visible in the 1959 aerial photograph, resembling a mud pit or earthen sump
- Potential historic agricultural use
- Adjacent gasoline station: The Thrifty Oil #364 / Arco #9730 station (727 South East Street, next to the south site boundary had a gasoline release to soil. The case was closed in 2003; however, the station

5. Environmental Analysis

remains active. Due to the absence of soil vapor sampling data for the Property, collecting soil and soil vapor samples along the southern boundary line for TPH and VOCs was recommended to evaluate whether a release has occurred at this location above regulatory thresholds or health risk criteria for residential use.

Lead-Based Paint

Lead was formerly used as an ingredient in paint (before 1978) and as a gasoline additive; both of these uses have been banned. Lead is listed as a reproductive toxin and a cancer-causing substance; it also impairs the development of the nervous system and blood cells in children (DTSC 2010). Lead-based paint is defined in Code of Federal Regulations Title 40 Part 745 as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight. Those demolishing pre-1978 structures may presume the buildings contain lead-based paint (LBP) without having an inspection for LBP. Lead must be contained during demolition activities (California Health & Safety Code sections 17920.10 and 105255). Title 29 Code of Federal Regulations (CFR) Part 1926 establishes standards for occupational health and environmental controls for lead exposure. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation or monitoring.

The buildings onsite were built in approximately 1963; thus, LBP is likely present in and/or on the structures. LBP must be removed from the site in accordance with applicable laws and regulations.

Asbestos

Asbestos is the name of a group of silicate minerals that are heat resistant, and thus were commonly used as insulation and fire retardant. Inhaling asbestos fibers has been shown to cause lung disease (asbestosis) and lung cancer (mesothelioma) (DTSC 2010). Beginning in the early 1970s, a series of bans on the use of certain asbestos-containing materials (ACMs) in construction were established by the EPA and the Consumer Product Safety Commission. Most US manufacturers voluntarily discontinued the use of asbestos in certain building products during the 1980s. Requirements for limiting asbestos emissions from building demolition and renovation activities are specified in SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities).

California Government Code Sections 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection and good working practice by workers exposed to lead and asbestos-containing materials (ACM).

ACM could be present in and/or on buildings onsite. A pre-demolition ACM inspection; and abatement, containment, removal, and disposal of any ACM detected in amounts above regulatory thresholds, would be required per the aforementioned laws and regulations.

Petromat

The Property has an asphalt paved parking lot. A stress absorbing fabric (Petromat®) is sometimes used in asphalt paving. The tack coating often associated with this material sometimes contains asbestos. The asphalt onsite was inspected for ACM in the course of the Phase II ESA. Stress absorbing fabric was observed in the asphalt at all five boring locations on the 633 South East Street property, but not in the three borings at 711 South East Street. Trace amounts of asbestos (below one percent by weight) were detected in fabric samples. Construction materials containing concentrations of asbestos between 0.1 percent and one percent by weight are classified as asbestos-containing construction materials (ACCM). ACCM can be disposed of as non-hazardous waste; however, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915.

Phase II Environmental Site Assessment:

A Phase II Environmental Site Assessment – that is, sampling subsurface site soils and soil vapor from eight locations; testing samples for chemicals of concern; and a human health risk assessment based on test results – was conducted on the site to assess the five issues identified in the Phase I ESA.

Soil and Soil Vapor Sampling

Subsurface site soils and soil vapor were sampled from eight locations via borings drilled to four feet below ground surface (bgs) with a hand augur and then drilled from four to seven feet bgs with a direct push rig.

Testing

The following tests were performed on soil samples:

- Total Petroleum Hydrocarbons (TPH) via USEPA Method 8015
- Volatile Organic Compounds (VOCs) via USEPA Method 8260b: Naphthalene,
- Pesticides via USEPA Method 8081A
 - 4,4'-DDT (Dichlorodiphenyltrichloroethane), an organochlorine pesticide
 - 4,4'-DDE ([Dichlorodipenyldichloroethylene], an organochlorine contaminant, which is a biodegradation product of DDT
 - Dieldrin, an organochlorine pesticide
- Arsenic and lead via USEPA Method 6010B

Soil vapor was tested for Volatile Organic Compounds (VOCs) via USEPA Method 8260b, including naphthalene, 1,1,2-trichlorotrifluoroethane, benzene, and tetrachloroethylene (PCE)

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Test Results and Human Health Risk Assessment

Soil Samples

No gasoline was detected in soil samples; diesel fuel was detected in three samples at a maximum concentration of 29 mg/kg where one mg/kg is equivalent to one part per million. Oil was detected in three samples at maximum concentrations of 86 mg/kg. Petroleum hydrocarbon concentrations detected were below the Orange County Health Care Agency threshold of 100 mg/kg.

DDT, DDE, and dieldrin were each detected in one sample at concentrations of 0.0055, 0.011, and 0.022 mg/kg, respectively. Those concentrations are well below the USEPA Residential Screening Levels (RSLs) for those compounds of 1.9 mg/kg (DDT), 2.0 mg/kg (DDE), and 0.034 mg/kg for dieldrin.

Lead was detected at a maximum concentration of 16.8 mg/kg, below the DTSC Note 3 screening level of 80 mg/kg for residential use.

Arsenic was detected at a maximum concentration of 3.95 mg/kg, within the range considered to be naturally occurring in California.

In summary, no chemicals of concern were identified in soil samples at concentrations at or above regulatory screening levels for residential use.

Soil Vapor Samples

PCE was detected at five of the eight sampling locations at concentrations above the DTSC human health risk screening level of 480 $\mu\text{g}/\text{m}^3$ for residential use; the maximum concentration detected was 1,200 $\mu\text{g}/\text{m}^3$. The source of the PCE vapor is unknown; however, the Phase II ESA noted that the site is surrounded by several industrial land uses and thus the PCE could be from an offsite source(s). The project includes installation of vapor barrier membranes beneath the building foundations of all residential structures at the Site. The Phase II ESA considered such vapor barrier installation to be an effective method for addressing potential human health risks related to the potential for vapor intrusion into the proposed buildings, and did not recommend any further action or investigation regarding soil vapor onsite.

Comments:

- a) **Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Hazardous Materials to be Used by the Project

Construction

Project construction would involve use of hazardous materials including fuels; oil, greases, and other lubricants; pesticides; paints; fertilizers; and solvents and other cleansers. Hazardous materials would be transported, used, stored, and disposed of per several existing regulations, including the Hazardous Materials

Transportation Act, the Resource Conservation and Recovery Act, the California Hazardous Waste Control Act, and the California Accidental Release Prevention Program. The construction contractor would maintain equipment and supplies for containing and cleaning up small hazardous materials spills, and would train workers in such containment and cleanup. The contractor would notify the Anaheim Fire and Rescue Hazardous Materials Section (HMS) immediately in the event of a hazardous materials release of amount and/or toxicity that could not be safely contained and cleaned up by onsite construction workers.⁷ Therefore, the use of hazardous materials during project construction would not pose substantial hazards to the public or the environment, and impacts would be less than significant.

Operation

Only small amounts of hazardous materials would be used in operation of the proposed residences, mostly for cleaning and maintenance purposes. Such hazardous materials would be used in compliance with the aforementioned laws and regulations. Thus, the use of hazardous materials during project operation would not cause substantial hazards to the public or the environment, and impacts would be less than significant.

Existing Hazardous Materials on and Near the Site

PCE

PCE was detected in soil vapor samples at concentrations up to 1,200 $\mu\text{g}/\text{m}^3$, above the DTSC human health risk screening level of 480 $\mu\text{g}/\text{m}^3$ for residential use. The highest concentration was found in the southwest corner of the project site. The source of the PCE is unknown but could be from industrial uses surrounding the site. The project includes installation of vapor barrier membranes beneath the building foundations of all residential structures at the Site. The Phase II ESA considered such vapor barrier installation to be an effective method for addressing potential human health risks related to the potential for vapor intrusion into the proposed buildings, and did not recommend any further action or investigation regarding soil vapor onsite.

ACM and ACCM

ACM could be present in and/or on buildings onsite. A pre-demolition ACM inspection; and abatement, containment, removal, and disposal of any ACM detected in amounts above regulatory thresholds, would be required per existing laws and regulations. Stress-absorbing fabric containing ACCM was observed in the asphalt parking lot on the 633 South East Street property. ACCM can be disposed of as non-hazardous waste; however, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915.

⁷ The Anaheim Fire and Rescue Hazardous Materials Section (HMS) is the Certified Unified Program Agency (CUPA) for Anaheim; the Certified Unified Program coordinates and makes consistent enforcement of several state and federal regulations governing hazardous materials.

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LBP

LBP is likely present in and/or on the structures onsite, which were built in approximately 1963. LBP must be removed from the site in accordance with applicable laws and regulations.

Conclusion

Construction of the Proposed Project would involve the use, transport, and disposal of small amounts of hazardous materials such as fuels, greases, and paints. The use, storage, transport, and disposal of hazardous materials by the project would be required to comply with existing regulations of several agencies, including the Department of Toxic Substances Control (DTSC), the EPA, the Occupational Safety & Health Administration (OSHA), and the Anaheim Fire & Rescue Hazardous Materials Section.⁸ Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner, and would minimize the potential for safety impacts to occur. Additionally, the hazardous materials use during construction would be temporary and would cease upon completion. Long-term operations of the Proposed Project would not involve routine transport, storage, use, and disposal of substantial amounts of hazardous materials. As discussed in the Certified EIR, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. The Proposed Project would not require preparation of a subsequent EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Hazards from accidental release of hazardous materials would be less than significant, as substantiated above in Section 5.8.2.a. Small quantities of hazardous materials, such as fuels, greases, paints, and cleaning substances, may be used during project construction. This small amount would not pose a significant risk to the public or the environment if an onsite accident were to occur. Project construction contractors would maintain equipment and supplies for containing and cleaning up small hazardous materials spills; train construction workers on such containment and cleanup; and would notify Anaheim Fire & Rescue and the California Environmental Protection Agency immediately in the event of a release of hazardous materials to the ground or air. The risk of accidental releases of hazardous materials would not be greater than the severity of previously identified effects. The Proposed Project would not require preparation of a subsequent EIR.

⁸ The Anaheim Fire & Rescue Hazardous Materials Section is the Certified Unified Program Agency (CUPA) for the City of Anaheim; the Certified Unified Program coordinates and makes consistent enforcement of several state and federal regulations governing hazardous materials.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

No existing or proposed schools are within 0.25 mile of the project site, and no impact would occur.

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

A regulatory environmental database search was conducted as part of the Phase I and II Site Assessments. The record search was performed to aid the identification of companies or facilities within a one-mile radius to the Project Site that might pose a potential threat to the surface environment at the Project Site.

Project Site

The project site was listed on the following databases:

- ECHO: Enforcement and Compliance History Information: US Environmental Protection Agency (USEPA)
- Haznet: hazardous waste shipment manifests: California Department of Toxic Substances Control (DTSC)
- Resource Conservation and Recovery Act (RCRA) NonGen/NLR (Non-Generator, No Longer Regulated): USEPA

These listings are for the storage and disposal off-site of off-specification, aged, or surplus organics and laboratory waste chemicals. No violations were reported for the hazardous wastes. No additional information regarding these listings was provided in the environmental database report. The Phase II ESA was conducted partly to determine whether hazardous materials are present in site soils or soil vapor, originating from a potential past onsite release, at levels above regulatory action levels for residential use.

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Nearby Properties

Hazardous materials sites near the project site discussed in the Phase I ESA are described below in Table 6.

Table 6 Hazardous Materials Sites Near the Proposed Project Site

Site Name Address	Database Reason for Listing Regulatory Status
Thrifty Oil 727 S East St Abuts south site boundary	Leaking Underground Storage Tank (LUST) Gasoline release affected soil Case closed 2003 This site was identified as a Recognized Environmental Condition (REC) for the Proposed Project site. ¹ The Phase II ESA for the project site included sampling and testing soil and soil vapor along the south project site boundary to determine whether a release has occurred at this location above regulatory screening levels for residential use. The Phase II identified PCE in soil vapor from under the Proposed Project site above the RSL for residential use. The source of the PCE was not determined.
	Permitted Underground Storage Tank (UST)
	Small quantity generator of hazardous wastes (SQG)
	Haznet: 1 shipment 2013
Orange County Stripping 1017 E South St 303 feet south	SQG
Dixco Diversified Chemical Sales 1014 E South St 364 feet south-southwest	LUST Chlorinated hydrocarbons affected drinking water aquifer Case closed 2001 This site was identified as an REC for the Proposed Project site. The Phase II ESA for the project site sampled and tested soil and soil vapor along the south project site boundary to determine whether a release has occurred at this location above regulatory screening levels for residential use. The Phase II identified PCE in soil vapor from under the Proposed Project site above the DTSC human health risk screening level for residential use. The source of the PCE was not determined.
	Permitted UST
	Hazardous Waste Transporter
Anaheim Plating & Polishing 928 E South St 556 feet south/southwest	Tiered Permit (hazardous waste facility) This site was identified as an REC for the Proposed Project site. The Phase II ESA for the project site sampled and tested soil and soil vapor along the south project site boundary to determine whether a release has occurred at this location above regulatory screening levels for residential use. The Phase II identified PCE in soil vapor from under the Proposed Project site above the RSL for residential use. The source of the PCE was not determined.
Hitachi Consumer Products 901 South	LUST Lead contamination affected soil Case closed 1990
	Permitted UST
	SQG
Flat & Vertical Concrete Saw 837 South East Street	LUST Gasoline release affected soil; case closed 1990
	Permitted UST
	Haznet: 2 shipments 2009

Table 6 Hazardous Materials Sites Near the Proposed Project Site

Site Name Address	Database Reason for Listing Regulatory Status
Dixco 847 East St 772 feet south/southwest	Permitted UST Tiered Permit (hazardous waste facility) This site was identified as an REC for the Proposed Project site. See the description of the Phase II ESA above

¹ A recognized environmental condition (REC) is the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment (ASTM 2013).
Sources: SWRCB 2017; DTSC 2017; USEPA 2017

The Phase II Environmental Site Assessment (ESA) described above assessed soil and soil vapor for potential contamination from the four sites identified as RECs for the Proposed Project site by the Phase I ESA. No soil contamination was identified at or above regulatory screening levels for residential use. PCE was identified at concentrations above the DTSC human health risk screening level of 480 µg/m³ for residential use. Per the recommendations in the Phase II ESA, the property owner/developer will install vapor barrier membranes beneath the building foundations of all residential structures at the Site. The Phase II ESA concluded that such membranes would effectively address potential human health risks related to the potential for vapor intrusion into the proposed buildings, and did not recommend any further action or investigation regarding soil vapor onsite.

Health Risks from Existing Air Emissions Near the Project Site

Since Certification of SEIR No. 346, the court has clarified that the purpose of an environmental evaluation is to identify the significant effects of the Proposed Project on the environment, not the significant effects of the environment on the Proposed Project (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal.4th 369 [Case No. S213478]). CEQA does not require an analysis of the Proposed Project’s environmental effects on potential future sensitive receptors at a project site. However, a health risk assessment (HRA) has been prepared under a separate cover to satisfy this mitigation requirement of SEIR No. 346. The findings of the HRA are summarized in Section 5.3, *Air Quality*, of this Addendum. No revision of the Adopted Mitigation Measures Applicable to the Proposed Project for hazardous materials impacts – set forth in Section 5.8.3 of this Addendum– is required. Therefore, the findings of the HRA are not repeated here.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles or a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. The Project Site is not in an adopted airport land use plan or within two miles of public-use airport. Project development would not expose people on the ground to substantial hazards arising from aircraft crashes. The Project Site is also not located within the vicinity of a private airstrip. The nearest heliport to the project site is the North Net Training Facility Heliport at 2400 East Oranewood Avenue in

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the City of Anaheim, about 2.4 miles to the south (Airnav.com 2017). No impact would occur and no changes or new information would require preparation of a subsequent EIR.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project Site is not located in the vicinity of a private airstrip. Project development would not expose people on the ground to substantial hazards arising from aircraft crashes. The Project Site is also not located within the vicinity of a private airstrip. The nearest heliport to the project site is the North Net Training Facility Heliport at 2400 East Orangewood Avenue in the City of Anaheim, about 2.4 miles to the south (Airnav.com 2017). No impact would occur and no changes or new information would require preparation of a subsequent EIR.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Emergency Management and Preparedness Section of Anaheim Fire & Rescue is responsible for the management and oversight of the City of Anaheim's Emergency Operations Center, Disaster Preparedness, and Hazard Mitigation Plan (Anaheim 2017). The Anaheim Emergency Operations Plan was approved in 2008. The Draft Anaheim Hazard Mitigation Plan was completed in 2015. Construction activity would be confined to the Project Site and would not interfere with vehicle movement or emergency access along East Street. As detailed in Section 5.16, *Transportation and Traffic*, any impacts related to the addition of project-related traffic would be less than significant; therefore, the Proposed Project would not interfere with the movement of emergency vehicles along local roadways. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. No new impact would occur and no changes or new information would require preparation of a subsequent EIR.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The Project Site is in a built-out portion of Orange County that is outside fire hazard severity zones designated by the California Department of Forestry and Fire Protection. No new impact would occur and no changes or new information would require preparation of a subsequent EIR.

5.8.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347. Clarifying language added to MM 5.6-3, as a result of the Phase I and Phase II Environmental Site Assessments, is shown in underline.

MM 5.6-1 Prior to the final building and zoning inspections for any residential project within 1,000 feet of a use that has the potential to release substantial amounts of airborne hazardous materials (determined to be "Category 1, 2, or 3" hazardous materials), the project property

owner/developer shall submit a shelter-in-place program to the Planning Director for review and approval. The shelter-in-place program shall require the property owner/developer to purchase a subscription to a service that provides “automated emergency notification” to individual residents (subject to meeting minimum standards set by the City) of the project. The shelter-in-place program shall include the following:

- The property owner/developer shall be required to purchase a minimum 10-year subscription to such a service that would include periodic testing (at least annually).
- The CC&Rs for each individual project shall require that each property owner and/or project Homeowners Association (HOA):
 - Maintain a subscription following expiration of the initial purchased subscription.
 - Maintain in a timely manner the database of resident phone numbers in conjunction with the service.
 - Provide appropriate agencies (police, fire, other emergency response as identified by the City) with information on how to activate the notification via the service provider.
- The CC&Rs for each individual project shall require that each resident provide the property owner/HOA with a current phone number for the residence and/or individual residents; this would include timely notification following the sale of a unit and would require notification if the unit were rented or leased or subject to any other change in occupancy.

MM 5.6-3 Prior to issuance of any discretionary permit for a current or former hazardous waste disposal site or solid waste disposal site, the project property owner/developer shall submit a Phase I Environmental Site Assessment to the City. If possible hazardous materials are identified during the site assessments, the appropriate response/remedial measures will be implemented in accordance with the requirements of the Orange County Health Care Agency (OCHCA) and/or the Regional Water Quality Control Board (RWQCB), as appropriate.

The requirement for a Phase I Environmental Site Assessment set forth in this mitigation measure has been satisfied by the completion of the Phase I and Phase II Environmental Site Assessments (ESAs) by Stantec Consulting Services Inc. on August 12, 2016 and included as Appendix C to the Addendum prepared for the Proposed Project. Per the recommendations in the Phase II ESA, the property owner/developer will install vapor barrier membranes beneath the building foundations of all residential structures at the Site. The Phase II ESA concluded that such membranes would effectively address potential human health risks related to the potential for vapor intrusion into the proposed buildings, and did not recommend any further action or investigation regarding soil vapor onsite. The

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property owner shall submit evidence of planned installation of said vapor barriers prior to issuance of building permits.

5.9 HYDROLOGY AND WATER QUALITY

5.9.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 determined that the Update Project would increase generation of pollutants that could contaminate stormwater during both the construction and operational phases of projects developed pursuant to the Update Project. Water quality impacts were identified as less than significant after regulatory compliance.

EIR No. 330 concluded that existing drainage facilities in some parts of the City were identified as deficient. In addition, the eastern part of the Hill and Canyon Area was then undeveloped, thus requiring construction of drainage facilities in that area to serve future developments.

Small parts of the City – mostly within flood control channels and percolation basins – were identified as within 100-year flood zones mapped by the Federal Emergency Management Agency (FEMA).

Parts of the City were mapped in dam inundation areas of three dams: Prado Dam on the Santa Ana River in Riverside County about two miles east of the City boundary; Walnut Canyon Reservoir in the Hill and Canyon Area of the City; and Carbon Canyon Dam in the City of Brea about three miles north of the City. The Update Project contained flood mitigation policies that would reduce flood hazards in 100-year flood zones and dam inundation zones to less than significant.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 concluded that upon compliance with the existing regulatory requirements and General Plan goals and policies, and implementation of MM 5.7-1 through MM 5.7-3, buildout of the Rezoning Project would not result in significant impacts related to hydrology and water quality.

5.9.2 Impacts Associated with the Proposed Project

The information in this Section is based on the following technical documents:

- Preliminary Water Quality Management Plan by C&V Consulting, Inc. dated December 2016; a complete copy of this report is included as Appendix D to this Addendum.
- Preliminary Hydrology Study, 711 S. East Street in the City of Anaheim, Tentative Tract Map No. 18088 by C&V Consulting, Inc. dated December 2016; a complete copy of this report is included as Appendix E to this Addendum.

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Violate any water quality standards or waste discharge requirements?				X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)??				X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?				X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?				X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X	
f) Otherwise substantially degrade water quality?				X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?					X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?					X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X	
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?					X

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Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
k) Substantially degrade water quality by contributing pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling, or storage, delivery areas, loading docks or other outdoor work areas?				X	
l) Substantially degrade water quality by discharge which affects the beneficial uses (i.e., swimming, fishing, etc.) of the receiving waters?				X	

Comments:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

A Preliminary Water Quality Management Plan (PWQMP) was prepared for the Proposed Project and is included in Appendix D, *Preliminary Water Quality Management Plan*, to this Addendum. The Project Site is in the Anaheim Bay – Huntington Harbor Watershed, in the Santa Ana Regional Water Quality Control Board’s jurisdiction (OC Public Works 2017). Waste discharge requirements for discharges to storm drains in the part of Orange County in the Santa Ana Watershed are set forth in the Municipal Stormwater (MS4) Permit, Order No. R8-2009-0030, issued by the Santa Ana Regional Water Quality Control Board (SARWQCB) in 2009.

Project Design and Project Operation

Expected pollutants of concern for the Proposed Project site identified in the PWQMP are suspended solids/sediment, nutrients, pathogens (bacteria/viruses), pesticides, oil and grease, and trash and debris.

The PWQMP includes the following proposed BMPs for the Proposed Project:

- **Low-Impact Development (LID)** is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, and minimizing effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product. There are many practices that adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural

movement of water within an ecosystem or watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions.

LID BMPs:

- Impervious area dispersion
- Infiltration basins

- **Site Design BMPs** are intended to reduce or eliminate post-project runoff:
 - Area drains
 - Infiltration basins

- **Structural Source Control BMPs** reduce the potential for pollutants to enter runoff:
 - Storm drain system signage
 - Design and construct trash and waste storage areas to minimize pollution
 - Efficient irrigation systems and irrigation controls

- **Nonstructural Source Control BMPs** reduce the potential for pollutants resulting from activities onsite to enter runoff:
 - Education of owners and employees
 - Activity restrictions
 - Common Area Landscape Management
 - BMP Maintenance and Inspections
 - Hazardous Materials Disclosure Compliance
 - Common Area Litter Control
 - Street sweeping private streets and parking lots

Upon implementation of BMPs specified in the Preliminary WQMP, no new significant water quality impact from project operation would occur.

Project Construction

Construction projects of one acre or more are regulated under the Statewide General Construction Permit, Order No. 2012-0006-DWQ, issued by the State Water Resources Control Board (SWRCB) in 2012. Projects obtain coverage by developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) estimating sediment risk from construction activities to receiving waters, and specifying Best Management Practices (BMPs) that would be used by the project to minimize pollution of stormwater. Categories of BMPs used in SWPPPs are described below in Table 7.

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Table 7 Construction Best Management Practices

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Non-Storm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Source: CASQA 2003

Upon implementation of BMPs to be specified in the project SWPPP, project construction would not cause any new significant water quality impacts. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. Preparation of a subsequent EIR would not be necessary.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The project site is over the Main Orange County Groundwater Basin. Anaheim Public Utilities (APU) provides water to the Project Site. APU water supplies comprise about 70 percent groundwater and 30 percent imported water. Proposed Project development would involve construction of 10 additional attached single-family residential units compared to Approved Project buildout on the Project Site. The target water demand for 2020 for APU's service area is 162 gallons per capita per day (gpcd) (Anaheim 2016d). The average household size in Anaheim in 2016 is estimated to be 3.46 persons (CDF 2016). Thus, the increase in population due to the net addition of 10 units by the Proposed Project would be 34.6 persons. Therefore, Proposed Project development is estimated to generate an additional 5,605 gpd water demand compared to demands generated by Approved Project buildout on the site. APU forecasts that it will have sufficient water supplies to meet Proposed Project water demands (Anaheim 2016), and Proposed Project development would not require APU to obtain new or expanded water supplies. The Proposed Project buildout would not

substantially decrease groundwater recharge to result in a substantial increase in the severity of previously identified effect of the Certified EIR. Preparation of a subsequent EIR would not be necessary.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?**

Less than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The project site is currently almost entirely impermeable, with only 100 square feet of landscaping – that is, slightly over 0.1 percent of the site. The existing drainage pattern onsite is via sheet flow and a surface drain to the southwest side of the site, where runoff is discharged to the alley. Project development would include construction of underground storm drains and infiltration basins. The infiltration basins would be designed to store and infiltrate runoff from an 85th-percentile, 24-hour storm event, which would generate about 0.85 inches of rainfall. Runoff of volume exceeding the capacity of the infiltration basins would be discharged via surface flow to the alley southwest of the site.

At project completion, 21 percent of the site, or about 0.37 acre, would be permeable landscaping. Runoff discharged from the site from a 100-year storm would be reduced from 6.8 cubic feet per second (cfs) in existing conditions to 6.4 cfs at project completion. The Proposed Project buildout would not substantially decrease groundwater recharge to result in a substantial increase in the severity of previously identified effect of the Certified EIR. Preparation of a subsequent EIR would not be necessary.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Project development would not cause flooding on- or off-site, as substantiated above in Section 5.9.2(c).

- e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

See Responses to 5.9.2(a) and 5.9.2(c).

- f) Otherwise substantially degrade water quality?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Project water quality impacts would be less than significant, as substantiated in Section 5.9.2(a).

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

No Impact. The Project Site is designated as Zone X, that is, a 500-year flood zone, by the Federal Emergency Management Agency (FEMA 2017). The Proposed Project does not involve any housing

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development within a 100-year flood hazard area. No impact would occur. Preparation of a subsequent EIR would not be necessary.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The Project Site is designated as Zone X, a 500-year flood zone; no new significant impact would occur.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The project site is in the inundation zone for Prado Dam (Anaheim 2004a), which is on the Santa Ana River and approximately 15.5 miles east from the project site. Prado Dam is a flood control dam; thus, only a small fraction of its reservoir capacity is usually filled. During flood flows on the Santa Ana River, the Seven Oaks Dam on the Santa Ana River in the southwestern foothills of the San Bernardino Mountains works in tandem with Prado Dam: when water is rising behind Prado Dam, Seven Oaks Dam stores flows until water can be released at a controlled rate from Prado Dam; water is then released from Seven Oaks Dam within the capacity of the Santa Ana River channel downstream. Seven Oaks Dam is designed to provide 350-year flood protection for downstream areas (OC Public Works 2017b).

However, due to the length of time required for water to reach the project area if the Prado Dam were to fail, and the lack of appreciable amounts of water behind the Prado Dam, project development would not expose people or structures to a significant risk of loss, injury, or death in the case of dam failure, and impacts would be less than significant. Therefore, the Proposed Project would not subject people or structures to substantial hazards from dam inundation and impacts would be less than significant. Preparation of a subsequent EIR would not be necessary.

j) Expose people or structures to inundation by seiche, tsunami, or mudflow?

No Impact.

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. There are no bodies of water near the site, and project development would not subject people or structures to flooding from a seiche.

A tsunami is a sea wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Project Site is approximately 12.5 miles northeast of the Pacific Ocean. Therefore, project development would not place people or structures at risk of flooding due to tsunami.

A mudflow is a landslide composed of saturated rock debris and soil with a consistency of wet cement. The Project Site is flat and is therefore not subject to mudflows. No impact would occur and no changes or new information would require preparation of a subsequent EIR.

- k) Substantially degrade water quality by contributing pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling, or storage, delivery areas, loading docks or other outdoor work areas?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.
See Response to 5.9(a).

- l) Substantially degrade water quality by discharge which affects the beneficial uses (i.e., swimming, fishing, etc.) of the receiving waters?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.
See Response to 5.9(a).

5.9.3 Adopted Mitigation Measures Applicable to the Proposed Project

EIR No. 330 for the Update Project

No mitigation measures from MMP No. 122A are applicable to the proposed project.

5.10 LAND USE AND PLANNING

5.10.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 concluded that implementation of the Update Project would not substantially divide established communities. The Update Project was found to be consistent with plans and policies intended to avoid or mitigate an environmental effect, including the City's General Plan and Zoning Code, and the Regional Comprehensive Plan and Guide issued by the Southern California Association of Governments (SCAG). The Update Project implementation was found to comply with provisions of the Orange County Central/Coastal Natural Communities Conservation Plan (NCCP).

SEIR No. 346 for the Rezoning Project

The SEIR No. 346 determined that because EIR No. 330 contemplated development of the housing opportunity sites for residential and mixed uses, land use and planning impacts resulting from the Rezoning Project would be less than significant.

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5.10.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Physically divide an established community?					X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?					X

Comments:

a) Physically divide an established community?

No Impact. The Project Site is developed with commercial uses, and is surrounded by industrial uses to the north; by a recycling facility to the west; by a gas station, industrial uses, and multi-family residential to the south; and by detached single-family residences opposite East Street to the east. No adverse impact would occur and preparation of a subsequent EIR would not be necessary.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The existing General Plan land use designation onsite, Low-Medium Density Residential, permits development of up to 18 dwelling units/acre. The Proposed Project includes a General Plan Amendment to change the General Plan land use designation to Medium Density Residential, which would permit development of up to 36 dwelling units per acre. The Proposed Project would be developed at 23.3 dwelling units per acre. Upon approval of the General Plan Amendment, the Proposed Project would conform with the General Plan land use designation for the site. The Proposed Project would not create a new significant

impact or a substantial increase in the severity of previously identified effects. Preparation of a subsequent EIR would not be necessary.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Project Site is in the Plan Area of the Orange County Transportation Authority M2 Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which encompasses all of Orange County. The Project Site is not in or near a preserve or restoration project established under the NCCP/HCP (OCTA 2014). The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. Preparation of a subsequent EIR would not be necessary.

5.10.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to land use and planning were identified in the Certified EIR.

5.11 MINERAL RESOURCES

5.11.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 indicated that the State of California designates two areas Mineral Resource Zone 2, indicating that significant mineral resources are known to be present or considered likely to be present. In addition, there are three specific areas within the City that are designated as Regionally Significant Aggregate Resource Areas (Resource Sector), Urbanized or Urbanizing. EIR No. 330 noted that extensive amounts of the sand and gravel aggregate have been removed from these areas. However, the surface mining of these areas was anticipated to be closed in December 2004, resulting in less than significant impacts related mineral resources.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 concluded that no additional significant mineral resources impacts would occur under the Rezoning Project when compared to the Update Project, as the EIR No. 330 had already included development of the housing opportunity sites.

5. Environmental Analysis

5.11.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?					X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?					X

For the purpose of CEQA analysis, mineral resources refer to aggregate resources that consist of sand, gravel, and crushed rock. Aggregate resources provide bulk and strength in construction materials such as portland cement and asphaltic concrete. Other nonfuel mineral resources include metals such as gold, silver, iron, and copper and industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone.

The California Geological Survey (CGS) classifies the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act (SMARA) of 1975. The State Geologist is responsible for classifying areas within California that are subject to urban expansion or other irreversible land uses. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance. Classification into MRZ is completed by the State Geologist in accordance with the SMGB's priority list and according to the presence or absence of significant mineral resources.

Of the four MRZ categories, lands classified as MRZ-2 are of the greatest importance. Such areas are underlain by demonstrated mineral resources or are located where geologic data indicate that significant measured or indicated resources are likely to be present. MRZ-2 areas are designated by SMGB as being "regionally significant." Such designations require that a lead agency's land use decisions involving designated areas be made in accordance with its mineral resource management policies (if any exist) and that it consider the importance of the mineral resource to the region or the state as a whole, not just to the lead agency's jurisdiction.

The project site is not in an area mapped MRZ-2 by the CGS (Anaheim 2004a).

Comments:

- a) **Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?**

No Impact. The Project Site does not contain known mineral resources valuable to the region or the residents of California. As shown in Figure G-3 of the Anaheim General Plan Green Element, the Project Site does not contain regionally significant aggregate resources. The nearest area mapped MRZ-2 to the site is about 0.4 mile to the east (Anaheim 2004a). No impact would occur and no changes or new information would require preparation of a subsequent EIR.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

No Impact. The Project Site does not contain mineral resources of local important as identified on a local general plan, specific plan, or other land use plan. No impact would occur and no changes or new information would require preparation of a subsequent EIR.

5.11.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to mineral resources were identified in the Certified EIR.

5.12 NOISE

5.12.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 determined that implementation of the General Plan goals and policies, existing codes and regulations, and implementation of mitigation measures will reduce all potential short-term construction noise and vibration impacts to a less than significant level. However, operational noise impacts have been determined as significant and unavoidable as many roadways within the City are expected generate noise levels in excess of 65 CNEL. As a result, in locations where these roadways are adjacent to existing sensitive land uses, the impacts are anticipated to remain significant. The City of Anaheim adopted a Statement of Overriding Considerations for significant and unavoidable impacts identified in EIR No. 330..

Railroad and airport noise impacts and industrial stationary-source noise impacts were also identified as less than significant provided that relevant General Plan goals and policies, Municipal Codes, and mitigation measures are implemented.

SEIR No. 346 for the Rezoning Project

Traffic noise impacts from buildout of the Rezoning Project were identified as significant and unavoidable in SEIR No. 346 as with the EIR No. 330. The City of Anaheim adopted a Statement of Overriding Considerations for significant and unavoidable impacts identified in SEIR No. 346. Residential projects that would be developed pursuant to the Rezoning Project would comply with City noise standards, and

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stationary-source noise impacts due to project buildout were determined to be less than significant. Implementation of the Rezoning Project would generate construction noise and groundborne vibration; such impacts were identified as less than significant.

5.12.2 Impacts Associated with the Proposed Project

Would the Proposed Project result in:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?					X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?					X

Comments:

The following discussion and analysis is based on the Acoustic Impact Study prepared by Hans Giroux & Associates, dated January 24th, 2017. This document is included as Appendix F to this Addendum.

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Applicable Standards

Noise/land use compatibility standards for various classes of land uses are generally expressed in the Safety and Noise Element of the General Plan to ensure that noise exposure is considered in any development decisions. The City of Anaheim has guidelines for noise exposure standards which are shown in Table 8. For residential uses such as the Proposed Project, the City recommends an exterior noise exposure of 65 dBA CNEL and interior noise exposure of 45 dBA CNEL.

Table 8 State of California Interior and Exterior Noise Standards

Categories	Land Use Uses	CNEL (dBA)	
		Interior ¹	Exterior ²
Residential	Single and multiple-family, duplex	45 ³	65
	Mobile homes	-	65 ⁴
Commercial	Hotel, motel, transient lodging	45	-
	Commercial retail, bank, restaurant	55	-
	Office building, research and development, professional offices	50	-
	Amphitheater, concert hall, auditorium, movie theater	45	-
	Gymnasium (multipurpose)	50	-
	Sports Club	55	-
	Manufacturing, warehousing, wholesale, utilities	65	-
	Movie Theaters	45	-
Institutional/Public	Hospital, school classrooms/playgrounds	45	65
	Church, library	45	-
Open Space	Parks	-	65

¹Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors

²Outdoor environment limited to:

- Private yard of single-family dwellings
- Multiple-family private patios or balconies accessed from within the dwelling (Balconies 6 ft. deep or less are exempt)
- Mobile home parks
- Park picnic areas
- School playgrounds
- Hospital patios

³Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

⁴Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL

For “stationary” noise sources such as mechanical equipment (pool pumps, air conditioners, etc.) the City does have legal authority to establish noise performance standards designed to not adversely impact adjoining residential uses. These standards are typically articulated in the jurisdictional Municipal Code. These standards recognize the varying noise sensitivity of both transmitting and receiving land uses. The property line noise performance standards are normally structured according to land use and time of day.

City of Anaheim Noise Standards

The City Noise Ordinance is designed to protect people from non-transportation (stationary) noise. The Noise Ordinance for the City of Anaheim sets limits on the level a stationary noise source may impact an adjoining use. Chapter 6.70.010 of the Municipal Code specifies that noise levels cannot exceed 60 dBA at

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any point on the adjacent property line. Although the noise sensitivity of the receiving use may affect enforcement of the ordinance, the 60 dBA noise limit applies to any land use within the City.

Residential uses typically do not generate noise levels that would be regulated by the municipal code. Isolated residential noise events such as loud parties or barking animals may be responded to by law enforcement or animal control agencies as disturbances of the peace if warranted and not under any numerical decibel threshold.

Baseline Noise Levels

A short term on-site noise measurement was made in order to document existing baseline levels in the project area. This helps to serve as a basis for projecting noise from the surrounding area on the project. Noise monitoring was conducted on Tuesday, August 9, 2016, at one on-site location between the hours of 11:15 a.m. and 12:15 p.m. The measurement location is shown in Figure 8, Noise Monitoring Location, and summarized below in Table 9.

Table 9 Measured Noise Levels (dBA)

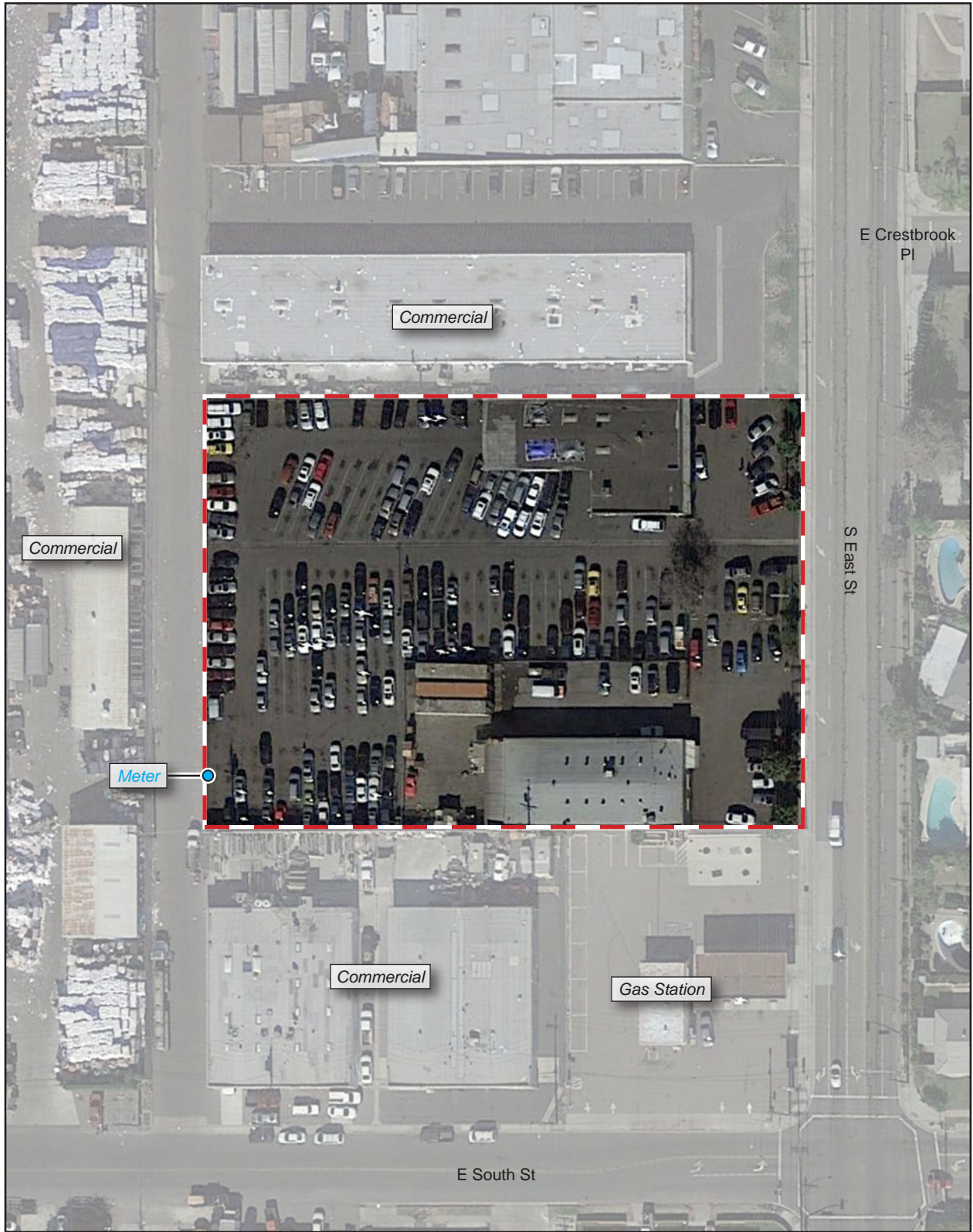
Leq	Lmax	Lmin	L10	L33	L50	L90
64	78	48	67	63	60	54

Source: Hans Giroux and Associates, January 2017

The noise meter was placed along the western property line and captured noise from the adjacent recycling facility. Monitoring experience shows that 24-hour weighted CNELs can be reasonably well estimated from mid-day noise readings. CNELs are approximately equal to mid-day Leq plus 2-3 dB (Caltrans Technical Noise Supplement, 2009). An Leq of 64 dB would translate to a CNEL of approximately 67 dB. This noise level is slightly above the recommended 65 dB CNEL compatibility threshold for residential use. However, the conversion from hourly readings to CNEL is based upon a typical fraction of daytime activities and ten-fold weighted nocturnal sources. With little or no nocturnal recycling activity, the calculated CNEL may actually be measurably lower than the observed hourly Leq level.

The Municipal Code noise standard is 60 dB Leq at any off-site property line. Recycling facility activities (balers, forklifts, trucks, banging metal containers, etc.) already cause the standard to be violated. Surrounding commercial or industrial uses are likely unaffected by current noise levels because they are not considered noise-sensitive uses. The proposed conversion of the used car auction lot to residential use is likely to reduce the noise impact of on-site activities on the existing noise environment. The periodic auto auction generates considerable noise on auto auction days with delivery and pick-up of cars by auto haulers, purchaser traffic, and loud speakers designed to be audible over the entire lot.

Figure 8 - Noise Monitoring Location
3. Project Description



— Project Boundary

0 90
Scale (Feet)



Base Map Source: Google Earth Pro, 2017

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Operational Noise Impacts

Noise Compatibility

A recent ruling by the California Supreme Court (*CBIA v Bay Area AQMD*, 2015) concluded that:

“agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents”

It is the project’s impact on the environment and not the environments impact on the project that must be analyzed under CEQA. Although noise levels from the adjacent recycling center exceed the City of Anaheim stationary noise ordinance standard, that fact is not a CEQA issue unless project activities were to substantially exacerbate that existing violation.

One may thus conclude that any mitigation analysis is not required under CEQA. The outdoor space is exempt by general plan policy, and the 65 dBA CNEL standard is barely exceeded along the eastern and western frontages, if at all. However, the banging of metal containers, operation of crushing and baling equipment, semi-continuous back-up alarms, forklifts loading baled recyclables and trucks traveling in and out of the recycling facility may create intrusive single noise events. Consistent with City of Anaheim standards, adequate structural noise protection will be needed to ensure that these single events do not penetrate planned livable space.

Outdoor to indoor noise penetration is dependent upon whether windows are open or closed, and whether windows are single or dual glazed. The noise stopping power in residential construction is related to the sound transmission class (STC) rating of closed windows. A confirming acoustical report will be required at Plan Check to verify that the Building Code standard of 45 dBA CNEL will be met in habitable space. The exterior façade noise from loading traffic on the east frontage and industrial noise on the west frontage is perhaps 67 dBA CNEL. Any windows/door with an STC = 22 or better will meet code as long as the occupants have the option to tightly close the fenestration. The option to close the window/door requires the provision of supplemental ventilation. Air conditioning with a fresh air intake duct for makeup air would meet this requirement.

Shared wall assemblies in duplex construction must meet STC standards for noise leakage between units. Building plans must indicate the sound rating of any proposed “party walls” and cite the acoustical laboratory STC findings and the test report numbers. Typically, fire-rated assemblies also meet the sound limits as long as care is used to minimize or protect any shared wall penetrations.

Stationary Noise

An infill three-story residential project is not a noise generator that would measurably worsen the surrounding noise environment, and will likely improve it compared to the existing auto auction site use. It should further be noted that Table N-3 (corresponding to Table 1, above) of the City of Anaheim General Plan (Noise Standards) specifically exempts outdoor decks or balconies from noise/land use compatibility if usable outdoor recreational space is 6-feet deep or less. Any planned outdoor decks or balconies are less than 6 feet deep along site perimeter units. Even without the recent finding that CEQA would not require an

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analysis/mitigation of the effects of the acoustic environment upon usable outdoor project space, general plan policy would exempt such an analysis.

Mechanical equipment typically includes heating, ventilating and air-conditioning equipment. Noise generated by mechanical equipment varies significantly depending upon the equipment type and size. The project proposes 2-ton air conditioning units to be housed behind a 6-foot CMU block wall at the sides of the buildings.

Literature from Carrier and Trane Industries shows that residential equipment has a sound level of 50-60 dBA. For this project, since only smaller units would be necessary, an average 55 dBA was used. Because the units are clustered in groups of 3 or 6, the noise level could be as high as 63 dBA if 6 units were all operating simultaneously.

The nearest air conditioning unit is at least 120 feet to the sensitive receptors across S East Street. Distance attenuation would reduce noise levels by 38 dB. In addition, the 6-foot block wall shielding the units would provide at least another 6 dB of attenuation. The resultant 20 dBA of noise that would be expected at the nearest residential property line would be significantly below ambient noise levels and not be perceptible. The noise level would be significantly below the City of Anaheim 60 dBA maximal noise level for stationary equipment at the nearest sensitive use. The surrounding warehouses and recycling plant are not considered a sensitive use and were not considered in this analysis. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects included in either of the previous CEQA documents.

The previous CEQA documents (EIR No. 330 and SEIR No. 346) identified significant traffic noise increases on various project-area roadways. The previous CEQA documents included a mitigation measure (MM-5.10-1) that requires the preparation of a project-specific acoustical report for any project generating over 100 peak hour trips. The Proposed Project site is not on one of the roadways specified in the Certified EIR; and the Proposed Project would generate fewer than 100 peak-hour trips. Thus, MM 5.10-1 does not apply to the Proposed Project.

A project-specific traffic noise discussion is presented below, which compares the Proposed Project-related traffic noise increases to the applicable thresholds and the results included in the previous CEQA documentation. The Proposed Project will include development of up to 42 residential units, a net increase of 10 units compared to Approved Project, which will result in 58 additional daily trips to and from the Proposed Project site.

For potential traffic-generated noise, the majority of people driving to the project site will enter via S. East Street. Since the Proposed Project would generate 58 more daily trips than development permitted onsite per the Approved Project, there is also a potential increase in traffic noise due to the additional number of daily trips to the project site.

However, since S. East Street is a busy thoroughfare, the additional daily trips on this roadway will be marginal. Note that a doubling of traffic flows (i.e., 10,000 vehicles per day to 20,000 per day) would be needed to create an audible (3 dB) increase in traffic-generated noise levels. An increase of 3 dB is often used

as a threshold for a substantial increase. Since the increase in project-generated daily trips is expected to be much less than the current traffic flows on S. East Street, the expected increases in project-related traffic flows is well below the commonly accepted threshold (for an ‘inaudible change) of a 3 dB increase. The Proposed Project would not result in notable or substantial permanent increases in community noise levels due to traffic flows.

No significant permanent noise increases due to project-related activities, equipment, or traffic would occur. Further, the Proposed Project would not create a substantial increase in the severity of previously identified effects included in the Certified EIR. No subsequent EIR is necessary.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Construction activities generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Within the “soft” sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than to human annoyance.

Possible vibration nuisance is most commonly expressed in terms of the root mean square (RMS) velocity of a vibrating object. RMS velocities are expressed in units of vibration decibels relative to a reference velocity of 1.0 micro-inch per second. The range of vibration decibels (VdB) is as follows:

- 65 VdB - threshold of human perception
- 72 VdB - annoyance due to frequent events
- 80 VdB - annoyance due to infrequent events
- 100 VdB - minor cosmetic damage

Since vibration events expected to occur at the proposed construction site will be generally infrequent, this analysis will use 80 VdB as an applicable threshold for sensitive receptors. To determine potential impacts of the project’s construction activities, estimates of vibration levels induced by the construction equipment at various distances are presented below in Table 10.

The on-site construction equipment that will generate the maximum potential vibration level is a large bulldozer. The stated vibration source level in the FTA Handbook for such equipment is 81 VdB at 50 feet from the source. With typical vibrational energy spreading loss, the vibration annoyance standard is met at 56 feet. The closest residence is 110 feet from the closest project structure. At this distance, a bulldozer that generates generally infrequent vibration levels will not likely be perceptible due to distance attenuation alone.

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Table 10 Construction Equipment Vibration Levels

Equipment	Approximate Vibration Levels (VdB)			
	50 feet	100 feet	110 feet	150 feet
Large Bulldozer	81	75	74	71
Loaded Truck	80	74	73	70
Jackhammer	73	67	66	63
Small Bulldozer	52	46	45	42

Source: FTA Transit Noise & Vibration Assessment, Chapter 12, Construction, 1995
RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second and a crest factor of 4.

No significant permanent noise increases due to project-related vibration levels would occur. The Proposed Project would not create a substantial increase in the severity of previously identified effects included in the Certified EIR. No subsequent EIR is necessary.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

See response to Section 5.12.2(a), above.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Chapter 6.70.010 of the Municipal Code exempts noise sources associated with construction or building repair from the City of Anaheim noise standards between the hours of 7:00 AM to 7:00 PM. Additional work hours may be permitted if deemed necessary by the Director of Public Works or Building Official. Therefore, construction of the Proposed Project is exempt from the City of Anaheim noise standards included in the Municipal Code as long as work is performed during permissible daytime hours.

The Proposed Project would entail construction of eight structures containing a total of 42 units on the western perimeter of S East Street. Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by demolition of existing structures and large earth-moving sources, then by foundation and parking facilities, and finally for finish construction. The demolition and earth-moving sources are the noisiest, with equipment noise typically ranging from 75 to 90 dB at 50 feet from the source (EPA 1971).

The proposed buildings will be built on a level site. No major grading will be performed although there is demolition. Peak noise levels from demolition equipment are taken to be 85 dB at 50 feet (EPA, 1971). The closest homes are approximately 150 feet east of the existing buildings to be demolished. Four of the six homes closest to the project site (block of homes on the east side of East Street) are shielded by an existing 5-foot noise wall along the property line. This wall will contribute up to 5 dB of attenuation (FTA, 2006).

At these setback distances, maximum construction noise would dissipate to 75 dB for the home without a noise wall and 70 dB for the homes with a wall. Construction noise could be disturbing if windows facing the construction activity were open. Temporary window closure would help minimize disturbance to quiet activities such as taking a nap, reading a book, talking on the phone, etc., but noise levels will still be noticeable. However, many people are away from home during the hours from 7 a.m. to 3 p.m. when temporary construction disturbance would be greatest. In addition, the existing industrial uses in the project area would help mask any project related construction noise.

Construction activities are exempt from numerical noise regulations if they occur during the hours allowed by the Municipal Code. However, as noted above, heavy equipment noise may be a nuisance even if generated during allowable hours. Compliance with these hours (7 a.m. to 7 p.m. Monday-Saturday) will maintain construction activity noise impacts at less-than-significant. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects included in the Certified EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no public-use airports within four miles of the project site (AirNav, 2017). Project development would not expose people onsite to excessive airport-related noise levels. Therefore, no impact would occur and no subsequent EIR is necessary.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no heliports or other private air strips within two miles of the project site (AirNav, 2017). Project development would not expose people onsite to excessive heliport- or airstrip-related noise levels. Therefore, no impact would occur and no mitigation measures are necessary.

Overall, the Proposed Project would be consistent with the Approved Project as analyzed in EIR No. 330 and SEIR No. 346. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects.

5.12.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures are applicable to the Proposed Project.

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5.13 POPULATION AND HOUSING

5.13.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

Population and housing impacts were identified as less than significant in EIR No. 330. Estimated population growth due to the Update Project would be within population projections for Orange County and would thus not be a significant impact. The Update Project would involve development of more housing units than the number of units forecast for the City in 2030; however, the increase reflects a shift in future housing development to more multi-family residential units and does not indicate a significant population impact. The EIR No. 330 concluded that the Update Project would develop increased numbers of housing units near major employment centers, thus reducing travel distances and improving jobs-housing balance.

SEIR No. 346 for the Rezoning Project

No additional significant population and housing impacts were identified, as the proposed rezoning and pursuant buildout were consistent with, and envisioned in, the GPU.

5.13.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?					X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					X

Comments:

- a) **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The average household size in Anaheim in 2016 is estimated to be 3.46 persons (CDF 2016). Implementation of the Approved Project would result in development of up to 32 units and an estimated population increase of 111 residents on the Project Site. Implementation of the Proposed Project would result in development of 42 units and an estimated population increase of 145 residents on the Project Site. The net increase in population related to the Proposed Project compared to Approved Project would be 34 persons.

The population of the City at build-out of the Approved Project is estimated at 398,745. The build-out population of the Approved Project is an increase of 40,609 over the City's estimated 2016 population of 358,136 (CDF 2016). The estimated net increase in population growth due to Proposed Project would be within the citywide net increase in population growth estimated for buildout of the Approved Project. Impacts would be less than significant, and no changes or new information would require preparation of a subsequent EIR.

- b) **Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. There is no housing onsite, and no impact would occur. No changes or new information would require preparation of a subsequent EIR.

- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Impact. There are no residents onsite, and no impact would occur. No changes or new information would require preparation of a subsequent EIR.

5.13.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to population and housing were identified in EIR No. 330 or SEIR No. 346.

5.14 PUBLIC SERVICES

5.14.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 determined that the Update Project was expected to generate increased numbers of calls for fire and police services due to increased numbers of residents and employees and increased development intensity in the City. However, EIR No. 330 concluded that compliance with the relevant goals and policies

5. Environmental Analysis

and Municipal Codes, and implementation of MM 5.11-1 would reduce impacts to a less than significant level.

SEIR No. 346 for the Rezoning Project

No additional significant public services impacts were identified in the SEIR No. 346.

5.14.2 Impacts Associated with the Proposed Project

Would the Proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Fire protection?				X	
b) Police protection?				X	
c) Schools?				X	
d) Parks?				X	
e) Libraries or local daycare facilities?				X	

Comments:

a) Fire protection?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Anaheim Fire & Rescue provides fire and emergency medical services to the City. The nearest fire station to the Project Site is Downtown Fire Station 1 at 500 East Broadway, about 0.8 mile by road from the site. The second nearest station to the site is Stadium Station 7 at 2222 East Ball Road, about 1.5 miles by road from the site. Station 1 is equipped with one paramedic engine, one fire engine, and one truck; Station 7 is equipped with one paramedic engine (Anaheim 2017c). Anaheim Fire & Rescue's operating budget is funded mostly through the City's General Fund, which in turn consists almost entirely of revenues from transient occupancy taxes, property taxes, and sales taxes (Anaheim 2016c).

Proposed Project implementation would involve development of a net increase of 10 residential units onsite compared to that permitted onsite by the Approved Project. Thus, Proposed Project development is expected to cause a very small incremental increase in fire protection and emergency medical services calls. Proposed

Project operation would generate a small net increase in property taxes from the site; and would indirectly generate a small net increase in sales taxes paid by project residents, compared to what would have been generated by Approved Project implementation on the site. Such increase in City revenues available for Fire & Rescue funding would reduce project impacts.

This impact would be less than significant after implementation of Mitigation Measure 5.11-1 set forth in the Certified EIR. The Proposed Project would not create additional demands for fire protection compared to the Certified EIR. Preparation of a subsequent EIR would not be necessary.

b) Police protection?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

As discussed in EIR No. 330 and SEIR No. 346, the Anaheim Police Department (APD) provides law enforcement services to the Project Site. The funding for new personnel needed to maintain acceptable service levels would come from the City of Anaheim's General Fund. Property taxes and other fees assessed for the property would contribute to the General Fund revenues. Proposed Project implementation would involve development of a net increase in 10 residential units compared to the development potential of the site under the Approved Project. However, the additional 10 units can be served by the Anaheim Police Department with no additional impacts to the environment. Therefore, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. Preparation of a subsequent EIR would not be necessary.

c) Schools?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The project Site is in the Anaheim Elementary School District and the Anaheim Union High School District.

Anaheim Elementary School District operates 26 schools; serves grades K-6; and had total enrollment of 18,852 in the 2015-16 school year. Anaheim Union High School District operates 21 junior high and high schools; serves grades 7-12; and had total enrollment of 31,276 in the 2015-16 school year (CDE 2017). The project site is in the attendance boundaries of Thomas Jefferson Elementary School, South Junior High School, and Katella High School (NCES 2017).

In the 2015-16 school year:

- Thomas Jefferson Elementary had enrollment of 640 students in 26 classes.
- South Junior High School had enrollment of 1,542 students in 65 classrooms
- Katella High School had enrollment of 2,619 students in 92 classrooms (CDE 2017; AESD 2017; AJUHSD 2016a; AJUHSD 2016b).

Proposed Project implementation would involve development of a net increase of 10 residential units compared to what the Approved Project permits on the site.

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The student generation rates used in EIR No. 330 for single-family residences were 0.406 elementary (K-6) students per unit; 0.144 junior high (7-8) students per unit, and 0.240 high (9-12) students per unit.

Therefore, the net increase in student generation by Proposed Project development compared to Approved Project is estimated as four elementary school students, one junior high school student, and two high school students.

The Proposed Project would pay development impact fees for schools pursuant to California Government Code Section 65996 (Senate Bill 50). School development impact fees are defined as full and complete school facilities mitigation. Therefore, after payment of SB 50 fees, no new significant impact would occur. Preparation of a subsequent EIR would not be necessary.

d) Parks?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Anaheim city parks are maintained by the Community Services Department Parks Division. The Community Services Department Recreation Division offers recreation programs at City parks. The Proposed Project Site is in a Park Deficiency Area mapped in the General Plan Update Green Element: that is, it is outside of a one-half-mile radius of Neighborhood and Community Parks or one-quarter-mile radius of a Mini Park (Anaheim 2004a). Parks within one mile of the Project Site include:

- **Mini-Parks:**
 - George Washington Park, 1.7 acres
 - Citrus Park, 2.8 acres
 - Walnut Grove Park, 2.9 acres
 - Little Peoples Park, 0.9 acres
 - Colony Park, 1.0 acre
- **Neighborhood Park:**
 - Lincoln Park, 5.4 acres
- **Community Park:**
 - Boysen Park, 24.4 acres (Calands.org 2017)

Proposed Project implementation would involve development of a net increase of 10 residential units – estimated to house about 34 residents – compared to that permitted onsite by the Approved Project. Such increase in residents is expected to cause a slight increase in usage of existing City parks as well as generate demand for additional parkland.

The Anaheim General Plan sets forth a standard of at least two acres of parkland per 1,000 residents (Anaheim 2004a). Proposed Project development would thus generate demand for approximately 0.068 acres of additional parkland in the City. The City of Anaheim requires residential development projects to dedicate land for development of parks, and/or pay fees in lieu of such dedication, in amounts set forth in Municipal

Code Chapter 17.34, *Development Fees*. The Proposed Project would dedicate land and/or pay in-lieu fees in accordance with Municipal Code Chapter 17.34. The proposed additional units would also generate additional tax revenue for the City, part of which could be allocated for recreation services and park maintenance. Therefore, no additional impacts would occur and preparation of a subsequent EIR would not be necessary.

e) Library services or local daycare facilities?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Local public services include libraries, daycare facilities, post offices, and hospitals. The Proposed Project would result in an incrementally higher demand for such services; however, these increases would not represent a significant impact. Although no impact would occur, adherence to previously approved MM 5.11-1 from the Certified EIR, identified below, would ensure that an impact would not occur.

5.14.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347.

MM 5.11-1 Future projects will be reviewed by the City of Anaheim on an individual basis and will be required comply with requirements in effect at the time building permits are issued (i.e., impact fees, etc.) or if an initial study is prepared and the City determines the impacts to be significant, then the project will be required to comply with appropriate mitigation measures (i.e., fire station sites, etc.).

5.15 RECREATION

5.15.1 Summary of Previous Environmental Analysis

EIR No. 330 for the Update Project

EIR No. 330 concluded that buildout of the Update Project would cause increased demands for parks in the City overall, and increased demands specifically in areas where residential uses would be permitted where no such uses then existed.

Residential developments in the City are required to dedicate land for parkland and/or pay in-lieu fees to offset impacts on demand for parks. Impacts were identified as less than significant after compliance with the City's park dedication ordinance.

SEIR No. 346 for the Rezoning Project

No additional significant recreation impacts were identified, as the Rezoning Project were determined to be consistent with, and envisioned in, the Update Project.

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5.15.2 Impacts Associated with the Proposed Project

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?					X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?					X

Comments:

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Project impacts on recreational facilities are addressed above in Section 5.14.2.d. Project development would add about 34 residents to the City compared to Approved Project buildout, thus generating slight increases in usage of existing parks and demands for additional parkland. The Proposed Project would dedicate land and/or pay in-lieu fees in accordance with Municipal Code Chapter 17.34. The Proposed Project would not create a new significant impact or substantially intensify a previously identified impact.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

New impacts would be less than significant, as explained above in Section 5.14.2.d.

5.15.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to recreation were identified in EIR No. 330 or SEIR No. 346 except for the following standard requirement, which was derived from existing regulations, requirements, and standard practices set forth by regional and local agencies.

Standard Requirements

SR 5.13-1 Prior to issuance of building permits, property owners/developers shall comply with Anaheim Municipal Code, Section 17.08.250, which requires the provision of parkland and/or the payment of fees, consistent with the Quimby Act.

5.16 TRANSPORTATION/TRAFFIC

5.16.1 Summary of Impacts Identified in the Program EIR

EIR No. 330 for the Update Project

EIR No. 330 identified significant traffic impacts of the Update Project buildout at seven intersections:

- Dale/Lincoln
- Harbor Boulevard / Ball Road
- Sportstown/Katella
- Tustin Avenue / La Palma Avenue
- Tustin/SR-91 WB Ramps
- Imperial Highway/Santa Ana Canyon Road
- Weir Canyon/SR-91 EB Ramps

Improvements proposed in the Update Project Circulation Element reduced impacts at four of the seven intersections to less than significant. After mitigation, traffic impacts at three of the intersections were identified as significant and unavoidable:

- Harbor Boulevard / Ball Road
- Tustin Avenue / La Palma Avenue
- Imperial Highway/Santa Ana Canyon Road

Impacts at one Congestion Management Program intersection, Harbor Boulevard / Ball Road, were identified as significant and unavoidable. Buildout of the Update Project was not identified as significantly impacting air traffic levels or air traffic patterns; roadway design hazards; emergency access; or parking capacity.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 identified significant traffic impacts of the Proposed Project to 20 intersections. Impacts at seven of the intersections were identified as significant and unavoidable due to physical constraints on intersection widening, including buildings and mature trees.

No significant impacts respecting roadway design hazards, emergency access, or alternative transportation were identified.

5. Environmental Analysis

5.16.2 Impacts Associated with the Proposed Project

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?					X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	
e) Result in inadequate emergency access?				X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X	

A Traffic Impact Analysis, East and South Street, City of Anaheim, California (TIA) was completed for the Proposed Project by LSA in April 2017 and is included in its entirety as Appendix G to this Addendum. The TIA follows guidelines provided by the City of Anaheim Transportation Section of the Department of Public Works. SEIR No. 346 analyzed traffic impacts resulting from the Anaheim Housing Opportunities Site Rezoning Project, which permitted development of 32 low-medium density residential units on the Proposed Project site. The TIA analyzed impacts of development of 42 residential units on the site. The Traffic Impact

Analysis (included as Appendix G) and the following analysis were prepared for the Proposed Project to meet the City's requirements.

Comments:

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Existing Conditions

Roadways

- **East Street:** East Street is a north-south roadway located east of and adjacent to the project site and is classified as a Secondary Arterial by the City's General Plan Circulation Element. East Street is a four-lane roadway divided by a two-way median left-turn (TWMLT) lane. East Street provides direct access to the project site and therefore facilitates all of the trips generated by the project. The posted speed limit on East Street is 35 miles per hour (mph). There are sidewalks provided on both sides of the street. There are no bike lanes, and on-street parking is not permitted.
- **South Street:** South Street is an east-west roadway located south of the project site and is classified as a Collector Street by the City's General Plan Circulation Element. It is a two-lane, undivided roadway. The posted speed limit on South Street is 35 mph. There are sidewalks on both sides of the street, and on-street parking is permitted. Bike lanes are not provided.
- **Santa Ana Street:** Santa Ana Street is an east-west roadway located north of the project site and is classified as a Collector Street by the City's General Plan Circulation Element. It is a two-lane undivided roadway. The posted speed limit on Santa Ana Street is 35 mph. There are sidewalks on both sides of the street, and on-street parking is permitted. Bike lanes are not provided.

Intersections

The TIA analyzed traffic conditions at two intersections, East Street at South Street and East Street at Santa Ana Street. Both intersections are signalized and under the jurisdiction of the City of Anaheim.

Roadway Segments

The TIA analyzed one roadway segment, East Street between South Street and Santa Ana Street.

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Methodology: Intersections

In accordance with the City's *Criteria for Preparation of Traffic Impact Studies*, the study area intersections were analyzed using Intersection Capacity Utilization (ICU) methodology for signalized intersections (i.e., existing intersections) and Highway Capacity Manual 2010 (HCM 2010) methodology for unsignalized intersections (i.e., project driveways). Traffix (Version 8.0) and Synchro 9.1 are the software applications utilized to determine the levels of service (LOS) for signalized and unsignalized intersections, respectively.

The ICU methodology compares the amount of traffic an intersection is able to process (capacity) to the level of traffic during peak hours (volume). The resulting volume-to-capacity (v/c) ratio is expressed in terms of LOS. The HCM 2010 methodology calculates the delay experienced by all movements through an intersection. At a two-way, stop-controlled intersection (i.e., unsignalized intersections where the main street is uncontrolled and the minor street has to stop before finding a gap to enter the main street), delay is reported for the most delayed approach. LOS criteria for intersections are presented below.

Levels of Service

LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. LOS is assigned along the following letter gradient where LOS A represents free-flow activity, and LOS F represents overcapacity operation:

- **LOS A:** No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
- **LOS B:** This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
- **LOS C:** This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
- **LOS D:** This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
- **LOS E:** Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.

- **LOS F:** This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

The relationship between LOS and the delay (in seconds) or v/c ratio at unsignalized and signalized intersections is as shown in Table 11 below.

Table 11 Intersection Levels of Service: Delay and Volume-to-Capacity Ratio

Intersection Level of Service	Delay (seconds) (HCM Methodology)	Volume-to-Capacity Ratio (ICU Methodology)
A	≤10.0	< 0.60
B	>10.0 and ≤15.0	0.61–0.70
C	>15.0 and ≤25.0	0.71–0.80
D	>25.0 and ≤35.0	0.81–0.90
E	>35.0 and ≤50.0	0.91–1.00
F	>50.0	> 1.00

Source: LSA 2017

Impact Significance Criteria

A transportation impact on an intersection is considered significant in accordance with Table 14. The “Final V/C Ratio” includes the future v/c ratio at an intersection, considering traffic from existing conditions, ambient growth, approved/related projects, and the Proposed Project but without any proposed mitigation. Mitigation is required for any intersection where project traffic is considered to have a significant impact.

Methodology: Roadway Segments

Using the same v/c methodology discussed above, daily roadway link v/c ratios were determined using roadway volume data and the theoretical daily capacities determined by the Circulation Element of the Orange County General Plan. Existing and future roadway volumes are based on volume data collected via pneumatic tube along East Street on Tuesday, December 20, 2016. The theoretical daily capacity of a roadway is dependent on roadway classification, as shown in Table 12 below.

Table 12 Roadway Segment Capacity

Arterial Type	Daily Capacity
Eight Lanes Divided	75,000
Six Lanes Divided	56,300
Four Lanes Divided	37,500
Four Lanes (Undivided)	25,000
Two Lanes (Undivided)	12,500

Source: LSA 2017

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Acceptable LOS

For roadway segments, the City General Plan establishes a target of LOS C. If a segment is found to operate at LOS D, E, or F under daily conditions, its operation is also analyzed under peak-hour conditions. If the roadway segment also operates at LOS D, E, or F under peak-hour conditions and project traffic increases the daily v/c ratio by 0.01 or greater, then the project is determined to have a significant impact. The relationship between LOS and the v/c ratio for roadways is shown below in Table 13.

Table 13 Roadway Segment Levels of Service: Volume-to-Capacity Ratio

Intersection Level of Service	Volume-to-Capacity Ratio
A	< 0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00

Source: LSA 2017

Impact Significance Criteria

A transportation impact on an intersection is considered significant in accordance with Table 14. The “Final V/C Ratio” includes the future v/c ratio at an intersection, considering traffic from existing conditions, ambient growth, approved/related projects, and the Proposed Project but without any proposed mitigation. Mitigation is required for any intersection where project traffic is considered to have a significant impact.

Table 14 Roadway Segment Impact Significance Criteria

Intersection Level of Service	Final V/C Ratio	Project-Related Increase in V/C Ratio
C	> 0.701–0.800	≥ 0.050
D	> 0.801–0.900	≥ 0.030
E, F	> 0.901	≥ 0.010

Source: LSA 2017

Scenarios Analyzed

The TIA analyzed traffic conditions in six scenarios:

- Existing Conditions
- Existing Plus Project Conditions
- Future (2019) Baseline Conditions: project completion is scheduled for 2019.
- Future (2019) Plus Project Conditions
- General Plan Buildout Baseline Conditions

- General Plan Buildout Plus Project Conditions

Existing Intersection Traffic Conditions

Existing Traffic Volumes

Vehicle turning volumes were collected for the study area intersections during the peak morning (7:00 a.m.–9:00 a.m.) and evening (4:00 p.m.–6:00 p.m.) commute periods on Tuesday, December 20, 2016, when schools were in session with typical hours.

Existing Intersection Levels of Service

Both study area intersections operate at LOS A in the AM and PM peak hours, as shown below in Table 15.

Table 15 Existing Intersection Levels of Service

Intersection	AM Peak Hour		PM Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
East Street/Santa Ana Street	0.43	A	0.50	A
East Street/South Street	0.60	A	0.56	A

Source: LSA 2017

Existing Roadway Segment Traffic Conditions

The existing daily traffic volume on East Street between Santa Ana Street and South Street is approximately 13,552 average daily traffic (ADT). With a roadway capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.36 and thus at an LOS of A.

Existing Project Site Trip Generation

Trip generation by the two existing businesses onsite was measured on December 19 and 20, 2016; as *Trip Generation* does not contain trip generation rates for categories of businesses fitting the two businesses onsite. As shown below in Table 16, 16 AM peak-hour trips were counted from the project site, and 33 PM peak-hour trips.

Table 16 Existing Trip Generation

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Existing Conditions (measured)	Measured		Not available	11	5	16	9	24	33

Source: LSA 2017

Project Trip Generation

Project trip generation was estimated using the trip generation rate for condominiums/townhomes from the Institute of Transportation Engineers *Trip Generation*, 9th Edition (2012) for the 42 proposed townhomes.

5. Environmental Analysis

The baseline condition analyzed in the TIA for the Existing Plus Project and Future (2019) Plus Project scenarios is existing conditions. The baseline condition for the General Plan Buildout Plus Project scenario is estimated traffic generation by Approved Project, that is, development of 32 townhomes.

The proposed redevelopment is estimated to generate a net increase of three trips during the AM peak hour and a net decrease of 11 trips during the PM peak hour compared to existing conditions, as shown below in Table 17.

Table 17 Trip Generation, Proposed Project Compared to Existing Conditions

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Project Trip Generation Rates		Unit	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Proposed Project Trip Generation: Townhomes	42	Units	244	3	16	19	15	7	22
Existing Conditions (measured)	Measured		Not available	11	5	16	9	24	33
Net trip generation, Proposed Project – existing conditions	Not applicable			(8)	11	3	6	(17)	(11)

Source: LSA 2017

Trip Distribution and Assignment

The TIA estimated that equal proportions of trips would proceed in each of the four directions from the project site: that is, north and south via East Street, and east and west via South Street, respectively. All 244 project-generated trips would use parts of the segment of East Street between Santa Ana Street and South Street; trips that began southbound on East Street would then continue south on East Street, and west and east on South Street.

Existing Plus Project Traffic Conditions

Existing plus project traffic conditions were estimated by adding net project-generated trips to existing traffic volumes at the study area intersections and roadway segments.

Intersection Conditions

Both study area intersections are estimated to operate at acceptable LOS A in existing plus project conditions during the AM and PM peak hours, as shown below in Table 18.

Table 18 Existing Plus Project Intersection Levels of Service

Intersection	Existing				Existing Plus Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
East Street/Santa Ana Street	0.43	A	0.50	A	0.43	A	0.50	A
East Street/South Street	0.60	A	0.56	A	0.60	B	0.56	A

Source: LSA 2017

Roadway Segment Conditions

With the addition of 224 ADT generated by the project to the existing ADT of 13,552, the existing plus project ADT along East Street between Santa Ana Street and South Street is 13,776 trips. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.37, corresponding to acceptable LOS A.

Project traffic impacts to the intersections and roadway segment would be less than significant in existing plus project conditions.

Future (2019) Baseline Conditions

Future (2019) baseline traffic conditions were estimated based on existing intersection and roadway traffic volumes using a one percent annual growth rate for two years, for a total of two percent growth. No specific approved or pending development projects near the Proposed Project site were identified.

Intersection Conditions

The two study area intersections are estimated to operate at acceptable LOS A and B in 2019 baseline conditions, as shown below in Table 19.

Table 19 Future (2019) Baseline Intersection Levels of Service

Intersection	AM Peak Hour		PM Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
East Street/Santa Ana Street	0.44	A	0.51	A
East Street/South Street	0.61	B	0.57	A

Source: LSA 2017

Roadway Segment Conditions

The projected future daily volume along East Street between Santa Ana Street and South Street is 13,823 ADT. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.37 and thus acceptable LOS A.

5. Environmental Analysis

Future (2019) Plus Project Conditions

Project-generated traffic was added to future (2019) baseline traffic volumes at study area intersections and roadway segment to estimate 2019 plus project traffic conditions.

Intersection Conditions

The two study area intersections are estimated to operate at acceptable LOS A and B in 2019 plus project conditions, as shown below in Table 20.

Table 20 Future (2019) Plus Project Intersection Levels of Service

Intersection	2019 Baseline				2019 Plus Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
East Street/Santa Ana Street	0.44	A	0.51	A	0.44	A	0.51	A
East Street/South Street	0.61	B	0.57	A	0.61	B	0.57	A

Source: LSA 2017

Roadway Segment Conditions

With the addition of 224 project-generated ADT to the future (2019) ADT of 13,823, the future (2019) plus project ADT along East Street between Santa Ana Street and South Street is 14,047 trips. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.37, that is, acceptable LOS A.

Project traffic impacts to the intersections and roadway segment would be less than significant in 2019 plus project conditions.

General Plan Buildout Baseline Condition

Trip Generation by Approved Project

The General Plan Buildout baseline condition is estimated traffic generation by Approved Project, that is, development of 32 townhomes. Trip generation is estimated as 186 daily, 14 in the AM peak hour, and 17 in the PM peak hour, as shown below in Table 21.

Table 21 Trip Generation, Approved Project

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Approved Project Trip Generation Rates		Unit	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Approved Project Trip Generation: Townhomes	32	Units	186	2	12	14	11	5	17

Source: (generation rates): LSA 2017

General Plan Buildout Baseline Traffic Conditions

General Plan Buildout baseline traffic conditions are as analyzed in SEIR No. 346 for the Rezoning Project.

Intersection Conditions

Intersection geometrics at the study area intersections are anticipated to change slightly in the General Plan buildout. The southbound and northbound approaches at East Street/South Street currently have one right-turn, one through, and one left-turn movement for each approach. According to the General Plan, the right-turn only lane will become a shared through-right lane on both approaches.

The two study area intersections are estimated to operate at acceptable LOS C or better in General Plan Buildout baseline conditions, as shown below in Table 22.

Table 22 General Plan Buildout Baseline Intersection Levels of Service

Intersection	AM Peak Hour		PM Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
East Street/Santa Ana Street	0.60	A	0.59	A
East Street/South Street	0.80	C	0.72	C

Source: LSA 2017

Roadway Conditions

Daily traffic volume on the analyzed segment of East Street was estimated by multiplying PM peak hour turning movement volumes, yielding 20,300 ADT. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.54, corresponding to acceptable LOS A.

General Plan Buildout Plus Project Condition

Net Trip Generation, Proposed Project less Approved Project

The net change in project trip generation analyzed in the General Plan Buildout plus project condition is Proposed Project trip generation less generation from Approved Project, shown below in Table 23.

Table 23 Trip Generation, Proposed Project less Approved Project

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Project Trip Generation Rates		Unit	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Proposed Project Trip Generation: Townhomes	42	Units	244	3	16	19	15	7	22
Approved Project Trip Generation: Townhomes	32	Units	186	2	12	14	11	5	17
Net Increase	10	Units	58	1	4	5	4	2	5

Source: LSA 2017

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Intersection Conditions

The study area intersections are forecast to operate at acceptable LOS C or better in General Plan Buildout plus project conditions, as shown below in Table 24.

Table 24 General Plan Buildout Plus Project Intersection Levels of Service

Intersection	General Plan Buildout Baseline				General Plan Buildout Plus Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
East Street/Santa Ana Street	0.60	A	0.59	A	0.60	A	0.59	A
East Street/South Street	0.80	C	0.72	C	0.80	C	0.72	C

Source: LSA 2017

Roadway Conditions

With the addition of 58 ADT generated by the project to the General Plan buildout baseline ADT of 20,300, the General Plan buildout plus project ADT along East Street between Santa Ana Street and South Street is 20,358 trips. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.54, corresponding to acceptable LOS A.

Project traffic impacts to the intersections and roadway segment would be less than significant in General Plan buildout plus project conditions. No new significant impact would occur in any of the three with-project scenarios analyzed. Therefore, the Proposed Project would not reduce effectiveness of any applicable traffic-related plans, ordinances, or policies. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. Preparation of a subsequent EIR would not be necessary.

- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The Orange County Transportation Authority (OCTA) adopted the Congestion Management Program (CMP) for Orange County, which provides a mechanism for coordinating land use and transportation decisions on major freeways, highways, and roadways within the County.

The CMP Highway System (CMPHS) consists of the Orange County smart street network plus the state highway system. The nearest CMP roadway to the project site is Harbor Boulevard, one mile to the west. No significant project traffic impacts were identified to the two study area intersections, each of which are within 1,200 feet of the project site. Thus, project development would not cause significant traffic impacts to any CMP roadways. Preparation of a subsequent EIR would not be necessary.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The Proposed Project would not change air traffic patterns or change the location of development areas where persons would dwell and work, which would result in a substantial safety risk. The Project Site is not in an adopted airport land use plan or within two miles of public-use airport. The nearest heliport to the project site is the North Net Training Facility Heliport at 2400 East Orangewood Avenue in the City of Anaheim, about 2.4 miles to the south (Airnav.com 2017). No new or increased impact would occur and no subsequent EIR is needed.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Project development would include consolidating the two existing driveways to the project site into one driveway. The driveway would be about 81 feet from the north site boundary and 129 feet from the south site boundary. The nearest other driveways on the west side of East Street are a driveway into the gas station next to the south project site boundary, and a driveway into the industrial property to the north about 98 feet from the north project site boundary. The nearest intersecting street on the east side of East Street is Crestbrook Place about 92 feet northeast of the north site boundary. Project development would not cause conflicting turning movements with other intersections on East Street, and would not add incompatible land uses to the project site. No new significant impact would occur, and no subsequent EIR is needed.

e) Result in inadequate emergency access?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. According to the City of Anaheim General Plan's Safety Element (May 2004), the City has an emergency preparedness plan that complies with state law and that interfaces with other cities and counties in Southern California. Construction activity would be confined to the Project Site and would not interfere with vehicle movement or emergency access along East Street. Any impacts related to the addition of project-related traffic would be less than significant; therefore, the Proposed Project would not interfere with the movement of emergency vehicles along local roadways. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects. Preparation of a subsequent EIR would not be necessary.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

There are sidewalks on both sides of East Street next to the project site. There are no bicycle lanes in the traffic study area. Public transportation bus services in Anaheim are offered by the Orange County Transportation Authority (OCTA) and Anaheim Resort Transportation (ART). No public transit bus routes operate in the traffic study area (OCTA 2017; ATN 2017). Project construction would involve construction crossing of the sidewalk fronting the project site. Project construction workers would take needed

5. Environmental Analysis

precautions to ensure that trucks and construction equipment entering and exiting the site did not pose a hazard to pedestrians on the sidewalk. Project operation would not interfere with the sidewalk. Project development would not interfere with bicycle facilities or public transit services. No new impact would occur and no subsequent EIR is required.

5.16.3 Adopted Mitigation Measures Applicable to the Proposed Project

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347.

MM 5.15-5 Prior to issuance of each building permit, appropriate Transportation Impact and Improvement Fees shall be paid by the property owner/developer to the City of Anaheim in amounts determined by the City Council Resolution in effect at the time of issuance of the building permit with credit given for City-authorized improvements provided by the property owner/developer; and participate in all applicable reimbursement or benefit districts which have been established.

MM 5.15-6 Prior to approval of the first final subdivision map or issuance of the first building permit, whichever occurs first, and subject to nexus requirements, the property owner/developer shall irrevocably offer for dedication (with subordination of easements), including necessary construction easements, the ultimate arterial highway right(s)-of-way as shown in the Circulation Element of the Anaheim General Plan adjacent to their property.

5.17 UTILITIES AND SERVICE SYSTEMS

5.17.1 Water

5.17.1.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

EIR No. 330 for the Update Project

Water demands by buildout of the Update Project were identified in EIR No. 330 as lower by nearly 10 percent, or about 10 million gallons per day (mgd), than buildout of the existing General Plan. Additional water mains were identified as needed for fire flow requirements in the Anaheim Resort Specific Plan Expansion Area. EIR No. 330 concluded that water supply impacts were less than significant after implementation of mitigation.

SEIR No. 346 for the Rezoning Project

No additional significant impacts to utilities and service systems were identified in SEIR No. 346.

5.17.1.2 IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?				X	

Comments:

- b) **Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Water treatment facilities filter and/or disinfect water before it is delivered to customers. Anaheim Public Utilities Department (APU) provides water to the Project Site. Anaheim’s water supply comprise about 70 percent groundwater and 30 percent imported water. Imported water is treated at the Metropolitan Water District of Southern California’s Robert Diemer Filtration Plant north of the City of Yorba Linda, which has capacity of 520 mgd (Anaheim 2016; MWD 2017). APU operates one water treatment facility with 15 mgd capacity.

Proposed Project development would involve construction of 10 additional attached single-family residential units compared to Approved Project buildout on the Project Site. Target water demand in 2020 in the APU service area is 162 gallons per person per day. The target accounts for all potable water uses - indoor and outdoor; and residential and nonresidential uses; water for agricultural use may be omitted in calculating the target (Anaheim 2016). The average household size in Anaheim in 2016 is estimated to be 3.46 persons (CDF 2016). Thus, the increase in population due to the net addition of 10 units by the Proposed Project would be 34.6 persons. Therefore, Proposed Project development is estimated to generate an additional 5,605 gpd water demand compared to demands generated by Approved Project buildout on the site. There is sufficient water treatment capacity in the region for the incremental increase in water demands, and the Proposed Project would not create a new significant impact or substantially intensify a previously identified impact. No subsequent EIR is required.

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d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

APU forecasts that it will have sufficient water supplies to meet demands in its service area through 2040 in normal and dry conditions. APU supplies and demands from 2015 through 2040 in normal year conditions are shown below in Table 25. Anaheim’s water demand forecasts in its 2015 Urban Water Management Plan are based on demographic forecasts from the Center for Demographic Research at California State University Fullerton (Anaheim 2016).

Table 25 Existing and Forecast Water Supplies and Demands, Anaheim Public Utilities

	2015	2020	2025	2030	2035	2040
Groundwater	46,937	43,435	46,626	46,946	46,933	47,000
Imported Water	15,045	18,460	19,827	19,965	19,959	19,988
Recycled Water	71	155	155	155	155	155
Total	62,053	62,050	66,608	67,065	67,047	67,143
Demands	62,053	62,050	66,608	67,065	67,047	67,143

Source: Anaheim Public Utilities 2016

Proposed Project development would generate a net increase in water demands of about 5,605 gpd compared to Approved Project buildout onsite. APU forecasts that it will have sufficient water supplies to meet Proposed Project water demands, and Proposed Project development would not require AWU to obtain new or expanded water supplies. The Proposed Project would not create a new significant impact or substantially intensify a previously identified impact. No subsequent EIR is required.

5.17.1.3 ADOPTED MITIGATION MEASURES APPLICABLE TO THE PROPOSED PROJECT

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347. This measure has been modified to indicate that the Public Utilities Department is responsible for monitoring this measure. The City Engineer is within the Public Works Department. Deletions are shown in ~~strike through~~; additions are shown in underline.

5.13-1 Prior to issuance of building permits, future projects shall demonstrate compliance with the following water conservation measures to the satisfaction of ~~the City Engineer~~ Anaheim Public Utilities Department:

- Install a separate irrigation meter when the total landscaped area exceeds 2,500 square feet. (City of Anaheim Water Conservation Measures)
- Use of efficient irrigation systems such as drip irrigation systems and automatic systems that include moisture sensors. (City of Anaheim Water Conservation Measures)

- Use of low-flow sprinkler heads in the irrigation system. (City of Anaheim Water Conservation Measures)
- Use of water-conservation landscape plant materials, wherever feasible. (City of Anaheim Water Conservation Measures)
- Low-flow fittings, fixtures, and equipment including low flush toilets and urinals. (City of Anaheim Water Conservation Measures)
- Use of water efficient dishwashers, clothes washers, and other water using appliances. (City of Anaheim Water Conservation Measures).

5.17.2 Sewer

5.17.2.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

EIR No. 330 for the Update Project

Several deficient sewers that would require expansion were identified in EIR No. 330, especially in the Platinum Triangle and the Anaheim Resort Specific Plan Expansion Area. Impacts of the Update Project were identified as less than significant.

SEIR No. 346 for the Rezoning Project

No additional significant impacts to utilities and service systems were identified in SEIR No. 346.

5.17.2.2 IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?				X	
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	

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Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X	

Comments:

- a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?
- e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Waste Water Treatment Requirements

The City of Anaheim, including the Project Site, is served by a comprehensive sanitary sewer system, and no wastewater is discharged that would impact the quality of surface water or groundwater resources. Proposed Project development would involve the construction of 10 additional attached single-family residential units onsite compared to Approved Project buildout onsite. The sewage and wastewater from this use would be discharged into the City's sewer system and conveyed to Orange County Sanitation District (OCSD) Reclamation Plant No. 1 in Fountain Valley.

Waste discharge requirements for Reclamation Plant No. 1 are set forth in Santa Ana Regional Water Quality Control Board Order No. R8-2012-0035 issued in 2012, and modified by Order No. R8-2012-0037. No pre-treatment is required for the wastewater from the Proposed Project since the proposed residential units would not (1) process any industrial wastewater; (2) involve dewatering or groundwater clean-up; (3) directly discharge sewage effluent; or (4) engage in other activities that would generate wastewater requiring treatment beyond what is provided at OCSD Treatment Plant No. 1.

Wastewater Treatment Capacity

It is assumed here that wastewater generation by the net increase of 10 residential units (Proposed Project less Approved Project) would be 100 percent of potable water use, that is, about 5,605 gpd.

Plant No. 1 has secondary treatment capacity of 182 mgd; average daily influent in 2015-2016 was 117 mgd, for residual capacity of 65 mgd (OCSD 2016). Nearly 100 percent of the effluent from Plant No. 1 is conveyed to the Groundwater Replenishment System (GWRS) Facility, also in the City of Fountain Valley, owned and operated by the Orange County Water District (OCWD), where the wastewater is treated further and then infiltrated into the Main Orange County Groundwater Basin – mostly for later municipal use. The GWRS, with 100 mgd capacity, is the largest indirect potable reuse treatment facility in the world (OCWD 2016a). Expansion of the GWRS to 130 mgd capacity is scheduled for completion in 2022 (OCWD 2016b).

There is sufficient wastewater treatment capacity in the region for the estimated net increase in wastewater generation by Proposed Project development, and development would not require construction of new or expanded wastewater treatment facilities. The Proposed Project would not create a new significant impact or substantially intensify a previously identified impact. No subsequent EIR is required.

- b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.
No new or expanded wastewater treatment facilities would be required, and no incremental impact would occur, as substantiated above in Section 5.17.2.2.a.

5.17.2.3 ADOPTED MITIGATION MEASURES APPLICABLE TO THE PROPOSED PROJECT

No mitigation measures applicable to wastewater treatment are set forth in the Certified EIR.

5.17.3 Electricity

5.17.3.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

EIR No. 330 for the Update Project

EIR No. 330 determined that existing electrical facilities could accommodate anticipated increases in electricity demand from Update Project buildout, and that impacts would be less than significant.

SEIR No. 346 for the Rezoning Project

SEIR No. 346 determined that no additional impacts to electricity supplies would occur, as the Update Project contemplated development of the housing opportunity sites with residential and mixed uses.

5.17.3.2 IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT

Would the Proposed Project:

5. Environmental Analysis

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
h) Would increase demand for other public services or utilities?				X	

Comments:

h) Would increase demand for other public services or utilities?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Anaheim Public Utilities (APU) provides electricity to the City including the project site. Proposed Project development would involve construction of 10 additional townhome units compared to Approved Project. The Project Site is in Climate Zone 8. Townhomes in Climate Zone 8 are estimated to use about 5,306 kilowatt-hours (kWh) per year per unit (CAPCOA 2016). Thus, the net increase of 10 units is estimated to generate an increase of about 53,060 kWh in annual electricity demand. APU electricity sales citywide in 2015, the latest year for which data are available, were about 3.7 billion kWh (APU 2017). The net increase in electricity demands would be negligible compared to citywide electricity supplies, and no new significant impact would occur. No subsequent EIR is required.

5.17.3.3 ADOPTED MITIGATION MEASURES APPLICABLE TO THE PROPOSED PROJECT

No mitigation measures pertaining to electricity supplies and demands and applicable to the Proposed Project are set forth in the Certified EIR.

5.17.4 Stormwater

5.17.4.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

EIR No. 330 for the Update Project

Existing drainage facilities in some parts of the City were identified as deficient. In addition, the eastern part of the Hill and Canyon Area was then undeveloped, thus requiring construction of drainage facilities in that area to serve future developments.

SEIR No. 346 for the Rezoning Project

No additional significant impacts to utilities and service systems were identified in SEIR No. 346.

5.17.4.2 IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	

Comments:

- c) **Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The existing drainage pattern onsite is via sheet flow and a surface drain to the southwest side of the site, where runoff is discharged to the alley. Project development would include construction of underground storm drains and infiltration basins. The infiltration basins would be designed to store and infiltrate runoff from an 85th-percentile, 24-hour storm event, which would generate about 0.85 inches of rainfall. Runoff of volume exceeding the capacity of the infiltration basins would be discharged via surface flow to the alley southwest of the site (Preliminary Hydrology Study, C&V Consulting 2016, included as Appendix E to this Addendum).

At project completion, 21 percent of the site, or about 0.37 acre, would be permeable landscaping. Runoff discharged from the site from a 100-year storm would be reduced from 6.8 cubic feet per second (cfs) in existing conditions to 6.4 cfs at project completion. Therefore, implementation of the Proposed Project would not exceed the capacity of the local or regional storm drain systems. As a result, the Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects related to storm drain capacity. Although no impact would occur, adherence to previously approved MM 5.18-1 from SEIR No. 346, identified below, would ensure that an impact would not occur.

5.17.4.3 ADOPTED MITIGATION MEASURES APPLICABLE TO THE PROPOSED PROJECT

The following mitigation measures from the Updated and Modified MMP No. 122A for the Approved Project are applicable to the Proposed Project and incorporated into MMP No. 347.

- MM 5.18-1 Prior to approval of a final subdivision map, or issuance of a grading or building permit, whichever occurs first, the property owner/developer shall participate in the City's Master Plan of Storm Drains and related Infrastructure Improvement (Fee) Program to assist in mitigating existing and future storm drainage system deficiencies as follows:

5. Environmental Analysis

The property owner/developer shall submit a report for review and approval by the City Engineer to assist with determining the following:

- a) If the specific development/redevelopment does not increase or redirect current or historic storm water quantities/flows, then the property owner/developer's responsibility shall be limited to participation in the Infrastructure Improvement (Fee) Program to provide storm drainage facilities in 10- and 25-year storm frequencies and to protect properties/structures for a 100-year storm frequency.
- f) If the specific development/redevelopment increases or redirects the current or historic storm water quantity/flow, then the property owner/developer shall be required to guarantee mitigation to the satisfaction of the City Engineer and City Attorney's office of the impact prior to approval of a final subdivision map or issuance of a grading or building permit, whichever occurs first, pursuant to the improvements identified in the Master Plan of Drainage for the South Central Area. The property owner/developer shall be required to install the storm drainage facilities as recommended by the Master Plan of Drainage for the South Central Area to provide storm drainage facilities for 10- and 25-year storm frequencies and to protect properties/structures for a 100-year storm frequency prior to acceptance for maintenance of public improvements by the City or final building and zoning inspection for the building/structure, whichever occurs first. Additionally, the property owner/developer shall participate in the Infrastructure Improvement (Fee) Program as determined by the City Engineer which could include fees, credits, reimbursements, or a combination thereof. As part of guaranteeing the mitigation of impacts on the storm drainage system, a storm drainage system improvement phasing plan for the project shall be submitted by the property owner/developer to the City Engineer for review and approval and shall contain, at a minimum, (1) a layout of the complete system; (2) all facility sizes, including support calculations; (3) construction phasing; and, (4) construction estimates.

5.17.5 Public Utilities

5.17.5.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

EIR No. 330 for the Update Project

Natural Gas Service

EIR No. 330 determined that utility infrastructure is expected to expand with new development, and that provision of these services to the project area is not anticipated to require substantial alterations.

Solid Waste

EIR No. 330 concluded that solid waste generation by the Update Project would be slightly less than that by buildout of the previous General Plan. Solid waste disposal impacts were determined to be less than significant.

Telephone Service

EIR No. 330 determined that utility infrastructure is expected to expand with new development, and that provision of these services to the project area is not anticipated to require substantial alterations.

Television Service/Reception

EIR No. 330 determined that utility infrastructure is expected to expand with new development, and that provision of these services to the project area is not anticipated to require substantial alterations.

SEIR No. 346 for the Rezoning Project

Natural Gas

SEIR No. 346 determined that no additional impacts to natural gas supplies would occur, as the Update Project contemplated development of the housing opportunity sites with residential and mixed uses.

Solid Waste

No additional significant impacts to utilities and service systems were identified in SEIR No. 346.

Telephone and Cable Television

SEIR No. 346 determined that no additional impacts to telephone and cable television services would occur, as the Update Project contemplated development of the housing opportunity sites with residential and mixed uses.

5. Environmental Analysis

5.17.5.2 IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT

Would the Proposed Project:

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X	
h) Increase demand for other public services or utilities?				X	

Comments:

- f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Proposed Project development would involve construction of 10 additional attached single-family residential units compared to Approved Project buildout on the Project Site. Single-family residential units are estimated to generate about 10 pounds of solid waste per day (ppd) per unit. Thus, the additional 10 units are estimated to generate approximately 100 pounds of solid waste per day.

In 2015 about 98 percent of the solid waste landfilled from the City of Anaheim was disposed of at two facilities, the Frank Bowerman Sanitary Landfill near Irvine and the Olinda Alpha Sanitary Landfill near Brea. The two landfills have combined residual daily disposal capacity of nearly 6,000 tons per day and remaining capacity of nearly 180 million tons, as shown below in Table 26.

There is sufficient landfill capacity in the region for the incremental increase in solid waste generation due to Proposed Project development. Therefore, no significant impact related to landfill capacity would result from implementation of the Proposed Project.

Table 26 Landfills Serving Anaheim

Landfill Nearest City	Remaining Capacity, cubic yards	Maximum Permitted Daily Disposal, tons	Average daily disposal, tons	Residual permitted daily disposal capacity, tons	Estimated closing date
Frank Bowerman Irvine	205,000,000	11,500	6,585	4,915	2053
Olinda Alpha Brea	34,200,000	8,000	6,916	1,084	2021
Total	239,200,000 cubic yards [179,400,000 tons]	19,500	13,501	5,999	Not applicable

Sources: CalRecycle 2016a; CalRecycle 2016b; CalRecycle 2016c; CalRecycle 2016d

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Solid waste practices in California are governed by multiple federal, state, and local agencies that enforce legislation and regulations to ensure landfill operations minimize impacts to public health and safety and the environment. OC Waste & Recycling is obligated to obtain a Solid Waste Facilities Permit, a Stormwater Discharge Permit, and a permit to construct and operate gas management systems and meet Waste Discharge Requirements. The Local Enforcement Agency, the SCAQMD, and the California Water Resources Control Board enforce landfill regulations related to health, air quality, and water quality, respectively. The Proposed Project would not inhibit OC Waste & Recycling’s compliance with the requirements of each of these governing bodies and no new impact would occur.

h) Increase demand for other public services or utilities?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Natural Gas

SCGC currently provides natural gas service to the City of Anaheim, including the project site (SCGC 2015). Service would be provided in accordance with SCGS’s policies and extension rules on file with the California Public Utilities Commission. Therefore, no new impacts related to the need for new systems or supplies, or substantial alterations related to natural gas would occur.

Telephone

AT&T currently provides telephone service to the City of Anaheim, including the project site. Development of the Proposed Project would create an increase in the demand on the telephone service system. Within the project site, telephone conduits would be installed in joint trenches. Joint trench design would be provided by the telephone service provider once specific development plans become available. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects.

5. Environmental Analysis

Cable

Time Warner Cable currently provides cable television, high speed internet, and digital telephone service to the project area. Development of the Proposed Project would create an increase in the demand on these services. Based on the company's service area, the project site is located within the company's Los Angeles South Division; therefore, the project site could be served by Time Warner Cable. The Proposed Project would not create a new significant impact or a substantial increase in the severity of previously identified effects.

5.17.5.3 ADOPTED MITIGATION MEASURES APPLICABLE TO THE PROPOSED PROJECT

No mitigation measures for utilities and service systems impacts were required in the Certified EIR.

5.18 MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issues	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information Showing New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)				X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X	

Comments:

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The project site does not contain any significant biological resources. As demonstrated in this Addendum, the Proposed Project would not result in new significant impacts to biological or cultural resources, nor would it substantially increase the severity of impacts evaluated and determined in the Certified EIR. Because the Proposed Project would not meet any of the criteria identified in Section 15162 of the State CEQA Guidelines requiring preparation of a subsequent or supplemental EIR, an Addendum to EIR No. 330 and SEIR No. 346 is the appropriate document type for the Proposed Project.

- b) **Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

The Proposed Project would increase the number of residential units permitted onsite by 10 units, from the 32 permitted in the Rezoning Project to 42. Cumulative impacts for the Proposed Project as analyzed in the Traffic Impact Analysis are those of General Plan buildout plus those from the net increase of 10 units onsite compared to those permitted under the Rezoning Project. Traffic impacts in General Plan Buildout plus project conditions were identified as less than significant (see Section 5.16.2 of this Addendum).

Therefore, the Proposed Project will not result in any new cumulatively considerable impacts or substantially increase the severity of the cumulative effects previously disclosed in the Certified EIR. As demonstrated in this Addendum, the Proposed Project would not result in new significant impacts, nor would it substantially increase the severity of impacts evaluated and determined in the Certified EIR. Because the Proposed Project would not meet any of the criteria identified in Section 15162 of the State CEQA Guidelines requiring preparation of a subsequent or supplemental EIR, an Addendum to EIR No. 330 and SEIR No. 346 is the appropriate document type for the Proposed Project.

- c) **Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?**

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

As demonstrated in this Addendum, the Proposed Project would not result in new significant impacts, nor would it substantially increase the severity of impacts evaluated and determined in the Certified EIR. Because the Proposed Project would not meet any of the criteria identified in Section 15162 of the State CEQA Guidelines requiring preparation of a subsequent or supplemental EIR, an Addendum to EIR No. 330 and SEIR No. 346 is the appropriate document type for the Proposed Project.

5. Environmental Analysis

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Appendix

Appendix A Air Quality and GHG Modeling

Appendix

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Regional Construction Emissions Worksheet

Demolition - Winter		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
	Total		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0193	0.5104	0.1542	9.90E-04	0.0284	0.0113
	Worker		0.0279	0.0191	0.2056	5.70E-04	0.0519	0.0141
	Total		0.0472	0.5295	0.3598	1.56E-03	0.0803	0.0254
TOTAL			0.1991	3.9983	5.0439	0.0078	0.3234	0.2685

Demolition - Summer		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
	Total		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0185	0.5089	0.1407	1.02E-03	0.0284	0.0112
	Worker		0.0248	0.0174	0.2206	6.00E-04	0.0519	0.0141
	Total		0.0433	0.5263	0.3613	1.62E-03	0.0802	0.0253
TOTAL			0.1952	3.9951	5.0454	0.0078	0.3233	0.2684

Maximum	0.1991	3.9983	5.0454	0.0078	0.3234	0.2685
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Demo Debris Haul - Winter		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						2.5965	0.3931
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	2.5965	0.3931
Offsite	Hauling		0.3393	11.3162	2.631	2.57E-02	0.5955	0.2079
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.3393	11.3162	2.631	2.57E-02	0.5955	0.2079
TOTAL			0.3393	11.3162	2.6310	0.0257	3.1920	0.6010

Demo Debris Haul - Summer		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						2.5965	0.3931
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	2.5965	0.3931
Offsite	Hauling		0.3307	11.1534	2.4718	2.61E-02	0.5943	0.2068
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.3307	11.1534	2.4718	2.61E-02	0.5943	0.2068
TOTAL			0.3307	11.1534	2.4718	0.0261	3.1908	0.5999

Winter 2017 Demo + Haul	0.5384	15.3145	7.6749	0.0335	3.5154	0.8695
Summer 2017 Demo + Haul	0.5259	15.1485	7.5172	0.0339	3.5141	0.8683

Maximum	0.5384	15.3145	7.6749	0.0339	3.5154	0.8695
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Asphalt Demolition - Winter

		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
	Total		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0193	0.5104	0.1542	9.90E-04	0.0284	0.0113
	Worker		0.0279	0.0191	0.2056	5.70E-04	0.0519	0.0141
	Total		0.0472	0.5295	0.3598	1.56E-03	0.0803	0.0254
TOTAL			0.1991	3.9983	5.0439	0.0078	0.3234	0.2685

Asphalt Demolition - Summer

		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
	Total		0.1519	3.4688	4.6841	6.22E-03	0.2431	0.2431
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0185	0.5089	0.1407	1.02E-03	0.0284	0.0112
	Worker		0.0248	0.0174	0.2206	6.00E-04	0.0519	0.0141
	Total		0.0433	0.5263	0.3613	1.62E-03	0.0802	0.0253
TOTAL			0.1952	3.9951	5.0454	0.0078	0.3233	0.2684

Maximum	0.1991	3.9983	5.0454	0.0078	0.3234	0.2685
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Asphalt Demolition - Winter

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.1519	3.4688	4.6841	6.21E-03	0.2431	0.2431
	Total		0.1519	3.4688	4.6841	6.21E-03	0.2431	0.2431
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0169	0.4779	0.1405	9.90E-04	0.0275	0.0104
	Worker		0.0252	0.0167	0.1824	5.50E-04	0.0519	0.0141
	Total		0.0421	0.4947	0.3229	1.54E-03	0.0794	0.0245
TOTAL			0.1940	3.9635	5.0070	0.0078	0.3225	0.2676

Asphalt Demoliton - Summer

		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.1519	3.4688	4.6841	6.21E-03	0.2431	0.2431
	Total		0.1519	3.4688	4.6841	6.21E-03	0.2431	0.2431
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0162	0.4772	0.128	1.01E-03	0.0275	0.0103
	Worker		0.0224	0.0152	0.1964	5.80E-04	0.0519	0.0141
	Total		0.0386	0.4924	0.3244	1.59E-03	0.0793	0.0244
TOTAL			0.1905	3.9612	5.0085	0.0078	0.3224	0.2675

Maximum	0.1940	3.9635	5.0085	0.0078	0.3225	0.2676
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Asphalt Demo Haul - Winter

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						2.0297	0.3073
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	2.0297	0.3073
Offsite	Hauling		0.2269	8.1046	1.9341	0.0198	0.4479	0.1457
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.2269	8.1046	1.9341	1.98E-02	0.4479	0.1457
TOTAL			0.2269	8.1046	1.9341	0.0198	2.4776	0.4530

Asphalt Demo Haul - Summer

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						2.0297	0.3073
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	2.0297	0.3073
Offsite	Hauling		0.2209	7.9975	1.8198	0.0201	0.4471	0.145
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.2209	7.9975	1.8198	2.01E-02	0.4471	0.145
TOTAL			0.2209	7.9975	1.8198	0.0201	2.4768	0.4523

Winter 2017 Demo + Haul

0.4209	12.0681	6.9411	0.0276	2.8001	0.7206
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Summer 2017 Demo + Haul

0.4114	11.9587	6.8283	0.0279	2.7992	0.7198
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Maximum	0.4209	12.0681	6.9411	0.0279	2.8001	0.7206
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Site Preparation - Winter

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
	Total		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0169	0.4779	0.1405	9.90E-04	0.0275	0.0104
	Worker		0.0151	0.01	0.1094	3.30E-04	0.0311	8.45E-03
	Total		0.032	0.488	0.25	1.32E-03	0.0586	0.0188
TOTAL			0.2928	5.5295	5.8999	0.0118	0.2498	0.2100

Site Preparation - Summer

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
	Total		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0162	0.4772	0.128	1.01E-03	0.0275	0.0103
	Worker		0.0134	9.13E-03	0.1178	3.50E-04	0.0311	8.45E-03
	Total		0.0296	0.4863	0.2459	1.36E-03	0.0586	0.0188
TOTAL			0.2904	5.5278	5.8958	0.0119	0.2498	0.2100

Maximum	0.2928	5.5295	5.8999	0.0119	0.2498	0.2100
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Rough Grading - Winter								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						3.017	1.3113
	Off-Road		1.1026	21.8491	25.2827	4.49E-02	0.9403	0.9403
	Total		1.1026	21.8491	25.2827	4.49E-02	3.9573	2.2515
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0169	0.4779	0.1405	9.90E-04	0.0275	0.0104
	Worker		0.0656	0.0435	0.4741	1.43E-03	0.1349	0.0366
	Total		0.0825	0.5214	0.6147	2.42E-03	0.1624	0.047
TOTAL			1.1851	22.3705	25.8974	0.0473	4.1197	2.2985

Rough Grading - Summer								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						3.017	1.3113
	Off-Road		1.1026	21.8491	25.2827	4.49E-02	0.9403	0.9403
	Total		1.1026	21.8491	25.2827	4.49E-02	3.9573	2.2515
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0162	0.4772	0.128	1.01E-03	0.0275	0.0103
	Worker		0.0582	0.0396	0.5107	1.51E-03	0.1349	0.0366
	Total		0.0744	0.5168	0.6387	2.52E-03	0.1624	0.047
TOTAL			1.1770	22.3659	25.9214	0.0474	4.1197	2.2985

Rough Grading Haul - Winter								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						2.6306	0.2845
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	2.6306	0.2845
Offsite	Hauling		0.3398	12.1359	2.8961	0.0297	0.6706	0.2181
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.3398	12.1359	2.8961	2.97E-02	0.6706	0.2181
TOTAL			0.3398	12.1359	2.8961	0.0297	3.3012	0.5026

Rough Grading Haul - Summer								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						2.6306	0.2845
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	2.6306	0.2845
Offsite	Hauling		0.3307	11.9754	2.725	0.0301	0.6695	0.2171
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.3307	11.9754	2.725	3.01E-02	0.6695	0.2171
TOTAL			0.3307	11.9754	2.7250	0.0301	3.3001	0.5016

Winter 2017 Demo + Haul	1.5249	34.5064	28.7935	0.0770	7.4209	2.8011
Summer 2017 Demo + Haul	1.5077	34.3413	28.6464	0.0775	7.4198	2.8001

Maximum	1.5249	34.5064	28.7935	0.0775	7.4209	2.8011
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Fine Grading Haul - Winter								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						1.3205	0.1431
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	1.3205	0.1431
Offsite	Hauling		0.164	5.8569	1.3977	0.0143	0.3237	0.1053
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.164	5.8569	1.3977	1.43E-02	0.3237	0.1053
TOTAL			0.1640	5.8569	1.3977	0.0143	1.6442	0.2484

Fine Grading Haul - Summer								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						1.3205	0.1431
	Off-Road		0	0	0	0.00E+00	0	0
	Total		0	0	0	0.00E+00	1.3205	0.1431
Offsite	Hauling		0.1596	5.7794	1.3151	0.0145	0.3231	0.1048
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0	0	0	0.00E+00	0	0
	Total		0.1596	5.7794	1.3151	1.45E-02	0.3231	0.1048
TOTAL			0.1596	5.7794	1.3151	0.0145	1.6436	0.2479

Fine Grading - Winter								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
	Total		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0169	0.4779	0.1405	9.90E-04	0.0275	0.0104
	Worker		0.0151	0.01	0.1094	3.30E-04	0.0311	8.45E-03
	Total		0.032	0.488	0.25	1.32E-03	0.0586	0.0188
TOTAL			0.2928	5.5295	5.8999	0.0118	0.2498	0.2100

Fine Grading - Summer								
		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust						0	0
	Off-Road		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
	Total		0.2608	5.0415	5.6499	1.05E-02	0.1912	0.1912
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0162	0.4772	0.128	1.01E-03	0.0275	0.0103
	Worker		0.0134	9.13E-03	0.1178	3.50E-04	0.0311	8.45E-03
	Total		0.0296	0.4863	0.2459	1.36E-03	0.0586	0.0188
TOTAL			0.2904	5.5278	5.8958	0.0119	0.2498	0.2100

Winter 2017 Demo + Haul	0.4568	11.3864	7.2976	0.0261	1.8940	0.4584
Summer 2017 Demo + Haul	0.4500	11.3072	7.2109	0.0264	1.8934	0.4579

Maximum	0.4568	11.3864	7.2976	0.0264	1.8940	0.4584
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Utility Trenching - Winter

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Off-Road		0.196	4.0302	6.0428	7.98E-03	0.2289	0.2289
	Total		0.196	4.0302	6.0428	7.98E-03	0.2289	0.2289
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0169	0.4779	0.1405	9.90E-04	0.0275	0.0104
	Worker		0.0252	0.0167	0.1824	5.50E-04	0.0519	1.41E-02
	Total		0.0421	0.4947	0.3229	1.54E-03	0.0794	0.0245
TOTAL			0.2381	4.5249	6.3657	0.0095	0.3083	0.2534

Utility Trenching - Summer

		2018	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Off-Road		0.196	4.0302	6.0428	7.98E-03	0.2289	0.2289
	Total		0.196	4.0302	6.0428	7.98E-03	0.2289	0.2289
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0.0162	0.4772	0.128	1.01E-03	0.0275	0.0103
	Worker		0.0224	0.0152	0.1964	5.80E-04	0.0519	0.0141
	Total		0.0386	0.4924	0.3244	1.59E-03	0.0793	0.0244
TOTAL			0.2346	4.5226	6.3672	0.0096	0.3082	0.2533

Maximum	0.2381	4.5249	6.3672	0.0096	0.3083	0.2534
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Building Construction - Winter			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2018						
	Off-Road		1.6897	12.9953	15.8395	0.0237	0.8316	0.8316
	Total		1.6897	12.9953	15.8395	0.0237	0.8316	0.8316
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.0423	1.1948	0.3513	2.47E-03	0.0688	0.026
	Worker		0.2169	0.1439	1.5683	4.72E-03	0.4462	0.1212
	Total		0.2592	1.3387	1.9196	7.19E-03	0.515	0.1471
TOTAL			1.9489	14.3340	17.7591	0.0309	1.3466	0.9787

Building Construction - Summer			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2018						
	Off-Road		1.6897	12.9953	15.8395	0.0237	0.8316	0.8316
	Total		1.6897	12.9953	15.8395	0.0237	0.8316	0.8316
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.0405	1.1929	0.3201	2.53E-03	0.0686	0.0258
	Worker		0.1925	0.1309	1.6891	4.99E-03	0.4462	0.1212
	Total		0.233	1.3238	2.0091	7.52E-03	0.5148	0.147
TOTAL			1.9227	14.3191	17.8486	0.0312	1.3464	0.9786

Maximum			1.9489	14.3340	17.8486	0.0312	1.3466	0.9787
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Building Construction - Winter			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2019						
	Off-Road		1.52	12.8222	15.684	0.0237	0.79	0.79
	Total		1.52	12.8222	15.684	0.0237	0.79	0.79
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.0391	1.136	0.3294	2.45E-03	0.0676	0.0249
	Worker		0.1999	0.1277	1.4202	4.60E-03	0.4462	0.1212
	Total		0.239	1.2637	1.7496	7.05E-03	0.5138	0.146
TOTAL			1.7590	14.0859	17.4336	0.0308	1.3038	0.9360

Building Construction - Summer			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2019						
	Off-Road		1.52	12.8222	15.684	0.0237	0.79	0.79
	Total		1.52	12.8222	15.684	0.0237	0.79	0.79
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.0375	1.1348	0.3	2.51E-03	0.0675	0.0247
	Worker		0.1772	0.1162	1.534	4.86E-03	0.4462	0.1212
	Total		0.2147	1.251	1.834	7.37E-03	0.5137	0.1459
TOTAL			1.7347	14.0732	17.5180	0.0311	1.3037	0.9359

Maximum			1.7590	14.0859	17.5180	0.0311	1.3038	0.9360
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Paving - Winter

		2019	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite								
	Off-Road		0.3615	7.4547	9.0532	0.0147	0.3806	0.3806
	Paving		0.0444				0	0
	Total		0.4059	7.4547	9.0532	1.47E-02	0.3806	0.3806
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		7.82E-03	0.2272	0.0659	4.90E-04	0.0135	4.97E-03
	Worker		0.0372	0.0238	0.2642	8.60E-04	0.083	0.0226
	Total		0.045	0.251	0.3301	1.35E-03	0.0965	0.0275
TOTAL			0.4509	7.7057	9.3833	0.0161	0.4771	0.4081

Paving - Summer

		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite								
	Off-Road		0.3615	7.4547	9.0532	0.0147	0.3806	0.3806
	Paving		0.0444				0	0
	Total		0.4059	7.4547	9.0532	1.47E-02	0.3806	0.3806
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		7.50E-03	0.227	0.06	5.00E-04	0.0135	4.94E-03
	Worker		0.033	0.0216	0.2854	9.00E-04	0.083	0.0226
	Total		0.0405	0.2486	0.3454	1.40E-03	0.0965	0.0275
TOTAL			0.4464	7.7033	9.3986	0.0161	0.4771	0.4081

Maximum	0.4509	7.7057	9.3986	0.0161	0.4771	0.4081
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Architectural Coating - Winter

		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Arch Coating		13.2476				0	0
	Off-Road		0.2114	4.8258	6.5166	9.18E-03	0.3382	0.3382
	Total		13.459	4.8258	6.5166	9.18E-03	0.3382	0.3382
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0.0419	0.0267	0.2973	9.60E-04	0.0934	2.54E-02
	Total		0.0419	0.0267	0.2973	9.60E-04	0.0934	2.54E-02
TOTAL			13.5009	4.8525	6.8139	0.0101	0.4316	0.3636

Architectural Coating - Summer

		2017	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Arch Coating		13.2476				0	0
	Off-Road		0.2114	4.8258	6.5166	9.18E-03	0.3382	0.3382
	Total		13.459	4.8258	6.5166	9.18E-03	0.3382	0.3382
Offsite	Hauling		0	0	0	0	0	0
	Vendor		0	0	0	0.00E+00	0	0
	Worker		0.0371	0.0243	0.3211	1.02E-03	0.0934	2.54E-02
	Total		0.0371	0.0243	0.3211	1.02E-03	0.0934	2.54E-02
TOTAL			13.4961	4.8501	6.8377	0.0102	0.4316	0.3636

Maximum	13.5009	4.8525	6.8377	0.0102	0.4316	0.3636
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Winter Building + Paving + Painting	15.7108	26.6441	33.6308	0.0569	2.2125	1.7077
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Summer Building + Paving + Painting	15.6772	26.6266	33.7543	0.0574	2.2124	1.7076
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MAX DAILY	13.50	34.51	28.79	0.08	7.42	2.80
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Regional Thresholds	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Localized Construction Emissions Worksheet

Demolition Max Daily					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2017			
	Off-Road	3.4688	4.6841	0.2431	0.2431
	Total	3.4688	4.6841	0.2431	0.2431

Demo Debris Haul Max Daily					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2017			
	Fugitive Dust	0	0	2.5965	0.3931
	Off-Road	0	0	0	0
	Total	0	0	2.5965	0.3931

2017 BD + Haul		3.4688	4.6841	2.8396	0.6362
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LSTs		81	485	4.78	3.10
Exceed Thresholds?		No	No	No	No

Asphalt Demolition Max Daily 2017					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2017			
	Off-Road	3.4688	4.6841	0.2431	0.2431
	Total	3.4688	4.6841	0.2431	0.2431

LSTs		81	485	4.78	3.10
Exceed Thresholds?		No	No	No	No

Asphalt Demo Max Daily 2018

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	2018				
	Fugitive Dust	0	0	0	0
	Off-Road	3.4688	4.6841	0.2431	0.2431
	Total	3.4688	4.6841	0.2431	0.2431

Asphalt Demo Debris Haul Max Daily

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	2018				
	Fugitive Dust	0	0	2.0297	0.3073
	Off-Road	0	0	0	0
	Total	0	0	2.0297	0.3073

2018 AD + Haul

LSTs	81	485	4.78	3.10
Exceed Thresholds?	No	No	No	No

Site Preparation - Max Daily

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	2017				
	Fugitive Dust	0	0	0	0
	Off-Road	5.0415	5.6499	0.1912	0.1912
	Total	5.0415	5.6499	0.1912	0.1912

LSTs	81	485	4.78	3.10
Exceed Thresholds?	No	No	No	No

Rough Grading - Max Daily					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2018			
	Fugitive Dust	0	0	3.017	1.3113
	Off-Road	21.8491	25.2827	0.9403	0.9403
	Total	21.8491	25.2827	3.9573	2.2515

Rough Grading Haul - Max Daily					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2018			
	Fugitive Dust	0	0	2.6306	0.2845
	Off-Road	0	0	0	0
	Total	0	0	2.6306	0.2845

2018 RG + Haul	21.8491	25.2827	6.5879	2.5360
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LSTs	108	669	6.77	3.98
Exceed Thresholds?	No	No	No	No

Fine Grading - Max Daily					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2018			
	Fugitive Dust	0	0	0	0
	Off-Road	5.0415	5.6499	0.1912	0.1912
	Total	5.0415	5.6499	0.1912	0.1912

Fine Grading Haul - Max Daily					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite		2018			
	Fugitive Dust	0	0	1.3205	0.1431
	Off-Road	0	0	0	0
	Total	0	0	1.3205	0.1431

2018 FG + Haul	5.0415	5.6499	1.5117	0.3343
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LSTs	81	485	4.78	3.10
Exceed Thresholds?	No	No	No	No

Utility Trenching - Max Daily

		2018	NOx	CO	PM10 Total	PM2.5 Total
Onsite						
	Off-Road		4.0302	6.0428	0.2289	0.2289
	Total		4.0302	6.0428	0.2289	0.2289
LSTs			81	485	4.78	3.10
Exceed Thresholds?			No	No	No	No

Building Construction - Max Daily

		2018	NOx	CO	PM10 Total	PM2.5 Total
Onsite						
	Off-Road		12.9953	15.8395	0.8316	0.8316
	Total		12.9953	15.8395	0.8316	0.8316
LSTs			81	485	4.78	3.10
Exceed Thresholds?			No	No	No	No

Building Construction - Max Daily

		2019	NOx	CO	PM10 Total	PM2.5 Total
Onsite						
	Off-Road		12.8222	15.684	0.79	0.79
	Total		12.8222	15.684	0.79	0.79
LSTs			81	485	4.78	3.10
Exceed Thresholds?			No	No	No	No

Paving - Max Daily

		2019	NOx	CO	PM10 Total	PM2.5 Total
Onsite						
	Off-Road		7.4547	9.0532	0.3806	0.3806
	Paving		0	0	0	0
	Total		7.4547	9.0532	0.3806	0.3806
LSTs			81	485	4.78	3.10
Exceed Thresholds?			No	No	No	No

Architectural Coating - Max Daily

		2019	NOx	CO	PM10 Total	PM2.5 Total
Onsite						
	Arch Coating		0	0	0	0
	Off-Road		4.8258	6.5166	0.3382	0.3382
	Total		4.8258	6.5166	0.3382	0.3382
LSTs			81	485	4.78	3.10
Exceed Thresholds?			No	No	No	No

2019 Building + Paving + Coating

			25.1027	31.2538	1.5088	1.5088
LSTs			81	485	4.78	3.10
Exceed Thresholds?			No	No	No	No

Regional Operational Emissions Worksheet

Summer	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.964	0.040	3.485	0.000	0.019	0.019
Energy	0.021	0.176	0.075	0.001	0.014	0.014
Mobile	0.406	0.615	5.593	0.018	1.756	0.474
Total	2.391	0.831	9.153	0.019	1.789	0.508

Winter	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.964	0.040	3.485	0.000	0.019	0.019
Energy	0.021	0.176	0.075	0.001	0.014	0.014
Mobile	0.399	0.657	5.312	0.017	1.756	0.474
Total	2.383	0.874	8.872	0.018	1.789	0.508

Max Daily	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.964	0.040	3.485	0.000	0.019	0.019
Energy	0.021	0.176	0.075	0.001	0.014	0.014
Mobile	0.406	0.657	5.593	0.018	1.756	0.474
Total	2.391	0.874	9.153	0.019	1.789	0.508

Regional Thresholds	55	55	550	150	150	550
Exceeds Thresholds?	No	No	No	No	No	No

Operational LST

	NOx	CO	PM10 Total	PM2.5 Total
Area	0.040	3.485	0.019	0.019
Energy	0.176	0.075	0.014	0.014
Total	0.216	3.560	0.033	0.033

LSTs	91	664	1.29	1.10
Exceed Thresholds?	No	No	No	No

GHG Emissions Worksheet

	MTons Total	
Total Construction	276	
<hr/>		
Source	MTons/Year	Percent of Total
Area	1	0%
Energy	193	37%
Mobile	281	53%
Waste	10	2%
Water	34	6%
Amortized Construction Emissions*	9	2%
Total All Sectors	527	100%

STATEWIDE TRAJECTORY FOR THE SB 32 GHG TARGET

2030 CALIFORNIA SERVICE POPULATION (ESTIMATE)

Employment

Total Employment

2020	17,511,810
2022	17,851,940
2030	19,210,760
2035	20,027,660
2038	20,515,420
2040	20,848,900
2050	22,595,640

California Department of Transportation. Long-Term Socio-Economic Forecasts by County. http://www.dot.ca.gov/hq/tpp/offices/eab/index_files/2016/CaliforniaForecastData2016.xls

Population

2020	40,619,346
2022	41,315,865
2030	44,085,600
2035	44,085,600
2038	46,657,547
2040	47,233,240
2050	49,779,362

California Department of Finance. 2016. Report P-2: State and County Population Projections by Race/Ethnicity and Age (5-year groups). http://www.dof.ca.gov/Forecasting/Demographics/projections/documents/P-2_Age5yr_CAProj_2010-2060.xls

Service Population (SP)

2020 SP	58,131,156
2022 SP	59,167,805
2030 SP	63,296,360
2035 SP	64,113,260
2038 SP	67,172,967
2040 SP	68,082,140
2050 SP	72,375,002

FORECASTING THE POST-2020 GHG REDUCTION TARGETS - EFFICIENCY METRIC

	Source	MTCO ₂ e (SAR)	MTCO ₂ e/SP	
	BAAQMD & SCAQMD: Land Use Sector Inventory			
2020	2008 Scoping Plan	295,530,000	5.1	
2030	40% Below 1990 Levels	177,318,000	2.8	
2050	80% Below 1990 Levels	59,106,000	0.8	
2022	Forecast (2020-2030)	271,887,600	4.6	8%
2035	Forecast (2030-2050)	147,765,000	2.3	50%
2038	Forecast (2030-2050)	130,033,200	1.9	56%
2040	Forecast (2030-2050)	118,212,000	1.7	60%

1990 Inventory - Land Use Only (IPCC Fourth Assessment Report GWPs)

Sector	Notes	MTCO _e 2
Electricity	Removed Industrial	95,964,000
Transportation	On-Road Only	140,906,000
Landfills	Landfill Extracted from Industrial	7,448,000
Wastewater	Wastewater Treatment Extracted from Industrial	3,581,000
Commercial	Removed National Security	13,873,000
Residential	Includes all	29,740,000
Other	Not Specified	1,269,000
Construction		673,000
TOTAL LAND USE		293,454,000

	Source	MTCO ₂ e (SAR)	MTCO ₂ e/SP
2020	1990 Land Use Sector Inventory	293,454,000	5.0
2030	40% Below 1990 Levels	176,072,400	2.8
2050	80% Below 1990 Levels	58,690,800	0.8
2022	Forecast (2020-2030)	269,977,680	4.6
2035	Forecast (2030-2050)	146,727,000	2.3
2038	Forecast (2030-2050)	129,119,760	1.9
2040	Forecast (2030-2050)	117,381,600	1.7

CalEEMod Project Characteristics Inputs (Construction)

Name: Olson Townhomes
Project Location: 633 and 711 South East Street, Anaheim, CA
Project Location: Orange County
Climate Zone: 8
Land Use Setting: Urban
Operational Year: 2019
Utility Company: Anaheim Public Utilities
SRA: 17

General Info

Total Project Site Area	1.80	acres
Acreage to be disturbed during construction	1.80	acres
Residential	64,797	SQFT
Surface Parking	1,404	SQFT
Garage	24,225	SQFT
Non-Parking Asphalt	15,880	SQFT
Total Hardscape	13,867	SQFT
Total Landscaping	16,263	SQFT

Plans	Count	SQFT including Garage	SQFT	SQFT w/o		Garage sqft
				Garage	SQFT	
1	8	1,916	15,328	1,355	10,840	
1X	8	1,951	15,608	1,403	11,224	
2	4	2,205	8,820	1,576	6,304	
3	9	2,215	19,935	1,586	14,274	
4	9	2,259	20,331	1,707	15,363	
5	4	2,250	9,000	1,698	6,792	
TOTAL	42		89,022		64,797	24,225

CalEEMod Land Use Inputs

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Residential	Residential	Condo/Townhomes	42.00	DU	1.08	89,022
Surface Parking	Parking	Parking Lot	1.40	1000 sqft	0.03	1,404
Non-Parking Asphalt	Parking	Other Asphalt Surfaces	15.88	1001 sqft	0.36	15,880
Total Hardscape	Parking	Other Non-Asphalt Surfaces	13.87	1002 sqft	0.32	13,867
					1.80	

Demolition Haul

Phase Name	Amount to be Demolished (tons)	Haul Truck Capacity (tons)*	Haul Distance (miles)*	Total Trip Ends	Duration (days)	Trips Ends/Day
Building Demo Debris Haul	2,620	20	20	262	8	33
Asphalt Demo Debris Haul	1,280	20	20	128	5	26

*CalEEMod Default.

Soil Haul

Import/Export	Phase Name	Total Volume (CY)*	Haul Truck Capacity (CY)*	Haul Distance (miles)**	Total Trip Ends	Duration (days)	Trip Ends/Day*
Import	Rough Grading Soil Haul	800	14	20	115	3	38
Export	Fine Grading	1550	14	20	111	6	18

*Provided by the Applicant.

**CalEEMod Default

Architectural Coating

Percentage of Buildings' Interior Painted*:	75%
Percentage of Buildings' Exterior Painted*:	70%

*provided by the applicant

	Residential	Non Residential	
Interior Paint VOC content:	50	100	grams per liter
Exterior Paing VOC content:	50	100	grams per liter

Non-Residential Structures	Land Use Square Feet	SCAQMD Factor	Total Paintable Surface Area ²	Paintable Interior Area ¹	Paintable Exterior Area ¹
Parking Lot	1,404	0.06	84		84
Condo/Townhouse	89,022	2	178,044	100,150	31,158

¹

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

² ** Applied CalEEMod Methodology in calculating total

Construction - Unmitigated Run

SCAQMD Rule 403

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

SCAQMD Rule 1186

Clean Paved Road

9 % PM Reduction

Anaheim Municipal Code

Soil Stabilizer

84 % Reduction

CalEEMod Construction Phase Inputs*

5-Day Work Week/8 hours per day

Phase Name	Phase Type	Start Date	End Date	CalEEMod Total Days
Building Demolition	Demolition	12/4/2017	12/18/2017	11
Building Demo Debris Haul** <i>(if applicable)</i>	Demolition	12/7/2017	12/18/2017	8
Asphalt Demolition	Demolition	12/19/2017	1/6/2018	14
Asphalt Demo Debris Haul** <i>(if applicable)</i>	Demolition	1/1/2018	1/5/2018	5
Site Preparation	Site Preparation	1/7/2018	1/15/2018	6
Rough Grading	Grading	1/16/2018	1/29/2018	10
Rough Grading Soil Haul** <i>(if applicable)</i>	Grading	1/25/2018	1/29/2018	3
Fine Grading	Grading	1/30/2018	2/6/2018	6
Fine Grading Soil Haul	Grading	1/30/2018	2/6/2018	6
Utility Trenching	Trenching	2/7/2018	4/4/2018	41
Building Construction	Construction	5/23/2018	3/27/2019	221
Asphalt Paving	Paving	3/6/2019	4/5/2019	23
Finishing/Landscaping/Coating	Coating	3/6/2019	4/5/2019	23

*Based on construction schedule provided by the Applicant.

**Hauling duration based on total number of hauling days as provided by the Applicant.

CalEEMod Construction Off-Road Equipment Inputs*

Equipment Type	CalEEMod Equipment Type	Unit Amount	Hours/Day	HP	LF	CalEEMod Vendor Trips	CalEEMod Worker Trips
Building Demolition							5
CAT Loader 950C	Tractors/Loaders/Backhoes	2	8	97	0.37		
Water Truck*						4	
Asphalt Demolition							5
CAT Loader 950C**	Tractors/Loaders/Backhoes	2	8	97	0.37		
Water Truck*						4	
Site Preparation							3
Loader 824	Tractors/Loaders/Backhoes	1	8	333	0.37		
Water Truck*						4	
Rough Grading							13
CAT Scraper 623	Scrapers	2	8	365	0.48		
CAT Loader 950C	Tractors/Loaders/Backhoes	2	8	97	0.37		
Dozer D-6	Rubber Tired Dozer	1	8	247	0.4		
Water Truck*						4	
Fine Grading							3
Loader 824	Tractors/Loaders/Backhoes	1	8	333	0.37		
Water Truck*		1				4	
Utility Trenching							5
Excavator JD 350	Excavators	1	8	158	0.3819		
Loader JD 210	Tractors/Loaders/Backhoes	1	8	88	0.3685		
Water Truck*						4	
Building Construction							43
Pettybone Boom Lift	Aerial Lifts	1	8	63	0.3082		
Cranes	Cranes	1	6	213	0.29		
Forklifts	Forklifts	1	6	89	0.2		
Generator Sets	Generator Sets	1	8	84	0.74		
Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	1	6	97	0.37		
Welders	Welders	3	8	46	0.45		
Vendor Trips						10	
Paving							8
Blade	Grader	1	8	263	0.3015		
Vibratory Roller	Rollers	1	8	80	0.3752		
Skiploader JD 210	Tractors/Loaders/Backhoes	1	8	88	0.3685		
Paving Truck	Vendor Trips					2	
Architectural Coating/ Finishing Landscaping							9
Air Compressors	Air Compressors	1	6	78	0.48		
Tractor	Tractors/Loaders/Backhoes	2	8	97	0.3752		

*SCAQMD Rule 1186 assumes 4 Water truck trips per day

** assumes the same equipment as the building demolition phase.

CalEEMod Project Characteristics Inputs (Construction)

Name: Olson Townhomes
Project Location: 633 and 711 South East Street, Anaheim, CA
Project Location: Orange County
Climate Zone: 8
Land Use Setting: Urban
Operational Year: 2019
Utility Company: Anaheim Public Utilities
SRA: 17

General Info

Total Project Site Area	1.80	acres	Residents	34
Acreeage to be disturbed during construction	1.80	acres		

CalEEMod Land Use Inputs

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Residential	Residential	Condo/Townhomes	42.00	DU	1.08	89,022
Surface Parking	Parking	Parking Lot	1.40	1000 sqft	0.03	1,404
Non-Parking Asphalt	Parking	Other Asphalt Surfaces	15.88	1001 sqft	0.36	15,880
Total Hardscape	Parking	Other Non-Asphalt Surfaces	13.87	1002 sqft	0.32	13,867
					1.80	

Architectural Coating

Provided by the Applicant

Percentage of Buildings' Interior Painted: 75%
 Percentage of Buildings' Exterior Painted: 70%

	Residential	Non Residential	
Interior Paint VOC content:	50	100	grams per liter
Exterior Paing VOC content:	50	100	grams per liter

Non-Residential Structures	Land Use Square Feet	SCAQMD Factor	Total Paintable Surface Area ²	Paintable Interior Area ¹	Paintable Exterior Area ¹
Parking Lot	1,404	0.06	84		84
Condo/Townhouse	89,022	2	178,044	100,150	31,158

¹ CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. 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.
² ** Applied CalEEMod Methodology in calculating total

Trip Generation

	Employee	
Trip Generation*	244	Average Daily Trips (ADT)
Weekday Trip Rate*	5.81	trips/unit
Saturday Trip Rate**	5.81	trips/unit
Sunday Trip Rate**	5.81	trips/unit

*Based on Traffic Impact Analysis prepared by LSA Associates, March 2017.

Solid Waste

	Proposed Project	
Solid Waste Generation	19.3	TPY

*Consistent with CalEEMod 2016.3.1 Defaults

Water Use

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

	Proposed Project
Indoor Water Use	2,736,469
Outdoor Water Use	1,725,165

*Consistent with CalEEMod 2016.3.1 Defaults, same proportions used for Accepted and Proposed Projects

Energy Mitigation

2016 Building and Energy Efficiency Standards

Buildings constructed after January 1, 2017 are required to meet the 2016 Building and Energy Efficiency Standards.

Residential Exceed Title 24	28%	Improvement over 2013 ¹
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Sources:

¹ California Energy Commission. 2015a. 2016 Building Energy Efficiency Standards, Adoption Hearing Presentation. [http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/June 10.](http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/June%2010)

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

Changes to the CalEEMod Defaults - Fleet Mix 2019

Trips 244

Default	LDA	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH		
FleetMix (Model Default)	0.55237	0.04423	0.21112	0.11911	0.0175	0.0058	0.02446	0.01569	0.00164	0.00163	0.00483	0.00058	0.00104	100%
Trips	135	11	52	29	4	1	6	4	0	0	1	0	0	244
Percent	81%			12%										100%
without buses/MH	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0	0	0.004830	0.000000	0	100%
Percent	81%			12%										100%
Adjusted without buses/MH	0.552373	0.044229	0.211123	0.119112	0.018853	0.006244	0.026342	0.016895	0.000000	0.000000	0.005203	0.000000	0.000000	100%
Percent check	81%			12%										100%
Assumed Mix	97.0%			2.00%										100%
adjusted with Assumed	0.659102	0.052775	0.251916	0.020000	0.002759	0.000914	0.003855	0.002472	0.000000	0.000000	0.006208	0.000000	0.000000	100%
Trips	161	13	61	5	1	0	1	1	0	0	2	0	0	244
Percent check	97%			2%										
Check	237			5										

Fleet mix for the Residential 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.

Olson St Townhomes - Orange County, Annual

**Olson St Townhomes
Orange County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	15.88	1000sqft	0.36	15,880.00	0
Other Non-Asphalt Surfaces	13.87	1000sqft	0.32	13,870.00	0
Parking Lot	1.40	1000sqft	0.03	1,404.00	0
Condo/Townhouse	42.00	Dwelling Unit	1.08	89,022.00	120

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MW hr)	1543.28	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Added Landscaping to condo lot acreage
- Construction Phase - Based on construction request response
- Off-road Equipment - From Construction Request response
- Off-road Equipment - No equipment
- Off-road Equipment - haul Phase
- Off-road Equipment - See CalEEMod Assumptions File
- Off-road Equipment - See CalEEMod Assumptions

Off-road Equipment - See CalEEMod Assumptions

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - See CR

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - See CalEEMod Assumptions File

Trips and VMT - Water trucks, haul trips

Demolition -

Grading - See CalEEMod Assumptions

Architectural Coating - See CalEEMod Assumptions File

Vehicle Trips - See CalEEMod Assumptions

Woodstoves - no fireplaces in site plans, no wood stoves

Area Coating - 75% interior percentage painted, 70% exterior

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - SCAQMD Rule 1186, Anaheim Municipal Code

Energy Mitigation -

Water Mitigation -

Fleet Mix - See CalEEMod Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	1,869.00	84.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	60,090.00	31,158.00
tblArchitecturalCoating	ConstArea_Residential_Interior	180,270.00	100,150.00
tblAreaCoating	Area_Parking	1869	84
tblAreaCoating	Area_Residential_Exterior	60090	31158
tblAreaCoating	Area_Residential_Interior	180270	100150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	200.00	221.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	4.00	3.00

tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	PhaseEndDate	5/14/2019	4/5/2019
tblConstructionPhase	PhaseEndDate	3/11/2019	3/27/2019
tblConstructionPhase	PhaseEndDate	12/28/2017	12/18/2017
tblConstructionPhase	PhaseEndDate	1/17/2018	1/6/2018
tblConstructionPhase	PhaseEndDate	1/24/2018	1/5/2018
tblConstructionPhase	PhaseEndDate	2/15/2018	1/29/2018
tblConstructionPhase	PhaseEndDate	2/20/2018	1/29/2018
tblConstructionPhase	PhaseEndDate	2/28/2018	2/6/2018
tblConstructionPhase	PhaseEndDate	3/8/2018	2/6/2018
tblConstructionPhase	PhaseEndDate	4/11/2019	4/5/2019
tblConstructionPhase	PhaseEndDate	2/1/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	5/4/2018	4/4/2018
tblConstructionPhase	PhaseStartDate	4/12/2019	3/6/2019
tblConstructionPhase	PhaseStartDate	5/5/2018	5/23/2018
tblConstructionPhase	PhaseStartDate	12/19/2017	12/7/2017
tblConstructionPhase	PhaseStartDate	12/29/2017	12/19/2017
tblConstructionPhase	PhaseStartDate	1/18/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	2/2/2018	1/16/2018
tblConstructionPhase	PhaseStartDate	2/16/2018	1/25/2018
tblConstructionPhase	PhaseStartDate	2/21/2018	1/30/2018
tblConstructionPhase	PhaseStartDate	3/1/2018	1/30/2018
tblConstructionPhase	PhaseStartDate	3/12/2019	3/6/2019
tblConstructionPhase	PhaseStartDate	1/25/2018	1/7/2018
tblConstructionPhase	PhaseStartDate	3/9/2018	2/7/2018
tblFireplaces	NumberGas	35.70	0.00
tblFireplaces	NumberNoFireplace	4.20	42.00

tblFireplaces	NumberWood	2.10	0.00
tblFleetMix	FleetMixLandUseSubType	Other Asphalt Surfaces	Condo/Townhouse
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Other Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Condo/Townhouse	Parking Lot
tblFleetMix	HHD	0.02	2.4720e-003
tblFleetMix	LDA	0.55	0.66
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	2.7590e-003
tblFleetMix	LHD2	5.7970e-003	9.1400e-004
tblFleetMix	MCY	4.8300e-003	6.2080e-003
tblFleetMix	MDV	0.12	0.02
tblFleetMix	MH	1.0410e-003	0.00
tblFleetMix	MHD	0.02	3.8550e-003
tblFleetMix	OBUS	1.6370e-003	0.00
tblFleetMix	SBUS	5.8300e-004	0.00
tblFleetMix	UBUS	1.6330e-003	0.00
tblGrading	AcresOfGrading	0.00	20.00
tblGrading	AcresOfGrading	0.00	20.00
tblGrading	MaterialExported	0.00	1,550.00
tblGrading	MaterialImported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	1,400.00	1,404.00
tblLandUse	BuildingSpaceSquareFeet	42,000.00	89,022.00
tblLandUse	LandUseSquareFeet	1,400.00	1,404.00
tblLandUse	LandUseSquareFeet	42,000.00	89,022.00
tblLandUse	LotAcreage	2.63	1.08
tblOffRoadEquipment	HorsePower	97.00	333.00
tblOffRoadEquipment	HorsePower	97.00	88.00
tblOffRoadEquipment	HorsePower	97.00	333.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	259.00	262.00
tblTripsAndVMT	HaulingTripNumber	127.00	128.00
tblTripsAndVMT	HaulingTripNumber	100.00	115.00
tblTripsAndVMT	HaulingTripNumber	194.00	111.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	5.67	5.81
tblVehicleTrips	SU_TR	4.84	5.81
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	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	2.10	0.00
tblWoodstoves	NumberNoncatalytic	2.10	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	8.1100e-003	0.1124	0.0616	1.8000e-004	0.0311	4.8800e-003	0.0360	5.0800e-003	4.5000e-003	9.5800e-003	0.0000	17.6683	17.6683	2.9900e-003	0.0000	17.7430
2018	0.2662	2.0155	1.6429	3.1300e-003	0.1244	0.1062	0.2305	0.0352	0.1015	0.1367	0.0000	274.5478	274.5478	0.0511	0.0000	275.8240
2019	0.2527	0.7551	0.6677	1.2600e-003	0.0189	0.0404	0.0593	5.0600e-003	0.0386	0.0437	0.0000	109.1416	109.1416	0.0206	0.0000	109.6555
Maximum	0.2662	2.0155	1.6429	3.1300e-003	0.1244	0.1062	0.2305	0.0352	0.1015	0.1367	0.0000	274.5478	274.5478	0.0511	0.0000	275.8240

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					
2017	3.3000e-003	0.0862	0.0606	1.8000e-004	0.0132	2.7300e-003	0.0160	2.3500e-003	2.7200e-003	5.0700e-003	0.0000	17.6683	17.6683	2.9900e-003	0.0000	17.7430
2018	0.1676	1.4468	1.7344	3.1300e-003	0.0730	0.0786	0.1516	0.0203	0.0785	0.0989	0.0000	274.5476	274.5476	0.0511	0.0000	275.8238
2019	0.2142	0.5819	0.7275	1.2600e-003	0.0174	0.0331	0.0506	4.7100e-003	0.0331	0.0378	0.0000	109.1415	109.1415	0.0206	0.0000	109.6554
Maximum	0.2142	1.4468	1.7344	3.1300e-003	0.0730	0.0786	0.1516	0.0203	0.0785	0.0989	0.0000	274.5476	274.5476	0.0511	0.0000	275.8238

	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
Percent Reduction	26.92	26.64	-6.33	0.00	40.54	24.42	33.05	39.50	20.94	25.37	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-4-2017	3-3-2018	0.5111	0.3372
2	3-4-2018	6-3-2018	0.1705	0.1240
3	6-4-2018	9-3-2018	0.7337	0.5337
4	9-4-2018	12-3-2018	0.7266	0.5288
5	12-4-2018	3-3-2019	0.6771	0.5137
6	3-4-2019	6-3-2019	0.3070	0.2261
		Highest	0.7337	0.5337

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	0.3523	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257
Energy	4.7300e-003	0.0404	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	203.6397	203.6397	3.8400e-003	1.4700e-003	204.1731
Mobile	0.0703	0.1221	0.9828	3.0900e-003	0.3115	2.3500e-003	0.3139	0.0828	2.1800e-003	0.0849	0.0000	280.3681	280.3681	8.9900e-003	0.0000	280.5929
Waste						0.0000	0.0000		0.0000	0.0000	3.9218	0.0000	3.9218	0.2318	0.0000	9.7161
Water						0.0000	0.0000		0.0000	0.0000	0.9682	38.3598	39.3280	4.0500e-003	2.2500e-003	40.1012
Total	0.4273	0.1676	1.4357	3.3700e-003	0.3115	8.0100e-003	0.3195	0.0828	7.8400e-003	0.0906	4.8900	523.0759	527.9659	0.2494	3.7200e-003	535.3089

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	0.3523	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257
Energy	3.7500e-003	0.0321	0.0137	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	192.3968	192.3968	3.6300e-003	1.2800e-003	192.8703
Mobile	0.0703	0.1221	0.9828	3.0900e-003	0.3115	2.3500e-003	0.3139	0.0828	2.1800e-003	0.0849	0.0000	280.3681	280.3681	8.9900e-003	0.0000	280.5929
Waste						0.0000	0.0000		0.0000	0.0000	3.9218	0.0000	3.9218	0.2318	0.0000	9.7161
Water						0.0000	0.0000		0.0000	0.0000	0.7745	32.5528	33.3273	3.2800e-003	1.8100e-003	33.9489
Total	0.4263	0.1592	1.4321	3.3100e-003	0.3115	7.3300e-003	0.3189	0.0828	7.1600e-003	0.0899	4.6963	506.0260	510.7223	0.2484	3.0900e-003	517.8538

	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
Percent Reduction	0.23	4.97	0.25	1.78	0.00	8.49	0.21	0.00	8.67	0.75	3.96	3.26	3.27	0.39	16.94	3.26

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	12/4/2017	12/18/2017	5	11	
2	Demo Debris Haul	Demolition	12/7/2017	12/18/2017	5	8	
3	Asphalt Demo	Demolition	12/19/2017	1/6/2018	5	14	
4	Asphalt Demo Haul	Demolition	1/1/2018	1/5/2018	5	5	
5	Site Preparation	Site Preparation	1/7/2018	1/15/2018	5	6	
6	Rough Grading	Grading	1/16/2018	1/29/2018	5	10	
7	Rough Grading Soil Haul	Grading	1/25/2018	1/29/2018	5	3	
8	Fine Grading Soil Haul	Grading	1/30/2018	2/6/2018	5	6	
9	Fine Grading	Grading	1/30/2018	2/6/2018	5	6	
10	Utility Trenching	Trenching	2/7/2018	4/4/2018	5	41	
11	Building Construction	Building Construction	5/23/2018	3/27/2019	5	221	
12	Asphalt Paving	Paving	3/6/2019	4/5/2019	5	23	
13	Finishing/Landscaping	Architectural Coating	3/6/2019	4/5/2019	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.71

Residential Indoor: 100,150; Residential Outdoor: 31,158; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Building Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demo Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Demo Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Demo Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Demo	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demo	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demo	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Asphalt Demo Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demo Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demo Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Scrapers	0	8.00	365	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	333	0.37
Rough Grading	Graders	0	6.00	187	0.41
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	2	8.00	365	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Rough Grading Soil Haul	Graders	0	6.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	6.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading Soil Haul	Graders	0	6.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	6.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading	Graders	0	6.00	187	0.41
Fine Grading	Rubber Tired Dozers	0	6.00	247	0.40

Fine Grading	Tractors/Loaders/Backhoes	1	8.00	333	0.37
Utility Trenching	Excavators	1	8.00	158	0.38
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	88	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Asphalt Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving	Graders	1	8.00	263	0.41
Asphalt Paving	Pavers	0	6.00	130	0.42
Asphalt Paving	Paving Equipment	0	8.00	132	0.36
Asphalt Paving	Rollers	1	8.00	80	0.38
Asphalt Paving	Tractors/Loaders/Backhoes	1	8.00	88	0.37
Finishing/Landscaping	Air Compressors	1	6.00	78	0.48
Finishing/Landscaping	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Demolition	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demo Debris Haul	0	0.00	0.00	262.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demo	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demo Haul	0	0.00	0.00	128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	5	13.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	115.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	111.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	43.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping	3	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Demolition - 2017
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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0335	0.0263	3.0000e-005		2.5200e-003	2.5200e-003		2.3200e-003	2.3200e-003	0.0000	3.1760	3.1760	9.7000e-004	0.0000	3.2003
Total	3.4800e-003	0.0335	0.0263	3.0000e-005	0.0000	2.5200e-003	2.5200e-003	0.0000	2.3200e-003	2.3200e-003	0.0000	3.1760	3.1760	9.7000e-004	0.0000	3.2003

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	1.0000e-004	2.8600e-003	8.1000e-004	1.0000e-005	1.4000e-004	2.0000e-005	1.6000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5444	0.5444	5.0000e-005	0.0000	0.5457
Worker	1.4000e-004	1.1000e-004	1.1600e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2856	0.2856	1.0000e-005	0.0000	0.2858
Total	2.4000e-004	2.9700e-003	1.9700e-003	1.0000e-005	4.4000e-004	2.0000e-005	4.6000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	0.8300	0.8300	6.0000e-005	0.0000	0.8315

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4000e-004	0.0191	0.0258	3.0000e-005		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	3.1760	3.1760	9.7000e-004	0.0000	3.2003
Total	8.4000e-004	0.0191	0.0258	3.0000e-005	0.0000	1.3400e-003	1.3400e-003	0.0000	1.3400e-003	1.3400e-003	0.0000	3.1760	3.1760	9.7000e-004	0.0000	3.2003

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	1.0000e-004	2.8600e-003	8.1000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5444	0.5444	5.0000e-005	0.0000	0.5457
Worker	1.4000e-004	1.1000e-004	1.1600e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2856	0.2856	1.0000e-005	0.0000	0.2858
Total	2.4000e-004	2.9700e-003	1.9700e-003	1.0000e-005	4.1000e-004	2.0000e-005	4.3000e-004	1.1000e-004	2.0000e-005	1.4000e-004	0.0000	0.8300	0.8300	6.0000e-005	0.0000	0.8315

3.3 Demo Debris Haul - 2017

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					0.0280	0.0000	0.0280	4.2400e-003	0.0000	4.2400e-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	0.0280	0.0000	0.0280	4.2400e-003	0.0000	4.2400e-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	1.3400e-003	0.0461	0.0102	1.0000e-004	2.2500e-003	2.5000e-004	2.5000e-003	6.2000e-004	2.4000e-004	8.6000e-004	0.0000	10.3846	10.3846	1.1100e-003	0.0000	10.4124
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	1.3400e-003	0.0461	0.0102	1.0000e-004	2.2500e-003	2.5000e-004	2.5000e-003	6.2000e-004	2.4000e-004	8.6000e-004	0.0000	10.3846	10.3846	1.1100e-003	0.0000	10.4124

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					0.0104	0.0000	0.0104	1.5700e-003	0.0000	1.5700e-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	0.0104	0.0000	0.0104	1.5700e-003	0.0000	1.5700e-003	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	1.3400e-003	0.0461	0.0102	1.0000e-004	2.0900e-003	2.5000e-004	2.3500e-003	5.8000e-004	2.4000e-004	8.2000e-004	0.0000	10.3846	10.3846	1.1100e-003	0.0000	10.4124
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	1.3400e-003	0.0461	0.0102	1.0000e-004	2.0900e-003	2.5000e-004	2.3500e-003	5.8000e-004	2.4000e-004	8.2000e-004	0.0000	10.3846	10.3846	1.1100e-003	0.0000	10.4124

3.4 Asphalt Demo - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0274	0.0215	3.0000e-005		2.0600e-003	2.0600e-003		1.9000e-003	1.9000e-003	0.0000	2.5985	2.5985	8.0000e-004	0.0000	2.6184
Total	2.8500e-003	0.0274	0.0215	3.0000e-005	0.0000	2.0600e-003	2.0600e-003	0.0000	1.9000e-003	1.9000e-003	0.0000	2.5985	2.5985	8.0000e-004	0.0000	2.6184

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	2.3400e-003	6.6000e-004	0.0000	1.1000e-004	2.0000e-005	1.3000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4454	0.4454	4.0000e-005	0.0000	0.4465
Worker	1.1000e-004	9.0000e-005	9.5000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2337	0.2337	1.0000e-005	0.0000	0.2339
Total	1.9000e-004	2.4300e-003	1.6100e-003	0.0000	3.6000e-004	2.0000e-005	3.8000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	0.6791	0.6791	5.0000e-005	0.0000	0.6803

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	0.0156	0.0211	3.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003	0.0000	2.5985	2.5985	8.0000e-004	0.0000	2.6184
Total	6.8000e-004	0.0156	0.0211	3.0000e-005	0.0000	1.0900e-003	1.0900e-003	0.0000	1.0900e-003	1.0900e-003	0.0000	2.5985	2.5985	8.0000e-004	0.0000	2.6184

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	2.3400e-003	6.6000e-004	0.0000	1.1000e-004	2.0000e-005	1.3000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4454	0.4454	4.0000e-005	0.0000	0.4465
Worker	1.1000e-004	9.0000e-005	9.5000e-004	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2337	0.2337	1.0000e-005	0.0000	0.2339
Total	1.9000e-004	2.4300e-003	1.6100e-003	0.0000	3.4000e-004	2.0000e-005	3.6000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	0.6791	0.6791	5.0000e-005	0.0000	0.6803

3.4 Asphalt Demo - 2018

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	0.0132	0.0117	2.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	1.4187	1.4187	4.4000e-004	0.0000	1.4298
Total	1.3300e-003	0.0132	0.0117	2.0000e-005	0.0000	9.3000e-004	9.3000e-004	0.0000	8.6000e-004	8.6000e-004	0.0000	1.4187	1.4187	4.4000e-004	0.0000	1.4298

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-005	1.2200e-003	3.4000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2464	0.2464	2.0000e-005	0.0000	0.2469
Worker	6.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1260	0.1260	0.0000	0.0000	0.1261
Total	1.0000e-004	1.2600e-003	8.1000e-004	0.0000	2.0000e-004	1.0000e-005	2.1000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.3724	0.3724	2.0000e-005	0.0000	0.3730

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8000e-004	8.6700e-003	0.0117	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.4187	1.4187	4.4000e-004	0.0000	1.4298
Total	3.8000e-004	8.6700e-003	0.0117	2.0000e-005	0.0000	6.1000e-004	6.1000e-004	0.0000	6.1000e-004	6.1000e-004	0.0000	1.4187	1.4187	4.4000e-004	0.0000	1.4298

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-005	1.2200e-003	3.4000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2464	0.2464	2.0000e-005	0.0000	0.2469
Worker	6.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1260	0.1260	0.0000	0.0000	0.1261
Total	1.0000e-004	1.2600e-003	8.1000e-004	0.0000	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.3724	0.3724	2.0000e-005	0.0000	0.3730

3.5 Asphalt Demo Haul - 2018
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					0.0137	0.0000	0.0137	2.0700e-003	0.0000	2.0700e-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	0.0137	0.0000	0.0137	2.0700e-003	0.0000	2.0700e-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	5.6000e-004	0.0207	4.6800e-003	5.0000e-005	1.1000e-003	8.0000e-005	1.1800e-003	3.0000e-004	8.0000e-005	3.8000e-004	0.0000	5.0220	5.0220	5.3000e-004	0.0000	5.0354
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	5.6000e-004	0.0207	4.6800e-003	5.0000e-005	1.1000e-003	8.0000e-005	1.1800e-003	3.0000e-004	8.0000e-005	3.8000e-004	0.0000	5.0220	5.0220	5.3000e-004	0.0000	5.0354

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0700e-003	0.0000	5.0700e-003	7.7000e-004	0.0000	7.7000e-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	5.0700e-003	0.0000	5.0700e-003	7.7000e-004	0.0000	7.7000e-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	5.6000e-004	0.0207	4.6800e-003	5.0000e-005	1.0200e-003	8.0000e-005	1.1000e-003	2.8000e-004	8.0000e-005	3.6000e-004	0.0000	5.0220	5.0220	5.3000e-004	0.0000	5.0354
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	5.6000e-004	0.0207	4.6800e-003	5.0000e-005	1.0200e-003	8.0000e-005	1.1000e-003	2.8000e-004	8.0000e-005	3.6000e-004	0.0000	5.0220	5.0220	5.3000e-004	0.0000	5.0354

3.6 Site Preparation - 2018

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	0.0174	9.4200e-003	3.0000e-005		6.0000e-004	6.0000e-004		5.5000e-004	5.5000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984
Total	1.4500e-003	0.0174	9.4200e-003	3.0000e-005	0.0000	6.0000e-004	6.0000e-004	0.0000	5.5000e-004	5.5000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984

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	5.0000e-005	1.4600e-003	4.0000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2956	0.2956	3.0000e-005	0.0000	0.2963
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0908	0.0908	0.0000	0.0000	0.0908
Total	9.0000e-005	1.4900e-003	7.4000e-004	0.0000	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.3864	0.3864	3.0000e-005	0.0000	0.3871

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8000e-004	0.0151	0.0170	3.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984
Total	7.8000e-004	0.0151	0.0170	3.0000e-005	0.0000	5.7000e-004	5.7000e-004	0.0000	5.7000e-004	5.7000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984

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	5.0000e-005	1.4600e-003	4.0000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2956	0.2956	3.0000e-005	0.0000	0.2963
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0908	0.0908	0.0000	0.0000	0.0908
Total	9.0000e-005	1.4900e-003	7.4000e-004	0.0000	1.6000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3864	0.3864	3.0000e-005	0.0000	0.3871

3.7 Rough Grading - 2018

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					0.0407	0.0000	0.0407	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.2302	0.1326	2.2000e-004		0.0105	0.0105		9.6400e-003	9.6400e-003	0.0000	20.4965	20.4965	6.3800e-003	0.0000	20.6560
Total	0.0199	0.2302	0.1326	2.2000e-004	0.0407	0.0105	0.0512	0.0177	9.6400e-003	0.0273	0.0000	20.4965	20.4965	6.3800e-003	0.0000	20.6560

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	2.4400e-003	6.7000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.4000e-004	4.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4927	0.4927	4.0000e-005	0.0000	0.4938
Worker	2.9000e-004	2.2000e-004	2.4300e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6554	0.6554	2.0000e-005	0.0000	0.6558
Total	3.7000e-004	2.6600e-003	3.1000e-003	2.0000e-005	8.4000e-004	2.0000e-005	8.6000e-004	2.3000e-004	2.0000e-005	2.4000e-004	0.0000	1.1481	1.1481	6.0000e-005	0.0000	1.1496

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					0.0151	0.0000	0.0151	6.5600e-003	0.0000	6.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5100e-003	0.1093	0.1264	2.2000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	20.4965	20.4965	6.3800e-003	0.0000	20.6560
Total	5.5100e-003	0.1093	0.1264	2.2000e-004	0.0151	4.7000e-003	0.0198	6.5600e-003	4.7000e-003	0.0113	0.0000	20.4965	20.4965	6.3800e-003	0.0000	20.6560

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	2.4400e-003	6.7000e-004	1.0000e-005	1.2000e-004	2.0000e-005	1.4000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4927	0.4927	4.0000e-005	0.0000	0.4938
Worker	2.9000e-004	2.2000e-004	2.4300e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6554	0.6554	2.0000e-005	0.0000	0.6558
Total	3.7000e-004	2.6600e-003	3.1000e-003	2.0000e-005	7.8000e-004	2.0000e-005	8.0000e-004	2.1000e-004	2.0000e-005	2.3000e-004	0.0000	1.1481	1.1481	6.0000e-005	0.0000	1.1496

3.8 Rough Grading Soil Haul - 2018

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					0.0107	0.0000	0.0107	1.1500e-003	0.0000	1.1500e-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	0.0107	0.0000	0.0107	1.1500e-003	0.0000	1.1500e-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	5.0000e-004	0.0186	4.2000e-003	4.0000e-005	9.9000e-004	7.0000e-005	1.0600e-003	2.7000e-004	7.0000e-005	3.4000e-004	0.0000	4.5120	4.5120	4.8000e-004	0.0000	4.5240
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	5.0000e-004	0.0186	4.2000e-003	4.0000e-005	9.9000e-004	7.0000e-005	1.0600e-003	2.7000e-004	7.0000e-005	3.4000e-004	0.0000	4.5120	4.5120	4.8000e-004	0.0000	4.5240

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					3.9500e-003	0.0000	3.9500e-003	4.3000e-004	0.0000	4.3000e-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	3.9500e-003	0.0000	3.9500e-003	4.3000e-004	0.0000	4.3000e-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	5.0000e-004	0.0186	4.2000e-003	4.0000e-005	9.2000e-004	7.0000e-005	9.9000e-004	2.5000e-004	7.0000e-005	3.2000e-004	0.0000	4.5120	4.5120	4.8000e-004	0.0000	4.5240
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	5.0000e-004	0.0186	4.2000e-003	4.0000e-005	9.2000e-004	7.0000e-005	9.9000e-004	2.5000e-004	7.0000e-005	3.2000e-004	0.0000	4.5120	4.5120	4.8000e-004	0.0000	4.5240

3.9 Fine Grading Soil Haul - 2018

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					0.0107	0.0000	0.0107	1.1600e-003	0.0000	1.1600e-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	0.0107	0.0000	0.0107	1.1600e-003	0.0000	1.1600e-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	4.8000e-004	0.0179	4.0600e-003	4.0000e-005	9.5000e-004	7.0000e-005	1.0200e-003	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	4.3550	4.3550	4.6000e-004	0.0000	4.3666
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	4.8000e-004	0.0179	4.0600e-003	4.0000e-005	9.5000e-004	7.0000e-005	1.0200e-003	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	4.3550	4.3550	4.6000e-004	0.0000	4.3666

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					3.9600e-003	0.0000	3.9600e-003	4.3000e-004	0.0000	4.3000e-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	3.9600e-003	0.0000	3.9600e-003	4.3000e-004	0.0000	4.3000e-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	4.8000e-004	0.0179	4.0600e-003	4.0000e-005	8.9000e-004	7.0000e-005	9.6000e-004	2.5000e-004	7.0000e-005	3.1000e-004	0.0000	4.3550	4.3550	4.6000e-004	0.0000	4.3666
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	4.8000e-004	0.0179	4.0600e-003	4.0000e-005	8.9000e-004	7.0000e-005	9.6000e-004	2.5000e-004	7.0000e-005	3.1000e-004	0.0000	4.3550	4.3550	4.6000e-004	0.0000	4.3666

3.10 Fine Grading - 2018

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	0.0174	9.4200e-003	3.0000e-005		6.0000e-004	6.0000e-004		5.5000e-004	5.5000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984
Total	1.4500e-003	0.0174	9.4200e-003	3.0000e-005	0.0000	6.0000e-004	6.0000e-004	0.0000	5.5000e-004	5.5000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984

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	5.0000e-005	1.4600e-003	4.0000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2956	0.2956	3.0000e-005	0.0000	0.2963
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0908	0.0908	0.0000	0.0000	0.0908
Total	9.0000e-005	1.4900e-003	7.4000e-004	0.0000	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.3864	0.3864	3.0000e-005	0.0000	0.3871

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8000e-004	0.0151	0.0170	3.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984
Total	7.8000e-004	0.0151	0.0170	3.0000e-005	0.0000	5.7000e-004	5.7000e-004	0.0000	5.7000e-004	5.7000e-004	0.0000	2.8760	2.8760	9.0000e-004	0.0000	2.8984

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	5.0000e-005	1.4600e-003	4.0000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2956	0.2956	3.0000e-005	0.0000	0.2963
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0908	0.0908	0.0000	0.0000	0.0908
Total	9.0000e-005	1.4900e-003	7.4000e-004	0.0000	1.6000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3864	0.3864	3.0000e-005	0.0000	0.3871

3.11 Utility Trenching - 2018

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	0.0109	0.1124	0.1106	1.6000e-004		6.5400e-003	6.5400e-003		6.0200e-003	6.0200e-003	0.0000	14.9400	14.9400	4.6500e-003	0.0000	15.0562
Total	0.0109	0.1124	0.1106	1.6000e-004		6.5400e-003	6.5400e-003		6.0200e-003	6.0200e-003	0.0000	14.9400	14.9400	4.6500e-003	0.0000	15.0562

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	3.4000e-004	9.9800e-003	2.7600e-003	2.0000e-005	5.2000e-004	7.0000e-005	5.9000e-004	1.5000e-004	7.0000e-005	2.2000e-004	0.0000	2.0200	2.0200	1.8000e-004	0.0000	2.0246
Worker	4.7000e-004	3.5000e-004	3.8300e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0335	1.0335	3.0000e-005	0.0000	1.0342
Total	8.1000e-004	0.0103	6.5900e-003	3.0000e-005	1.6500e-003	8.0000e-005	1.7200e-003	4.5000e-004	8.0000e-005	5.3000e-004	0.0000	3.0536	3.0536	2.1000e-004	0.0000	3.0588

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0200e-003	0.0826	0.1239	1.6000e-004		4.6900e-003	4.6900e-003		4.6900e-003	4.6900e-003	0.0000	14.9399	14.9399	4.6500e-003	0.0000	15.0562
Total	4.0200e-003	0.0826	0.1239	1.6000e-004		4.6900e-003	4.6900e-003		4.6900e-003	4.6900e-003	0.0000	14.9399	14.9399	4.6500e-003	0.0000	15.0562

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	3.4000e-004	9.9800e-003	2.7600e-003	2.0000e-005	4.8000e-004	7.0000e-005	5.6000e-004	1.4000e-004	7.0000e-005	2.1000e-004	0.0000	2.0200	2.0200	1.8000e-004	0.0000	2.0246
Worker	4.7000e-004	3.5000e-004	3.8300e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	1.0335	1.0335	3.0000e-005	0.0000	1.0342
Total	8.1000e-004	0.0103	6.5900e-003	3.0000e-005	1.5200e-003	8.0000e-005	1.6100e-003	4.2000e-004	8.0000e-005	4.9000e-004	0.0000	3.0536	3.0536	2.1000e-004	0.0000	3.0588

3.12 Building Construction - 2018

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	0.2094	1.4420	1.1899	1.8900e-003		0.0857	0.0857		0.0827	0.0827	0.0000	158.6510	158.6510	0.0333	0.0000	159.4829
Total	0.2094	1.4420	1.1899	1.8900e-003		0.0857	0.0857		0.0827	0.0827	0.0000	158.6510	158.6510	0.0333	0.0000	159.4829

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	3.2800e-003	0.0968	0.0267	2.0000e-004	5.0100e-003	7.1000e-004	5.7100e-003	1.4400e-003	6.8000e-004	2.1200e-003	0.0000	19.5846	19.5846	1.7600e-003	0.0000	19.6285
Worker	0.0155	0.0117	0.1276	3.8000e-004	0.0375	2.5000e-004	0.0378	9.9700e-003	2.3000e-004	0.0102	0.0000	34.4693	34.4693	9.2000e-004	0.0000	34.4922
Total	0.0188	0.1085	0.1543	5.8000e-004	0.0425	9.6000e-004	0.0435	0.0114	9.1000e-004	0.0123	0.0000	54.0539	54.0539	2.6800e-003	0.0000	54.1207

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	0.1343	1.0331	1.2592	1.8900e-003		0.0661	0.0661		0.0661	0.0661	0.0000	158.6508	158.6508	0.0333	0.0000	159.4827
Total	0.1343	1.0331	1.2592	1.8900e-003		0.0661	0.0661		0.0661	0.0661	0.0000	158.6508	158.6508	0.0333	0.0000	159.4827

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	3.2800e-003	0.0968	0.0267	2.0000e-004	4.6900e-003	7.1000e-004	5.3900e-003	1.3700e-003	6.8000e-004	2.0400e-003	0.0000	19.5846	19.5846	1.7600e-003	0.0000	19.6285
Worker	0.0155	0.0117	0.1276	3.8000e-004	0.0346	2.5000e-004	0.0349	9.2500e-003	2.3000e-004	9.4800e-003	0.0000	34.4693	34.4693	9.2000e-004	0.0000	34.4922
Total	0.0188	0.1085	0.1543	5.8000e-004	0.0393	9.6000e-004	0.0402	0.0106	9.1000e-004	0.0115	0.0000	54.0539	54.0539	2.6800e-003	0.0000	54.1207

3.12 Building Construction - 2019

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	0.0717	0.5165	0.4520	7.4000e-004		0.0289	0.0289		0.0279	0.0279	0.0000	61.4272	61.4272	0.0124	0.0000	61.7370
Total	0.0717	0.5165	0.4520	7.4000e-004		0.0289	0.0289		0.0279	0.0279	0.0000	61.4272	61.4272	0.0124	0.0000	61.7370

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	1.1800e-003	0.0359	9.7600e-003	8.0000e-005	1.9500e-003	2.4000e-004	2.1900e-003	5.6000e-004	2.3000e-004	7.9000e-004	0.0000	7.5985	7.5985	6.6000e-004	0.0000	7.6151
Worker	5.5700e-003	4.0600e-003	0.0451	1.4000e-004	0.0146	1.0000e-004	0.0147	3.8900e-003	9.0000e-005	3.9800e-003	0.0000	13.0850	13.0850	3.2000e-004	0.0000	13.0930
Total	6.7500e-003	0.0399	0.0549	2.2000e-004	0.0166	3.4000e-004	0.0169	4.4500e-003	3.2000e-004	4.7700e-003	0.0000	20.6835	20.6835	9.8000e-004	0.0000	20.7081

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	0.0471	0.3975	0.4862	7.4000e-004		0.0245	0.0245		0.0245	0.0245	0.0000	61.4272	61.4272	0.0124	0.0000	61.7369
Total	0.0471	0.3975	0.4862	7.4000e-004		0.0245	0.0245		0.0245	0.0245	0.0000	61.4272	61.4272	0.0124	0.0000	61.7369

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	1.1800e-003	0.0359	9.7600e-003	8.0000e-005	1.8300e-003	2.4000e-004	2.0700e-003	5.3000e-004	2.3000e-004	7.6000e-004	0.0000	7.5985	7.5985	6.6000e-004	0.0000	7.6151
Worker	5.5700e-003	4.0600e-003	0.0451	1.4000e-004	0.0135	1.0000e-004	0.0136	3.6100e-003	9.0000e-005	3.7000e-003	0.0000	13.0850	13.0850	3.2000e-004	0.0000	13.0930
Total	6.7500e-003	0.0399	0.0549	2.2000e-004	0.0153	3.4000e-004	0.0157	4.1400e-003	3.2000e-004	4.4600e-003	0.0000	20.6835	20.6835	9.8000e-004	0.0000	20.7081

3.13 Asphalt Paving - 2019

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	0.0121	0.1205	0.0794	1.7000e-004		6.0400e-003	6.0400e-003		5.5600e-003	5.5600e-003	0.0000	15.1949	15.1949	4.8100e-003	0.0000	15.3150
Paving	5.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0126	0.1205	0.0794	1.7000e-004		6.0400e-003	6.0400e-003		5.5600e-003	5.5600e-003	0.0000	15.1949	15.1949	4.8100e-003	0.0000	15.3150

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	9.0000e-005	2.6600e-003	7.2000e-004	1.0000e-005	1.4000e-004	2.0000e-005	1.6000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5638	0.5638	5.0000e-005	0.0000	0.5650
Worker	3.8000e-004	2.8000e-004	3.1100e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9031	0.9031	2.0000e-005	0.0000	0.9037
Total	4.7000e-004	2.9400e-003	3.8300e-003	2.0000e-005	1.1500e-003	3.0000e-005	1.1800e-003	3.1000e-004	3.0000e-005	3.3000e-004	0.0000	1.4669	1.4669	7.0000e-005	0.0000	1.4686

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1600e-003	0.0857	0.1041	1.7000e-004		4.3800e-003	4.3800e-003		4.3800e-003	4.3800e-003	0.0000	15.1948	15.1948	4.8100e-003	0.0000	15.3150
Paving	5.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.6700e-003	0.0857	0.1041	1.7000e-004		4.3800e-003	4.3800e-003		4.3800e-003	4.3800e-003	0.0000	15.1948	15.1948	4.8100e-003	0.0000	15.3150

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	9.0000e-005	2.6600e-003	7.2000e-004	1.0000e-005	1.4000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5638	0.5638	5.0000e-005	0.0000	0.5650
Worker	3.8000e-004	2.8000e-004	3.1100e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9031	0.9031	2.0000e-005	0.0000	0.9037
Total	4.7000e-004	2.9400e-003	3.8300e-003	2.0000e-005	1.0700e-003	3.0000e-005	1.0900e-003	2.9000e-004	3.0000e-005	3.2000e-004	0.0000	1.4669	1.4669	7.0000e-005	0.0000	1.4686

3.14 Finishing/Landscaping - 2019

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	0.1524					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4200e-003	0.0749	0.0741	1.1000e-004		5.0700e-003	5.0700e-003		4.7800e-003	4.7800e-003	0.0000	9.3532	9.3532	2.2800e-003	0.0000	9.4101
Total	0.1608	0.0749	0.0741	1.1000e-004		5.0700e-003	5.0700e-003		4.7800e-003	4.7800e-003	0.0000	9.3532	9.3532	2.2800e-003	0.0000	9.4101

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	4.3000e-004	3.2000e-004	3.5000e-003	1.0000e-005	1.1400e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0160	1.0160	3.0000e-005	0.0000	1.0166
Total	4.3000e-004	3.2000e-004	3.5000e-003	1.0000e-005	1.1400e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0160	1.0160	3.0000e-005	0.0000	1.0166

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	0.1524					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4300e-003	0.0555	0.0749	1.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003	0.0000	9.3532	9.3532	2.2800e-003	0.0000	9.4101
Total	0.1548	0.0555	0.0749	1.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003	0.0000	9.3532	9.3532	2.2800e-003	0.0000	9.4101

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	4.3000e-004	3.2000e-004	3.5000e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	1.0160	1.0160	3.0000e-005	0.0000	1.0166
Total	4.3000e-004	3.2000e-004	3.5000e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	1.0160	1.0160	3.0000e-005	0.0000	1.0166

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	0.0703	0.1221	0.9828	3.0900e-003	0.3115	2.3500e-003	0.3139	0.0828	2.1800e-003	0.0849	0.0000	280.3681	280.3681	8.9900e-003	0.0000	280.5929
Unmitigated	0.0703	0.1221	0.9828	3.0900e-003	0.3115	2.3500e-003	0.3139	0.0828	2.1800e-003	0.0849	0.0000	280.3681	280.3681	8.9900e-003	0.0000	280.5929

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	244.02	244.02	244.02	833,853	833,853
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	244.02	244.02	244.02	833,853	833,853

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	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
Condo/Townhouse	0.659102	0.052775	0.251916	0.020000	0.002759	0.000914	0.003855	0.002472	0.000000	0.000000	0.006208	0.000000	0.000000
Other Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Other Non-Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Parking Lot	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041

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	155.2569	155.2569	2.9200e-003	6.0000e-004	155.5097
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	156.8643	156.8643	2.9500e-003	6.1000e-004	157.1197
NaturalGas Mitigated	3.7500e-003	0.0321	0.0137	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	37.1399	37.1399	7.1000e-004	6.8000e-004	37.3606
NaturalGas Unmitigated	4.7300e-003	0.0404	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.7754	46.7754	9.0000e-004	8.6000e-004	47.0534

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas 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					
Condo/Townhouse	876538	4.7300e-003	0.0404	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.7754	46.7754	9.0000e-004	8.6000e-004	47.0534
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		4.7300e-003	0.0404	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.7754	46.7754	9.0000e-004	8.6000e-004	47.0534

Mitigated

	Natural Gas 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					
Condo/Townhouse	695976	3.7500e-003	0.0321	0.0137	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	37.1399	37.1399	7.1000e-004	6.8000e-004	37.3606
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		3.7500e-003	0.0321	0.0137	2.0000e-004		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	37.1399	37.1399	7.1000e-004	6.8000e-004	37.3606

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	222850	155.9994	2.9300e-003	6.1000e-004	156.2534
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	1235.52	0.8649	2.0000e-005	0.0000	0.8663
Total		156.8643	2.9500e-003	6.1000e-004	157.1197

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	220554	154.3920	2.9000e-003	6.0000e-004	154.6434
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	1235.52	0.8649	2.0000e-005	0.0000	0.8663
Total		155.2569	2.9200e-003	6.0000e-004	155.5097

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	0.3523	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257
Unmitigated	0.3523	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257

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	0.0152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0134	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257
Total	0.3523	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257

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	0.0152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0134	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257
Total	0.3523	5.0500e-003	0.4357	2.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	0.7083	0.7083	7.0000e-004	0.0000	0.7257

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	33.3273	3.2800e-003	1.8100e-003	33.9489
Unmitigated	39.3280	4.0500e-003	2.2500e-003	40.1012

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	2.73647 / 1.72517	39.3280	4.0500e-003	2.2500e-003	40.1012
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		39.3280	4.0500e-003	2.2500e-003	40.1012

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	2.18918 / 1.61993	33.3273	3.2800e-003	1.8100e-003	33.9489
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		33.3273	3.2800e-003	1.8100e-003	33.9489

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.9218	0.2318	0.0000	9.7161
Unmitigated	3.9218	0.2318	0.0000	9.7161

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	19.32	3.9218	0.2318	0.0000	9.7161
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		3.9218	0.2318	0.0000	9.7161

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	19.32	3.9218	0.2318	0.0000	9.7161
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		3.9218	0.2318	0.0000	9.7161

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Olson St Townhomes - Orange County, Summer

Olson St Townhomes
Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	15.88	1000sqft	0.36	15,880.00	0
Other Non-Asphalt Surfaces	13.87	1000sqft	0.32	13,870.00	0
Parking Lot	1.40	1000sqft	0.03	1,404.00	0
Condo/Townhouse	42.00	Dwelling Unit	1.08	89,022.00	120

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MW hr)	1543.28	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Added Landscaping to condo lot acreage
- Construction Phase - Based on construction request response
- Off-road Equipment - From Construction Request response
- Off-road Equipment - No equipment
- Off-road Equipment - haul Phase
- Off-road Equipment - See CalEEMod Assumptions File
- Off-road Equipment - See CalEEMod Assumptions

Off-road Equipment - See CalEEMod Assumptions

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - See CR

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - See CalEEMod Assumptions File

Trips and VMT - Water trucks, haul trips

Demolition -

Grading - See CalEEMod Assumptions

Architectural Coating - See CalEEMod Assumptions File

Vehicle Trips - See CalEEMod Assumptions

Woodstoves - no fireplaces in site plans, no wood stoves

Area Coating - 75% interior percentage painted, 70% exterior

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - SCAQMD Rule 1186, Anaheim Municipal Code

Energy Mitigation -

Water Mitigation -

Fleet Mix - See CalEEMod Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	1,869.00	84.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	60,090.00	31,158.00
tblArchitecturalCoating	ConstArea_Residential_Interior	180,270.00	100,150.00
tblAreaCoating	Area_Parking	1869	84
tblAreaCoating	Area_Residential_Exterior	60090	31158
tblAreaCoating	Area_Residential_Interior	180270	100150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	10.00	23.00
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tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	4.00	3.00

tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	PhaseEndDate	5/14/2019	4/5/2019
tblConstructionPhase	PhaseEndDate	3/11/2019	3/27/2019
tblConstructionPhase	PhaseEndDate	12/28/2017	12/18/2017
tblConstructionPhase	PhaseEndDate	1/17/2018	1/6/2018
tblConstructionPhase	PhaseEndDate	1/24/2018	1/5/2018
tblConstructionPhase	PhaseEndDate	2/15/2018	1/29/2018
tblConstructionPhase	PhaseEndDate	2/20/2018	1/29/2018
tblConstructionPhase	PhaseEndDate	2/28/2018	2/6/2018
tblConstructionPhase	PhaseEndDate	3/8/2018	2/6/2018
tblConstructionPhase	PhaseEndDate	4/11/2019	4/5/2019
tblConstructionPhase	PhaseEndDate	2/1/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	5/4/2018	4/4/2018
tblConstructionPhase	PhaseStartDate	4/12/2019	3/6/2019
tblConstructionPhase	PhaseStartDate	5/5/2018	5/23/2018
tblConstructionPhase	PhaseStartDate	12/19/2017	12/7/2017
tblConstructionPhase	PhaseStartDate	12/29/2017	12/19/2017
tblConstructionPhase	PhaseStartDate	1/18/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	2/2/2018	1/16/2018
tblConstructionPhase	PhaseStartDate	2/16/2018	1/25/2018
tblConstructionPhase	PhaseStartDate	2/21/2018	1/30/2018
tblConstructionPhase	PhaseStartDate	3/1/2018	1/30/2018
tblConstructionPhase	PhaseStartDate	3/12/2019	3/6/2019
tblConstructionPhase	PhaseStartDate	1/25/2018	1/7/2018
tblConstructionPhase	PhaseStartDate	3/9/2018	2/7/2018
tblFireplaces	NumberGas	35.70	0.00
tblFireplaces	NumberNoFireplace	4.20	42.00

tblFireplaces	NumberWood	2.10	0.00
tblFleetMix	FleetMixLandUseSubType	Other Asphalt Surfaces	Condo/Townhouse
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Other Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Condo/Townhouse	Parking Lot
tblFleetMix	HHD	0.02	2.4720e-003
tblFleetMix	LDA	0.55	0.66
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	2.7590e-003
tblFleetMix	LHD2	5.7970e-003	9.1400e-004
tblFleetMix	MCY	4.8300e-003	6.2080e-003
tblFleetMix	MDV	0.12	0.02
tblFleetMix	MH	1.0410e-003	0.00
tblFleetMix	MHD	0.02	3.8550e-003
tblFleetMix	OBUS	1.6370e-003	0.00
tblFleetMix	SBUS	5.8300e-004	0.00
tblFleetMix	UBUS	1.6330e-003	0.00
tblGrading	AcresOfGrading	0.00	20.00
tblGrading	AcresOfGrading	0.00	20.00
tblGrading	MaterialExported	0.00	1,550.00
tblGrading	MaterialImported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	1,400.00	1,404.00
tblLandUse	BuildingSpaceSquareFeet	42,000.00	89,022.00
tblLandUse	LandUseSquareFeet	1,400.00	1,404.00
tblLandUse	LandUseSquareFeet	42,000.00	89,022.00
tblLandUse	LotAcreage	2.63	1.08
tblOffRoadEquipment	HorsePower	97.00	333.00
tblOffRoadEquipment	HorsePower	97.00	88.00
tblOffRoadEquipment	HorsePower	97.00	333.00

tblOffRoadEquipment	HorsePower	187.00	263.00
tblOffRoadEquipment	HorsePower	367.00	365.00
tblOffRoadEquipment	HorsePower	367.00	365.00
tblOffRoadEquipment	HorsePower	97.00	88.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	259.00	262.00
tblTripsAndVMT	HaulingTripNumber	127.00	128.00
tblTripsAndVMT	HaulingTripNumber	100.00	115.00
tblTripsAndVMT	HaulingTripNumber	194.00	111.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	5.67	5.81
tblVehicleTrips	SU_TR	4.84	5.81
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	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	2.10	0.00
tblWoodstoves	NumberNoncatalytic	2.10	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2017	1.0075	17.7674	7.6208	0.0339	7.6600	0.5256	8.1856	1.2394	0.4860	1.7254	0.0000	3,685.2330	3,685.2330	0.5090	0.0000	3,697.9572
2018	4.3848	58.5400	29.8913	0.0775	16.0817	2.1477	18.2294	4.5359	1.9778	6.5136	0.0000	8,115.1323	8,115.1323	1.7688	0.0000	8,159.3519
2019	17.6807	35.1763	30.4301	0.0574	0.7473	1.9126	2.6599	0.1999	1.8122	2.0121	0.0000	5,540.5089	5,540.5089	1.1640	0.0000	5,569.6088
Maximum	17.6807	58.5400	30.4301	0.0775	16.0817	2.1477	18.2294	4.5359	1.9778	6.5136	0.0000	8,115.1323	8,115.1323	1.7688	0.0000	8,159.3519

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	lb/day										lb/day					
2017	0.5259	15.1484	7.5173	0.0339	3.2034	0.3108	3.5142	0.5604	0.3078	0.8683	0.0000	3,685.2330	3,685.2330	0.5090	0.0000	3,697.9572
2018	1.9228	34.3412	28.6464	0.0775	6.4274	0.9923	7.4198	1.8101	0.9900	2.8001	0.0000	8,115.1323	8,115.1323	1.7688	0.0000	8,159.3519
2019	15.6771	26.6266	33.7542	0.0574	0.6899	1.5224	2.2123	0.1859	1.5216	1.7075	0.0000	5,540.5089	5,540.5089	1.1640	0.0000	5,569.6088
Maximum	15.6771	34.3412	33.7542	0.0775	6.4274	1.5224	7.4198	1.8101	1.5216	2.8001	0.0000	8,115.1323	8,115.1323	1.7688	0.0000	8,159.3519

	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
Percent Reduction	21.44	31.72	-2.91	0.00	57.86	38.39	54.78	57.22	34.06	47.56	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996
Energy	0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054
Mobile	0.4063	0.6150	5.5928	0.0177	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,766.9217	1,766.9217	0.0553		1,768.3045
Total	2.3963	0.8767	9.1724	0.0193	1.7428	0.0499	1.7927	0.4623	0.0490	0.5113	0.0000	2,055.6942	2,055.6942	0.0669	5.1800e-003	2,058.9095

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	lb/day										lb/day					
Area	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996
Energy	0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605
Mobile	0.4063	0.6150	5.5928	0.0177	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,766.9217	1,766.9217	0.0553		1,768.3045
Total	2.3909	0.8311	9.1530	0.0190	1.7428	0.0462	1.7890	0.4623	0.0453	0.5076	0.0000	1,997.4952	1,997.4952	0.0658	4.1100e-003	2,000.3646

	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
Percent Reduction	0.22	5.20	0.21	1.50	0.00	7.37	0.21	0.00	7.52	0.72	0.00	2.83	2.83	1.67	20.66	2.84

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	12/4/2017	12/18/2017	5	11	
2	Demo Debris Haul	Demolition	12/7/2017	12/18/2017	5	8	
3	Asphalt Demo	Demolition	12/19/2017	1/6/2018	5	14	
4	Asphalt Demo Haul	Demolition	1/1/2018	1/5/2018	5	5	
5	Site Preparation	Site Preparation	1/7/2018	1/15/2018	5	6	
6	Rough Grading	Grading	1/16/2018	1/29/2018	5	10	
7	Rough Grading Soil Haul	Grading	1/25/2018	1/29/2018	5	3	
8	Fine Grading Soil Haul	Grading	1/30/2018	2/6/2018	5	6	
9	Fine Grading	Grading	1/30/2018	2/6/2018	5	6	
10	Utility Trenching	Trenching	2/7/2018	4/4/2018	5	41	
11	Building Construction	Building Construction	5/23/2018	3/27/2019	5	221	
12	Asphalt Paving	Paving	3/6/2019	4/5/2019	5	23	
13	Finishing/Landscaping	Architectural Coating	3/6/2019	4/5/2019	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.71

Residential Indoor: 100,150; Residential Outdoor: 31,158; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Building Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demo Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Demo Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Demo Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Demo	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demo	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demo	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Asphalt Demo Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demo Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demo Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Scrapers	0	8.00	365	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	333	0.37
Rough Grading	Graders	0	6.00	187	0.41
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	2	8.00	365	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Rough Grading Soil Haul	Graders	0	6.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	6.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37

Fine Grading Soil Haul	Graders	0	6.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	6.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading	Graders	0	6.00	187	0.41
Fine Grading	Rubber Tired Dozers	0	6.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	333	0.37
Utility Trenching	Excavators	1	8.00	158	0.38
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	88	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Asphalt Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving	Graders	1	8.00	263	0.41
Asphalt Paving	Pavers	0	6.00	130	0.42
Asphalt Paving	Paving Equipment	0	8.00	132	0.36
Asphalt Paving	Rollers	1	8.00	80	0.38
Asphalt Paving	Tractors/Loaders/Backhoes	1	8.00	88	0.37
Finishing/Landscaping	Air Compressors	1	6.00	78	0.48
Finishing/Landscaping	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Demolition	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demo Debris Haul	0	0.00	0.00	262.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demo	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demo Haul	0	0.00	0.00	128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	5	13.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	115.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	111.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	43.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping	3	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Demolition - 2017
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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		641.4057
Total	0.6336	6.0877	4.7877	6.2200e-003	0.0000	0.4578	0.4578	0.0000	0.4212	0.4212		636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0185	0.5089	0.1407	1.0200e-003	0.0256	4.4400e-003	0.0300	7.3600e-003	4.2400e-003	0.0116		110.1972	110.1972	9.9300e-003		110.4455
Worker	0.0248	0.0174	0.2206	6.0000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		59.5688	59.5688	1.7300e-003		59.6121
Total	0.0433	0.5263	0.3613	1.6200e-003	0.0815	4.8100e-003	0.0863	0.0222	4.5800e-003	0.0268		169.7660	169.7660	0.0117		170.0576

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1519	3.4688	4.6841	6.2200e-003		0.2431	0.2431		0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057
Total	0.1519	3.4688	4.6841	6.2200e-003	0.0000	0.2431	0.2431	0.0000	0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0185	0.5089	0.1407	1.0200e-003	0.0239	4.4400e-003	0.0284	6.9500e-003	4.2400e-003	0.0112		110.1972	110.1972	9.9300e-003		110.4455
Worker	0.0248	0.0174	0.2206	6.0000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		59.5688	59.5688	1.7300e-003		59.6121
Total	0.0433	0.5263	0.3613	1.6200e-003	0.0754	4.8100e-003	0.0802	0.0207	4.5800e-003	0.0253		169.7660	169.7660	0.0117		170.0576

3.3 Demo Debris Haul - 2017

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	lb/day										lb/day					
Fugitive Dust					7.0082	0.0000	7.0082	1.0611	0.0000	1.0611			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
Total	0.0000	0.0000	0.0000	0.0000	7.0082	0.0000	7.0082	1.0611	0.0000	1.0611		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	lb/day										lb/day					
Hauling	0.3307	11.1534	2.4718	0.0261	0.5704	0.0629	0.6333	0.1562	0.0602	0.2163		2,878.9371	2,878.9371	0.3023		2,886.4939
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
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
Total	0.3307	11.1534	2.4718	0.0261	0.5704	0.0629	0.6333	0.1562	0.0602	0.2163		2,878.9371	2,878.9371	0.3023		2,886.4939

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	lb/day										lb/day					
Fugitive Dust					2.5965	0.0000	2.5965	0.3931	0.0000	0.3931			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
Total	0.0000	0.0000	0.0000	0.0000	2.5965	0.0000	2.5965	0.3931	0.0000	0.3931	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	lb/day										lb/day					
Hauling	0.3307	11.1534	2.4718	0.0261	0.5314	0.0629	0.5943	0.1466	0.0602	0.2068		2,878.9371	2,878.9371	0.3023		2,886.4939
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
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
Total	0.3307	11.1534	2.4718	0.0261	0.5314	0.0629	0.5943	0.1466	0.0602	0.2068		2,878.9371	2,878.9371	0.3023		2,886.4939

3.4 Asphalt Demo - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		641.4057
Total	0.6336	6.0877	4.7877	6.2200e-003	0.0000	0.4578	0.4578	0.0000	0.4212	0.4212		636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0185	0.5089	0.1407	1.0200e-003	0.0256	4.4400e-003	0.0300	7.3600e-003	4.2400e-003	0.0116		110.1972	110.1972	9.9300e-003		110.4455
Worker	0.0248	0.0174	0.2206	6.0000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		59.5688	59.5688	1.7300e-003		59.6121
Total	0.0433	0.5263	0.3613	1.6200e-003	0.0815	4.8100e-003	0.0863	0.0222	4.5800e-003	0.0268		169.7660	169.7660	0.0117		170.0576

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1519	3.4688	4.6841	6.2200e-003		0.2431	0.2431		0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057
Total	0.1519	3.4688	4.6841	6.2200e-003	0.0000	0.2431	0.2431	0.0000	0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0185	0.5089	0.1407	1.0200e-003	0.0239	4.4400e-003	0.0284	6.9500e-003	4.2400e-003	0.0112		110.1972	110.1972	9.9300e-003		110.4455
Worker	0.0248	0.0174	0.2206	6.0000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		59.5688	59.5688	1.7300e-003		59.6121
Total	0.0433	0.5263	0.3613	1.6200e-003	0.0754	4.8100e-003	0.0802	0.0207	4.5800e-003	0.0253		169.7660	169.7660	0.0117		170.0576

3.4 Asphalt Demo - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428		625.5519	625.5519	0.1947		630.4205
Total	0.5322	5.2595	4.6734	6.2100e-003	0.0000	0.3726	0.3726	0.0000	0.3428	0.3428		625.5519	625.5519	0.1947		630.4205

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0256	3.5300e-003	0.0291	7.3600e-003	3.3800e-003	0.0107		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0224	0.0152	0.1964	5.8000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		57.8338	57.8338	1.5300e-003		57.8721
Total	0.0386	0.4924	0.3244	1.5900e-003	0.0815	3.9000e-003	0.0854	0.0222	3.7200e-003	0.0259		167.5651	167.5651	0.0111		167.8415

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1519	3.4688	4.6841	6.2100e-003		0.2431	0.2431		0.2431	0.2431	0.0000	625.5519	625.5519	0.1947		630.4205
Total	0.1519	3.4688	4.6841	6.2100e-003	0.0000	0.2431	0.2431	0.0000	0.2431	0.2431	0.0000	625.5519	625.5519	0.1947		630.4205

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0239	3.5300e-003	0.0275	6.9500e-003	3.3800e-003	0.0103		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0224	0.0152	0.1964	5.8000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		57.8338	57.8338	1.5300e-003		57.8721
Total	0.0386	0.4924	0.3244	1.5900e-003	0.0754	3.9000e-003	0.0793	0.0207	3.7200e-003	0.0244		167.5651	167.5651	0.0111		167.8415

3.5 Asphalt Demo Haul - 2018
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	lb/day										lb/day					
Fugitive Dust					5.4781	0.0000	5.4781	0.8294	0.0000	0.8294			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
Total	0.0000	0.0000	0.0000	0.0000	5.4781	0.0000	5.4781	0.8294	0.0000	0.8294		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	lb/day										lb/day					
Hauling	0.2209	7.9975	1.8198	0.0201	0.4458	0.0318	0.4776	0.1221	0.0304	0.1525		2,228.0877	2,228.0877	0.2328		2,233.9069
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
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
Total	0.2209	7.9975	1.8198	0.0201	0.4458	0.0318	0.4776	0.1221	0.0304	0.1525		2,228.0877	2,228.0877	0.2328		2,233.9069

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	lb/day										lb/day					
Fugitive Dust					2.0297	0.0000	2.0297	0.3073	0.0000	0.3073			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
Total	0.0000	0.0000	0.0000	0.0000	2.0297	0.0000	2.0297	0.3073	0.0000	0.3073	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	lb/day										lb/day					
Hauling	0.2209	7.9975	1.8198	0.0201	0.4154	0.0318	0.4471	0.1146	0.0304	0.1450		2,228.0877	2,228.0877	0.2328		2,233.9069
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
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
Total	0.2209	7.9975	1.8198	0.0201	0.4154	0.0318	0.4471	0.1146	0.0304	0.1450		2,228.0877	2,228.0877	0.2328		2,233.9069

3.6 Site Preparation - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4829	5.7994	3.1411	0.0105		0.2003	0.2003		0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.4829	5.7994	3.1411	0.0105	0.0000	0.2003	0.2003	0.0000	0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0256	3.5300e-003	0.0291	7.3600e-003	3.3800e-003	0.0107		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0134	9.1300e-003	0.1178	3.5000e-004	0.0335	2.2000e-004	0.0338	8.8900e-003	2.0000e-004	9.1000e-003		34.7003	34.7003	9.2000e-004		34.7232
Total	0.0296	0.4863	0.2459	1.3600e-003	0.0591	3.7500e-003	0.0628	0.0163	3.5800e-003	0.0198		144.4316	144.4316	0.0104		144.6926

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2608	5.0415	5.6499	0.0105		0.1912	0.1912		0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.2608	5.0415	5.6499	0.0105	0.0000	0.1912	0.1912	0.0000	0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0239	3.5300e-003	0.0275	6.9500e-003	3.3800e-003	0.0103		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0134	9.1300e-003	0.1178	3.5000e-004	0.0309	2.2000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		34.7003	34.7003	9.2000e-004		34.7232
Total	0.0296	0.4863	0.2459	1.3600e-003	0.0548	3.7500e-003	0.0586	0.0152	3.5800e-003	0.0188		144.4316	144.4316	0.0104		144.6926

3.7 Rough Grading - 2018

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	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	3.9796	46.0478	26.5276	0.0449		2.0957	2.0957		1.9280	1.9280		4,518.7039	4,518.7039	1.4067		4,553.8723
Total	3.9796	46.0478	26.5276	0.0449	8.1431	2.0957	10.2387	3.5393	1.9280	5.4673		4,518.7039	4,518.7039	1.4067		4,553.8723

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0256	3.5300e-003	0.0291	7.3600e-003	3.3800e-003	0.0107		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0582	0.0396	0.5107	1.5100e-003	0.1453	9.6000e-004	0.1463	0.0385	8.8000e-004	0.0394		150.3678	150.3678	3.9800e-003		150.4674
Total	0.0744	0.5168	0.6387	2.5200e-003	0.1709	4.4900e-003	0.1754	0.0459	4.2600e-003	0.0502		260.0992	260.0992	0.0135		260.4368

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	lb/day										lb/day					
Fugitive Dust					3.0170	0.0000	3.0170	1.3113	0.0000	1.3113			0.0000			0.0000
Off-Road	1.1026	21.8491	25.2827	0.0449		0.9403	0.9403		0.9403	0.9403	0.0000	4,518.7039	4,518.7039	1.4067		4,553.8723
Total	1.1026	21.8491	25.2827	0.0449	3.0170	0.9403	3.9573	1.3113	0.9403	2.2515	0.0000	4,518.7039	4,518.7039	1.4067		4,553.8723

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0239	3.5300e-003	0.0275	6.9500e-003	3.3800e-003	0.0103		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0582	0.0396	0.5107	1.5100e-003	0.1339	9.6000e-004	0.1349	0.0358	8.8000e-004	0.0366		150.3678	150.3678	3.9800e-003		150.4674
Total	0.0744	0.5168	0.6387	2.5200e-003	0.1579	4.4900e-003	0.1624	0.0427	4.2600e-003	0.0470		260.0992	260.0992	0.0135		260.4368

3.8 Rough Grading Soil Haul - 2018

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	lb/day										lb/day					
Fugitive Dust					7.1002	0.0000	7.1002	0.7680	0.0000	0.7680			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
Total	0.0000	0.0000	0.0000	0.0000	7.1002	0.0000	7.1002	0.7680	0.0000	0.7680		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	lb/day										lb/day					
Hauling	0.3307	11.9754	2.7250	0.0301	0.6676	0.0476	0.7152	0.1828	0.0455	0.2283		3,336.3292	3,336.3292	0.3486		3,345.0429
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
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
Total	0.3307	11.9754	2.7250	0.0301	0.6676	0.0476	0.7152	0.1828	0.0455	0.2283		3,336.3292	3,336.3292	0.3486		3,345.0429

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	lb/day										lb/day					
Fugitive Dust					2.6306	0.0000	2.6306	0.2845	0.0000	0.2845			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
Total	0.0000	0.0000	0.0000	0.0000	2.6306	0.0000	2.6306	0.2845	0.0000	0.2845	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	lb/day										lb/day					
Hauling	0.3307	11.9754	2.7250	0.0301	0.6220	0.0476	0.6695	0.1716	0.0455	0.2171		3,336.3292	3,336.3292	0.3486		3,345.0429
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
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
Total	0.3307	11.9754	2.7250	0.0301	0.6220	0.0476	0.6695	0.1716	0.0455	0.2171		3,336.3292	3,336.3292	0.3486		3,345.0429

3.9 Fine Grading Soil Haul - 2018

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	lb/day										lb/day					
Fugitive Dust					3.5642	0.0000	3.5642	0.3861	0.0000	0.3861			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
Total	0.0000	0.0000	0.0000	0.0000	3.5642	0.0000	3.5642	0.3861	0.0000	0.3861		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	lb/day										lb/day					
Hauling	0.1596	5.7794	1.3151	0.0145	0.3222	0.0230	0.3451	0.0882	0.0220	0.1102		1,610.1415	1,610.1415	0.1682		1,614.3468
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
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
Total	0.1596	5.7794	1.3151	0.0145	0.3222	0.0230	0.3451	0.0882	0.0220	0.1102		1,610.1415	1,610.1415	0.1682		1,614.3468

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	lb/day										lb/day					
Fugitive Dust					1.3205	0.0000	1.3205	0.1431	0.0000	0.1431			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
Total	0.0000	0.0000	0.0000	0.0000	1.3205	0.0000	1.3205	0.1431	0.0000	0.1431	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	lb/day										lb/day					
Hauling	0.1596	5.7794	1.3151	0.0145	0.3002	0.0230	0.3231	0.0828	0.0220	0.1048		1,610.1415	1,610.1415	0.1682		1,614.3468
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
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
Total	0.1596	5.7794	1.3151	0.0145	0.3002	0.0230	0.3231	0.0828	0.0220	0.1048		1,610.1415	1,610.1415	0.1682		1,614.3468

3.10 Fine Grading - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4829	5.7994	3.1411	0.0105		0.2003	0.2003		0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.4829	5.7994	3.1411	0.0105	0.0000	0.2003	0.2003	0.0000	0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0256	3.5300e-003	0.0291	7.3600e-003	3.3800e-003	0.0107		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0134	9.1300e-003	0.1178	3.5000e-004	0.0335	2.2000e-004	0.0338	8.8900e-003	2.0000e-004	9.1000e-003		34.7003	34.7003	9.2000e-004		34.7232
Total	0.0296	0.4863	0.2459	1.3600e-003	0.0591	3.7500e-003	0.0628	0.0163	3.5800e-003	0.0198		144.4316	144.4316	0.0104		144.6926

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2608	5.0415	5.6499	0.0105		0.1912	0.1912		0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.2608	5.0415	5.6499	0.0105	0.0000	0.1912	0.1912	0.0000	0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0239	3.5300e-003	0.0275	6.9500e-003	3.3800e-003	0.0103		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0134	9.1300e-003	0.1178	3.5000e-004	0.0309	2.2000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		34.7003	34.7003	9.2000e-004		34.7232
Total	0.0296	0.4863	0.2459	1.3600e-003	0.0548	3.7500e-003	0.0586	0.0152	3.5800e-003	0.0188		144.4316	144.4316	0.0104		144.6926

3.11 Utility Trenching - 2018

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	lb/day										lb/day					
Off-Road	0.5306	5.4816	5.3956	7.9800e-003		0.3192	0.3192		0.2936	0.2936		803.3406	803.3406	0.2501		809.5928
Total	0.5306	5.4816	5.3956	7.9800e-003		0.3192	0.3192		0.2936	0.2936		803.3406	803.3406	0.2501		809.5928

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0256	3.5300e-003	0.0291	7.3600e-003	3.3800e-003	0.0107		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0224	0.0152	0.1964	5.8000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		57.8338	57.8338	1.5300e-003		57.8721
Total	0.0386	0.4924	0.3244	1.5900e-003	0.0815	3.9000e-003	0.0854	0.0222	3.7200e-003	0.0259		167.5651	167.5651	0.0111		167.8415

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	lb/day										lb/day					
Off-Road	0.1960	4.0302	6.0428	7.9800e-003		0.2289	0.2289		0.2289	0.2289	0.0000	803.3406	803.3406	0.2501		809.5928
Total	0.1960	4.0302	6.0428	7.9800e-003		0.2289	0.2289		0.2289	0.2289	0.0000	803.3406	803.3406	0.2501		809.5928

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	lb/day										lb/day					
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
Vendor	0.0162	0.4772	0.1280	1.0100e-003	0.0239	3.5300e-003	0.0275	6.9500e-003	3.3800e-003	0.0103		109.7313	109.7313	9.5200e-003		109.9694
Worker	0.0224	0.0152	0.1964	5.8000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		57.8338	57.8338	1.5300e-003		57.8721
Total	0.0386	0.4924	0.3244	1.5900e-003	0.0754	3.9000e-003	0.0793	0.0207	3.7200e-003	0.0244		167.5651	167.5651	0.0111		167.8415

3.12 Building Construction - 2018

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	lb/day										lb/day					
Off-Road	2.6339	18.1388	14.9674	0.0237		1.0777	1.0777		1.0397	1.0397		2,199.7828	2,199.7828	0.4614		2,211.3184
Total	2.6339	18.1388	14.9674	0.0237		1.0777	1.0777		1.0397	1.0397		2,199.7828	2,199.7828	0.4614		2,211.3184

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	lb/day										lb/day					
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
Vendor	0.0405	1.1929	0.3201	2.5300e-003	0.0639	8.8300e-003	0.0727	0.0184	8.4400e-003	0.0268		274.3283	274.3283	0.0238		274.9235
Worker	0.1925	0.1309	1.6891	4.9900e-003	0.4806	3.1700e-003	0.4838	0.1275	2.9300e-003	0.1304		497.3705	497.3705	0.0132		497.6998
Total	0.2330	1.3238	2.0091	7.5200e-003	0.5445	0.0120	0.5565	0.1459	0.0114	0.1572		771.6989	771.6989	0.0370		772.6233

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	lb/day										lb/day					
Off-Road	1.6897	12.9953	15.8395	0.0237		0.8316	0.8316		0.8316	0.8316	0.0000	2,199.7828	2,199.7828	0.4614		2,211.3184
Total	1.6897	12.9953	15.8395	0.0237		0.8316	0.8316		0.8316	0.8316	0.0000	2,199.7828	2,199.7828	0.4614		2,211.3184

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	lb/day										lb/day					
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
Vendor	0.0405	1.1929	0.3201	2.5300e-003	0.0598	8.8300e-003	0.0686	0.0174	8.4400e-003	0.0258		274.3283	274.3283	0.0238		274.9235
Worker	0.1925	0.1309	1.6891	4.9900e-003	0.4430	3.1700e-003	0.4462	0.1182	2.9300e-003	0.1212		497.3705	497.3705	0.0132		497.6998
Total	0.2330	1.3238	2.0091	7.5200e-003	0.5028	0.0120	0.5148	0.1356	0.0114	0.1470		771.6989	771.6989	0.0370		772.6233

3.12 Building Construction - 2019

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	lb/day										lb/day					
Off-Road	2.3128	16.6610	14.5798	0.0237		0.9326	0.9326		0.8999	0.8999		2,184.2560	2,184.2560	0.4405		2,195.2695
Total	2.3128	16.6610	14.5798	0.0237		0.9326	0.9326		0.8999	0.8999		2,184.2560	2,184.2560	0.4405		2,195.2695

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	lb/day										lb/day					
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
Vendor	0.0375	1.1348	0.3000	2.5100e-003	0.0639	7.6700e-003	0.0716	0.0184	7.3300e-003	0.0257		272.9689	272.9689	0.0230		273.5450
Worker	0.1772	0.1162	1.5340	4.8600e-003	0.4806	3.2100e-003	0.4839	0.1275	2.9600e-003	0.1304		484.2403	484.2403	0.0119		484.5380
Total	0.2147	1.2510	1.8340	7.3700e-003	0.5445	0.0109	0.5554	0.1459	0.0103	0.1561		757.2092	757.2092	0.0350		758.0829

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	lb/day										lb/day					
Off-Road	1.5200	12.8222	15.6840	0.0237		0.7900	0.7900		0.7900	0.7900	0.0000	2,184.2560	2,184.2560	0.4405		2,195.2695
Total	1.5200	12.8222	15.6840	0.0237		0.7900	0.7900		0.7900	0.7900	0.0000	2,184.2560	2,184.2560	0.4405		2,195.2695

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	lb/day										lb/day					
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
Vendor	0.0375	1.1348	0.3000	2.5100e-003	0.0598	7.6700e-003	0.0675	0.0174	7.3300e-003	0.0247		272.9689	272.9689	0.0230		273.5450
Worker	0.1772	0.1162	1.5340	4.8600e-003	0.4430	3.2100e-003	0.4462	0.1182	2.9600e-003	0.1212		484.2403	484.2403	0.0119		484.5380
Total	0.2147	1.2510	1.8340	7.3700e-003	0.5028	0.0109	0.5137	0.1356	0.0103	0.1459		757.2092	757.2092	0.0350		758.0829

3.13 Asphalt Paving - 2019

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	lb/day										lb/day					
Off-Road	1.0515	10.4813	6.9032	0.0147		0.5255	0.5255		0.4835	0.4835		1,456.4743	1,456.4743	0.4608		1,467.9947
Paving	0.0444					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0959	10.4813	6.9032	0.0147		0.5255	0.5255		0.4835	0.4835		1,456.4743	1,456.4743	0.4608		1,467.9947

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	lb/day										lb/day					
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
Vendor	7.5000e-003	0.2270	0.0600	5.0000e-004	0.0128	1.5300e-003	0.0143	3.6800e-003	1.4700e-003	5.1400e-003		54.5938	54.5938	4.6100e-003		54.7090
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	0.0405	0.2486	0.3454	1.4000e-003	0.1022	2.1300e-003	0.1043	0.0274	2.0200e-003	0.0294		144.6850	144.6850	6.8200e-003		144.8556

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	lb/day										lb/day					
Off-Road	0.3615	7.4547	9.0532	0.0147		0.3806	0.3806		0.3806	0.3806	0.0000	1,456.4743	1,456.4743	0.4608		1,467.9947
Paving	0.0444					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4059	7.4547	9.0532	0.0147		0.3806	0.3806		0.3806	0.3806	0.0000	1,456.4743	1,456.4743	0.4608		1,467.9947

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	lb/day										lb/day					
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
Vendor	7.5000e-003	0.2270	0.0600	5.0000e-004	0.0120	1.5300e-003	0.0135	3.4800e-003	1.4700e-003	4.9400e-003		54.5938	54.5938	4.6100e-003		54.7090
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0824	6.0000e-004	0.0830	0.0220	5.5000e-004	0.0226		90.0912	90.0912	2.2100e-003		90.1466
Total	0.0405	0.2486	0.3454	1.4000e-003	0.0944	2.1300e-003	0.0965	0.0255	2.0200e-003	0.0275		144.6850	144.6850	6.8200e-003		144.8556

3.14 Finishing/Landscaping - 2019

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	lb/day										lb/day					
Archit. Coating	13.2476					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7321	6.5101	6.4467	9.1800e-003		0.4409	0.4409		0.4159	0.4159		896.5318	896.5318	0.2184		901.9912
Total	13.9797	6.5101	6.4467	9.1800e-003		0.4409	0.4409		0.4159	0.4159		896.5318	896.5318	0.2184		901.9912

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	lb/day										lb/day					
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
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
Worker	0.0371	0.0243	0.3211	1.0200e-003	0.1006	6.7000e-004	0.1013	0.0267	6.2000e-004	0.0273		101.3526	101.3526	2.4900e-003		101.4149
Total	0.0371	0.0243	0.3211	1.0200e-003	0.1006	6.7000e-004	0.1013	0.0267	6.2000e-004	0.0273		101.3526	101.3526	2.4900e-003		101.4149

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	lb/day										lb/day					
Archit. Coating	13.2476					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2114	4.8258	6.5166	9.1800e-003		0.3382	0.3382		0.3382	0.3382	0.0000	896.5318	896.5318	0.2184		901.9912
Total	13.4590	4.8258	6.5166	9.1800e-003		0.3382	0.3382		0.3382	0.3382	0.0000	896.5318	896.5318	0.2184		901.9912

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	lb/day										lb/day					
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
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
Worker	0.0371	0.0243	0.3211	1.0200e-003	0.0927	6.7000e-004	0.0934	0.0248	6.2000e-004	0.0254		101.3526	101.3526	2.4900e-003		101.4149
Total	0.0371	0.0243	0.3211	1.0200e-003	0.0927	6.7000e-004	0.0934	0.0248	6.2000e-004	0.0254		101.3526	101.3526	2.4900e-003		101.4149

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	lb/day										lb/day					
Mitigated	0.4063	0.6150	5.5928	0.0177	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,766.9217	1,766.9217	0.0553		1,768.3045
Unmitigated	0.4063	0.6150	5.5928	0.0177	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,766.9217	1,766.9217	0.0553		1,768.3045

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	244.02	244.02	244.02	833,853	833,853
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	244.02	244.02	244.02	833,853	833,853

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	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
Condo/Townhouse	0.659102	0.052775	0.251916	0.020000	0.002759	0.000914	0.003855	0.002472	0.000000	0.000000	0.006208	0.000000	0.000000
Other Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Other Non-Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Parking Lot	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041

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	lb/day										lb/day					
NaturalGas Mitigated	0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605
NaturalGas Unmitigated	0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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	lb/day										lb/day					
Condo/Townhouse	2401.47	0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054
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
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
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
Total		0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054

Mitigated

	Natural Gas 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	lb/day										lb/day					
Condo/Townhouse	1.90678	0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605
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
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
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
Total		0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605

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	lb/day										lb/day					
Mitigated	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996
Unmitigated	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996

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	lb/day										lb/day					
Architectural Coating	0.0835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7737					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1069	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191		6.2460	6.2460	6.1400e-003		6.3996
Total	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996

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	lb/day										lb/day					
Architectural Coating	0.0835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7737					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1069	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191		6.2460	6.2460	6.1400e-003		6.3996
Total	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Olson St Townhomes - Orange County, Winter

Olson St Townhomes
Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	15.88	1000sqft	0.36	15,880.00	0
Other Non-Asphalt Surfaces	13.87	1000sqft	0.32	13,870.00	0
Parking Lot	1.40	1000sqft	0.03	1,404.00	0
Condo/Townhouse	42.00	Dwelling Unit	1.08	89,022.00	120

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8	Operational Year	2019		
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MW hr)	1543.28	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Added Landscaping to condo lot acreage
- Construction Phase - Based on construction request response
- Off-road Equipment - From Construction Request response
- Off-road Equipment - No equipment
- Off-road Equipment - haul Phase
- Off-road Equipment - See CalEEMod Assumptions File
- Off-road Equipment - See CalEEMod Assumptions

Off-road Equipment - See CalEEMod Assumptions

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - See CR

Off-road Equipment - Haul Phase

Off-road Equipment - See CR

Off-road Equipment - See CalEEMod Assumptions File

Trips and VMT - Water trucks, haul trips

Demolition -

Grading - See CalEEMod Assumptions

Architectural Coating - See CalEEMod Assumptions File

Vehicle Trips - See CalEEMod Assumptions

Woodstoves - no fireplaces in site plans, no wood stoves

Area Coating - 75% interior percentage painted, 70% exterior

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - SCAQMD Rule 1186, Anaheim Municipal Code

Energy Mitigation -

Water Mitigation -

Fleet Mix - See CalEEMod Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	1,869.00	84.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	60,090.00	31,158.00
tblArchitecturalCoating	ConstArea_Residential_Interior	180,270.00	100,150.00
tblAreaCoating	Area_Parking	1869	84
tblAreaCoating	Area_Residential_Exterior	60090	31158
tblAreaCoating	Area_Residential_Interior	180270	100150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	4.00	3.00

tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	PhaseEndDate	5/14/2019	4/5/2019
tblConstructionPhase	PhaseEndDate	3/11/2019	3/27/2019
tblConstructionPhase	PhaseEndDate	12/28/2017	12/18/2017
tblConstructionPhase	PhaseEndDate	1/17/2018	1/6/2018
tblConstructionPhase	PhaseEndDate	1/24/2018	1/5/2018
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tblConstructionPhase	PhaseEndDate	2/28/2018	2/6/2018
tblConstructionPhase	PhaseEndDate	3/8/2018	2/6/2018
tblConstructionPhase	PhaseEndDate	4/11/2019	4/5/2019
tblConstructionPhase	PhaseEndDate	2/1/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	5/4/2018	4/4/2018
tblConstructionPhase	PhaseStartDate	4/12/2019	3/6/2019
tblConstructionPhase	PhaseStartDate	5/5/2018	5/23/2018
tblConstructionPhase	PhaseStartDate	12/19/2017	12/7/2017
tblConstructionPhase	PhaseStartDate	12/29/2017	12/19/2017
tblConstructionPhase	PhaseStartDate	1/18/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	2/2/2018	1/16/2018
tblConstructionPhase	PhaseStartDate	2/16/2018	1/25/2018
tblConstructionPhase	PhaseStartDate	2/21/2018	1/30/2018
tblConstructionPhase	PhaseStartDate	3/1/2018	1/30/2018
tblConstructionPhase	PhaseStartDate	3/12/2019	3/6/2019
tblConstructionPhase	PhaseStartDate	1/25/2018	1/7/2018
tblConstructionPhase	PhaseStartDate	3/9/2018	2/7/2018
tblFireplaces	NumberGas	35.70	0.00
tblFireplaces	NumberNoFireplace	4.20	42.00

tblFireplaces	NumberWood	2.10	0.00
tblFleetMix	FleetMixLandUseSubType	Other Asphalt Surfaces	Condo/Townhouse
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Other Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Condo/Townhouse	Parking Lot
tblFleetMix	HHD	0.02	2.4720e-003
tblFleetMix	LDA	0.55	0.66
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	2.7590e-003
tblFleetMix	LHD2	5.7970e-003	9.1400e-004
tblFleetMix	MCY	4.8300e-003	6.2080e-003
tblFleetMix	MDV	0.12	0.02
tblFleetMix	MH	1.0410e-003	0.00
tblFleetMix	MHD	0.02	3.8550e-003
tblFleetMix	OBUS	1.6370e-003	0.00
tblFleetMix	SBUS	5.8300e-004	0.00
tblFleetMix	UBUS	1.6330e-003	0.00
tblGrading	AcresOfGrading	0.00	20.00
tblGrading	AcresOfGrading	0.00	20.00
tblGrading	MaterialExported	0.00	1,550.00
tblGrading	MaterialImported	0.00	800.00
tblLandUse	BuildingSpaceSquareFeet	1,400.00	1,404.00
tblLandUse	BuildingSpaceSquareFeet	42,000.00	89,022.00
tblLandUse	LandUseSquareFeet	1,400.00	1,404.00
tblLandUse	LandUseSquareFeet	42,000.00	89,022.00
tblLandUse	LotAcreage	2.63	1.08
tblOffRoadEquipment	HorsePower	97.00	333.00
tblOffRoadEquipment	HorsePower	97.00	88.00
tblOffRoadEquipment	HorsePower	97.00	333.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	259.00	262.00
tblTripsAndVMT	HaulingTripNumber	127.00	128.00
tblTripsAndVMT	HaulingTripNumber	100.00	115.00
tblTripsAndVMT	HaulingTripNumber	194.00	111.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	5.67	5.81
tblVehicleTrips	SU_TR	4.84	5.81
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	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	2.10	0.00
tblWoodstoves	NumberNoncatalytic	2.10	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2017	1.0200	17.9335	7.7784	0.0335	7.6600	0.5268	8.1868	1.2394	0.4871	1.7266	0.0000	3,638.6134	3,638.6134	0.5180	0.0000	3,651.5633
2018	4.4020	58.7051	30.0383	0.0770	16.0817	2.1489	18.2306	4.5359	1.9789	6.5148	0.0000	8,055.4180	8,055.4180	1.7785	0.0000	8,099.8813
2019	17.7143	35.1938	30.3066	0.0570	0.7473	1.9127	2.6601	0.1999	1.8124	2.0123	0.0000	5,496.3525	5,496.3525	1.1646	0.0000	5,525.4674
Maximum	17.7143	58.7051	30.3066	0.0770	16.0817	2.1489	18.2306	4.5359	1.9789	6.5148	0.0000	8,055.4180	8,055.4180	1.7785	0.0000	8,099.8813

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	lb/day										lb/day					
2017	0.5384	15.3145	7.6749	0.0335	3.2034	0.3120	3.5154	0.5604	0.3090	0.8694	0.0000	3,638.6134	3,638.6134	0.5180	0.0000	3,651.5633
2018	1.9489	34.5064	28.7934	0.0770	6.4274	0.9935	7.4209	1.8101	0.9912	2.8012	0.0000	8,055.4180	8,055.4180	1.7785	0.0000	8,099.8813
2019	15.7107	26.6442	33.6307	0.0570	0.6899	1.5225	2.2125	0.1859	1.5218	1.7076	0.0000	5,496.3525	5,496.3525	1.1646	0.0000	5,525.4674
Maximum	15.7107	34.5064	33.6307	0.0770	6.4274	1.5225	7.4209	1.8101	1.5218	2.8012	0.0000	8,055.4180	8,055.4180	1.7785	0.0000	8,099.8813

	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
Percent Reduction	21.34	31.63	-2.90	0.00	57.86	38.37	54.78	57.22	34.04	47.55	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996
Energy	0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054
Mobile	0.3988	0.6574	5.3120	0.0168	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,675.1095	1,675.1095	0.0542		1,676.4638
Total	2.3888	0.9190	8.8916	0.0184	1.7428	0.0499	1.7927	0.4623	0.0490	0.5113	0.0000	1,963.8819	1,963.8819	0.0657	5.1800e-003	1,967.0688

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	lb/day										lb/day					
Area	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996
Energy	0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605
Mobile	0.3988	0.6574	5.3120	0.0168	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,675.1095	1,675.1095	0.0542		1,676.4638
Total	2.3834	0.8735	8.8722	0.0181	1.7428	0.0462	1.7890	0.4623	0.0453	0.5076	0.0000	1,905.6829	1,905.6829	0.0646	4.1100e-003	1,908.5239

	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
Percent Reduction	0.22	4.96	0.22	1.58	0.00	7.37	0.21	0.00	7.51	0.72	0.00	2.96	2.96	1.70	20.66	2.98

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	12/4/2017	12/18/2017	5	11	
2	Demo Debris Haul	Demolition	12/7/2017	12/18/2017	5	8	
3	Asphalt Demo	Demolition	12/19/2017	1/6/2018	5	14	
4	Asphalt Demo Haul	Demolition	1/1/2018	1/5/2018	5	5	
5	Site Preparation	Site Preparation	1/7/2018	1/15/2018	5	6	
6	Rough Grading	Grading	1/16/2018	1/29/2018	5	10	
7	Rough Grading Soil Haul	Grading	1/25/2018	1/29/2018	5	3	
8	Fine Grading Soil Haul	Grading	1/30/2018	2/6/2018	5	6	
9	Fine Grading	Grading	1/30/2018	2/6/2018	5	6	
10	Utility Trenching	Trenching	2/7/2018	4/4/2018	5	41	
11	Building Construction	Building Construction	5/23/2018	3/27/2019	5	221	
12	Asphalt Paving	Paving	3/6/2019	4/5/2019	5	23	
13	Finishing/Landscaping	Architectural Coating	3/6/2019	4/5/2019	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.71

Residential Indoor: 100,150; Residential Outdoor: 31,158; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Building Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demo Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Demo Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Demo Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Demo	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demo	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demo	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Asphalt Demo Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demo Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demo Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Scrapers	0	8.00	365	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	333	0.37
Rough Grading	Graders	0	6.00	187	0.41
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	2	8.00	365	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Rough Grading Soil Haul	Graders	0	6.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	6.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading Soil Haul	Graders	0	6.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	6.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading	Graders	0	6.00	187	0.41
Fine Grading	Rubber Tired Dozers	0	6.00	247	0.40

Fine Grading	Tractors/Loaders/Backhoes	1	8.00	333	0.37
Utility Trenching	Excavators	1	8.00	158	0.38
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	88	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Asphalt Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving	Graders	1	8.00	263	0.41
Asphalt Paving	Pavers	0	6.00	130	0.42
Asphalt Paving	Paving Equipment	0	8.00	132	0.36
Asphalt Paving	Rollers	1	8.00	80	0.38
Asphalt Paving	Tractors/Loaders/Backhoes	1	8.00	88	0.37
Finishing/Landscaping	Air Compressors	1	6.00	78	0.48
Finishing/Landscaping	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Demolition	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demo Debris Haul	0	0.00	0.00	262.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demo	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demo Haul	0	0.00	0.00	128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	5	13.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	115.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	111.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	2	5.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	43.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping	3	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Demolition - 2017
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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		641.4057
Total	0.6336	6.0877	4.7877	6.2200e-003	0.0000	0.4578	0.4578	0.0000	0.4212	0.4212		636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0193	0.5104	0.1542	9.9000e-004	0.0256	4.5100e-003	0.0301	7.3600e-003	4.3200e-003	0.0117		107.6161	107.6161	0.0105		107.8781
Worker	0.0279	0.0191	0.2056	5.7000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.3856	56.3856	1.6500e-003		56.4268
Total	0.0472	0.5295	0.3598	1.5600e-003	0.0815	4.8800e-003	0.0863	0.0222	4.6600e-003	0.0268		164.0017	164.0017	0.0121		164.3049

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1519	3.4688	4.6841	6.2200e-003		0.2431	0.2431		0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057
Total	0.1519	3.4688	4.6841	6.2200e-003	0.0000	0.2431	0.2431	0.0000	0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0193	0.5104	0.1542	9.9000e-004	0.0239	4.5100e-003	0.0284	6.9500e-003	4.3200e-003	0.0113		107.6161	107.6161	0.0105		107.8781
Worker	0.0279	0.0191	0.2056	5.7000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		56.3856	56.3856	1.6500e-003		56.4268
Total	0.0472	0.5295	0.3598	1.5600e-003	0.0754	4.8800e-003	0.0803	0.0207	4.6600e-003	0.0254		164.0017	164.0017	0.0121		164.3049

3.3 Demo Debris Haul - 2017

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	lb/day										lb/day						
Fugitive Dust					7.0082	0.0000	7.0082	1.0611	0.0000	1.0611			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
Total	0.0000	0.0000	0.0000	0.0000	7.0082	0.0000	7.0082	1.0611	0.0000	1.0611		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	lb/day										lb/day						
Hauling	0.3393	11.3162	2.6310	0.0257	0.5704	0.0640	0.6344	0.1562	0.0613	0.2174		2,838.0818	2,838.0818	0.3108			2,845.8527
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
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
Total	0.3393	11.3162	2.6310	0.0257	0.5704	0.0640	0.6344	0.1562	0.0613	0.2174		2,838.0818	2,838.0818	0.3108			2,845.8527

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	lb/day										lb/day					
Fugitive Dust					2.5965	0.0000	2.5965	0.3931	0.0000	0.3931			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
Total	0.0000	0.0000	0.0000	0.0000	2.5965	0.0000	2.5965	0.3931	0.0000	0.3931	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	lb/day										lb/day					
Hauling	0.3393	11.3162	2.6310	0.0257	0.5314	0.0640	0.5955	0.1466	0.0613	0.2079		2,838.0818	2,838.0818	0.3108		2,845.8527
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
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
Total	0.3393	11.3162	2.6310	0.0257	0.5314	0.0640	0.5955	0.1466	0.0613	0.2079		2,838.0818	2,838.0818	0.3108		2,845.8527

3.4 Asphalt Demo - 2017

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	lb/day										lb/day						
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000				0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950			641.4057
Total	0.6336	6.0877	4.7877	6.2200e-003	0.0000	0.4578	0.4578	0.0000	0.4212	0.4212		636.5299	636.5299	0.1950			641.4057

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	lb/day										lb/day						
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
Vendor	0.0193	0.5104	0.1542	9.9000e-004	0.0256	4.5100e-003	0.0301	7.3600e-003	4.3200e-003	0.0117		107.6161	107.6161	0.0105			107.8781
Worker	0.0279	0.0191	0.2056	5.7000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.3856	56.3856	1.6500e-003			56.4268
Total	0.0472	0.5295	0.3598	1.5600e-003	0.0815	4.8800e-003	0.0863	0.0222	4.6600e-003	0.0268		164.0017	164.0017	0.0121			164.3049

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1519	3.4688	4.6841	6.2200e-003		0.2431	0.2431		0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057
Total	0.1519	3.4688	4.6841	6.2200e-003	0.0000	0.2431	0.2431	0.0000	0.2431	0.2431	0.0000	636.5299	636.5299	0.1950		641.4057

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	lb/day										lb/day					
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
Vendor	0.0193	0.5104	0.1542	9.9000e-004	0.0239	4.5100e-003	0.0284	6.9500e-003	4.3200e-003	0.0113		107.6161	107.6161	0.0105		107.8781
Worker	0.0279	0.0191	0.2056	5.7000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		56.3856	56.3856	1.6500e-003		56.4268
Total	0.0472	0.5295	0.3598	1.5600e-003	0.0754	4.8800e-003	0.0803	0.0207	4.6600e-003	0.0254		164.0017	164.0017	0.0121		164.3049

3.4 Asphalt Demo - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428		625.5519	625.5519	0.1947		630.4205
Total	0.5322	5.2595	4.6734	6.2100e-003	0.0000	0.3726	0.3726	0.0000	0.3428	0.3428		625.5519	625.5519	0.1947		630.4205

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0256	3.6000e-003	0.0292	7.3600e-003	3.4400e-003	0.0108		107.0859	107.0859	0.0100		107.3368
Worker	0.0252	0.0167	0.1824	5.5000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		54.7399	54.7399	1.4600e-003		54.7763
Total	0.0421	0.4947	0.3229	1.5400e-003	0.0815	3.9700e-003	0.0854	0.0222	3.7800e-003	0.0260		161.8258	161.8258	0.0115		162.1131

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1519	3.4688	4.6841	6.2100e-003		0.2431	0.2431		0.2431	0.2431	0.0000	625.5519	625.5519	0.1947		630.4205
Total	0.1519	3.4688	4.6841	6.2100e-003	0.0000	0.2431	0.2431	0.0000	0.2431	0.2431	0.0000	625.5519	625.5519	0.1947		630.4205

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0239	3.6000e-003	0.0275	6.9500e-003	3.4400e-003	0.0104		107.0859	107.0859	0.0100		107.3368
Worker	0.0252	0.0167	0.1824	5.5000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		54.7399	54.7399	1.4600e-003		54.7763
Total	0.0421	0.4947	0.3229	1.5400e-003	0.0754	3.9700e-003	0.0794	0.0207	3.7800e-003	0.0245		161.8258	161.8258	0.0115		162.1131

3.5 Asphalt Demo Haul - 2018
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	lb/day										lb/day					
Fugitive Dust					5.4781	0.0000	5.4781	0.8294	0.0000	0.8294			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
Total	0.0000	0.0000	0.0000	0.0000	5.4781	0.0000	5.4781	0.8294	0.0000	0.8294		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	lb/day										lb/day					
Hauling	0.2269	8.1046	1.9341	0.0198	0.4458	0.0325	0.4783	0.1221	0.0311	0.1532		2,195.3477	2,195.3477	0.2391		2,201.3243
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
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
Total	0.2269	8.1046	1.9341	0.0198	0.4458	0.0325	0.4783	0.1221	0.0311	0.1532		2,195.3477	2,195.3477	0.2391		2,201.3243

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	lb/day										lb/day					
Fugitive Dust					2.0297	0.0000	2.0297	0.3073	0.0000	0.3073			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
Total	0.0000	0.0000	0.0000	0.0000	2.0297	0.0000	2.0297	0.3073	0.0000	0.3073	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	lb/day										lb/day					
Hauling	0.2269	8.1046	1.9341	0.0198	0.4154	0.0325	0.4479	0.1146	0.0311	0.1457		2,195.3477	2,195.3477	0.2391		2,201.3243
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
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
Total	0.2269	8.1046	1.9341	0.0198	0.4154	0.0325	0.4479	0.1146	0.0311	0.1457		2,195.3477	2,195.3477	0.2391		2,201.3243

3.6 Site Preparation - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4829	5.7994	3.1411	0.0105		0.2003	0.2003		0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.4829	5.7994	3.1411	0.0105	0.0000	0.2003	0.2003	0.0000	0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0256	3.6000e-003	0.0292	7.3600e-003	3.4400e-003	0.0108		107.0859	107.0859	0.0100		107.3368
Worker	0.0151	0.0100	0.1094	3.3000e-004	0.0335	2.2000e-004	0.0338	8.8900e-003	2.0000e-004	9.1000e-003		32.8439	32.8439	8.7000e-004		32.8658
Total	0.0320	0.4880	0.2500	1.3200e-003	0.0591	3.8200e-003	0.0629	0.0163	3.6400e-003	0.0199		139.9298	139.9298	0.0109		140.2026

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2608	5.0415	5.6499	0.0105		0.1912	0.1912		0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.2608	5.0415	5.6499	0.0105	0.0000	0.1912	0.1912	0.0000	0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0239	3.6000e-003	0.0275	6.9500e-003	3.4400e-003	0.0104		107.0859	107.0859	0.0100		107.3368
Worker	0.0151	0.0100	0.1094	3.3000e-004	0.0309	2.2000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		32.8439	32.8439	8.7000e-004		32.8658
Total	0.0320	0.4880	0.2500	1.3200e-003	0.0548	3.8200e-003	0.0586	0.0152	3.6400e-003	0.0188		139.9298	139.9298	0.0109		140.2026

3.7 Rough Grading - 2018

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	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	3.9796	46.0478	26.5276	0.0449		2.0957	2.0957		1.9280	1.9280		4,518.7039	4,518.7039	1.4067		4,553.8723
Total	3.9796	46.0478	26.5276	0.0449	8.1431	2.0957	10.2387	3.5393	1.9280	5.4673		4,518.7039	4,518.7039	1.4067		4,553.8723

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0256	3.6000e-003	0.0292	7.3600e-003	3.4400e-003	0.0108		107.0859	107.0859	0.0100		107.3368
Worker	0.0656	0.0435	0.4741	1.4300e-003	0.1453	9.6000e-004	0.1463	0.0385	8.8000e-004	0.0394		142.3237	142.3237	3.7800e-003		142.4183
Total	0.0825	0.5214	0.6147	2.4200e-003	0.1709	4.5600e-003	0.1754	0.0459	4.3200e-003	0.0502		249.4096	249.4096	0.0138		249.7551

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	lb/day										lb/day						
Fugitive Dust					3.0170	0.0000	3.0170	1.3113	0.0000	1.3113			0.0000				0.0000
Off-Road	1.1026	21.8491	25.2827	0.0449		0.9403	0.9403		0.9403	0.9403	0.0000	4,518.7039	4,518.7039	1.4067			4,553.8723
Total	1.1026	21.8491	25.2827	0.0449	3.0170	0.9403	3.9573	1.3113	0.9403	2.2515	0.0000	4,518.7039	4,518.7039	1.4067			4,553.8723

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	lb/day										lb/day						
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0239	3.6000e-003	0.0275	6.9500e-003	3.4400e-003	0.0104		107.0859	107.0859	0.0100			107.3368
Worker	0.0656	0.0435	0.4741	1.4300e-003	0.1339	9.6000e-004	0.1349	0.0358	8.8000e-004	0.0366		142.3237	142.3237	3.7800e-003			142.4183
Total	0.0825	0.5214	0.6147	2.4200e-003	0.1579	4.5600e-003	0.1624	0.0427	4.3200e-003	0.0470		249.4096	249.4096	0.0138			249.7551

3.8 Rough Grading Soil Haul - 2018

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	lb/day										lb/day						
Fugitive Dust					7.1002	0.0000	7.1002	0.7680	0.0000	0.7680			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
Total	0.0000	0.0000	0.0000	0.0000	7.1002	0.0000	7.1002	0.7680	0.0000	0.7680		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	lb/day										lb/day						
Hauling	0.3398	12.1359	2.8961	0.0297	0.6676	0.0487	0.7162	0.1828	0.0466	0.2293		3,287.3045	3,287.3045	0.3580			3,296.2539
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
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
Total	0.3398	12.1359	2.8961	0.0297	0.6676	0.0487	0.7162	0.1828	0.0466	0.2293		3,287.3045	3,287.3045	0.3580			3,296.2539

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	lb/day										lb/day					
Fugitive Dust					2.6306	0.0000	2.6306	0.2845	0.0000	0.2845			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
Total	0.0000	0.0000	0.0000	0.0000	2.6306	0.0000	2.6306	0.2845	0.0000	0.2845	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	lb/day										lb/day					
Hauling	0.3398	12.1359	2.8961	0.0297	0.6220	0.0487	0.6706	0.1716	0.0466	0.2181		3,287.3045	3,287.3045	0.3580		3,296.2539
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
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
Total	0.3398	12.1359	2.8961	0.0297	0.6220	0.0487	0.6706	0.1716	0.0466	0.2181		3,287.3045	3,287.3045	0.3580		3,296.2539

3.9 Fine Grading Soil Haul - 2018

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	lb/day										lb/day					
Fugitive Dust					3.5642	0.0000	3.5642	0.3861	0.0000	0.3861			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
Total	0.0000	0.0000	0.0000	0.0000	3.5642	0.0000	3.5642	0.3861	0.0000	0.3861		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	lb/day										lb/day					
Hauling	0.1640	5.8569	1.3977	0.0143	0.3222	0.0235	0.3457	0.0882	0.0225	0.1107		1,586.4817	1,586.4817	0.1728		1,590.8008
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
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
Total	0.1640	5.8569	1.3977	0.0143	0.3222	0.0235	0.3457	0.0882	0.0225	0.1107		1,586.4817	1,586.4817	0.1728		1,590.8008

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	lb/day										lb/day					
Fugitive Dust					1.3205	0.0000	1.3205	0.1431	0.0000	0.1431			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
Total	0.0000	0.0000	0.0000	0.0000	1.3205	0.0000	1.3205	0.1431	0.0000	0.1431	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	lb/day										lb/day					
Hauling	0.1640	5.8569	1.3977	0.0143	0.3002	0.0235	0.3237	0.0828	0.0225	0.1053		1,586.4817	1,586.4817	0.1728		1,590.8008
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
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
Total	0.1640	5.8569	1.3977	0.0143	0.3002	0.0235	0.3237	0.0828	0.0225	0.1053		1,586.4817	1,586.4817	0.1728		1,590.8008

3.10 Fine Grading - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4829	5.7994	3.1411	0.0105		0.2003	0.2003		0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.4829	5.7994	3.1411	0.0105	0.0000	0.2003	0.2003	0.0000	0.1843	0.1843		1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0256	3.6000e-003	0.0292	7.3600e-003	3.4400e-003	0.0108		107.0859	107.0859	0.0100		107.3368
Worker	0.0151	0.0100	0.1094	3.3000e-004	0.0335	2.2000e-004	0.0338	8.8900e-003	2.0000e-004	9.1000e-003		32.8439	32.8439	8.7000e-004		32.8658
Total	0.0320	0.4880	0.2500	1.3200e-003	0.0591	3.8200e-003	0.0629	0.0163	3.6400e-003	0.0199		139.9298	139.9298	0.0109		140.2026

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2608	5.0415	5.6499	0.0105		0.1912	0.1912		0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667
Total	0.2608	5.0415	5.6499	0.0105	0.0000	0.1912	0.1912	0.0000	0.1912	0.1912	0.0000	1,056.7422	1,056.7422	0.3290		1,064.9667

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0239	3.6000e-003	0.0275	6.9500e-003	3.4400e-003	0.0104		107.0859	107.0859	0.0100		107.3368
Worker	0.0151	0.0100	0.1094	3.3000e-004	0.0309	2.2000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		32.8439	32.8439	8.7000e-004		32.8658
Total	0.0320	0.4880	0.2500	1.3200e-003	0.0548	3.8200e-003	0.0586	0.0152	3.6400e-003	0.0188		139.9298	139.9298	0.0109		140.2026

3.11 Utility Trenching - 2018

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	lb/day										lb/day					
Off-Road	0.5306	5.4816	5.3956	7.9800e-003		0.3192	0.3192		0.2936	0.2936		803.3406	803.3406	0.2501		809.5928
Total	0.5306	5.4816	5.3956	7.9800e-003		0.3192	0.3192		0.2936	0.2936		803.3406	803.3406	0.2501		809.5928

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0256	3.6000e-003	0.0292	7.3600e-003	3.4400e-003	0.0108		107.0859	107.0859	0.0100		107.3368
Worker	0.0252	0.0167	0.1824	5.5000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		54.7399	54.7399	1.4600e-003		54.7763
Total	0.0421	0.4947	0.3229	1.5400e-003	0.0815	3.9700e-003	0.0854	0.0222	3.7800e-003	0.0260		161.8258	161.8258	0.0115		162.1131

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	lb/day										lb/day					
Off-Road	0.1960	4.0302	6.0428	7.9800e-003		0.2289	0.2289		0.2289	0.2289	0.0000	803.3406	803.3406	0.2501		809.5928
Total	0.1960	4.0302	6.0428	7.9800e-003		0.2289	0.2289		0.2289	0.2289	0.0000	803.3406	803.3406	0.2501		809.5928

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	lb/day										lb/day					
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
Vendor	0.0169	0.4779	0.1405	9.9000e-004	0.0239	3.6000e-003	0.0275	6.9500e-003	3.4400e-003	0.0104		107.0859	107.0859	0.0100		107.3368
Worker	0.0252	0.0167	0.1824	5.5000e-004	0.0515	3.7000e-004	0.0519	0.0138	3.4000e-004	0.0141		54.7399	54.7399	1.4600e-003		54.7763
Total	0.0421	0.4947	0.3229	1.5400e-003	0.0754	3.9700e-003	0.0794	0.0207	3.7800e-003	0.0245		161.8258	161.8258	0.0115		162.1131

3.12 Building Construction - 2018

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	lb/day										lb/day					
Off-Road	2.6339	18.1388	14.9674	0.0237		1.0777	1.0777		1.0397	1.0397		2,199.7828	2,199.7828	0.4614		2,211.3184
Total	2.6339	18.1388	14.9674	0.0237		1.0777	1.0777		1.0397	1.0397		2,199.7828	2,199.7828	0.4614		2,211.3184

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	lb/day										lb/day					
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
Vendor	0.0423	1.1948	0.3513	2.4700e-003	0.0639	8.9900e-003	0.0729	0.0184	8.6000e-003	0.0270		267.7147	267.7147	0.0251		268.3421
Worker	0.2169	0.1439	1.5683	4.7200e-003	0.4806	3.1700e-003	0.4838	0.1275	2.9300e-003	0.1304		470.7629	470.7629	0.0125		471.0758
Total	0.2592	1.3387	1.9196	7.1900e-003	0.5445	0.0122	0.5567	0.1459	0.0115	0.1574		738.4776	738.4776	0.0376		739.4179

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	lb/day										lb/day					
Off-Road	1.6897	12.9953	15.8395	0.0237		0.8316	0.8316		0.8316	0.8316	0.0000	2,199.7828	2,199.7828	0.4614		2,211.3184
Total	1.6897	12.9953	15.8395	0.0237		0.8316	0.8316		0.8316	0.8316	0.0000	2,199.7828	2,199.7828	0.4614		2,211.3184

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	lb/day										lb/day					
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
Vendor	0.0423	1.1948	0.3513	2.4700e-003	0.0598	8.9900e-003	0.0688	0.0174	8.6000e-003	0.0260		267.7147	267.7147	0.0251		268.3421
Worker	0.2169	0.1439	1.5683	4.7200e-003	0.4430	3.1700e-003	0.4462	0.1182	2.9300e-003	0.1212		470.7629	470.7629	0.0125		471.0758
Total	0.2592	1.3387	1.9196	7.1900e-003	0.5028	0.0122	0.5150	0.1356	0.0115	0.1471		738.4776	738.4776	0.0376		739.4179

3.12 Building Construction - 2019

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	lb/day										lb/day					
Off-Road	2.3128	16.6610	14.5798	0.0237		0.9326	0.9326		0.8999	0.8999		2,184.2560	2,184.2560	0.4405		2,195.2695
Total	2.3128	16.6610	14.5798	0.0237		0.9326	0.9326		0.8999	0.8999		2,184.2560	2,184.2560	0.4405		2,195.2695

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	lb/day										lb/day					
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
Vendor	0.0391	1.1360	0.3294	2.4500e-003	0.0639	7.8100e-003	0.0717	0.0184	7.4700e-003	0.0259		266.3551	266.3551	0.0243		266.9616
Worker	0.1999	0.1277	1.4202	4.6000e-003	0.4806	3.2100e-003	0.4839	0.1275	2.9600e-003	0.1304		458.2827	458.2827	0.0113		458.5650
Total	0.2390	1.2637	1.7496	7.0500e-003	0.5445	0.0110	0.5556	0.1459	0.0104	0.1563		724.6378	724.6378	0.0356		725.5266

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	lb/day										lb/day					
Off-Road	1.5200	12.8222	15.6840	0.0237		0.7900	0.7900		0.7900	0.7900	0.0000	2,184.2560	2,184.2560	0.4405		2,195.2695
Total	1.5200	12.8222	15.6840	0.0237		0.7900	0.7900		0.7900	0.7900	0.0000	2,184.2560	2,184.2560	0.4405		2,195.2695

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	lb/day										lb/day					
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
Vendor	0.0391	1.1360	0.3294	2.4500e-003	0.0598	7.8100e-003	0.0676	0.0174	7.4700e-003	0.0249		266.3551	266.3551	0.0243		266.9616
Worker	0.1999	0.1277	1.4202	4.6000e-003	0.4430	3.2100e-003	0.4462	0.1182	2.9600e-003	0.1212		458.2827	458.2827	0.0113		458.5650
Total	0.2390	1.2637	1.7496	7.0500e-003	0.5028	0.0110	0.5138	0.1356	0.0104	0.1460		724.6378	724.6378	0.0356		725.5266

3.13 Asphalt Paving - 2019

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	lb/day										lb/day					
Off-Road	1.0515	10.4813	6.9032	0.0147		0.5255	0.5255		0.4835	0.4835		1,456.4743	1,456.4743	0.4608		1,467.9947
Paving	0.0444					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0959	10.4813	6.9032	0.0147		0.5255	0.5255		0.4835	0.4835		1,456.4743	1,456.4743	0.4608		1,467.9947

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	lb/day										lb/day					
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
Vendor	7.8200e-003	0.2272	0.0659	4.9000e-004	0.0128	1.5600e-003	0.0143	3.6800e-003	1.4900e-003	5.1700e-003		53.2710	53.2710	4.8500e-003		53.3923
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	0.0450	0.2510	0.3301	1.3500e-003	0.1022	2.1600e-003	0.1044	0.0274	2.0400e-003	0.0294		138.5329	138.5329	6.9500e-003		138.7067

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	lb/day										lb/day					
Off-Road	0.3615	7.4547	9.0532	0.0147		0.3806	0.3806		0.3806	0.3806	0.0000	1,456.4743	1,456.4743	0.4608		1,467.9947
Paving	0.0444					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4059	7.4547	9.0532	0.0147		0.3806	0.3806		0.3806	0.3806	0.0000	1,456.4743	1,456.4743	0.4608		1,467.9947

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	lb/day										lb/day					
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
Vendor	7.8200e-003	0.2272	0.0659	4.9000e-004	0.0120	1.5600e-003	0.0135	3.4800e-003	1.4900e-003	4.9700e-003		53.2710	53.2710	4.8500e-003		53.3923
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0824	6.0000e-004	0.0830	0.0220	5.5000e-004	0.0226		85.2619	85.2619	2.1000e-003		85.3144
Total	0.0450	0.2510	0.3301	1.3500e-003	0.0944	2.1600e-003	0.0965	0.0255	2.0400e-003	0.0275		138.5329	138.5329	6.9500e-003		138.7067

3.14 Finishing/Landscaping - 2019

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	lb/day										lb/day					
Archit. Coating	13.2476					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7321	6.5101	6.4467	9.1800e-003		0.4409	0.4409		0.4159	0.4159		896.5318	896.5318	0.2184		901.9912
Total	13.9797	6.5101	6.4467	9.1800e-003		0.4409	0.4409		0.4159	0.4159		896.5318	896.5318	0.2184		901.9912

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	lb/day										lb/day					
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
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
Worker	0.0419	0.0267	0.2973	9.6000e-004	0.1006	6.7000e-004	0.1013	0.0267	6.2000e-004	0.0273		95.9196	95.9196	2.3600e-003		95.9787
Total	0.0419	0.0267	0.2973	9.6000e-004	0.1006	6.7000e-004	0.1013	0.0267	6.2000e-004	0.0273		95.9196	95.9196	2.3600e-003		95.9787

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	lb/day										lb/day					
Archit. Coating	13.2476					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2114	4.8258	6.5166	9.1800e-003		0.3382	0.3382		0.3382	0.3382	0.0000	896.5318	896.5318	0.2184		901.9912
Total	13.4590	4.8258	6.5166	9.1800e-003		0.3382	0.3382		0.3382	0.3382	0.0000	896.5318	896.5318	0.2184		901.9912

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	lb/day										lb/day					
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
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
Worker	0.0419	0.0267	0.2973	9.6000e-004	0.0927	6.7000e-004	0.0934	0.0248	6.2000e-004	0.0254		95.9196	95.9196	2.3600e-003		95.9787
Total	0.0419	0.0267	0.2973	9.6000e-004	0.0927	6.7000e-004	0.0934	0.0248	6.2000e-004	0.0254		95.9196	95.9196	2.3600e-003		95.9787

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	lb/day										lb/day					
Mitigated	0.3988	0.6574	5.3120	0.0168	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,675.1095	1,675.1095	0.0542		1,676.4638
Unmitigated	0.3988	0.6574	5.3120	0.0168	1.7428	0.0129	1.7557	0.4623	0.0120	0.4743		1,675.1095	1,675.1095	0.0542		1,676.4638

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	244.02	244.02	244.02	833,853	833,853
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	244.02	244.02	244.02	833,853	833,853

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	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
Condo/Townhouse	0.659102	0.052775	0.251916	0.020000	0.002759	0.000914	0.003855	0.002472	0.000000	0.000000	0.006208	0.000000	0.000000
Other Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Other Non-Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Parking Lot	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041

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	lb/day										lb/day					
NaturalGas Mitigated	0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605
NaturalGas Unmitigated	0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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	lb/day										lb/day					
Condo/Townhouse	2401.47	0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054
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
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
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
Total		0.0259	0.2213	0.0942	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.5265	282.5265	5.4200e-003	5.1800e-003	284.2054

Mitigated

	Natural Gas 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	lb/day										lb/day					
Condo/Townhouse	1.90678	0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605
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
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
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
Total		0.0206	0.1757	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.3274	224.3274	4.3000e-003	4.1100e-003	225.6605

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	lb/day										lb/day					
Mitigated	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996
Unmitigated	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996

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	lb/day										lb/day					
Architectural Coating	0.0835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7737					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1069	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191		6.2460	6.2460	6.1400e-003		6.3996
Total	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996

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	lb/day										lb/day					
Architectural Coating	0.0835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7737					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1069	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191		6.2460	6.2460	6.1400e-003		6.3996
Total	1.9641	0.0404	3.4854	1.8000e-004		0.0191	0.0191		0.0191	0.0191	0.0000	6.2460	6.2460	6.1400e-003	0.0000	6.3996

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Construction Localized Significance Thresholds: Building Demo, Asphalt Demo, Fine Grading, Trenching, Building Construction, Architectural Coating

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.00	25	82

Source Receptor	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
Distance (meters)	25	Tractors	0.5	0.0625	2	8	1
NOx	81	Graders	0.5	0.0625			0
CO	485	Dozers	0.5	0.0625			0
PM10	4.00	Scrapers	1	0.125			0
PM2.5	3.00						
					Acres - Based on Equipment		1.00
					Site Acreage:		1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	1	81	83	98	123	192
	1	81	83	98	123	192
CO	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
PM10	1	4	12	28	60	158
	1	4	12	28	60	158
	1	4	12	28	60	158
PM2.5	1	3	4	9	22	85
	1	3	4	9	22	85
	1	3	4	9	22	85

Central Orange County						
1.00 Acres						
	25	50	100	200	500	
NOx	81	83	98	123	192	
CO	485	753	1128	2109	6841	
PM10	4	12	28	60	158	
PM2.5	3	4	9	22	85	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Demo, Asphalt Demo, Fine Grading, Trenching, Building Construction, Architectural Coating

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.00	27	90

Source Receptor	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
Distance (meters)	27	Tractors	0.5	0.0625	2	8	1
		Graders	0.5	0.0625			0
		Dozers	0.5	0.0625			0
		Scrapers	1	0.125			0
					Acres - Based on Equipment		1.00
					Site Acreage:		1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	1	81	83	98	123	192
	1	81	83	98	123	192
CO	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
PM10	1	4	12	28	60	158
	1	4	12	28	60	158
	1	4	12	28	60	158
PM2.5	1	3	4	9	22	85
	1	3	4	9	22	85
	1	3	4	9	22	85
Central Orange County						
	1.00 Acres	25	50	100	200	500
NOx	81	83	98	123	192	
CO	485	753	1128	2109	6841	
PM10	4	12	28	60	158	
PM2.5	3	4	9	22	85	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	1
Distance Increment Below			
25			
Distance Increment Above			
50			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Paving

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.00	25	82

Source Receptor	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
Distance (meters)	25	Tractors	0.5	0.0625	1	8	0.5
NOx	81	Graders	0.5	0.0625	1	8	0.5
CO	485	Dozers	0.5	0.0625			0
PM10	4.00	Scrapers	1	0.125			0
PM2.5	3.00						0
Acres - Based on Equipment							1.00
Site Acreage:							1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	1	81	83	98	123	192
CO	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
PM10	1	4	12	28	60	158
	1	4	12	28	60	158
PM2.5	1	3	4	9	22	85
	1	3	4	9	22	85
Central Orange County						
1.00 Acres						
NOx	25	50	100	200	500	
CO	81	83	98	123	192	
PM10	485	753	1128	2109	6841	
PM2.5	4	12	28	60	158	
	3	4	9	22	85	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Rough Grading

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.80	25	82

Source Receptor	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
Distance (meters)	25	Tractors	0.5	0.0625	2	8	1
NOx	108	Graders	0.5	0.0625			0
CO	669	Dozers	0.5	0.0625	1	8	0.5
PM10	5.60	Scrapers	1	0.125	2	8	2
PM2.5	3.80						
					Acres - Based on Equipment		3.50
					Site Acreage:		1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	2	115	114	125	148	205
CO	1	108	108	120	143	202
	2	485	753	1128	2109	6841
		715	1041	1547	2685	7493
PM10	1	669	983	1463	2570	7363
	2	4	12	28	60	158
		6	19	35	68	166
PM2.5	1	6	18	34	66	164
	2	3	4	9	22	85
		4	6	11	25	92
		4	6	11	24	91

Central Orange County	1.80 Acres	25	50	100	200	500
NOx	108	108	120	143	202	
CO	669	983	1463	2570	7363	
PM10	6	18	34	66	164	
PM2.5	4	6	11	24	91	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Paving

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.00	27	90

Source Receptor Distance (meters)	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
27		Tractors	0.5	0.0625	1	8	0.5
		Graders	0.5	0.0625	1	8	0.5
		Dozers	0.5	0.0625			0
PM10	4.78	Scrapers	1	0.125			0
PM2.5	3.10						0
Acres - Based on Equipment							1.00
Site Acreage:							1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	1	81	83	98	123	192
CO	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
PM10	1	4	12	28	60	158
	1	4	12	28	60	158
PM2.5	1	3	4	9	22	85
	1	3	4	9	22	85
Central Orange County						
1.00 Acres						
NOx	25	50	100	200	500	
CO	81	83	98	123	192	
PM10	485	753	1128	2109	6841	
PM2.5	4	12	28	60	158	
	3	4	9	22	85	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	1
Distance Increment Below			
25			
Distance Increment Above			
50			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Rough Grading

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.80	27	90

Source Receptor Distance (meters)	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
	27	Tractors	0.5	0.0625	2	8	1
		Graders	0.5	0.0625			0
		Dozers	0.5	0.0625	1	8	0.5
		Scrapers	1	0.125	2	8	2
					Acres - Based on Equipment		3.50
					Site Acreage:		1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	2	115	114	125	148	205
CO	1	485	753	1128	2109	6841
	2	715	1041	1547	2685	7493
PM10	1	669	983	1463	2570	7363
	2	4	12	28	60	158
PM2.5	1	6	19	35	68	166
	2	6	18	34	66	164
PM2.5	1	3	4	9	22	85
	2	4	6	11	25	92
		4	6	11	24	91

Central Orange County		25	50	100	200	500
1.80 Acres						
NOx	108	108	120	143	202	
CO	669	983	1463	2570	7363	
PM10	6	18	34	66	164	
PM2.5	4	6	11	24	91	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	2
Distance Increment Below			
25			
Distance Increment Above			
50			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Paving

SRA No.	Acres	Source Receptor	
		Distance (meters)	Source Receptor Distance (Feet)
17	1.00	25	82

Source Receptor	Central Orange County	Equipment	Acres/8-hr Day	Acres/Hr	Equipment Used	Number of Hrs	Acres
Distance (meters)	25	Tractors	0.5	0.0625	1	8	0.5
NOx	81	Graders	0.5	0.0625	1	8	0.5
CO	485	Dozers	0.5	0.0625			0
PM10	4.00	Scrapers	1	0.125			0
PM2.5	3.00						0
Acres - Based on Equipment							1.00
Site Acreage:							1.8

	Acres	25	50	100	200	500
NOx	1	81	83	98	123	192
	1	81	83	98	123	192
CO	1	485	753	1128	2109	6841
	1	485	753	1128	2109	6841
PM10	1	4	12	28	60	158
	1	4	12	28	60	158
PM2.5	1	3	4	9	22	85
	1	3	4	9	22	85
Central Orange County						
1.00 Acres						
NOx	25	50	100	200	500	
CO	81	83	98	123	192	
PM10	485	753	1128	2109	6841	
PM2.5	4	12	28	60	158	
	3	4	9	22	85	

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
17	1	17	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Operation Localized Significance Thresholds

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
3	0.84	27	90

Source Receptor Distance (meters) Southwest Coastal LA County 27

PM10 1.29
PM2.5 1.10

	Acres	25	50	100	200	500
NOx	1	91	93	107	139	218
	1	91	93	107	139	218
	1	91	93	107	139	218
CO	1	664	785	1156	2228	7269
	1	664	785	1156	2228	7269
	1	664	785	1156	2228	7269
PM10	1	1	4	7	14	34
	1	1	4	7	14	34
	1	1	4	7	14	34
PM2.5	1	1	2	3	5	18
	1	1	2	3	5	18
	1	1	2	3	5	18

Southwest Coastal LA County

0.84 Acres

	25	50	100	200	500
NOx	91	93	107	139	218
CO	664	785	1156	2228	7269
PM10	1	4	7	14	34
PM2.5	1	2	3	5	18

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
3	1	3	1
Distance Increment Below			
25			
Distance Increment Above			
50			

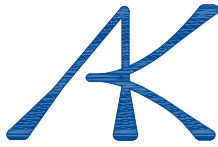
Updated: 10/21/2010 - Table C-1. 2006 – 2008

Appendix

Appendix B Geotechnical Report

Appendix

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ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

August 11, 2016
J.N.: 2523.00

Ms. Sandra Gottlieb
The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740

Subject: **Geotechnical Due-Diligence Investigation, Proposed Multi-Family Residential Development, 711 S. East Street, Anaheim, California.**


Dear Ms. Gottlieb

Albus-Keefe & Associates, Inc. is pleased to present to you our geotechnical due-diligence report for the proposed residential development at the subject site. This report presents the results of our historical aerial photographs and literature review, subsurface exploration, laboratory testing, and engineering analyses. Conclusions relevant to the feasibility of the proposed site development are also presented herein based on the findings of our work.

We appreciate this opportunity to be of service to you. If you have any questions regarding the contents of this report, please do not hesitate to call.

Sincerely,

ALBUS-KEEFE & ASSOCIATES, INC.



Patrick M. Keefe
Principal Engineering Geologist

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APPENDIX A - Exploratory Logs

Boring Logs - Plates A-1 through A-5

APPENDIX B - Laboratory Test Program

Table B - Summary of Laboratory Test Results

Plates B-1 – Grain-Size Distribution Plots

Plate B-2 – Direct Shear Plot

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

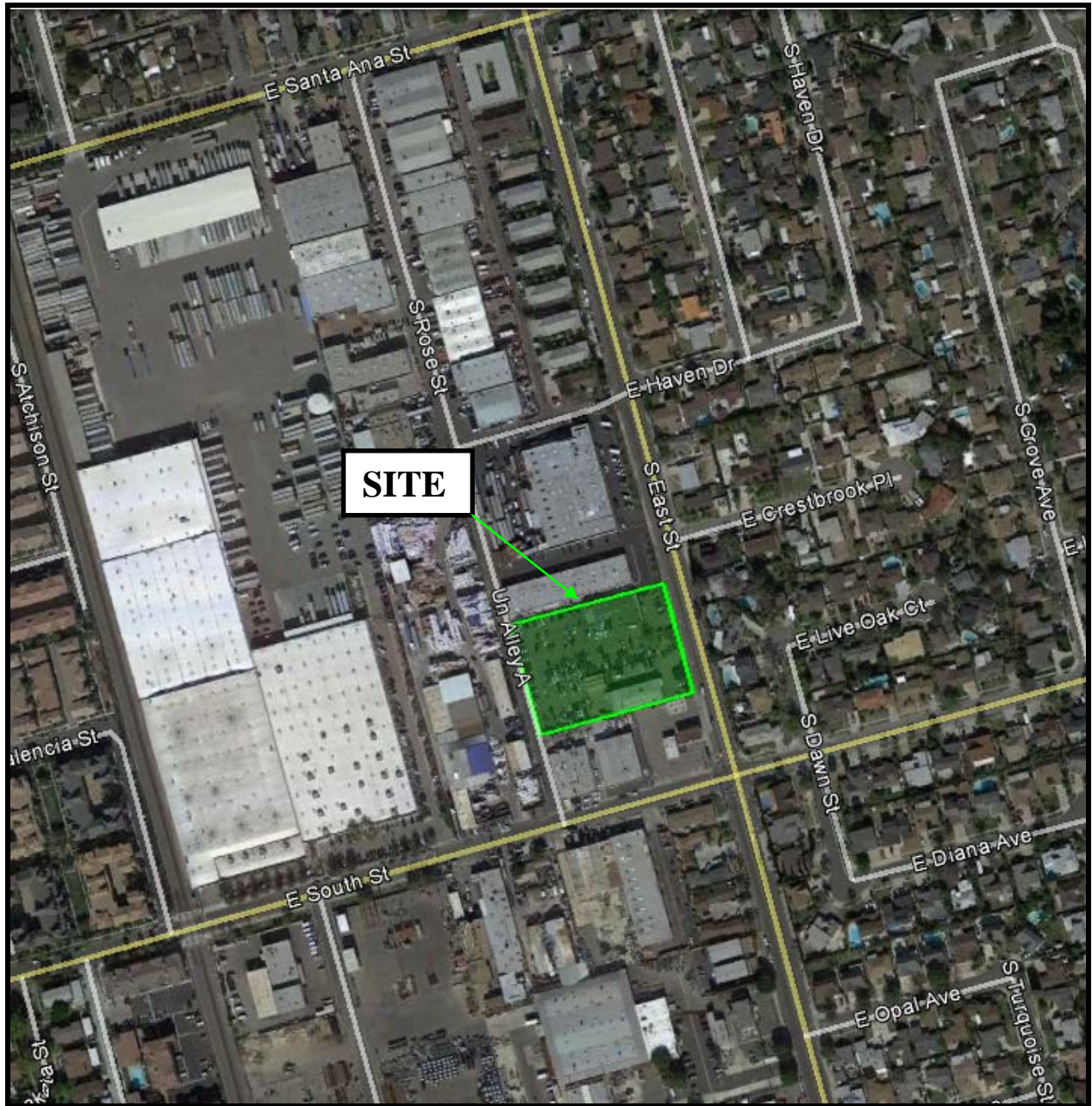
The purpose of our work was to evaluate the feasibility of proposed site development in order to assist you in your land acquisition evaluation and due-diligence review. The scope of our work for this investigation was focused primarily on the geotechnical issues that we expect to have significant fiscal impacts on future site development. *While this report is comprehensive for the intended purpose, it is not intended for final design purposes. As such, additional geotechnical studies may be warranted based on our review of future rough grading plans and foundation plans.* The scope of our geotechnical due-diligence work included the following:

- Review of available historical aerial photographs for the site and surrounding area
- Review of published geologic and seismic data for the site and surrounding area
- Exploratory drilling and soil sampling
- Laboratory testing of selected soil samples
- Engineering analyses of data obtained from exploration and laboratory testing
- Evaluation of site seismicity, liquefaction potential, settlement potential
- Preparation of this report

1.2 SITE LOCATION AND DESCRIPTION

The site is located at 711 S. East Street within the city of Anaheim, California. The property is bordered by a commercial/warehouse building to the north, S. East Street to the east, a gas station to the southeast, two commercial/office buildings to the southwest, and an alleyway (Un Alley A) to the west. The location of the site and its relationship to the surrounding areas is shown on Figure 1, Site Location Map.

The rectangular-shaped site comprises approximately 1.8-acres of land. The northern and southwest portions of the site are currently occupied by a used auto auction, Quartz Dealer Direct. Improvements associated with the auto auction include a main office/sales building, asphalt paved parking areas and drive aisles, and various light poles. The rear portion of the main office/sales building is used as auto maintenance/repair workshop and has a concrete-paved driveway. The southeast portion of the site is currently occupied by a screen printing and sign making company, McLogan Supply Company. Improvements associated with McLogan Supply Company include a main sales building with an asphalt paved parking lot and storage area around the building. The perimeter of the site is bounded on the north and west property lines by chain-link fencing and by a concrete block wall along the southwest property line. Chain-link fencing also exists within the interior of the site, separating the two businesses.



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SITE LOCATION MAP

**The Olson Company
Proposed Residential Development
711 S. East Street
Anaheim, California**

NOT TO SCALE

FIGURE 1

Topographically the site is relatively flat measuring approximately 166 feet above Mean Seal Level (MSL), based on Google Earth. Drainage is generally directed as sheet flow toward the east onto S. East Street. Vegetation at the site is scarce and consists of planter areas with minor shrubs and small trees adjacent S. East Street. A planter with a medium-sized tree is also present within the eastern portion of the property.

1.3 PROPOSED DEVELOPMENT

Based on our review of the conceptual site plan, the proposed site development will consist of 42 units of 3-story residential structures with associated interior driveways, underground utilities, parking areas and landscaping. We anticipate the proposed residential dwellings will be wood-framed structures with concrete slabs on grade yielding relatively light foundation loads.

No grading or structural plans were available in preparing of this report. However, we anticipate that minor rough grading of the site will be required to achieve future surface configurations.

2.0 INVESTIGATION

2.1 RESEARCH

We have reviewed the referenced geologic publications, maps and aerial photographs (see references). Data from these sources were utilized to develop some of the findings and conclusions presented herein.

From our research and review of available historical aerial photographs, it appears that the site was originally utilized for agricultural purposes (orchards) since at least 1953. By 1959 the site was cleared of all agricultural related trees and the existing building and the associated asphalt-paved parking areas in the northern portion of the site were constructed. By 1963 the existing building in the southern portion the site was also constructed and the remaining portion of the property was paved with asphalt. The site remained relatively unchanged from 1963 till 1975 when a minor addition was made to the building in the northern portion of the site.

2.2 SUBSURFACE EXPLORATION

Subsurface exploration for this investigation was conducted on July 21, 2016. Our exploration consisted of drilling three (3) exploratory borings to depths of about 21.5 to 36.5 feet below the existing ground surface utilizing a truck-mounted, hollow-stem-auger drill rig. Representatives of *Albus-Keefe & Associates, Inc.* logged the exploratory excavation. Visual and tactile identifications were made of the materials encountered, and their descriptions are presented in the Exploration Logs in Appendix A. The approximate locations of the exploratory excavations completed by this firm are shown on the enclosed Geotechnical Map, Plate 1.

Bulk, standard penetration test (SPT) and relatively undisturbed samples were obtained at selected depths within the exploratory boring for subsequent laboratory testing. Relatively undisturbed

samples were obtained using a 3-inch O.D., 2.5-inch I.D., California split-spoon soil sampler lined with brass rings. SPT samples were obtained using a standard SPT soil sampler. During each sampling interval, the sampler was driven 12 to 18 inches with successive drops of a 140-pound automatic hammer free falling approximately 30 inches. The number of blows required to advance the split-spoon and SPT samplers were recorded for each six inches of advancement. The total blow count for the lower 12 inches of advancement per sample is recorded on the boring logs. Samples were placed in sealed containers or plastic bags and transported to our laboratory for analyses. The borings were backfilled with auger cuttings and capped with AC cold patch upon completion of sampling. Two additional borings were drilled adjacent borings B-2 and B-3 for percolation testing.

2.3 LABORATORY TESTING

Selected samples of representative earth materials from the borings excavated at the site were tested in the laboratory. Tests consisted of in-situ moisture content and dry density, maximum dry density and optimum moisture content, soluble sulfate content, direct shear strength, and grain-size analysis. Descriptions of laboratory test criteria and a summary of the test results are presented in Appendix B and on the boring logs in Appendix A.

3.0 SUBSURFACE CONDITIONS

3.1 SOIL CONDITIONS

Descriptions of the earth materials encountered during our investigation are summarized below and are presented in detail on the Exploration Logs presented in Appendix A.

Soil materials encountered at the site consisted mainly of Quaternary alluvium mantled by a thin layer of undocumented artificial fill. The artificial fill was detected in each of our exploratory borings with a total thickness of approximately 2 feet. The artificial fill encountered consists of gray-brown silty sand that is loose and moist to damp. In many areas, the fill materials are overlain by 3 to 3.5-inches of asphalt concrete with 0 to 2.5-inches of aggregate base materials beneath the asphalt.

The alluvial soils were predominantly composed of granular soils consisting of sand, sand with silt, and silty sand. These coarse grained earth materials were typically moist to damp, and loose to medium dense. Starting from a depth of approximately 30 feet, the density of the granular alluvial soils increased to dense and very dense.

Cohesive soils were encountered at approximately depth 25 feet in the form of a 3-foot-thick interlayer of medium dense/very stiff silty sand, clayey sand, sandy silt, and clayey silt that were typically moist to wet.

3.2 GROUNDWATER

Groundwater was not encountered during this firm's subsurface exploration to the maximum depth explored, 36.5 feet below the existing ground surface. A review of the CDMG Seismic Hazard Zone

Report 03 indicates that historical high groundwater levels for the general site area have been reported at depths greater than 50 feet below the existing ground surface.

3.3 FAULTING

Based on our review of the referenced publications and seismic data, no faults are known to project through or immediately adjacent the site and the site does not lie within an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. Table 3.1 presents a summary of all the known active faults within 10 miles of the site, based on the 2008 U.S.G.S. National Seismic Hazard Maps.

TABLE 3.1
Summary of Faults

Name	Distance (miles)	Slip Rate (mm/yr.)	Preferred Dip (degrees)	Slip Sense	Rupture Top (km)	Fault Length (km)
Puente Hills (Coyote Hills)	3.12	0.7	26	thrust	2.8	17
Elsinore;W+GI+T+J+CM	7.40	n/a	84	strike slip	0	241
Elsinore;W+GI+T+J	7.40	n/a	84	strike slip	0	199
Elsinore;W	7.40	2.5	75	strike slip	0	46
Elsinore;W+GI	7.40	n/a	81	strike slip	0	83
Elsinore;W+GI+J	7.40	n/a	84	strike slip	0	124
San Joaquin Hills	9.40	0.5	23	thrust	2.0	27
Puente Hills (Santa Fe Springs)	9.75	0.7	29	thrust	2.8	11

4.0 ANALYSES

4.1 SEISMICITY

We have performed probabilistic seismic analyses utilizing the U.S. Seismic Design Maps web application by the U.S. Geological Survey (USGS). From our analyses, we obtain a PGA of 0.528g in accordance with Figure 22-7 of ASCE 7-10. The FPGa factor for site class D is 1.0. Therefore, the PGAM = 1.0 x 0.53g = 0.53g. The mean event associated with a probability of exceedance equal to 2% over 50 years has a moment magnitude of 6.55 and the mean distance to the seismic source is 9.3 miles.

4.2 SETTLEMENT

Very limited testing of the artificial fill was performed due to the minor amounts encountered in our borings. Visually, the artificial fill was noted to possess variable engineering characteristics and appear to have been placed in an uncontrolled manner. These materials could be moderately compressible.

Based on the anticipated foundation loads and provided all undocumented artificial fill materials and the upper 1 foot of alluvial soils are removed and replaced as engineered compacted fill and, total and differential static settlements are not anticipated to exceed 1 inch and ½-inch over 30 feet, respectively.

5.0 CONCLUSIONS

5.1 FEASIBILITY OF PROPOSED DEVELOPMENT

From a geotechnical point of view, the proposed site development is considered feasible provided the recommendations presented in this report are incorporated into the design and construction of the project. Furthermore, it is also our opinion that the proposed development will not adversely impact the stability of adjoining properties. Key issues that could have significant fiscal impacts on the geotechnical aspects of the proposed site development are discussed in the following sections of this report.

5.2 GEOLOGIC HAZARDS

5.2.1 Ground Rupture

No active faults are known to project through the site nor does the site lie within the boundaries of an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. The closest known active fault is the Puente Hills (Coyote Hills) Fault located approximately 3.12 miles from the site. As such, the potential for ground rupture due to a fault displacement beneath the sites is considered very low.

5.2.2 Ground Shaking

The site is situated in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. The site lies in relative close proximity to several active faults; therefore, during the life of the proposed improvements, the property will probably experience similar moderate to occasionally high ground shaking from these fault zones, as well as some background shaking from other seismically active areas of the Southern California region. Design and construction in accordance with the current California Building Code (CBC) requirements is anticipated to address the issues related to potential ground shaking.

5.2.3 Landsliding

The site is not located within an area identified by the California Geologic Survey (CGS) as having potential for seismic slope instability. Geologic hazards associated with landsliding are not anticipated at the sites.

5.2.4 Liquefaction

Engineering research of soil liquefaction potential (Youd, et al., 2001) indicates that generally three basic factors must exist concurrently in order for liquefaction to occur. These factors include:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions.
- A relatively loose silty and/or sandy soil.
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

The liquefaction susceptibility of the onsite soils was evaluated by analyzing the potential concurrent occurrence of the above-mentioned three basic factors. The liquefaction evaluation for the site was completed under the guidance of Special Publication 117A: Guidelines for Evaluating and Mitigating Seismic Hazards in California (CDMG, 2008) and Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines (SCEC 1999).

No groundwater was encountered during our investigation and historical high groundwater has been documented at a depth greater than 50 feet below the site. Therefore, the potential for liquefaction to occur beneath the site is considered to be very low. Furthermore, the site is not located within a mapped California Geologic Survey liquefaction hazard zone.

5.3 STATIC SETTLEMENT

As summarize in Section 4.2, based on anticipated foundation loads and provided all undocumented artificial fill materials and the existing upper 1 foot of alluvial soils are removed and replaced as engineered compacted fill, total and differential settlement under the weight of anticipated residential structures are anticipated to be less than 1 inch and 1/2 inch over 30 feet, respectively. These values are considered within tolerable limits of proposed structures and site improvements.

5.4 EARTHWORK AND MATERIAL CHARACTERISTICS

All undocumented fill and the upper 1 foot of alluvial materials are considered unsuitable to support proposed site development. This condition can be mitigated by the removal and re-compaction of the unsuitable soils. Residential structures would also require a minimum of 2 feet of compacted fill below the bottom of footings. Ground preparation below other structural features such as walls and pavement would require a minimum of 1 foot of compacted fill below the footings and pavement.

Removals should generally extend laterally a distance equivalent to the removal depth (i.e. 1:1 projection) beyond the limits of the residential structures. Removals below other types of site development can likely be limited in lateral extent beyond the edges of the improvements.

Existing surficial soils are anticipated to be relatively easy to excavate with conventional heavy earthmoving equipment. Removal and recompaction of the site materials will result in some minor

to moderate shrinkage and subsidence. Design of site grading will require consideration of this loss when evaluating earthwork balance issues.

Site materials are generally slightly below optimum to slightly above optimum moisture. As such, the soils will generally require blending and/or addition of minor amounts of water in preparation for reuse as compacted fill.

Temporary construction slopes and trench excavations can likely be cut vertically up to a height of 3 feet within the onsite materials provided that no surcharging of the excavations is present. Temporary excavations greater than 3 feet in height but no more than 10 feet in height that are not surcharged will generally require a layback to 1:1.5 (H:V). Temporary excavations greater than 10 feet in height should be reviewed by the geotechnical consultant for specific recommendations. Excavations with surcharge loads nearby may require laybacks at flatter angles or special grading techniques such as slot cutting, shoring or other acceptable design criteria determined by the geotechnical consultant. Site materials are friable and may be prone to sloughing and possible caving if allowed to dry.

The site is currently occupied by structures as well as asphaltic and concrete paving. Asphaltic concrete and concrete debris generated by demolition can be reduced to no more than 4 inches in maximum dimension and uniformly incorporated with fill soils during earthwork operations.

Onsite disposal systems, clarifiers, and other underground improvements may also be present beneath the site. If encountered during future demolition or rough grading, these improvements will require proper abandonment or removal.

Off-site improvements exist near the property lines. The presence of the existing offsite improvements may limit removals of unsuitable materials adjacent the property lines. Special grading techniques, such as slot cutting, may be required adjacent the property lines where offsite improvements are nearby. Construction of perimeter site and retaining walls may require deepened footings where removals are restricted by property boundaries.

5.5 SOIL EXPANSION

Based on the USCS visual manual classification, the near-surface soils within the site are generally anticipated to possess a **Very Low** expansion potential. Additional testing for soil expansion will be required subsequent to rough grading and prior to construction of foundations and other concrete flatwork to confirm these conditions.

5.6 FOUNDATIONS

Conventional shallow spread and continuous footings may be utilized to support the proposed residential buildings and wall structures at the site. Considering the **Very Low** expansion potential, the foundations for the proposed structures and other site improvements, such as retaining walls, screen walls, and flatwork, will likely require nominal reinforcement and depths.

5.7 CONCRETE MIX DESIGN

Laboratory testing of existing near-surface soils indicates **negligible** soluble sulfate content. No special requirements for concrete to resist sulfates are anticipated. Additional testing for soluble sulfate content will be required subsequent to rough grading and prior to construction of foundations and other concrete work to confirm these conditions.

6.0 LIMITATIONS

This report is based on the proposed development and geotechnical data as described herein. The materials described herein and in other literature are believed representative of the total project area, and the conclusions contained in this report are presented on that basis. However, soil materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions and recommendations contained herein. As such, observation and testing by a geotechnical consultant prior to and during the grading and construction phases of the project are essential to confirming the basis of this report.

This report summarizes several geotechnical topics that should be beneficial for project planning and budgetary evaluations. *The information presented herein is intended only for a preliminary feasibility evaluation and is not intended to satisfy the requirements of a site specific and detailed geotechnical investigation required for further planning, design and permitting.*

This report has been prepared consistent with that level of care being provided by other professionals providing similar services at the same locale and time period. The contents of this report are professional opinions and as such, are not to be considered a guaranty or warranty.

This report should be reviewed and updated after a period of one year or if the site ownership or project concept changes from that described herein.

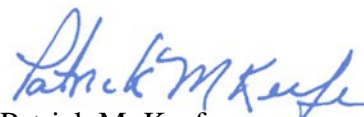
This report has been prepared for the exclusive use of **The Olson Company** to assist the project consultants in determining the feasibility of the proposed development. This report has not been prepared for use by parties or projects other than those named or described herein. This report may not contain sufficient information for other parties or other purposes.

Respectfully submitted,

ALBUS-KEEFE & ASSOCIATES, INC



Bidjan Ghahreman
Associate Engineer
PhD, PE C80886



Patrick M. Keefe
Principal Engineering Geologist
C.E.G. 2022

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California Department of Conservation, Division of Mines and Geology, Seismic Hazard Report 03, “Seismic Hazard Zone Report for the Anaheim and Newport Beach 7.5-Minute Quadrangles, Orange County, California”, 1997.

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Southern California Earthquake Center (SCEC), University of Southern California, “Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction Hazards in California,” March, 1999.

Youd, T.L., Idriss, I.M., Andrus, R.D., Arango, I., Castro, G., Christian, J., Dobry, R., Finn, W.D.L., Harder, L.F., Hynes, M.E., Ishihara, K., Koester, J.P., Liao, S.S.C., Marcuson, W.F., Martin, G.R., Mitchell, J.K., Moriwaki, Y., Power, M.S., Robertson, P.K., Seed, R.B., and Stokoe, K.H., “Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils”, Journal of Geotechnical and Geoenvironmental Engineering, October, 2001.

Plans

Conceptual Site Plan, East and South Street, Anaheim, California, dated August 3, 2016, prepared by KTG Architecture and Planning.

Aerial Photographs

Photo Source	Date Flown	Flight No.	Photo No.
Continental Aerial Photo, Inc.	1-9-87	F	222
Continental Aerial Photo, Inc.	2-25-80	80033	76
Continental Aerial Photo, Inc.	1-13-75	157-6	15
Continental Aerial Photo, Inc.	10-29-73	132-5	8
Continental Aerial Photo, Inc.	5-1-67	3	209
Continental Aerial Photo, Inc.	3-25-59	261-3-R13	35
Continental Aerial Photo, Inc.	5-30-53	AXK-6K	19



Project Summary

Gross Site Area:	1.8 Acres
Total Dwelling Units:	42 DU
Density:	23.3 DU/AC
Zoning:	RM-4

Residential Summary

Plan	Bdrm	Bath	SF	Count
2	2	2.5	1,337	8
2C	2	2.5	1,383	8
5	2 + Loft	2.5	1,582	4
5A	3	2.5	1,582	9
6	3	3.5	1,768	13
Total				42

Parking Requirement

2 bedroom:	20x 2.25/Unit	45 spaces
3 bedroom:	22 x 3/Unit	66 spaces
Total:		111spaces

Parking Provided

Garage:	84 spaces
Open Parking:	27 spaces
Total	111 spaces

Open Space Requirement

200 SF per DU x 42 Units = 8400 SF

Open Space Provided:

Plan	Decks*	Patios**	Count	Qualifying Total
2	65 SF	--	8	--
2C	65 SF	--	8	--
5/5A	77 SF	120 SF**	13	720 SF
6	96 SF*	120 SF**	13	2808 SF
Total				4368 SF

Common Open Space = 7008 SF

Total Qualifying Open Space Provided: 11,376 SF

Total Open Space Provided: 14,418 SF

* Minimum Dimension of 70 SF and 7 ft to Qualify

** Minimum Dimension of 100 SF and 8 ft to Qualify

EXPLANATION

(Locations Approximate)

- B-3 - Exploratory Boring
- P-2 - Exploratory Percolation Well

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

GEOTECHNICAL MAP

Job No.: 2523.00 Date: 08/11/16 Plate: 1



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3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740

EAST AND SOUTH STREET
ANAHEIM, CA # 2016-0515

CONCEPTUAL SITE PLAN
AUGUST 3, 2016



ALTERNATIVE - F

A1.6

APPENDIX A
EXPLORATION LOGS

EXPLORATION LOG

Project:		Location:
Address:		Elevation:
Job Number:	Client:	Date:
Drill Method:	Driving Weight:	Logged By:

Depth (feet)	Lith- ology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<p><u>EXPLANATION</u></p> <p>Solid lines separate geologic units and/or material types.</p> <p>Dashed lines indicate unknown depth of geologic unit change or material type change.</p> <p>Solid black rectangle in Core column represents California Split Spoon sampler (2.5in ID, 3in OD).</p> <p>Double triangle in core column represents SPT sampler.</p> <p>Solid black rectangle in Bulk column represents large bag sample.</p> <p>Other Laboratory Tests: Max = Maximum Dry Density/Optimum Moisture Content EI = Expansion Index SO4 = Soluble Sulfate Content DSR = Direct Shear, Remolded DS = Direct Shear, Undisturbed SA = Sieve Analysis (1" through #200 sieve) Hydro = Particle Size Analysis (SA with Hydrometer) 200 = Percent Passing #200 Sieve Consol = Consolidation SE = Sand Equivalent Rval = R-Value ATT = Atterberg Limits</p>							
5					■				
10					▲▼				
15						■			
20									

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-1
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.4
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests			
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<u>Asphalt Concrete (AC)</u> : 3.0 inches AC / 2.5 inches crushed misc. base							Max SO4 DS
		ARTIFICIAL FILL (Af) <u>Silty Sand (SM)</u> : Gray-brown, damp to moist, loose, fine grained sand, micaceous		7			3.6	97.4	
5		ALLUVIUM (Qal) <u>Sand (SP)</u> : Light gray-brown, damp, loose, fine grained sand, trace medium grained sand, micaceous @ 4', becomes tan to white, dry to damp, fine to medium grained sand, occasional fine to coarse grained sand layers, trace gravel @ 6', same		7			2.3	95	
				10			2.3	95.3	
10		@ 10', becomes damp, fine grained sand with some medium grained sand		10			3.6	92.9	
15		@ 15', becomes white, medium dense, trace silt		14			2.7	98.2	
20		@ 20', becomes fine to medium grained sand, occasional fine to coarse grained sand layers, trace gravel		16					
		Total depth: 21.5 feet No groundwater Backfilled with soil cuttings and capped with AC cold patch							

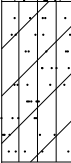



EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-2
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.4
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests			
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<u>Asphalt Concrete (AC)</u> : 3 inches AC / 2 inches crushed misc. base							
		ARTIFICIAL FILL (Af) <u>Silty Sand (SM)</u> : Gray-brown, moist, loose, fine grained sand, micaceous		7	█		2	95.7	
5		ALLUVIUM (Qal) <u>Sand with Silt (SP-SM)</u> : Light gray-brown, damp, loose, fine grained sand, micaceous		8	█		1.6	92.4	
		<u>Sand (SP)</u> : Tan to white, dry to damp, loose, fine and fine to medium grained sand @ 4', becomes white @ 6', becomes fine to medium grained sand, trace coarse grained sand		8	█				SA Dist.
10		<u>Sand with Silt (SP-SM)</u> : Light gray-brown, damp, loose, fine grained sand, occasional fine to medium grained sand layers		8	█		2.2	97.7	
15		@ 15', becomes medium dense		12	▼				SA
20		<u>Silty Sand (SM)</u> : Brown, moist, medium dense, fine grained sand, micaceous		12	▼				

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-2
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.4
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests			
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
30		<u>Interlayered Silty Sand, Sandy Silt, and Clayey Silt (SM/ML):</u> Gray-brown and brown, moist, medium dense/very stiff, fine grained sand, clayey silt layers very moist to wet		14					SA Hydro
		<u>Sand (SP):</u> White, damp, medium dense, fine grained sand, trace medium grained sand		21					
		Total depth: 31.5 feet No groundwater Backfilled with cuttings and capped with AC cold patch Perc. well installed 10 feet offset (15.5 feet deep)							

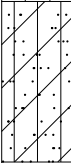




EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-3
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.0
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests			
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<u>Asphalt Concrete (AC):</u> 3.5 inches AC / No crushed misc. base							
		ARTIFICIAL FILL (Af) <u>Silty Sand (SM):</u> Gray-brown, moist, loose, fine grained sand, micaceous		16			1.8	99.8	
5		ALLUVIUM (Qal) <u>Sand (SP):</u> Light gray-brown to white, dry to damp, medium dense, fine and fine to medium grained sand @ 4', becomes loose, trace gravel up to 3 inches @ 6', same		6			1.7		
				8			2	95.3	
10		<u>Sand with Silt (SP-SM):</u> Light gray-brown, moist, loose, fine to medium grained sand, occasional fine to coarse grained sand layers		9			6.7	93.4	
15		<u>Sand (SP):</u> Light gray-brown, moist, loose, fine to medium grained sand, trace coarse grained sand and gravel, occasional thin silty sand/sandy silt layers		7					
20		<u>Sand with Silt (SP-SM):</u> Gray-brown, moist, medium dense, fine grained sand, slightly micaceous		18					

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-3
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.0
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests		
				Blows Per Foot	Core Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
30		<u>Interlayered Silty Sand, Sand, and Clayey Sand (SM/SP/SC):</u> Gray-brown, moist, medium dense, fine grained sand, slightly micaceous		16				
35		<u>Sand (SP):</u> Light gray-brown, moist, very dense, fine grained sand, trace silt, slightly micaceous @ 35', trace medium grained sand		36				
		Total depth: 36.5 feet No groundwater Backfilled with cuttings and capped with AC cold patch Perc. well set 10 feet offset (15.5 feet deep)		68/ 11"				

APPENDIX B

LABORATORY TEST PROGRAM

LABORATORY TESTING PROGRAM

In-Situ Moisture Content and Dry Density

Moisture content and dry density of in-place soil materials were determined in representative strata. Test data are presented on the Exploration Logs in Appendix A.

Maximum Dry Density and Optimum Moisture Content

Maximum dry density and optimum moisture content were performed on a representative sample of the site materials obtained from our field explorations. The test was performed in accordance with ASTM D 1557-07. Pertinent test values are given in Table B.

Soluble Sulfate Content

A chemical analysis was performed on a selected sample to determine soluble sulfate content. This test was performed in our soil laboratory in accordance with California Test Method No 417. The test result is included on Table B.

Particle-Size Analyses

Particle-size analyses were performed on selected samples in accordance with ASTM D 422. The results are presented graphically on the attached Plate B-1.

Direct Shear

The Coulomb shear strength parameters, angle of internal friction and cohesion, were determined for a bulk sample obtained from one of our borings. The test was performed in general conformance with ASTM D 3080. The sample was remolded to 90 percent of maximum dry density. Three specimens were prepared for the test, artificially saturated, and then sheared under varied loads at an appropriate constant rate of strain. Results are graphically presented on Plate B-2.

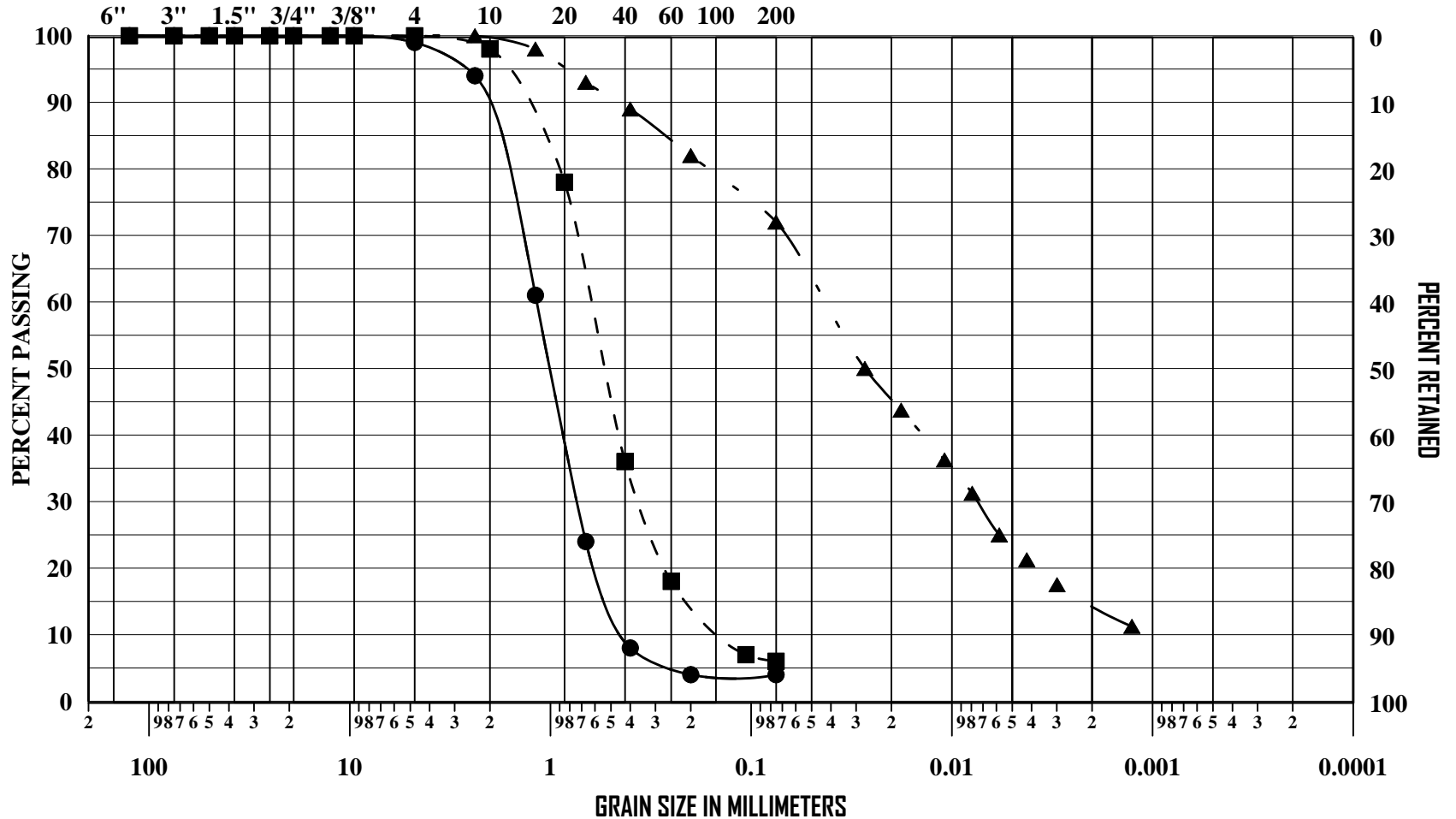
TABLE B
SUMMARY OF LABORATORY TEST RESULTS

Boring No.	Sample Depth (ft.)	Soil Description	Test Results	
B-1	0-5	Sand (SP)	Maximum Dry Density: Optimum Moisture Content: Soluble Sulfate Content: Sulfate Exposure:	121.0 pcf 7.0% 0.000% Negligible

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

U.S. STANDARD SIEVE SIZES



LOCATION	SAMPLE	SYMBOL	LL	PI	CLASSIFICATION
B-2	6 feet	● — — — ●			Sand (SP)
B-2	15 feet	■ - - - ■			Sand with Silt (SP-SM)
B-2	25 feet	▲ — - — ▲			Silt with Sand (ML)

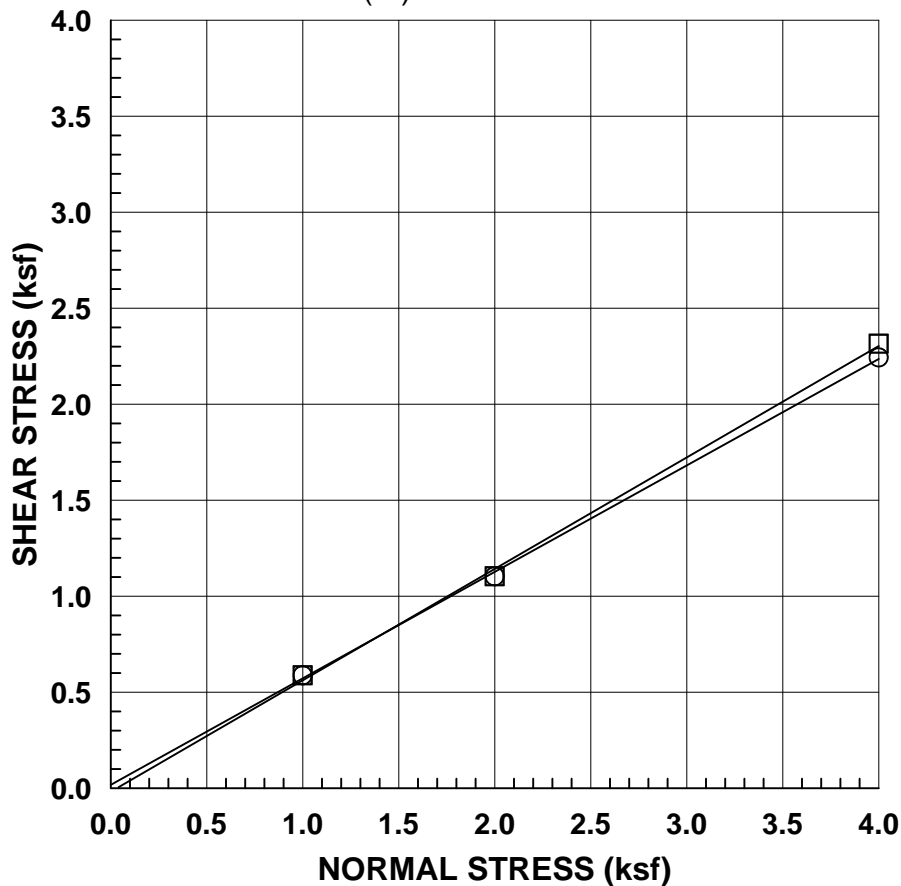
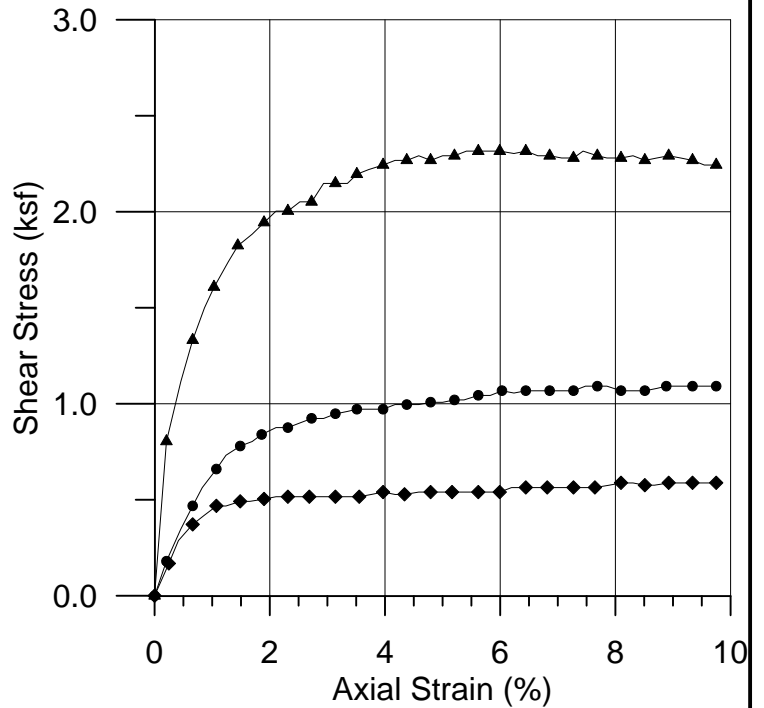
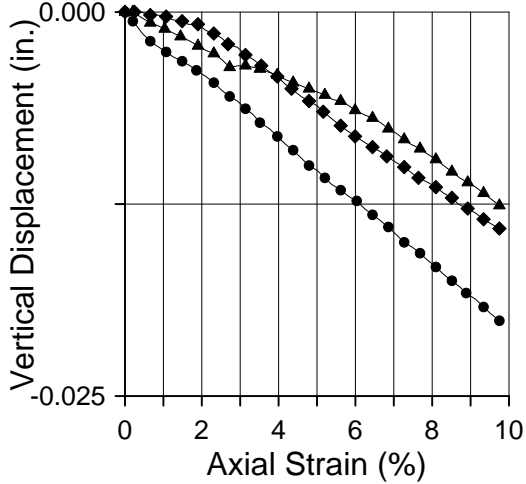


ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

GRAIN SIZE DISTRIBUTION


Job No: 2523.00
Plate No: B-1

Specimen No.	1	2	3
Normal Stress (ksf)	1	2	4
Peak Stress (ksf)	0.588	1.104	2.316
Peak Displacement (in)	0.0147	0.021	0.0134
Ultimate Stress (ksf)	0.588	1.104	2.244
Ultimate Displacement (in)	0.246	0.246	0.246
Initial Dry Density	108.9	108.9	108.9
Initial Moisture Content (%)	7.008	7.008	7.008
Strain Rate (in/min)	0.040		



Strain Legend	
◆	1 Ksf
●	2 Ksf
▲	4 Ksf

Strength Legend	
□	Peak
○	Ultimate

SAMPLE LOCATION	SAMPLE TYPE	SAMPLE DESCRIPTION
B-1 @ 0-5 ft	Remolded to 90% of 121.0 pcf @ 7%	Sand (SP)
 ALBUS-KEEFE & ASSOCIATES, INC. GEOTECHNICAL CONSULTANTS	DIRECT SHEAR	Job No: 2523.00
		Plate No: B-2

Appendix

Appendix C Phase I and II Environmental Site Assessment

Appendix

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**Phase I and II Environmental
Site Assessment
633 and 711 South East Street
Anaheim, California**



Prepared for:
The Olson Company
3010 Old ranch Parkway,
Suite 100
Seal Beach, CA 90740

Prepared by:
Stantec Consulting Services Inc.
25864-F Business Center Drive
Redlands, California 92374

Project No.: 185803745

August 12, 2016

Sign-off Sheet and Signatures of Environmental Professionals


This document entitled Phase I and II Environmental Site Assessment was prepared by Stantec Consulting Services Inc. (Stantec) for the account of The Olson Company. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

Author 
(signature)

Dion Monge
Associate Scientist

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Quality Reviewer 
(signature)

Alicia Jansen
Associate Scientist

Independent Reviewer 
(signature)

Kyle Emerson, P.G., C.E.G.
Managing Principal Geologist

**PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA**

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**PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
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Abbreviations

AAI	All Appropriate Inquiry
ACM	Asbestos containing material
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
BER	Business Environmental Risk
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CREC	Controlled Recognized Environmental Conditions
CWA	Clean Water Act
ELUC	Environmental Land Use Control
EP	Environmental Professional
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
ft msl	Feet above mean sea level
HREC	Historical Recognized Environmental Conditions
HWMU	Hazardous Waste Management Unit
LBP	Lead-based Paint
LUST	Leaking Underground Storage Tank
NESHAP	National Emissions Standard for Hazardous Air Pollutants
PAHs	Polynuclear Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
SWMU	Solid Waste Management Unit
TSCA	Toxic Substance Control Act
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition
VOCs	Volatile Organic Compounds

**PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA**

SUMMARY

August 12, 2016

1.0 SUMMARY

This Phase I and II Environmental Site Assessment (ESA) report was prepared by Stantec Consulting Services Inc. (Stantec), on behalf of the Olson Company (the "Client") for the property located at 633 and 711 South East Street, in the City of Anaheim, California (the "Property" or the "Site"). The Olson Company (the "User") has been designated as the User of this report.

The Phase I ESA was conducted in conformance with the requirements of ASTM International (ASTM) Designation E 1527-13, All Appropriate Inquiries (AAI) Final Rule 40 CFR Part 312 and the terms and conditions of the Master Services Agreement between Stantec and Client (the "MSA"), except as may have been modified by the scope of work, and terms and conditions, requested by the Client. Any exceptions to, or deletions from, the ASTM practice are described in Section 2.3. In the event of any conflict between the terms and conditions of this report and the terms and conditions of the MSA, the MSA shall control.

The Property consists of approximately 1.79 acres of land with the addresses of 633 and 711 South East Street, Anaheim, California. The 633 South East Street address is occupied by Quartz Dealer Direct, an automobile auction. Quartz Dealer Direct occupies approximately 75% of the Property and is developed with one building and a large parking lot area used for parking cars prior to auction. The building includes office space and an auction floor which is located in the west portion of the building.

McLogan Supply Company (McLogan) is located at 711 South East Street and occupies the southeast 25% of the Property. The 711 South East Street address is developed with one building consisting of the McLogan sales floor and warehouse area where various silk screen supplies, ink, cleaners, and degreasers are stored. The surrounding area is a mixture of residential properties and commercial properties, including a service station adjacent to the south. A Property location map is illustrated on Figure 1. A Property Vicinity Plan illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

During the site reconnaissance, Stantec observed several 55-gallon drums located along the west side of the building that contained various chemicals used for cleaning and degreasing ink from silk screens. These chemicals included (but were not limited to) acetone, isopropyl alcohol (IPA), methyl ethyl ketone (MEK), lacquer thinner, and mineral spirits. No printing activities were observed onsite but Justin Barrios of McLogan indicated that the chemicals contained in the drums are transferred from the drums into smaller containers for storage and resale. Stantec observed no evidence of any spills or releases on the surrounding surfaces. Several 5-gallon containers of ink are stored in conex boxes to the north of the McLogan building, also with no evidence of leaks or releases.

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SUMMARY

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No hazardous materials storage or use were observed at the Quartz Dealer Direct property other than a small quantity of gasoline (<10 gallons) stored near the auction floor of the building (see Appendix A, Photograph 13), which does not represent an environmental concern. Sam of Quartz Dealer Direct reported that a small quantity of vehicle wash water is generated on occasion but indicated that there is no specific area designated for these occasional car washing activities.

In connection with the Phase I Environmental Site Assessment, Stantec evaluated the following issues:

- **Industrial Use.** According to the city directory listings and aerial photograph review, the Property and surrounding area has been utilized for industrial purposes since the late 1950s. These uses are believed to have included the use of hazardous materials such as fuels, solvents, and petroleum products. Accordingly, Stantec performed a Phase II Environmental Site Assessment to sample and analyze shallow soil and soil vapor throughout the Property (including along the Property boundaries) for analysis of total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs) to evaluate whether a release has occurred at the Property or in the surrounding area at levels exceeding regulatory thresholds.
- **Historical Features of Concern.** Two features of significance were identified in the 1959 aerial photograph. These features included 1) a concrete slab visible at the southwest portion of the building, and 2) a dark black square feature visible in the southwest portion of the Property that resembles a mud pit or earthen sump. Although there is no other evidence (*i.e.*, city/county records, interviews, or visual evidence) to support the presence of a UST or sumps at the Property, the concrete pad resembles the approximate size of a UST pad and the dark black square resembles a mud pit or earthen sump. Accordingly, Stantec performed a Phase II Environmental Site Assessment at these areas to sample and analyze soil and soil vapor.
- **Historical Agricultural Use.** There is a potential that the Property was historically used for agricultural purposes (*i.e.*, orchards). Accordingly, Stantec performed a shallow soil assessment at the Property to evaluate whether residual pesticides or heavy metals associated with herbicide applications were present above regulatory screening levels, human health risk criteria or California hazardous waste levels.
- **Adjacent Gasoline Station.** The adjacent Thrifty Oil #364 / Arco #9730 station (727 South East Street) had a gasoline release to soil. The station received regulatory case closure on December 12, 2003; however, the station remains active. Due to the absence of soil vapor sampling data for the Property, Stantec recommended collecting soil and soil vapor samples along the southern boundary line for TPH and VOCs to evaluate

**PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA**

SUMMARY

August 12, 2016

whether a release has occurred at this location at levels above regulatory thresholds or health risk criteria for residential use.

Results of the Phase II ESA

Each of the issues mentioned above were assessed during a Phase II ESA performed by Stantec on July 21, 2016. With respect to soil, the sampling results indicated no TPH, VOCs, pesticides or lead above regulatory thresholds for residential use. Concentrations of arsenic were detected within the range considered to be naturally occurring in California. Additionally, no stained or odorous soils were observed in the borings performed by Stantec and Albus-Keefe and Associates (during geotechnical drilling) at the suspected sump/mud pit location from the 1959 aerial photograph.

In regard to soil vapor, concentrations of tetrachloroethylene ("PCE") were detected across the Property at all 8 soil vapor boring locations. At 5 of the 8 locations, PCE concentrations were detected at concentrations above the Department of Toxic Substances Control's (DTSC) Note 3 human health risk screening level of 480 µg/m³ for residential use with regard to potential vapor intrusion. The PCE concentrations exceeding the DTSC screening level for soil vapor ranged from 650 to 1,200 µg/m³.

Based on the fact the surrounding area is developed with several industrial businesses including the adjacent Dalton Recycling center, nearby Anaheim Plating and Polishing, former Dixco Chemical Corporation, and other miscellaneous industrial businesses, and because there were no indications of any on-site PCE source in soil at the Site, it appears that the PCE impacts to soil vapor are migrating to the Site from an off-site contamination source, either in soil vapor or as a result of being off-gassed from groundwater contamination migrating beneath the Site.

In particular, a potential source is the former Dixco Chemical Corporation located along South Street, approximately 250 feet south of the Property and up-gradient with respect to groundwater flow. Geotracker reports that this former chemical company historically operated nine USTs containing various chemicals; and that PCE, among other chlorinated solvents, have been detected in both soil and groundwater at that facility. Following years of remediation using vapor extraction, the release was issued regulatory closure by the Regional Water Quality Control Board on May 29, 2001.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527-13 (and Final Rule 40 CFR Part 312 et seq.) with respect to the Property. Any exceptions to, or deletions from this practice are described in the Data Gaps section of this report. The Phase I ESA revealed the following environmental issues associated with the Property and the surrounding area:

- **PCE-Impacted Soil Vapor.** Based on the data collected during the Phase II ESA, the PCE concentrations in soil vapor are considered an REC. It is Stantec's understanding that

**PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENT
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Olson will be installing vapor barrier membranes beneath the building foundations of all residential structures at the Site. Because vapor barrier installation at the Site would be an effective method for addressing potential human health risks related to the potential for vapor intrusion into the contemplated buildings, Stantec recommends no further action or investigation regarding soil vapor at the Site.

Additionally, Stantec identified the following non-ASTM environmental issues in connection with the Property:

- **ACM.** Given the age of the existing buildings on the Site (Circa 1963), the presence of asbestos-containing materials ("ACM") is considered likely. Stantec recommends that prior to any renovations that would result in disturbance of suspect material, a comprehensive pre-demolition ACM survey should be completed in accordance with the sampling criteria of the Asbestos Hazard Emergency Response Act ("AHERA"), and that a certified asbestos abatement contractor is retained to remove ACM in accordance with all applicable laws.
- **Petromat.** The Property has an asphalt paved parking lot. A stress absorbing fabric marketed as Petromat® is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Should development plans include demolition of the asphalt, Stantec recommended inspecting the asphalt for the presence of Petromat and if observed, sampling the Petromat for the presence of asbestos.

An inspection of the asphalt for the presence of stress absorbing fabrics was conducted during the Phase II ESA on July 21, 2016. Stress absorbing fabric was observed within the asphalt layers at all five of the boring locations on the 633 South East Street property. The fabric was not observed in the three borings advanced at 711 South East Street. Analysis of the fabric samples reported trace amounts of asbestos (<1%) such that it would be considered an Asbestos Containing Construction Material (ACCM). ACCM can be disposed of as non-hazardous waste; however, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915. Therefore, Stantec recommends that all work affecting the asphalt at the Site (*i.e.*, removal and disposal of the asphalt) be performed in accordance with all applicable laws, including guidelines of the Occupational Safety and Health Administration ("OSHA"), as such requirements apply to ACCM.

- **LBP.** Given the age of the existing buildings (circa 1963), the presence of lead-based paint ("LBP") is considered likely. Stantec recommends that prior to any renovations that would result in disturbance of suspect material, an LBP survey be completed to ensure proper removal and disposal. In addition, prior to any activities with the potential to

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disturb the materials, Stantec recommends that identified LBP be removed in accordance with all applicable laws.

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2.0 INTRODUCTION

The objective of this Phase I ESA was to perform appropriate inquiry into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", Designation E1527-13. The purpose of this Phase I ESA was to identify, to the extent feasible, adverse environmental conditions including recognized environmental conditions ("RECs") at the Property.

The ASTM E1527-13 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions ("HRECs"), and controlled recognized environmental conditions ("CRECs") that may exist at a property. The term "recognized environmental conditions" means 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.

ASTM defines a "HREC" as a REC that has occurred in connection with the property, but has been addressed to the satisfaction of the applicable regulatory authority and meets 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). Before calling the past release a HREC, the environmental professional must determine whether the past release is a REC when the current Phase I ESA is conducted (for example, if there has been a change in the regulations). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines a "CREC" as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but 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).

De minimis conditions are not RECs. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. As indicated, the term REC does not include *de minimis* conditions, which generally do not present a material risk to human health

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and would not likely be subject to enforcement action if brought to the attention of governmental agencies.

The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of work did not include an assessment for environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform any independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this ESA report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E1527-13 notes that the availability of record information varies from source to source. The User or Environmental Professional is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. "Reasonably ascertainable" means:

- (1) Information that is publicly available;
- (2) Information that is obtainable from its source within reasonable time and cost constraints;
and
- (3) Information that is practicably reviewable.

2.1 PROPERTY DESCRIPTION

The Property consists of approximately 1.79 acres land and carries the addresses of 633 and 711 South East Street, Anaheim, California. The 633 South East Street address is occupied by Quartz Dealer Direct, an automobile auction. McLogan Supply Company (McLogan) is located at 711 South East Street and occupies the southeast quarter of the Property. The surrounding area is a mixture of residential properties and commercial properties, including a service station adjacent to the south. A Property location map is illustrated on Figure 1. A Property Vicinity Plan illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

The Assessor's Parcel Number (APN) for the Property is 037-130-21. The Property Owner is listed as Steve Bickel, Trustee of Sidney E. Bickel Family Trust.

2.2 SPECIAL TERMS, CONDITIONS, AND SIGNIFICANT ASSUMPTIONS

There were no special terms, conditions, or significant assumptions associated with this Phase I ESA.

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2.3 EXCEPTIONS AND LIMITING CONDITIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided and given the schedule and budget constraints established by the client. No other representations, warranties, or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential and actual liabilities and conditions associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report, and are based solely on the scope of work described in the report, the limited data available, and the results of the work. They are not a certification of the property's environmental condition.

The client did not provide or contract Stantec to provide recorded title records or search results for environmental liens or activity and use limitations encumbering the property or in connection with the property. Based on the information obtained during the course of this ESA and general knowledge of development at and near the Property, the absence of this information did not affect the ability of the Environmental Professionals to identify RECs, HRECs, CRECs, or de minimis conditions.

This report relates solely to the specific project for which Stantec was retained and the stated purpose for which this report was prepared and shall not be used or relied upon by the client identified herein for any variation or extension of this project, any other project, or any other purpose.

This report has been prepared for the exclusive use of the client identified herein and any use of or reliance on this report by any third party is prohibited, except as may be consented to in writing by Stantec or as required by law. The provision of any such consent is at Stantec's sole and unfettered discretion and will only be authorized pursuant to the conditions of Stantec's standard form reliance letter. Stantec assumes no responsibility for losses, damages, liabilities, or claims, howsoever arising, from third party use of this report.

Project Specific limiting conditions are provided in Section 2.2. The conclusions are based on the conditions encountered at the Property by Stantec at the time the work was conducted.

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Accordingly, additional studies and actions may be required. As the purpose of this report is to identify selected Property conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the Property is beyond the scope of this assessment. The findings, observations, and conclusions expressed by Stantec in this report are not an opinion concerning the compliance of any past or present owner or operator of the Property which is the subject of this report with any Federal, state, provincial or local law or regulation.

This report presents professional opinions and findings of a scientific and technical nature. It does not and shall not be construed to offer a legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations, or policies of Federal, state, provincial or local governmental agencies. Issues raised by the report should be reviewed by client legal counsel.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change.

2.4 PERSONNEL QUALIFICATIONS

This Phase I ESA was conducted by, or under the supervision of, an individual that meets the ASTM definition of an Environmental Professional (EP). The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.

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USER-PROVIDED INFORMATION
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3.0 USER-PROVIDED INFORMATION

ASTM E1527-13 describes responsibilities of the User to complete certain tasks in connection with the performance of "All Appropriate Inquiries" into the Property. The ASTM standard requires that the Environmental Professional request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or de minimis conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

Description of Information	Provided (Yes / No)	Description and/or Key Findings
User Questionnaire	Yes	Stantec was provided with a User Questionnaire form completed by Ms. Sandi Gottlieb of The Olson Company, dated June 27, 2016. Ms. Gottlieb was aware the Property is used as an auto auction site and there are adjacent gas stations and recycling centers.
Environmental Liens or Activity Use Limitations	No	There are no environmental liens and/or activity use limitations listed in the Preliminary Title Report dated June 1, 2016.
Previous Environmental Permits or Reports Provided by User	No	N/A
Purpose of the Phase I ESA	Yes	Due Diligence

Stantec forwarded the ASTM recommended User Questionnaire to Ms. Sandi Gottlieb, Director of Development for The Olson Company. The completed User Questionnaire returned to Stantec by Ms. Gottlieb is included in Appendix C. The significant information provided by the user is summarized below.

1. Information on Environmental Cleanup Liens on Subject Property? **No**
2. Information on Subject property Activity or Use Limitations (including Institutional and Engineering Controls)? **No**
3. Specialized knowledge or experience of the User: **No**
4. Relationship of the purchase price/rent to fair market value of the Subject Property if it were not contaminated? **Does not believe purchase price has been reduced from fair market value.**
5. Commonly known or reasonably ascertainable information about the Subject Property? **None.**

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6. The degree of obviousness or the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation?
None.

3.1 SPECIALIZED KNOWLEDGE OR EXPERIENCE

The Federal AAI rule (40 CFR §312.28) and ASTM E1527-05 require that all appropriate inquiry must take into account relevant and applicable specialized knowledge and experience on the part of the User regarding the Site, the area surrounding the Site, the conditions of adjoining properties, and any other experience relevant to identifying RECs on the Site.

Ms. Gottlieb does not have any specialized knowledge or experience related to the Property or nearby properties, other than present use as auto action and adjoining gas station to south and recycling business across alley to the west.

3.2 PURCHASE PRICE VS. PROPERTY VALUE

The Federal AAI rule (40 CFR §312.29) and ASTM E1527-05 require that persons seeking defense to or protection from liability under CERCLA must take into account the relationship of the purchase price to the fair market value of the property if it were not contaminated to assess whether or not the differential is due to the presence of releases or threatened releases of hazardous substances. This portion of the inquiry is the responsibility of the User, and the User has the option of sharing or not sharing this information with the Environmental Professional performing the Phase I ESA.

Stantec has not performed an independent evaluation of the purchase price of the property and its relationship to fair market value. Stantec submitted a written questionnaire to the User (identified in Section 3.14) inquiring about the User's knowledge regarding the relationship of the purchase price to the fair market value of the property if it were not contaminated.

Ms. Gottlieb believes the purchase price reflects fair market value and has not been reduced due to any environmental issues.

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4.0 RECORDS REVIEW

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area, in order to evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the first developed use of the Property. Stantec's research included the reasonably ascertainable and useful records described in this section.

4.1 PHYSICAL SETTING

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections

Topography:	The Property is flat and at an elevation of approximately 167 feet above mean sea level (msl) with a general topographic gradient to the west-southwest (EDR, 2016).
Soil/Bedrock Data:	According to Cornerstone Environmental Associates' <i>Report of Confirmation Soil Borings</i> dated July 25, 2003, for the adjacent Thrifty Oil Co. Station #364, subsurface soils in the vicinity of the Property consist predominately of medium to coarse-grained sand with lesser amounts of silt and silty sand to approximately 100 feet below ground surface (bgs), maximum depth explored.
Estimated Depth to Groundwater/ Estimated Direction of Gradient:	According to Delta Consultants' <i>Well Destruction Report</i> dated November 25, 2008 for the Shell Station located approximately one mile to the northeast, depth to groundwater in the vicinity of the Property ranges between 91 and 118 feet bgs with a groundwater flow towards to the north-northwest.
<i>Note: Site-specific groundwater direction and depth can only be determined by conducting site-specific testing, which Stantec has not conducted.</i>	

4.1.1 Property Topography and Surface Water Flow

The Property is at an approximate mean elevation of approximately 167 feet above msl with a slight topographic gradient to the west-southwest. Based on the topography, surface water on the Property infiltrates the ground surface in unpaved areas or flows over hardscaped surfaces toward the curb and gutter system along South East Street. At the time of the site inspection, Stantec observed no improper discharge from the Property.



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The nearest surface water body is the Santa Ana River located approximately 1.6 miles to the east.

4.1.2 Regional and Property Geology

The Property is located within the Coastal Plain of Orange County Groundwater Basin (Basin Number 8-1) which underlies a coastal alluvial plain in the northwestern portion of Orange County. The vicinity of the Property is underlain with Quaternary-aged alluvium deposited by the Santa Ana River from the upper Santa Ana Unit, by Carbon Creek from the Puente Hills, and by minor streams from hills bounding the area.

According to Cornerstone Environmental Associates' *Report of Confirmation Soil Borings* dated July 25, 2003, for the adjacent Thrifty Oil Co. Station #364, subsurface soils in the vicinity of the Property consist predominately of medium to coarse-grained sand with lesser amounts of silt and silty sand to approximately 100 feet below ground surface (bgs), maximum depth explored.

According to the topographic map, the closest body of water is the Santa Ana River located approximately 1.8 mile to the west.

4.1.3 Regional and Property Hydrogeology

The Property is located within the Coastal Plain of Orange County Groundwater Basin which is bounded by consolidated rocks exposed on the north in the Puente and Chino Hills; on the east in the Santa Ana Mountains; the south in the San Joaquin Hills; the Pacific Ocean on the southwest; and by a low topographic divide approximated by the Orange County – Los Angeles County line on the northwest. The basin underlies the lower Santa Ana River watershed (DWR, Bulletin 118, February 27, 2004).

According to Delta Consultants' *Well Destruction Report* dated November 25, 2008 for the Shell Station located approximately one mile to the northeast, depth to groundwater in the vicinity of the Property ranges between 91 and 118 feet bgs with a groundwater flow towards to the north-northwest.

4.2 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

A regulatory agency database search report was obtained from Environmental Data Resources Inc. (EDR), a third-party environmental database search firm. A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix C.

Stantec evaluated the information listed within the database relative to potential impact to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near

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the Property. As described in 4.1.3, the inferred groundwater flow direction is likely to be north-northwest direction. Observations about the Property and surrounding properties made during the Property reconnaissance are provided in more detail in Section 5.

4.2.1 Listings for Property

The Property was identified as Kwikset Powdered Metal Products / McLogan Supply Co. Inc in the FINDS, ECHO, HAZNET, RCRA NonGen / NLR, and HAZNET environmental databases. These listings are for the storage and disposal off-site of off-specification, aged, or surplus organics and laboratory waste chemicals. No violations were reported for the hazardous wastes. No additional information regarding these listings was provided in the environmental database report.

Given the history of industrial use of the Property, it is likely that hazardous materials such as fuels, solvents, and petroleum products have occurred on the Property. Stantec recommends collecting shallow soil samples and soil vapor samples throughout the Property for analysis of total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs) to evaluate whether a release has occurred at these locations above regulatory thresholds or health risk criteria for residential use.

4.2.2 Listings for Nearby Sites with Potential to Impact Property

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions to pose a REC, CREC, or HREC for the Property.

Based on this evaluation, the following individual facilities were identified as the most likely potential sources of impact to the Property. The basis for why each of the following listed databases or does not create a REC for the Site is also provided.

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Arco Facility No 09730 / Thrifty Oil Co #364 727 South East Street Anaheim, CA 92805	RCRA-SQG; FINDS; ECHO; EDR Hist Auto; UST; LUST; SWEEPS UST; CA FID UST; HAZNET	264 feet / east-southeast	Yes
The adjacent Thrifty Oil #364 / Arco #9730 station (727 South East Street) had a gasoline release to soil. Approximately 249 tons of impacted soil was excavated during the underground storage tank (UST) removal activities in April 1998. Soil vapor extraction was performed on the facility between January 2001 and January 2003 and removed approximately 9,444 pounds of			

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Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
<p>hydrocarbons as gasoline vapor. The station received regulatory case closure on December 12, 2003; however, the station remains active. Given no soil vapor samples have been collected on the Property, Stantec performed a Phase II subsurface investigation to sample and analyze soil and soil vapor samples along the southern boundary line for TPH and VOCs to evaluate whether a release has occurred at this location above regulatory thresholds or health risk criteria for residential use. Results of the Phase II ESA are discussed in Section 7.0, 9.0 and in the Executive Summary of this report.</p>			
<p>Orange County Stripping 1017 East South Street Anaheim, CA 92805</p>	<p>RCRA-SQG</p>	<p>303 feet / south</p>	<p>No</p>
<p>The facility is listed as a small quantity generator of hazardous waste and a historical large quantity generator of corrosive waste. The facility received a general generator violation on September 24, 2008 which was rectified the same day. Given the lack of any reported releases, this facility is unlikely to represent an environmental concern to the Property.</p>			
<p>DIXCO Diversified Chemical Sales Inc. 1014 East South Street Anaheim, CA 92803</p>	<p>SEMS-ARCHIVE; Envirostor; LUST; UST; RCRA NonGen/NLR; FINDS; EMI; ECHO</p>	<p>364 feet / south- southwest (**4.3.4 says 250 feet)</p>	<p>Yes</p>
<p>Nine USTs formerly containing diesel, xylenes, toluene, acetone, lacquer thinner, MEK, isopropyl-alcohol, and mineral spirits that ranged in capacity from 1,000 to 8,000 gallons were removed from the facility on July 19, 1990. During the UST removal, impacted soil was observed. Over-excavation of the impacted soil occurred in 1991. Soil vapor extraction was performed between April 1997 and October 1997 and removed approximately 23,033 pounds of volatile organic compounds (VOCs). Multiple rounds of soil sampling was conducted at found toluene, ethylbenzene, xylenes, and tetrachloroethene ("PCE") in soil at concentrations of up to 20,900 milligrams per kilogram (mg/kg), 2.69 mg/kg, 2,560 mg/kg, and 5.66 mg/kg, respectively. Two groundwater monitoring wells were installed in February 2000 near the VOC impacted soil and former UST area. Low concentrations of VOCs were detected in the groundwater; therefore, it was determined the residual toluene-affected soil was confined to a silty sand layer at 30 feet bgs in a limited extent. The facility received regulatory closure on May 29, 2001 from the Regional Water Quality Control Board. The soil vapor sampling conducted at the Property during the Phase II ESA were positioned to evaluate potential offsite releases in the surrounding area. Results of the Phase II ESA are discussed in Section 7.0, 9.0 and in the Executive Summary of this report.</p>			

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<p>Anaheim Plating & Polishing 928 East South Street Anaheim, CA 92805</p>	<p>RCRA-LQG; ENVIROSTOR; Orange Co. Industrial Site; US AIRS; NPDES; WDS</p>	<p>556 feet / southwest</p>	<p>Yes</p>
<p>The facility is listed as a large quantity generator of hazardous waste including wastewater treatment sludges from electroplating operations. The facility received multiple violations for records and reporting in 2003. Given the history of industrial use of the facility and multiple violations, the facility is considered a REC to the Property. The soil vapor sampling conducted at the Property during the Phase II ESA were positioned to evaluate potential offsite releases in the surrounding area. Results of the Phase II ESA are discussed in Section 7.0, 9.0 and in the Executive Summary of this report.</p>			
<p>Hitachi Consumer Products 901 East South Street Anaheim, CA 92805</p>	<p>LUST; HIST CORTESE; RCRA-SQG; FINDS; ECHO</p>	<p>673 feet / southwest</p>	<p>No</p>
<p>The facility received closure from the Orange County Health Care Agency on September 25, 1990 for lead impacted soil. No impact to groundwater was reported. No additional information for the facility was available. Given the regulatory status, this facility is unlikely to represent an environmental concern to the Property.</p>			
<p>Flat & Vertical Concrete Saw 837 South East Street Anaheim, CA 92805</p>	<p>UST; HIST UST; HAZNET; LUST; HIST CORTESE</p>	<p>756 feet / south- southeast</p>	<p>No</p>
<p>The facility had a gasoline release to soil only and received closure from the Orange County Health Care Agency on July 12, 1990. No impact to groundwater was reported. No additional information for the facility was available. Given the regulatory status, this facility is unlikely to represent an environmental concern to the Property.</p>			
<p>Dixco Diversified Chemical Sales Inc 847 East South Street Anaheim, CA 92805</p>	<p>UST; ENVIROSTOR; SWEEPS UST; CA FID UST; Orange Co. Industrial Site</p>	<p>772 feet / southwest</p>	<p>Yes (***)does this one represent a REC – as well as the Dixco above? it's not clear.)</p>
<p>The facility had nine USTs on-site including 4,000-gallon gasoline UST, two 1,000-gallon petroleum, and six 8,000-gallon petroleum USTs. No additional information for the facility was available. As</p>			

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previously stated in this section, the soil vapor sampling conducted at the Property during the Phase II ESA were positioned to evaluate potential offsite releases in the surrounding area. Results of the Phase II ESA are discussed in Section 7.0, 9.0 and in the Executive Summary of this report.

The remaining listings in the database search report provided in Appendix D do not constitute a potential REC for the property.

4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

Stantec checked the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

4.3.1 Local Building and/or Planning Department Records

Agency Name, Contact Information	Findings
<p>City of Anaheim Building Department 200 Anaheim Boulevard #145 Anaheim, CA Phone: 714-765-5153</p>	<p>Stantec submitted a request to the City of Anaheim Building Department to research whether any documents were on file for the Site. As of the writing of this report, a response had not yet been received. Should records become available that affect the conclusions and recommendations in this report, Stantec will issue an addendum to the report. However, based on its review of other sources (such as the online archive permit database discussed below), Stantec considers it unlikely that any records from this agency would alter the conclusions or recommendations of this report.</p> <p>According to Anaheim online building permits, permits filed for the 633 South East Street address included the original building permit indicating the year of construction as 1958. From 1958 through 1992 only five additional permits were contained in the file for building upgrades (sign install, re-roofing, building additions, etc) and reference the building use as a warehouse/office. Building permits filed for the 711 South East Street address included the original building permit indicating the year of construction as 1960. From 1960 through 1980 only five additional permits were contained in the file for building upgrades (sign permit, etc) and reference the building use as a warehouse/office. No records of environmental significance were observed.</p>

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4.3.2 Local Health Department

Agency Name Contact Information	Finding
<p>Orange County Health Care Agency (OCHCA) 1241 East Dyer Road, Suite #120 Santa Ana, CA 92705 Phone: 714-834-4722</p>	<p>Stantec submitted a request to OCHCA regarding files for the Property addresses of 633 and 711 South East Street. According to agency correspondence, no records are available for the 711 South East Street address. To date, a reply regarding a records search for the 633 South East Street address has not been received from OCHCA. If information becomes available at later date, Stantec will issue an addendum discussing the files. Based on its review of other sources, however, Stantec considers it unlikely that any records from this agency would alter the conclusions or recommendations of this report. The lack of this information does not represent a significant data gap.</p>

4.3.3 Fire Department

Agency Name Contact Information	Finding
<p>Anaheim Fire & Rescue 201 South Anaheim Blvd, Suite 300 Anaheim, CA 92805 Phone: 714-765-4040</p>	<p>A request for public records was submitted to the Anaheim Fire & Rescue Fire Prevention Division. As of the date of this report, no response has been received. In the event that records become available that change the conclusions of this report, Stantec will issue an addendum summarizing those conclusions. Based on its review of other sources, however, Stantec considers it unlikely that any records from this agency would alter the conclusions or recommendations of this report. The lack of this information does not represent a significant data gap.</p>

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4.3.4 State Departments

<p align="center">Agency Name Contact Information</p>	<p align="center">Finding</p>
<p>Regional Water Quality Control Board, Santa Ana Region, Region 8 3737 Main Street, Suite 500 Riverside, CA 92501 Phone: 951-782-4130 Online database: http://geotracker.waterboards.ca.gov/</p>	<p>According to an email dated July 12, 2015, there are no records for the Property address. Additionally Stantec searched the RWQCB's online database Geotracker, and no files exist for the Property.</p> <p>Several industrial businesses exist in close proximity to the Property and include the adjacent Dalton Recycling center, nearby Anaheim Plating and Polishing, former Dixco Chemical Corporation, and other miscellaneous industrial businesses. The former Dixco Chemical Corporation in particular is located along South Street, approximately 250 feet south of the Property and up-gradient with respect to groundwater flow. Geotracker reports that this former chemical company historically operated nine USTs containing various chemicals and that PCE, among other chlorinated solvents, were detected in both soil and groundwater. Following years of remediation using vapor extraction the release was issued closure by the Regional Water Quality Control Board on May 29, 2001.</p>
<p>Department of Toxic Substances Control 5796 Corporate Avenue Cypress, CA 90630-4732 Phone: 714-484-5300 Online database: http://www.envirostor.dtsc.ca.gov/public/</p>	<p>There are no records for the Property addresses listed on the DTSC's online database Envirostor.</p>
<p>Division of Oil, Gas, and Geothermal Resources, Division 1, Department of Conservation 5816 Corporate Avenue, Suite 200 Cypress, CA 90630</p>	<p>According to the Well Finder map located on the DOGGR website, the nearest oil/gas well is located approximately 2,908 feet to the east-northeast from the Property. This well is listed as plugged and operated by King Petroleum Co. Given the</p>

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	distance the potential presence of an oil well on the property appears unlikely.
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4.4 HISTORICAL RECORDS REVIEW

4.4.1 Land Title Records/Deeds

There are no environmental liens and/or activity use limitations listed in the Preliminary Title Report dated June 1, 2016. No additional land title records and deeds were provided by the User, and public records were not searched by Stantec.

4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. The following table summarizes Stantec's observations of the reviewed historical aerial photographs. Copies of the aerial photographs are provided in Appendix E.

Year	Scale	Observations, Property and Adjoining Properties
1938	1" : 500'	The Property and surrounding area appear to be utilized for agricultural purposes (i.e. orchards). South East Street appears adjacent to the east.
1953	1" : 500'	The Property and surrounding area appears similar to the previous aerial photograph with a decrease in density of the orchards. Commercial buildings appear to the south along East South Street.
1959	--	This photograph was provided to Stantec by Albus-Keefe and associates. The 633 South East Street address appears developed with the existing structure with a concrete slab visible at the southwest portion of the building. The function of the slab is unclear but resembles the approximate size of a UST pad. The south half of the Property is undeveloped land. However, a dark black square feature is visible and resembles a mud pit or earthen sump.
1963	1" : 500'	The Property appears to be developed with the two existing buildings and the associated parking between the buildings. The mud pit or earthen sump identified in the previous photograph is no longer visible since the parking lot now overlies

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Year	Scale	Observations, Property and Adjoining Properties
		that area. An alley appears adjacent to the west beyond which are commercial buildings. Commercial buildings also appear adjacent to the north and south. A gasoline station appears adjacent to the southeast. Residential development appears to the east beyond South East Street.
1972 1977 1987	1" : 500'	The Property and surrounding vicinity appear similar to the previous photograph with an increase in commercial development to the north, south, and west. An increase in residential development appears to the west beyond South East Street.
1990 1995	1" : 500'	The Property and surrounding vicinity appear similar to the previous photograph. The adjacent facility to the west appears to be a recycling center.
2005 2009 2010 2012	1" : 500'	The building on the northern portion of the Property appears to have been reroofed. The concrete pad identified in the 1959 aerial photograph no longer appears present at the southwest corner of the 633 South East Street building. The parking area between the buildings is currently full of vehicles. The surrounding vicinity appears similar to the previous aerial photograph. A treatment compound associated with the adjacent gasoline service station appears along the southeastern Property boundary.

Name of aerial photograph source: EDR, 2016

4.4.3 City Directories

Stantec retained EDR to research available reverse city directories for the Property, in approximately five year intervals for the years spanning 1920 through 2013. The following is a summary of Stantec's review of the city directory listings:

Subject/Adjoining Property	Year	Listed Occupants
Subject Property: 711 South East Street	1995 to 2013	McLogan Supply Co. Inc.
Subject Property: 711 South East Street	1966	ESD Electric Supplies Distributing Co.
Adjacent to South: 727 South East Street	2013	PCF
Adjacent to South: 727 South	1979 to	Gulf Oil Service Station Anaheim

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Subject/Adjoining Property	Year	Listed Occupants
East Street	1966	
Adjacent to West: 555 South Rose Street	N/A	Not listed

A complete EDR-City Directory Abstract is included in Appendix E.

4.4.4 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical Property uses.

Stantec requested fire insurance maps from EDR; however, no coverage exists for the Property. The Sanborn® Map Search Report indicating “no coverage” is presented in Appendix E.

4.4.5 Historical Topographic Maps

Stantec reviewed historical USGS 7.5-Minute Topographic Maps of the Orange and Anaheim, California Quadrangle (scale 1:24,000) to help identify past Property usage and areas of potential environmental concern.

Copies of the historical maps are provided in Appendix E. The following table summarizes the maps reviewed and our observations.

Year	Scale	Observations, Property and Adjoining Properties
1896 1898 1901 1902	1:62,500 1:25,000	The map is large scale of the area in the vicinity of the Property. The Property appears to be located within the city of Anaheim. A railroad track appears to the west. No structures or other features are observable on the Property from this map.
1935	1:31,680	No structures or other features are observable on the Property from this map. A street appears adjacent to the east. An increase in development appears to the north-northwest.
1942 1949 1950	1:62,500 1:24,000	The Property and surrounding area are depicted as agricultural land. Urban development appears to the north-northwest.
1964/1965	1:24,000	The Property and surrounding area are depicted as urban land.

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Year	Scale	Observations, Property and Adjoining Properties
1972		
1981	1:24,000	Two structures appear on the Property. There are additional structures on the adjacent land to the north and south. A large warehouse structure appears to the southwest along East South Street.
2012	1:24,000	No structures or other features are observable on the Property from this map.

Name of maps and source: Orange and Anaheim.

4.4.6 Other Historical Sources

Stantec was not provided with any additional historical sources for the Property.

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SITE RECONNAISSANCE
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5.0 SITE RECONNAISSANCE

A visit to the Property and its vicinity was conducted by Mr. Dion Monge, Associate Scientist with Stantec on July 14, 2016. Access to the Property was provided through Ms. Sandi Gottlieb of The Olson Company. Stantec was accompanied by Ms. Gottlieb during the Property visit. Figure 2 provides information about the Property and adjoining properties and the location of potential areas of environmental concern. Photographs collected during the Property visit are included in Appendix A.

5.1 SITE RECONNAISSANCE METHODOLOGY

The site reconnaissance focused on observation of current conditions and observable indications of past uses and conditions of the Property that may indicate the presence of RECs. The reconnaissance of the Property was conducted on foot and Stantec utilized the following methodology to observe the Property:

- Traverse the outer Property boundary.
- Traverse transects across the Property.
- Traverse the periphery of all structures on the Property.
- Visually observe accessible interior areas expected to be used by occupants or the public, maintenance and repair areas, utility areas, and a representative sample of occupied spaces.

Weather conditions during the visit to the Property were clear and sunny. There were no weather related Property access restrictions encountered during the reconnaissance visit.

5.2 GENERAL DESCRIPTION

Property and Area Description:	The Property consists of approximately 1.79 acres land and carries the addresses of 633 and 711 South East Street, Anaheim, California. Surrounding properties are a mix of commercial and residential properties.
Property Operations.	The 633 South East Street address is occupied by Quartz Dealer Direct, an automobile auction. McLogan Supply Company (McLogan) is located at 711 South East Street and stores/sells various silk screen supplies, ink, cleaners, and degreasers.
Structures, Roads, Other Improvements:	Quartz Dealer Direct (633 South East Street) occupies approximately $\frac{3}{4}$ of the Property and is developed with one

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	<p>building and a large parking lot area used for parking cars prior to auction. The building includes office space and an auction floor which is located in the west portion of the building.</p> <p>The 711 South East Street address is developed with one building consisting of the McLogan sales floor and warehouse area where various silk screen supplies, ink, cleaners, and degreasers are stored.</p>
Property Size (acres):	1.79 acres
Estimated % of Property Covered by Buildings and/or Pavement:	99%
Observed Current Property Use/Operations:	Automobile storage and auction lot at 633 South East Street and silk screen and printing supply sales at 711 South East Street.
Observed Evidence of Past Property Use(s):	Same as above.
Sewage Disposal Method (and age):	The City of Anaheim
Potable Water Source:	Metropolitan Water District of Southern California and Orange County Water District
Electric Utility:	Municipal Electric Utility, Anaheim

5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

Observations	Description/Location
Hazardous Substances and Petroleum Products as Defined by CERCLA 42 U.S.C. § 9601(14):	<p>Stantec observed several 55-gallon drums located along the west side of the building that contained various chemicals used for cleaning and degreasing ink for silk screening. These chemicals included (but were not limited to) acetone, isopropyl alcohol (IPA), methyl ethyl ketone (MEK), lacquer thinner, and mineral spirits (see Appendix A, Photograph 3). Though no printing activities are reportedly done onsite, Justin Barrios of McLogan indicated that the chemicals contained in the drums are transferred from the drums into smaller containers for storage and resale. No evidence of spills or releases were noted on the surrounding surfaces. The storage of hazardous substances is considered an REC.</p>

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Observations	Description/Location
	<p>Recommendations for further assessment are provided in Sections 1.0 and 7.3.</p> <p>No hazardous materials storage or use were observed at the Quartz Dealer Direct property other than a small quantity of gasoline (<10 gallons) stored near the auction floor of the building (see Appendix A, Photograph 13). The storage of gasoline at this location is considered a de minimis condition due to the quantity stored and lack of staining on the surrounding pavement.</p>
Drums (≥ 5 gallons):	See discussion above regarding hazardous substances.
Strong, Pungent, or Noxious Odors:	None detected.
Pools of Liquid:	None observed.
Unidentified Substance Containers:	None observed.
PCB-Containing Equipment:	A pole mounted transformer was observed on the southern Property boundary. No evidence of leaking or staining was observed on the ground surface beneath the pole.
Other Observed Evidence of Hazardous Substances or Petroleum Products:	None observed.

5.4 INTERIOR OBSERVATIONS

Stantec made the following observations during the Property reconnaissance of the building interiors at the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
Heating/Cooling Method:	Roof mounted HVAC systems
Surface Stains or Corrosion:	None observed.
Floor Drains and Sumps:	None observed.
Other Interior Observations:	The Quartz Dealer Direct (633 South East Street) building includes office space and an auction floor which is located in the west portion of the building. The auction floor included an open floor and auction stand.

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Observations	Description
	The McLogan building (711 South East Street) consists of a sales floor and warehouse area where various silk screen supplies, ink, cleaners, and degreasers are stored on shelves (see Appendix A, Photographs 6 and 7).

5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the site reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
On-site Pits, Ponds, or Lagoons:	None observed.
Stained Soil or Pavement:	None observed.
Stressed Vegetation:	None observed.
Waste Streams and Waste Collection Areas:	None observed.
Solid Waste Disposal:	No solid waste dumpster was observed at the 633 South East Street property. Solid waste generated by 711 South East Street is placed in a dumpster or staged for disposal in along the southern boundary to the west of the McLogan building.
Potential Areas of Fill Placement:	None observed.
Wastewater:	Though no wastewater was observed, Sam of Quartz Dealer Direct reported that a small quantity of vehicle wash water is generated on occasion but indicated that there is no specific area designated for these occasional car washing activities. Any wastewater accumulating on the 622 South East Street property would likely flow into the drainage swale that runs through the property from west to east toward East Street.
Stormwater:	Any stormwater accumulating on the 622 South East Street property would likely flow into the drainage swale that runs through the property from west to east toward East Street. Stormwater collecting on the 711 South East Street property would likely pool or follow the slight surface gradient to the east toward East Street curb and gutter systems.

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Observations	Description
Wells:	None observed.
Septic Systems:	No visible evidence of the existence of a septic system was observed.
Other Exterior Observations:	The majority of the 633 South East Street property was covered with vehicles making it difficult to observe all areas of the pavement, including potential floor drains, sumps, and clarifiers.

5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

Existing USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches) which would indicate the presence of USTs was discovered during the site reconnaissance.
Former USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches) which would indicate the presence of former USTs was discovered during the site reconnaissance.
Other Underground Structures:	The majority of the 633 South East Street property was covered with vehicles making it difficult to observe all areas of the pavement, including potential floor drains, sumps, and clarifiers.

5.7 ABOVEGROUND STORAGE TANKS

Existing ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), which would indicate the presence of ASTs, was discovered during the site reconnaissance.
Former ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of USTs was discovered during this Phase I ESA.

5.8 ADJOINING PROPERTIES

5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about use and activities on adjoining properties:

NORTH	Stone design company
SOUTH	C-Stop gasoline service station (south/southeast), church (south), unspecified light industrial (south/southeast)

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EAST	East Street followed by single-family residential
WEST	Alley followed by a recycling center

5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining properties providing indications of past use and activities, if any, are described below.

NORTH	None observed.
SOUTH	None observed.
EAST	None observed.
WEST	None observed.

5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds and lagoons on adjoining properties:

NORTH	None observed.
SOUTH	None observed.
EAST	None observed.
WEST	None observed.

5.9 OBSERVED PHYSICAL SETTING

Topography of the Property and Surrounding Area:	The Property is at an approximate mean elevation of approximately 167 feet above msl. Based on the observed topography, storm water would flow over hardscaped surfaces toward the curb and gutter system along South East Street.
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6.0 INTERVIEWS

Stantec conducted interviews with the following individuals:

Name and contact information	Relationship to Property	Key findings:
Mr. Sam Governale, 714-491-7111	Owner of Quartz Dealer Direct, 633 South East Street	<p>Mr. Governale indicated that he is not aware of any below ground structures, notices of violation, unauthorized releases, past hazardous materials use of other occupants, or environmental issues with the Property or adjacent properties.</p> <p>Mr. Governale indicated that Quartz Dealer Direct uses only small quantities of gasoline (<10 gallons) stored in containers along the outer west wall of the office. He also indicated that a very limited amount of wash water is generated from occasional vehicle washing conducted at the Property and that there was no specific area designated to washing activities.</p>
Michael Edwards and Justin Barrios, 714-999-1194	Employees of McLogan Supply Company, 711 South East Street	Both employees were interviewed at the same time during the Property visit. They indicated that McLogan is a supplier of silk screen printing equipment and that the chemicals contained in the drums on the exterior west side of the building are transferred from the drums into smaller

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		<p>containers for storage and resale. They both indicated that no spills or releases have occurred during their familiarity with the Property. Additionally, they were not aware of any below ground structures at the Property.</p>
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Phase II Environmental Site Assessment
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7.0 Phase II Environmental Site Assessment

7.1 SCOPE-OF-WORK

The scope of work included the following tasks:

- Pre-field activities, including preparation of a health and safety plan (HASP) and utility clearance;
- Advancement of borings at 8 locations for the purpose of sampling soil and soil vapor;
- Collection of 5 soil samples for pesticide analysis by EPA method 8081A, and arsenic and lead by EPA method 6010b;
- Collection of 8 soil samples for TPH analysis by EPA method 8015 and VOCs by EPA method 8260b;
- Analysis of 8 soil vapor samples and one replicate sample for VOCs by EPA method 8260b via California-certified on-site mobile lab; and
- Collection of and analysis of 5 stress-absorbing fabric samples for asbestos by transmission electron microscopy (TEM) EPA NOB.

Stantec concludes that the scope of work set forth above is sufficient for purposes of defining exceedances of the regulatory thresholds and human health risks associated with the Property.

7.2 PRE-FIELD ACTIVITIES

Stantec prepared a site-specific health and safety plan (HASP) in accordance with the Occupational Safety and Health Administration (OSHA) guidelines set forth in Hazardous Waste Operations and Emergency Response (29 CFR 1910.120). The HASP described potential physical and chemical hazards associated with the scope of work, and prescribed mitigating measures and safety procedures. The HASP included emergency contact information and a driving route to the nearest emergency care facility. The HASP was reviewed and signed by all personnel and subcontractors performing work on the Property. A copy was present on-site at all times and kept in an easily accessed location.

Stantec complete utility clearance work, including notifying Underground Service Alert (USA) as required by State of California law a minimum of 48 hours prior to initiating the field investigation.

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7.3 FIELD INVESTIGATION

7.3.1 Soil Sampling

Soil boring locations were hand augered within the upper four feet for utility clearance. Once the four foot depth had been reached, each of the boring locations were further advanced using a Geoprobe direct push rig to a maximum explored depth of 7 feet bgs. During advancement of each boring, subsurface soils were sampled at one and five feet using a hand auger and pushed to the terminal depth of 7 feet bgs using the direct push rig.

Upon advancement of the hand auger to the desired sampling depth interval, the hand auger were extracted from the boring and the soil contained in the auger bucket were tightly packed into 8-ounce glass jars with Teflon lined lids. Sample labeling included pertinent identification (boring number, sample depth, sample collection date, and sample collection time). The samples were then logged on a chain-of-custody (COC) form and placed in an ice-filled cooler for transport to the laboratory. Copies of the COC forms are included as Appendix G.

During hand clearing activities, the soils contained therein were visually examined by Stantec field personnel who then classified the soils in accordance with the unified soil classification system (USCS).

7.3.2 Soil-Vapor Sampling

All fieldwork was conducted by a Stantec geologist working under the direction of a California Professional Geologist. Stantec coordinated with H & P, a subcontracted C-57 Licensed professional drilling company, to perform the installation of eight (8) temporary soil vapor probes at the Property to approximately 7 feet bgs. The soil vapor sample locations are depicted on Figure 2 attached.

Temporary soil vapor sampling probes were installed at 7 feet bgs using a Direct Push drilling rig. The sample probe boreholes were sealed with hydrated granular bentonite clay to isolate the sample intervals from ambient air. A tracer compound placed above the surface seal was used to evaluate the integrity of the seal. The probes were allowed to equilibrate for 2 hours prior to sampling.

All samples were collected in general accordance with the methods and procedures outlines by the California Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board (CRWQCB) *Advisory – Active Soil Gas Investigations*, dated 2015 with a modification made to the probe screen placement depth (i.e. 7 feet bgs) and equilibration reduced from 48 hours to 2 hours. The samples were collected following a shut in test and extraction of 3 volumes of the sampling train at a flow rate of less than 200 cc/min. The samples were labeled with the appropriate identification and delivered under COC to an onsite mobile

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laboratory for potential chemical analysis. The COC records for the samples collected from the borings are presented in Appendix G.

7.3.3 Decontamination procedures

Prior to advancing each boring all sampling equipment was decontaminated in an Alconox scrub solution followed by a rinse in clean water.

7.3.4 Laboratory Analysis

Soil samples were submitted for laboratory analysis to Eurofins/Calscience, a California-certified stationary laboratory located in Garden Grove, California. Eight (8) soil samples were analyzed for TPH and VOCs by EPA Methods 8015 and 8260b, respectively. Five (5) soil samples were analyzed for pesticide by EPA Method 8081A, and arsenic and lead by EPA Method 6010b.

Eight (8) soil vapor samples were submitted to H&P Mobile Geochemistry, a California-certified mobile laboratory for immediate analysis. The analytical method included VOCs by EPA Method 8260. A leak check was performed on the first soil vapor sampling location using 1,1-Difluoroethane under a shroud. The shroud was constructed of a hard container (i.e. bucket) large enough to cover the tubing. A sample of air from within the shroud was collected with a syringe from a sample port to verify the 1,1-Difluoroethane concentrations. The sample port was at an elevation similar to the soil vapor sample connections that were being monitored.

Analytical laboratory test results are attached as Appendix G. Soil vapor analytical results are summarized in Table 3.

7.3.5 FIELD OBSERVATIONS

Subsurface soils encountered during sampling activities consisted generally of fine and fine to medium grained sand to a depth of approximately 5 feet bgs. Soil conditions were slightly moist to moist. No groundwater was encountered to the maximum explored depth of 5 feet bgs. No odors or staining were noted in the soils exposed during hand auguring activities.

7.3.6 ANALYTICAL RESULTS

The laboratory analytical results are discussed below and summarized in Tables 1 through 3. The complete laboratory analytical test results are presented on the laboratory data sheets attached as Appendix G. For comparison, Table 3 includes the DTSC Note 3 Screening Levels and US EPA Regional Screening Levels (RSLs) for soil vapor, which have been derived by dividing these values by the DTSC default attenuation factor of 0.001.

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Soil Results

No gasoline range petroleum hydrocarbons were detected above laboratory reporting limits (i.e., the results were "non-detect"). Diesel range petroleum hydrocarbons were only detected above laboratory reporting limits in B-2-1, B-3-1, and B-7-1 at 6.5, 8.7, and 29 mg/kg, respectively. Oil range petroleum hydrocarbons were only detected above laboratory reporting limits in the same samples (B-2-1, B-3-1, and B-7-1) at 81, 86, and 53 mg/kg, respectively. No VOCs were detected above laboratory reporting limits in any of the soil samples analyzed.

The detected diesel and oil range petroleum hydrocarbons are below the Orange County Health Care Agency threshold of 100 mg/kg. In regard to pesticides, only trace concentrations of 4,4-DDE, 4,4-DDT, and dieldrin were detected in sample B-2-1 at 0.011, 0.0055, and 0.022 mg/kg, respectively. These concentrations are well below the US EPA RSLs for residential sites set at 2.0 mg/kg for 4,4-DDE, 1.9 for 4,4-DDT, and 0.034 mg/kg for dieldrin. Concentrations of lead were detected at a maximum of 16.8 mg/kg which is below the DTSC Note 3 screening level of 80 mg/kg for residential use. Concentrations of arsenic were detected at a maximum of 3.95 mg/kg and within the range considered to be naturally occurring in California.

Soil Vapor

Naphthalene and 1,1,2-trichlorotrifluoroethane were detected above laboratory reporting limits in select samples but below DTSC Note 3 or RSLs for residential use. Benzene and tetrachloroethylene ("PCE") were detected at all 8 sample locations. However, the maximum benzene concentration detected was 30 µg/m³ – which is below the applicable screening level of 97 µg/m³.

At 5 of the 8 sampling locations PCE concentrations were detected above the applicable human health risk screening level of 480 µg/m³ (DTSC Note 3) for residential use. The PCE concentrations in excess of the DTSC screening level ranged from 650 to 1,200 µg/m³ with the maximum concentration detected at SV7 in the southwest corner of the Property. The lowest PCE concentration was detected at 90 µg/m³ in SV2 located in the southeast corner of the Property. The soil vapor PCE concentration detected at the potential sump location (SV6) was 460 µg/m³ and just below the residential screening level. Conclusions and recommendations regarding PCE in soil vapor are presented in the Executive Summary and in Section 9.0.

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EVALUATION
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8.0 EVALUATION

This section provides a summary overview of or Findings, Opinions, and Conclusions.

8.1 FINDINGS AND OPINIONS

Information gathered from interviews, reviews of existing data, and a property inspection was evaluated to determine if RECs are present in connection with the Property. Based on this information, Stantec made the following findings and developed the following opinions.

Finding 1: According to the city directory listings and aerial photograph review, the Property has been utilized for light industrial purposes (Electric Supplies Distributing Co, McLogan Supply Co, and an auto auction) since 1966. More specifically, McLogan actively stores and sells various cleaners and degreasers including (but not limited to) acetone, isopropyl alcohol (IPA), methyl ethyl ketone (MEK), lacquer thinner, and mineral spirits. Additionally, there are several industrial businesses in the surrounding area, one of which (former Dixco Chemical) reported releases of BTEX compounds and chlorinated solvents to soil and groundwater.

Opinion 1: Historic uses at the Property and surrounding area have included the use/storage of various hazardous materials. Accordingly Stantec performed a Phase II subsurface investigation to determine whether a release had occurred on or off site at concentrations above regulatory thresholds or health risk criteria for residential use.

The Phase II sampling activities discussed in Section 7.0 reported no soil impacts from TPH or VOCs above typical regulatory action levels. However, in regard to soil vapor, concentrations of tetrachloroethylene ("PCE") were detected across the Property at all 8 soil vapor boring locations. Five of the eight locations exhibited PCE concentrations in soil vapor above the Department of Toxic Substances Control's (DTSC) Note 3 human health risk screening level of 480 $\mu\text{g}/\text{m}^3$ for residential use with regard to potential vapor intrusion. The PCE concentrations in excess of the DTSC screening level ranged from 650 to 1,200 $\mu\text{g}/\text{m}^3$.

The soil sampling results indicate no potential on-site contamination sources giving rise to the soil vapor impacts. Based on the data, Stantec concludes that the impacts to soil vapor appear to be sourced off-site. It is Stantec's understanding that soil vapor barriers will be installed beneath all contemplated residential structures at the Site. Because soil vapor barriers will be an effective way for mitigation potential human health risks posed by the potential for

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impacted soil vapor to intrude into indoor air in building structures (i.e., in the absence of a soil vapor barrier), Stantec recommends no further action or investigation regarding soil vapor at the Site, except for the vapor barrier installation.

Finding 2: Two features of significance were identified in the 1959 aerial photograph. These features included 1) a concrete slab visible at the southwest portion of the building, and 2) a dark black square feature is visible in the southwest portion of the Property that resembles a mud pit or earthen sump.

Opinion 2: Although there is no other evidence (i.e. city/county records, interviews, or visual evidence) to support the presence of a UST or sumps at the Property, the concrete pad resembles the approximate size of a UST pad and the dark black square resembles a mud pit or earthen sump. Accordingly, Stantec performed a Phase II subsurface investigation.

The results of the Phase II sampling at both of the reference locations reported no soil impacts from TPH or VOCs above typical regulatory action levels. No staining or odorous soils were encountered at the suspected sump location identified on the aerial photograph during drilling activities by Stantec or Albus-Keefe Associates. Soil vapor concentrations exceeded DTSC Note 3 human health risk screening levels for PCE near the concrete pad observed in aerial photographs. However, the detected concentration was consistent with PCE detected in soil vapor elsewhere at the Property and not figured to be associated with a release at that specific location or the Site. As a result, Stantec concludes that this issue does not represent a Recognized Environmental Condition, and recommends no further assessment regarding this issue.

Finding 3: Based on aerial photographs and topographic maps, the Property appears to have been used for agricultural purposes until circa 1953.

Opinion 3: Due to the historical agricultural use of the Property, Stantec performed a Phase II subsurface investigation for pesticides and heavy metals.

The Phase II ESA included the collection of shallow soil samples from five locations for analysis of pesticides by EPA Method 8081A and for arsenic and lead by EPA Method 6010b. Concentrations of pesticides and lead were detected below regulatory screening levels. Arsenic was detected within ranges considered to be naturally occurring in California. As a result, Stantec concludes that the historical agricultural use of the Site does not represent a Recognized Environmental Condition, and recommends no further assessment regarding this issue.

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Finding 4: The adjacent Thrifty Oil #364 / Arco #9730 station (727 South East Street) had a gasoline release to soil. The station received regulatory case closure on December 12, 2003; however, the station remains active.

Opinion 4: Because of the potential for a vapor encroachment condition from fuel past releases, Stantec performed a Phase II subsurface investigation to sample and analyze soil and soil vapor samples along the southern boundary line for TPH and VOCs to evaluate whether a release has occurred at this location above regulatory thresholds or health risk criteria for residential use.

The Phase II ESA included the advancement of one boring for the purpose of collecting soil vapor samples along the Property line adjacent to the offsite UST pad at the service station. Concentrations of VOCs were detected above laboratory reporting limits but well below the DTSC health risk screening levels with regard to potential vapor intrusion. Stantec concludes that the gasoline service station does not represent a Recognized Environmental Condition, and recommends no further investigation regarding this issue.

Finding 5: According to historical documents including aerial photography, the Property was developed with the existing structures circa 1963.

Opinion 5: Based on the dates of construction of the Property, Stantec recommends performing a comprehensive, pre-demolition ACM and LBP survey in accordance with the sampling criteria of the Asbestos Hazard Emergency Response Act ("AHERA") prior to any activities with the potential to disturb building materials, and abated accordingly.

Additionally, the Property has an asphalt-paved driveway. A stress absorbing fabric marketed as Petromat® is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Therefore, Stantec analyzed the asphalt for the presence of Petromat.

Samples of the fabric were collected from five locations and analyzed for the presence of asbestos. The fabric was found to contain a trace amount of asbestos (<1%) and is considered an asbestos containing construction material ("ACCM"). In connection with the removal and disposal of the asphalt at the Site, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915. Therefore, Stantec recommends that all work affecting the asphalt at the Site (*i.e.*, removal and disposal of the asphalt) be performed in accordance with all applicable laws, including OSHA guidelines, as such requirements apply to ACCM.

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8.2 DATA GAPS

The federal AAI rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a “data gap” as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the Environmental Professional or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

Gap	Discussion
Deletions or Exceptions From Scope of Work Referenced in Section 1.4:	None
Weather-Related Restrictions To Site Reconnaissance:	None
Facility Access Restrictions to Site Reconnaissance:	None
Other Site Reconnaissance Restrictions:	None
Data Gaps From Environmental Records Review:	None
Data Gaps From Historical Records Review:	None
Data Gaps From Interviews:	None
Other Data Gaps:	None

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9.0 CONCLUSIONS AND RECOMMENDATIONS

The Property consists of approximately 1.79 acres of land with the addresses of 633 and 711 South East Street, Anaheim, California. The 633 South East Street address is occupied by Quartz Dealer Direct, an automobile auction. Quartz Dealer Direct occupies approximately 75% of the Property and is developed with one building and a large parking lot area used for parking cars prior to auction. The building includes office space and an auction floor which is located in the west portion of the building.

McLogan Supply Company (McLogan) is located at 711 South East Street and occupies the southeast 25% of the Property. The 711 South East Street address is developed with one building consisting of the McLogan sales floor and warehouse area where various silk screen supplies, ink, cleaners, and degreasers are stored. The surrounding area is a mixture of residential properties and commercial properties, including a service station adjacent to the south. A Property location map is illustrated on Figure 1. A Property Vicinity Plan illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

During the site reconnaissance, Stantec observed several 55-gallon drums located along the west side of the building that contained various chemicals used for cleaning and degreasing ink from silk screens. These chemicals included (but were not limited to) acetone, isopropyl alcohol (IPA), methyl ethyl ketone (MEK), lacquer thinner, and mineral spirits. No printing activities were observed onsite but Justin Barrios of McLogan indicated that the chemicals contained in the drums are transferred from the drums into smaller containers for storage and resale. Stantec observed no evidence of any spills or releases on the surrounding surfaces. Several 5-gallon containers of ink are stored in conex boxes to the north of the McLogan building, also with no evidence of leaks or releases.

No hazardous materials storage or use were observed at the Quartz Dealer Direct property other than a small quantity of gasoline (<10 gallons) stored near the auction floor of the building (see Appendix A, Photograph 13). Sam of Quartz Dealer Direct reported that a small quantity of vehicle wash water is generated on occasion but indicated that there is no specific area designated for these occasional car washing activities.

In connection with the Phase I Environmental Site Assessment, Stantec evaluated the following issues:

- **Industrial Use.** According to the city directory listings and aerial photograph review, the Property and surrounding area has been utilized for industrial purposes since the late 1950s. These uses are believed to have included the use of hazardous materials such as fuels, solvents, and petroleum products. Accordingly, Stantec performed a Phase II

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Environmental Site Assessment to sample and analyze shallow soil and soil vapor throughout the Property (including along the Property boundaries) for analysis of total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs) to evaluate whether a release has occurred at the Property or in the surrounding area at levels exceeding regulatory thresholds.

- **Historical Features of Concern.** Two features of significance were identified in the 1959 aerial photograph. These features included 1) a concrete slab visible at the southwest portion of the building, and 2) a dark black square feature is visible in the southwest portion of the Property that resembles a mud pit or earthen sump. Although there is no other evidence (*i.e.*, city/county records, interviews, or visual evidence) to support the presence of a UST or sumps at the Property, the concrete pad resembles the approximate size of a UST pad and the dark black square resembles a mud pit or earthen sump. Accordingly, Stantec performed a Phase II Environmental Site Assessment at these areas to sample and analyze soil and soil vapor.
- **Historical Agricultural Use.** There is a potential that the Property was historically used for agricultural purposes (*i.e.*, orchards). Accordingly, Stantec recommended performing a shallow soil assessment at the Property to evaluate whether residual pesticides or heavy metals associated with herbicide applications are present above regulatory screening levels, human health risk criteria or California hazardous waste levels.
- **Adjacent Gasoline Station.** The adjacent Thrifty Oil #364 / Arco #9730 station (727 South East Street) had a gasoline release to soil. The station received regulatory case closure on December 12, 2003; however, the station remains active. Due to the absence of soil vapor sampling data for the Property, Stantec recommended collecting soil and soil vapor samples along the southern boundary line for TPH and VOCs to evaluate whether a release has occurred at this location above regulatory thresholds or health risk criteria for residential use.

The Results of the Phase II ESA

Each of the issues mentioned above were assessed during a Phase II ESA performed on July 21, 2016. The soil sampling results indicated no TPH, VOCs, pesticides or lead above regulatory thresholds for residential use. Concentrations of arsenic were detected within the range considered to be naturally occurring in California. Additionally, no stained or odorous soils were observed in the borings performed by Stantec and Albus-Keefe and Associates (during geotechnical drilling) at the suspected sump/mud pit location from the 1959 aerial photograph.

With regard to soil vapor, concentrations of tetrachloroethylene ("PCE") were detected across the Property at all 8 soil vapor boring locations. At 5 of the 8 locations, PCE concentrations were detected in soil vapor at concentrations above the Department of Toxic Substances Control's (DTSC) Note 3 human health risk screening level of 480 µg/m³ for residential use with regard to

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potential vapor intrusion. The PCE concentrations exceeding the DTSC screening level for soil vapor ranged from 650 to 1,200 $\mu\text{g}/\text{m}^3$. As a result, the PCE concentrations in soil vapor are considered a Recognized Environmental Condition that should be assessed further in order to evaluate if a source exists onsite or whether the contamination is migrating onsite from an offsite source.

Given that the surrounding area is developed with several industrial businesses including the adjacent Dalton Recycling center, nearby Anaheim Plating and Polishing, former Dixco Chemical Corporation, and other miscellaneous industrial businesses, there is potential that the PCE vapors are emanating from a known or unknown offsite release (or releases). The former Dixco Chemical Corporation in particular is located along South Street, approximately 250 feet south of the Property and up-gradient with respect to groundwater flow. Geotracker reports that this former chemical company historically operated nine USTs containing various chemicals and that included PCE, among other chlorinated solvents, were detected in both soil and groundwater. Following years of remediation using vapor extraction the release was issued closure by the Regional Water Quality Control Board on May 29, 2001.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527-13 (and Final Rule 40 CFR Part 312 et seq.) with respect to the Property. Any exceptions to, or deletions from this practice are described in the Data Gaps section of this report. The Phase I ESA revealed the following environmental issues associated with the Property and the surrounding area:

- **PCE-Impacted Soil Vapor.** Based on the data collected during the Phase II ESA, the PCE concentrations in soil vapor are considered an REC. It is Stantec's understanding that Olson will be installing vapor barrier membranes beneath the building foundations of all residential structures at the Site. Because vapor barrier installation at the Site would be an effective method for addressing potential human health risks related to the potential for vapor intrusion into the contemplated buildings, Stantec recommends no further action or investigation regarding soil vapor at the Site.

Additionally, Stantec identified the following non-ASTM environmental issues in connection with the Property:

- **ACM.** Given the age of the existing buildings on the Site (Circa 1963), the presence of asbestos-containing materials ("ACM") is considered likely. Stantec recommends that prior to any renovations that would result in disturbance of suspect material, a comprehensive pre-demolition ACM survey should be completed in accordance with the sampling criteria of the Asbestos Hazard Emergency Response Act ("AHERA"), and that a certified asbestos abatement contractor is retained to remove ACM in accordance with all applicable laws.

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- **Petromat.** The Property has an asphalt paved parking lot. A stress absorbing fabric marketed as Petromat® is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Should development plans include demolition of the asphalt, Stantec recommended inspecting the asphalt for the presence of Petromat and if observed, sampling the Petromat for the presence of asbestos.

An inspection of the asphalt for the presence of stress absorbing fabrics was conducted during the Phase II ESA on July 21, 2016. Stress absorbing fabric was observed within the asphalt layers at all five of the boring locations on the 633 South East Street property. The fabric was not observed in the three borings advanced at 711 South East Street. Analysis of the fabric samples reported trace amounts of asbestos (<1%) such that it would be considered an Asbestos Containing Construction Material (ACCM). ACCM can be disposed of as non-hazardous waste; however, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915. Therefore, Stantec recommends that all work affecting the asphalt at the Site (*i.e.*, removal and disposal of the asphalt) be performed in accordance with all applicable laws, including guidelines of the Occupational Safety and Health Administration ("OSHA"), as such requirements apply to ACCM.

- **LBP.** Given the age of the existing buildings (circa 1963), the presence of lead-based paint ("LBP") is considered likely. Stantec recommends that prior to any renovations that would result in disturbance of suspect material, an LBP survey be completed to ensure proper removal and disposal. In addition, prior to any activities with the potential to disturb the materials, Stantec recommends that identified LBP be removed in accordance with all applicable laws.

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10.0 NON-SCOPE CONSIDERATIONS

No ASTM E1527-13 non-scope services were performed as part of this Phase I ESA with the following exceptions:

10.1 LEAD-BASED PAINT

Concern for lead-based paint (LBP) is primarily related to residential structures. The EPA's Final Rule on Disclosure of Lead-Based Paint in Housing (40 CFR Part 745) defines LBP as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight.

The risk of lead toxicity in LBP varies based upon the condition of the paint and the year of its application. The U.S. Department of Housing and Urban Development (HUD) has identified the following risk factors:

The age of the dwelling as follows: maximum risk is from paint applied before 1950.

There is severe risk from paint applied before 1960.

There is moderate risk from deteriorated paint applied before 1970.

There is slight risk from the paint that is intact but applied before 1977.

The condition of the painted surfaces.

The presence of children and certain types of households in the building.

Previously reported cases of lead poisoning in the building or area.

Construction Date	Residential (Yes/No)	Observed Condition of Painted Surfaces
Circa 1963	No	Due to the age of the structure, LBP is considered likely. Stantec recommends that all LBP be removed from the Site in accordance with all applicable laws, including OSHA guidelines, prior to any activities with the potential to disturb painted surfaces.

10.2 ASBESTOS

Asbestos can be found in many applications, including sprayed-on or blanket-type insulation, pipe wraps, mastics, floor and ceiling tiles, wallboard, mortar, roofing materials, and a variety of other materials commonly used in construction. The greatest asbestos-related human health



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risks are associated with friable asbestos, which is ACM that can be reduced to powder by hand pressure. Friable asbestos can become airborne and be inhaled, and has been associated with specific types of respiratory disease. The manufacturing and use of asbestos in most building products was curtailed during the late 1970s.

Stantec makes no warranty as to the possible existence or absence of inaccessible materials or to their evaluation with respect to asbestos content. Samples of suspect ACM should be collected for laboratory analysis of asbestos prior to any renovation or building demolition, in order to determine the need for compliance with EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations.

Based on the dates of construction of the Property, Stantec recommends performing a comprehensive, pre-demolition ACM survey in accordance with the sampling criteria of the Asbestos Hazard Emergency Response Act ("AHERA") prior to any activities with the potential to disturb building materials, and abated accordingly.

Additionally, the Property has an asphalt paved parking lot. A stress absorbing fabric marketed as Petromat® is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Stantec recommended inspecting the asphalt for the presence of Petromat and if observed, sampling the Petromat for the presence of asbestos.

An inspection of the asphalt for the presence of stress absorbing fabrics was conducted during the Phase II ESA on July 21, 2016. Stress absorbing fabric was observed within the asphalt layers at all five of the boring locations on the 633 South East Street property. The fabric was not observed in the three borings advanced at 711 South East Street. Analysis of the fabric samples reported trace amounts of asbestos (<1%) such that it would be considered an Asbestos Containing Construction Material (ACCM). ACCM can be disposed of as non-hazardous waste; however, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915.

10.3 RADON

Radon is a colorless, tasteless radioactive gas with an EPA-specified action level of 4.0 PicoCuries per liter of air (pCi/L) for residential properties. Radon gas has a very short half-life of 3.8 days. The health risk potential of radon is primarily associated with its rate of accumulation within confined areas near or in the ground, such as basements, where vapors can readily transfer to indoor air from the ground through foundation cracks or other pathways. Large, adequately ventilated rooms generally present limited risk for radon exposure. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 1993).

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Stantec reviewed regional data published by the EPA on average indoor radon concentrations in the vicinity of the Property (<http://www.epa.gov/radon/zonemap.html>).

EPA Radon Zones (w/Average Measured Indoor Radon concentrations)		
Zone 1 – High (>4.0 pCi/L)	Zone 2 – Moderate (2 to 4 pCi/L)	Zone 3 – Low (<2 pCi/L)
Normally-occupied sub grade areas present? (i.e., basement apartments, offices, stores, etc.)		
None		

The property is located in Zone 3 and is considered to have low potential for radon. One of the 27 tests conducted in zip code 92805 (area of the Property) had a concentration greater than 4 pCi/L. The average first floor radon concentration in Orange County is 0.763 pCi/L. To determine Property-specific radon levels, a radon survey would have to be conducted. However, based on the information available, Stantec concludes that radon appears unlikely to represent an environmental concern to the Property and recommends no further investigation regarding this issue.

10.4 FLOOD ZONES

According to the Physical Setting summary portion of the EDR report, the Property is located within a 100-year flood plain.

10.5 PESTICIDES

Stantec's interpretation of historical aerial photographs and topographic maps show the Property depicted with residential structures until circa 1953. Accordingly, Stantec performed a shallow soil assessment at the Property to evaluate whether residual pesticides or heavy metals associated with herbicide applications are present above regulatory screening levels, human health risk criteria or California hazardous waste levels. Phase II results pertaining to historic agricultural use are discussed in Section 8.0. In sum, the historical agricultural use of the Property represents neither a Recognized Environmental Condition nor a human health risk in light of the contemplated residential use of the Property, and Stantec recommends no further investigation regarding this issue.

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REFERENCES

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11.0 REFERENCES

American Society for Testing and Materials (ASTM) International, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, Designation: E 1527-13, November 2013.

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Environmental Data Resources, Inc. (EDR), EDR Radius Map with Geocheck, Inquiry Number 4674425.2s, dated July 15, 2016.

_____, Certified Sanborn Map Report, Inquiry Number 4668952.3, dated July 8, 2016.

_____, Historical Topographic Map Report, Inquiry Number 4668952.4, dated July 8, 2016.

_____, Aerial Photo Decade Package, Inquiry Number 4668952.5, dated July 8, 2016.

_____, City Directory Abstract, Inquiry Number 4668952.6, dated July 8, 2016.

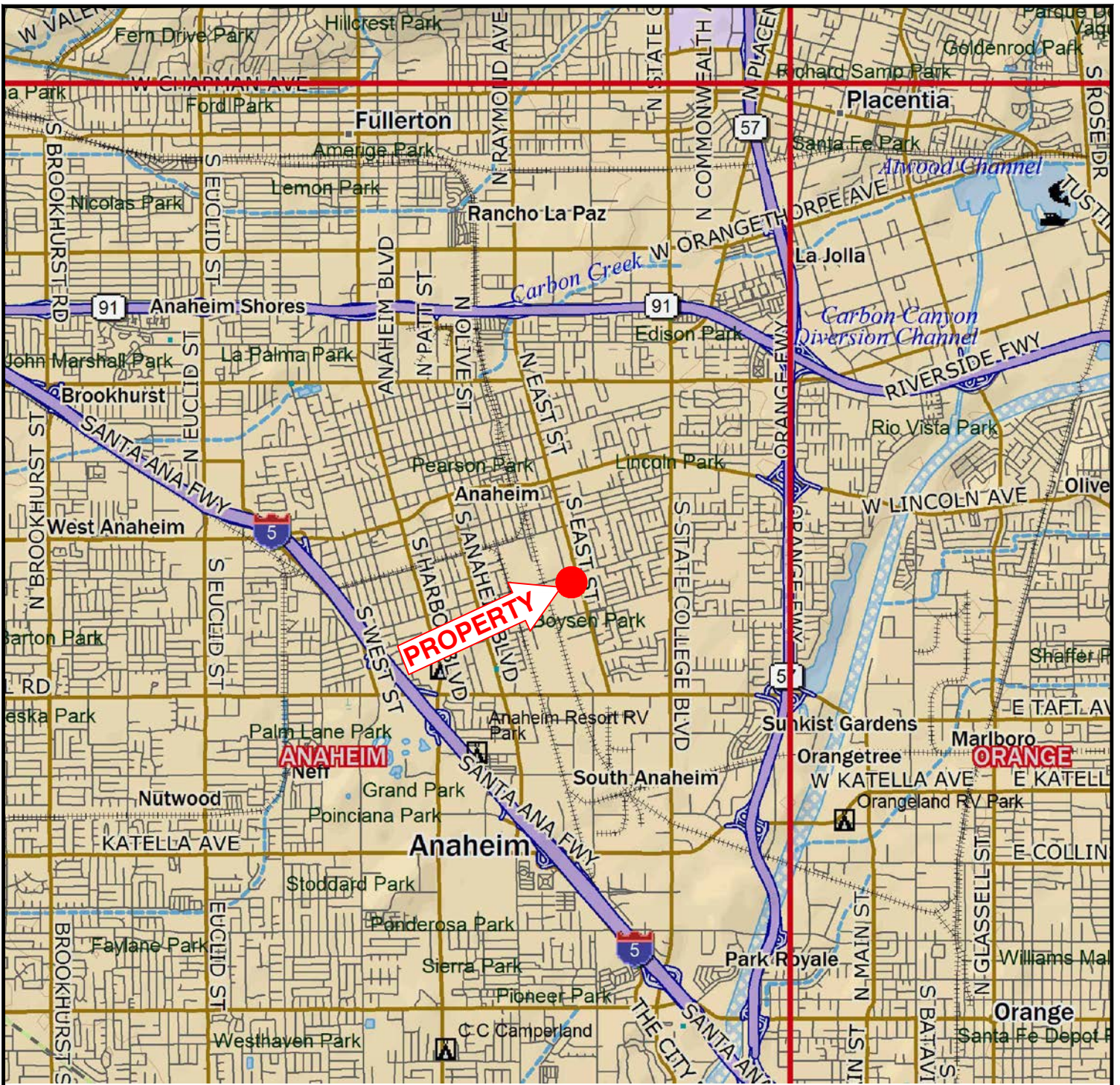
State Water Resource Control Board's Geotracker, 2016, website <https://geotracker.waterboards.ca.gov/>

United States Geological Survey (USGS), 2012, Orange, 7.5 Minute Topographic Map, Scale 1 inch = 2,400 feet.

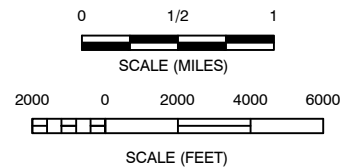
United States Geological Survey (USGS), 2012, Anaheim, 7.5 Minute Topographic Map, Scale 1 inch = 2,400 feet.

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FIGURES




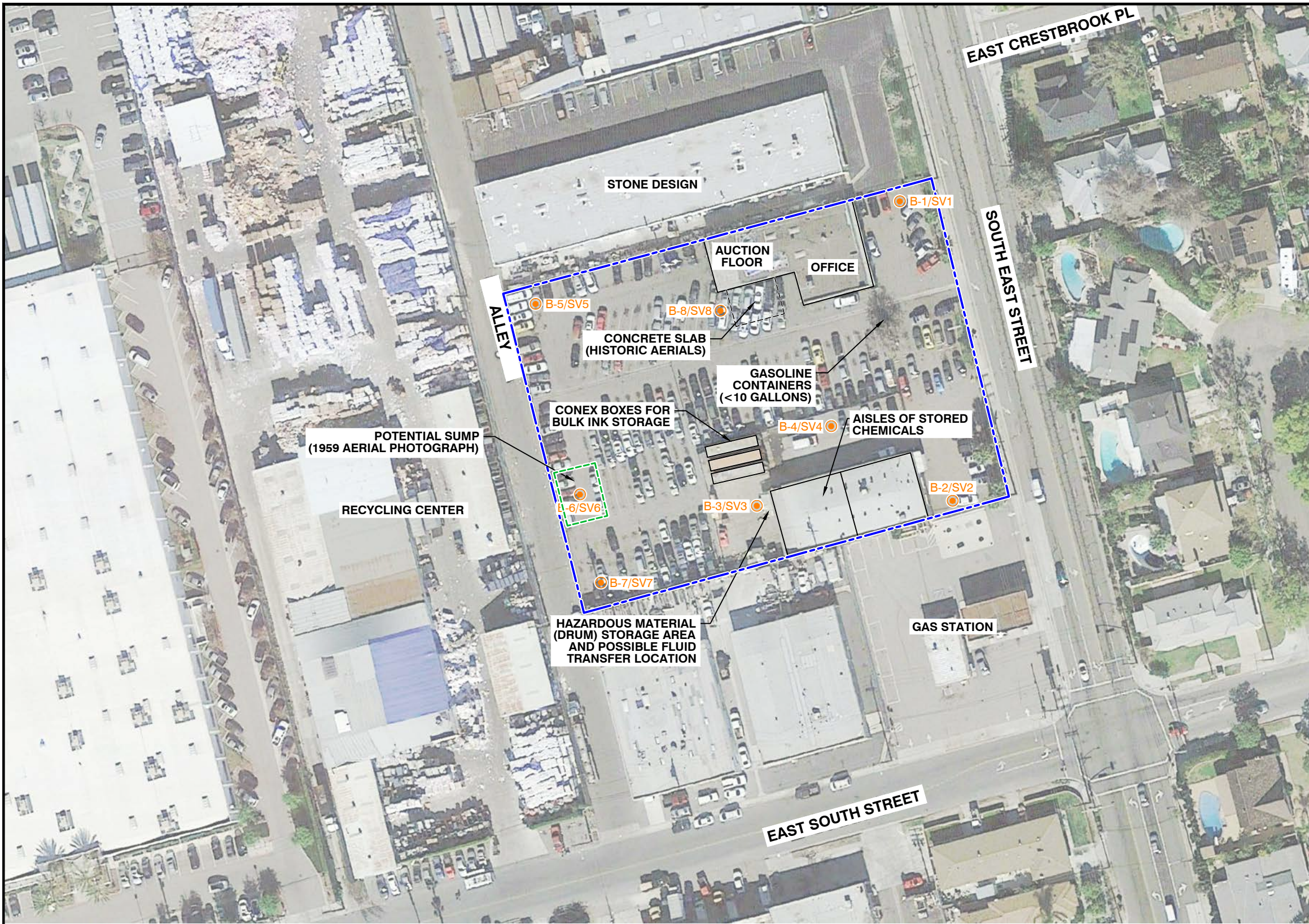
CALIFORNIA






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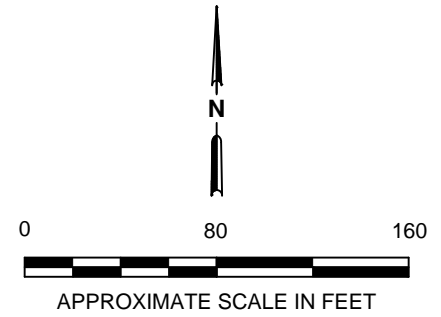
REFERENCE: DELORME TOPO MAP, ANAHEIM, CALIFORNIA


	OLSON URBAN HOUSING PHASE I ENVIRONMENTAL SITE ASSESSMENT 633 AND 711 SOUTH EAST STREET ANAHEIM, CALIFORNIA		PROPERTY LOCATION MAP		FIGURE: 1
	JOB NUMBER: 185803745	DRAWN BY: STA	CHECKED BY: DM/AJ	APPROVED BY: KM	DATE: 07/20/16



LEGEND:

-  SOIL BORING LOCATION
-  APPROXIMATE PROPERTY BOUNDARY
-  POTENTIAL SUMP LOCATION



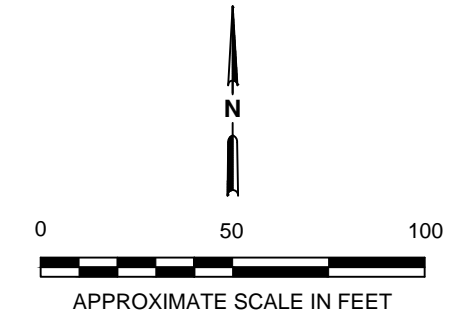
 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120	FOR: OLSON URBAN HOUSING PHASE I ENVIRONMENTAL SITE ASSESSMENT 633 AND 711 SOUTH EAST STREET ANAHEIM, CALIFORNIA		PROPERTY MAP WITH BORING LOCATIONS		FIGURE: 2
	JOB NUMBER: 185803745	DRAWN BY: STA	CHECKED BY: DM/AJ	APPROVED BY: KE	DATE: 07/20/16



LEGEND:

- SOIL BORING LOCATION
- APPROXIMATE PROPERTY BOUNDARY
- POTENTIAL SUMP LOCATION
- 1,200** SOIL VAPOR PCE CONCENTRATIONS ug/m³
- PCE TETRACHLOROETHENE

NOTE: PCE SOIL VAPOR CONCENTRATION IN **BLUE** EXCEED DTSC HEALTH RISK SCREENING LEVELS OF 480 ug/m³



<p>25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120</p>	FOR: OLSON URBAN HOUSING PHASE I ENVIRONMENTAL SITE ASSESSMENT 633 AND 711 SOUTH EAST STREET ANAHEIM, CALIFORNIA		SITE MAP WITH PCE CONCENTRATIONS		FIGURE: 3
	JOB NUMBER: 185803745	DRAWN BY: STA	CHECKED BY: DM	APPROVED BY: KE	DATE: 08/0216

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Appendix A PHOTOGRAPHS OF THE PROPERTY AND VICINITY



Photo #1 Facing north along South East Street at the southeast corner of the Property.



Photo #2 Facing west at the McLogan Silk Screen, Sign, and Digital Supply building located in the southern portion of the Property.



Photo #3 View of hazardous materials storage area along the west side of the McLogan building. The materials contained in the drums are transferred to smaller containers and stored/sold inside the main building.



Photo #4 Canopy adjacent to the the previous photograph.



Photo #5 View of storage shed. No hazardous materials storage.



Photo #6 View of stored chemical for sale in the warehouse of McLogan.



Photo #7 View of stored inks for sale in the warehouse of McLogan.



Photo #8 View of stored ink in 5-gallon containers in conex boxes to the north of the McLogan building.



Photo #9 Facing south along South East Street at the northeast corner of the Property.



Photo #10 Facing west at the Quartz Dealer Direct building located in the northern portion of the Property.



Photo #11 View of the automobile auction area.



Photo #12 View of the auction floor.



Photo #13 View of interior of administration building.



Photo #14 Facing east along the drainage swale that leads out to South East Street. Small quantities of vehicle washwater likely flow through this swale to East Street.



Photo #15 Facing south at the southwest corner of the Property in the parking lot of Quartz Dealer Direct that wraps around the McLogan property.



Photo #16 View of the active C Stop service Station located adjacent to the south.

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Appendix B STANTEC RESUMES

Ryan is a Staff Geologist with a bachelor's degree in Geological Sciences; extensive field experience in soil vapor extraction installation and management; environmental assessments; and Phase I and II Environmental Assessment report preparation. Ryan's field experience includes surface and groundwater collection, gas collection, soil collection and field logging, and basic flow measurements. He is skilled in using the Microsoft Office Suite. Ryan's environmental consulting experience includes performing Phase I Environmental Site Assessments in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13, and the collection of Phase II Environmental Assessment data, compilation and interpretation of the data, and preparation of Phase II Environmental Assessment Reports.

EDUCATION

BA, Geological Sciences (Geology), University of Colorado, Boulder, 2012

First Aid/CPR, Redlands, California, 2015

OSHA 40-Hour Hazwoper, Redlands, 2013

PROJECT EXPERIENCE

Health and Safety Management

Health and Safety Subcontractor Oversight Services (Geological Staff)

Ryan is providing subcontractor oversight for well destruction and other field activities.

Technical Writing

Various Technical Writing Projects (Geological Staff)

Ryan is preparing and providing Health and Safety plans, written permit applications, and groundwater monitoring reports.

Environmental Site Assessments Phase I and II

Phase I Site Assessment, Redlands, California (Phase I Site Assessment Author)

Ryan performed an on-site reconnaissance survey, historical records investigation, and formulated the report deliverable. The report provided a thorough review of the property history and defined present environmental concerns for the client.

Soil Sampling

Dust and Pesticide Monitoring, Soil Sampling, Monterey Park, California (Oversight, Dust and Pesticide Monitoring, Soil Sampling)

Ryan performed field oversight during contaminated soil removal at a future residential community. Dust and toxaphene were monitored simultaneously to generate a site-specific threshold for dust concentration. Routine dust monitoring was performed once the threshold was determined. Property gridding and soil sampling were performed to determine contamination.

Soil Vapor Intrusion Assessment

Soil Vapor Monitoring Well Installation, various locations, California (Field Oversight, Soil Description)

Ryan performed field oversight during the installation of multiple soil vapor monitoring wells. He assisted with health and safety oversight, described the soil during hand auguring, and assisted with the well installation.

Alicia is an Associate Scientist with over ten years of experience in Phase I and II Environmental Assessments, with strong emphasis in water quality and environmental research. She is experienced in California Environmental Quality Act (CEQA) compliance and the preparation of initial studies. Alicia has managed the preparation of environmental documents, training programs, and environmental compliance during large environmental monitoring projects. Alicia's environmental consulting experience includes performing asbestos and lead-based paint surveys, oversight of contractors during asbestos abatement, hazardous materials surveys, and Phase I Environmental Site Assessments in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13.

EDUCATION

BA, Environmental Studies, San Jose State University, San Jose, California, 2004

REGISTRATIONS

Certified Asbestos Consultant (CAC #15-5379), State of California Division of Occupational Safety and Health

Lead Related Construction Sampling Technician (LRCST #19526), California Department of Public Health

Residential Measurement Provider (NRPP ID 108212 RT), National Radon Proficiency Program

MEMBERSHIPS

Member, Groundwater Resources Association of California

PROJECT EXPERIENCE

Remedial Investigations & Assessments

Confidential Client, Phase I Environmental Site Assessments, Cupertino, Palo Alto, and Mountain View, California (Project Lead)

Alicia performed Phase I Environmental Site Assessments (ESA) for multiple research and development facilities and high-tech companies in Silicon Valley in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13 to achieve compliance with requirements of the "All Appropriate Inquiries" rule required to obtain protection from liability under the federal Comprehensive Environmental Response, Cleanup and Liability Act (CERCLA). She is familiar with new methods to review historical documents and regulatory files in an efficient manner.

Confidential Real Estate Development Companies, Phase I Environmental Site Assessments, Multiple Sites, California (Project Lead)

Alicia performed Phase I ESAs in accordance with the practices identified in ASTM E 1527-13 for multiple sites including large industrial warehouses, historic train stations, former orchards, multi-tenant commercial buildings, and residential properties. She reviewed topographic maps, Sanborn Fire Insurance Maps, and files at local regulatory agencies. She interviewed present and former property owners and performed site and adjacent property reconnaissance. She prepared reports summarizing the findings and provided recommendations for further assessment if applicable.

Alicia R Jansen CSST, LRCST

Environmental Scientist

California Department of Transportation Portfolio, Multiple Sites, Northern California (Project Lead)

Alicia prepared quarterly groundwater monitoring reports, subsurface investigation reports, sensitive receptor surveys, and preferential pathway studies for various California Department of Transportation locations throughout northern California. She assisted with the utility locating, work plan preparation, field coordination, archived data onto the State Water Resource Control Board's (RWQCB) Geotracker electronic filing system.

Health, Safety & Industrial Hygiene

Confidential Health Care Company, Asbestos, Lead-Based Paint, and Hazardous Materials Survey, Northern California (Staff)

Alicia assisted with site inspections for asbestos, lead-based paint, and hazardous materials at multiple occupied hospitals and office spaces. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. She assisted with the preparation of reports summarizing findings.

State of California General Services, Asbestos, Lead-Based Paint, and Hazardous Materials Survey, Northern California (Project Lead)

Alicia assisted with site inspections for asbestos, lead-based paint, and hazardous materials at multiple communication towers in remote areas. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. She assisted with the preparation of reports summarizing findings.

Veteran's Administration of Puget Sound, Asbestos and Lead-Based Paint Survey, Seattle, Washington (Project Scientist)

Alicia served as the Project Scientist responsible for hazardous building material assessments, specifically asbestos and lead-based paint. These services were required as part of the pre-design tasks for this project. Over 300 samples were collected over the span of four days culminating in a final hazardous building materials report to be incorporated into the facility design as well as demolition activities once the construction phase of the project commences.

Interim Remedial Action, Indoor Air Sampling, and Sub-Slab Soil Gas Sampling, Sunnyvale, California (Staff)

Alicia conducted an indoor air sampling survey using air sampling pumps, dosimeter badges, and flame ionization detector (FID) during a sump excavation. She performs semi-annual sub-slab soil vapor sampling and indoor air quality surveys using summa canisters. She assists with the preparation and submittal of reports summarizing the findings and provides recommendations to the RWQCB.

Former Tesoro Coke Facility, Asbestos, Lead-Based Paint Survey, Pittsburg, California (Project Scientist)

Alicia assisted with an asbestos and lead paint survey of 20 structures at the facility ultimately scheduled for demolition. More than 200 samples were collected over the span of two days. A report was prepared that will stand up to regulatory scrutiny for demolition while providing the information needed for worker safety during demolition activities at the facility

Permitting, Compliance, Auditing

Tesoro Refinery, Initial Study*, Benicia, California (Staff)

Alicia assisted with the background research and preparation of applicant-prepared initial study for the upgrade of a refinery.

Transmission Line Upgrade*, San Mateo to San Francisco, California (Staff)

Alicia supported the environmental compliance program for the construction of a 27-mile 230 kV underground and overhead transmission line. She assisted with the preparation and submittal of variance requests, extra work space requests, and daily and weekly reports for submittal to the California Public Utilities Commission. She also conducted research and assisted with training and report preparation.

* denotes projects completed with other firms

Alicia R Jansen CSST, LRCST

Environmental Scientist

Goodyear Portfolio, Northern California and Hawaii (Project Lead)

Alicia performed Phase I Environmental Site Assessments (ESA) and Phase II Site Assessments for various Goodyear Tire & Rubber Company locations throughout California and Hawaii. She assisted with the installation of monitoring wells and exploratory borings; underground storage tank removals; site restoration; product removal with passive recovery system; archived data onto the State Water Resource Control Board's Geotracker electronic filing system; and assisted with the preparation of quarterly groundwater monitoring reports, sensitive receptor surveys, site conceptual models, and subsurface investigation reports.

** denotes projects completed with other firms*

Kyle has more than 35 years of professional experience—25 of those years with Stantec—providing geotechnical and environmental consulting. During the course of his experience, he has been involved with a wide variety of geological and engineering projects. He has been in direct charge of quality control/quality assurance (QA/QC) work for Stantec and previous firms for geological, engineering geological, and environmental services primarily in California. Additionally, Kyle has been a primary contact for Stantec with many different clients (including multi-party actions) and regulatory bodies involving contracting, workplan approvals, site assessments and closures, permitting, remedial action, and litigation support. With regard to litigation services, Kyle has extensive experience providing expert witness testimony, second-party review, and litigation support and analysis.

Kyle's extensive experience includes assessment and remediation of property-specific and regional issues involving soil and groundwater contaminated with petroleum hydrocarbons, chlorinated solvents, heavy metals, pesticides, and PCBs.

He currently serves as the managing principal geologist in Stantec's Redlands, California office.

EDUCATION

Engineering Geology/Hydrogeology, California State University, Los Angeles, California, 1984

AS, General Science, Crafton Hills College, Yucaipa, California, 1975

BS, Geological Sciences, California State University, Long Beach, California, 1982

REGISTRATIONS

Certified Engineering Geologist #1271, State of California

Professional Geologist #4066, State of California

PROJECT EXPERIENCE

Bioremediation

Excavation and Treatment of Petroleum-Contaminated Soil

Kyle designed the excavation and treatment of 45,000 cubic yards of petroleum-contaminated soil. Soil treatment included utilizing vapor extraction, combined with bioremediation.

Chemicals & Polymers

Two Former Chemical Plants, Environmental Site Assessments and Remediation, Vernon, California
Mr. Emerson was part of the team for conducting Phase I and Phase II Environmental Site Assessments (ESA) and developing remedial action plans for two former chemical plant sites with 80-year industrial histories. Phase I ESAs used historical files, maps, aerial photographs, available documents, and data from public agencies and historical directories for identifying recognized environmental concerns. Extensive Phase II ESA survey activities aided in identifying below-grade structures such as vaults/USTs, as well as assessing the extent of influence and nature of the contamination. These investigations confirmed the presence of heavy metals, petroleum hydrocarbons, volatile organic compounds, polychlorinated biphenyls, radioactive materials, semi-volatile organic compounds, and polycyclic aromatic compounds in the soils for these sites. Specific areas of concern included former settling ponds, a bone yard, maintenance areas, transformer and substations, wastewater treatment facilities, and above-ground storage tank farms. A conceptual mode was developed for use in a health risk assessment and developed risk-based corrective actions to address potential health and environmental concerns. He assisted with the development and implementation of a remedial action plan, combined administrative controls, engineering controls, and active remediation; this resulted in the cost-effective return of one site to active use, and is reducing health risks to occupants and the public at the second site.

Kyle D. Emerson PG, CEG

Managing Principal Geologist

CONFIDENTIAL: Aerospace Adhesives and Coatings Plant, Glendale, California

Mr. Emerson was part of the team that conducted feasibility studies to evaluate remedial alternatives for remediation of chlorinated VOCs, 1,4 dioxane, and hexavalent chromium (CrVI) in soil, soil vapor, and groundwater. Feasibility studies included groundwater pump testing, benchscale column testing to evaluate in situ alternatives for reducing CrVI to the less mobile CrIII valence state, soil vapor extraction, capping, and excavation. Field pilot studies were performed to evaluate the efficiency of various CrVI reductants including the use of ferrous sulfate, calcium polysulfide, emulsified oil, and fructose. Extensive multi-depth soil vapor testing was conducted to evaluate the distribution of VOCs in the subsurface and to support vapor intrusion risk assessment. Feasibility studies were completed in 2008. Remedial actions are expected to be completed in 2011.

Condition Assessments

Assessment and Mitigation of Manufacturing Facility

Kyle managed the assessment and mitigation of an ammunition manufacturing facility covering 1,100 acres in a complex geologic environment. The contaminants involved red and white phosphorous, TNT, chlorinated solvents, solid wastes, and live ordinance.

Soil Contamination Assessment Supervision and Management

Kyle managed and supervised soil contamination assessment and in-situ remediation of heavy metals involving chromium, cadmium, nickel and zinc by chemical fixation to depths in excess of 40 feet below ground surface beneath existing structures within several manufacturing facilities.

Litigation Support and Expert Testimony

Kyle provided litigation support and expert testimony on more than 20 separate projects involving service stations, chlorinated solvent cases, heavy metal, and semi-volatile releases.

Corporate / Office

CT Realty Environmental Remediation of Former Dry Cleaners, El Centro, California

Mr. Emerson was responsible for assessments and remediation at this former dry cleaners which released the dry cleaning chemical tetrachloroethene (PCE) to the ground and underlying groundwater. The work included initial site assessment, agency interaction and negotiations with the California Regional Water Quality Control Board (CRWQCB), and Colorado Basin Region human health risk assessment (HHRA), design and implementation of remedial investigations, feasibility studies, remedial action plans, and implementation of remediation in mitigating chlorinated solvent contamination in vadose and saturated zones at concentrations indicative of DNAPL. The results of the completed remediation, as well as continued confirmation sampling and monitoring, allowed the CRWQCB to issue site closure in 2008. The site has since been redeveloped into a new commercial development.

Environmental Assessments

Siting Studies

Kyle performed initial siting studies for potential Class I, II, and III landfills. The project included detailed geologic mapping, hydrogeological studies, and permeability studies of caps and liners.

Environmental Site Remediation

Assessment and Remedial Design, California (Project Supervisor)

Kyle supervised the assessment and remedial design of a system to eliminate salt brine contamination in shallow perched water horizons in the Yucaipa, San Bernardino, and Riverside areas of southern California.

Design and Installation of Recovery Systems*

Kyle designed and installed numerous free-product recovery systems that successfully recovered product. One of the sites contained product up to 11-feet thick covering more than three city blocks. The dissolved phase had affected a multi-aquifer system and a public drinking water system.

Geophysical Characterizations*

Kyle performed and supervised numerous geophysical characterizations to determine the extent of old landfills. He provided classification studies, landfill gas monitoring, removal verification during grading, methane collection and mitigation plans, permitting, and closure plans.

* denotes projects completed with other firms

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Domestic Landfill Development*

Kyle designed and supervised the dynamic consolidation of a domestic landfill for development. He used this process to minimize expected settlement to overlying structures. Kyle designed commercial developments on closed landfills that involved complex methane collection and monitoring systems and building settlement controls.

Clay Borrow Site Studies

Kyle performed more than 10 separate clay borrow site studies for determining sources of material to cap landfills; ranged from a 20-acre dry lakebed to a 450-acre parcel in complex folded marine sediments.

Assessment, Clean Up, and Regulatory Support Management, Santa, Monica (Project Manager)

Kyle managed the assessment, clean up, and complex regulatory support of a PRP site in an MTBE case (Charnock subbasin). His work involved more than 20 environmental professionals working full time for two years to complete the assessment and clean up mandated by the regulatory agencies.

Hazardous Waste

San Gabriel Valley Superfund Site, Remediation & Closure of Multiple Source Areas, Industry, California

Mr. Emerson performed feasibility studies to evaluate appropriate and relevant remedial alternatives to mitigate constituents of concern in five AOCs contaminated with chlorinated hydrocarbons, heavy metals, petroleum fuel, and cutting oils. Ultimately, a combination of remedial alternatives was implemented that included large-diameter auger excavation to 45 feet to minimize impacts on facility operations, vapor extraction, vapor intrusion risk assessment, deed restriction, and monitored natural attenuation. At the completion of remedial actions, confirmation soil, soil vapor, and groundwater sampling were conducted and followed with risk assessment to demonstrate that remedial objectives had been achieved. No further action was recently granted by the US EPA and Los Angeles Regional Water Quality Control Board.

Mixed-Use

Port of San Diego Rohr Facility, Chula Vista, California

Mr. Emerson assisted in a detailed subsurface assessment of the Rohr facility. The intent of the assessment was to evaluate the 40-acre former aircraft part manufacturing facility for acquisition by the Port of San Diego for redevelopment into a business park and entertainment complex. The assessment identified the presence of soil, soil vapor, and groundwater impacts by petroleum hydrocarbons, VOCs, heavy metals, PCBs, and semi-volatile organic compounds. He utilized many sampling techniques to assess the limits and concentrations of contaminants in the subsurface. Ultimately, the team was able to develop a cost estimate for potential remedial action cost associated to corrective action to allow redevelopment.

Master Planned Commercial/Residential Redevelopment Project, Whittier, California (Project Manager)

Kyle oversaw the assessment of 26 contiguous properties that are part of a 21-acre master planned commercial/residential redevelopment project. The properties included industrial facilities, platting lines, fuel USTs, and metal processing plants, among others. The estimated cleanup costs are approximately \$2 million.

Multi-Unit / Family Residential

Residential Development Assessment, Ventura, California (Project Director)

Kyle directed an assessment of a 40-acre former agricultural property proposed for residential development. Pesticides were identified above hazardous waste levels and preliminary remediation goals established by the U.S. Environmental Protection Agency. Through corrective grading methods and onsite placement of the pesticide impacted soils, all material were re-used on site without offsite disposal. The over all cost savings for the client was more than \$1 million. Total cost was less than \$250,000 for all necessary activities.

Oil & Gas

Oil Field Site Assessments*

Kyle performed site assessments at oil field leases involving refineries, bulk storage areas, piping systems and wellhead, and drilling mud pit contamination.

* denotes projects completed with other firms

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Environmental Protection Agency Superfund Action, Culver City, California (Project Manager)

Kyle served as the project manager representing a major oil company in the assessment, remedial action, and litigation support in a multi-party contamination case affecting a City water supply. The assessment involved more than 250 continuous core borings up to 100 feet, as well as extensive remedial actions. The total cost for all related activities was \$22 million. The case is settled and the closure of the site is pending.

Project Management

Liability and Property Management Consulting Services

Kyle is providing liability and property management consulting services to more than 10 medium to large property development firms in the US. His work involves property transaction assessments, contract review, acquisition guideline development, liability management evaluation, insurance acquisition, and strategic planning.

Residential Development

Environmental Development Management and Review (Project Manager)

Kyle manages and reviews environmental development issues for a large residential developer specializing in development of contaminated industrial properties by providing innovative solutions in developing contaminated properties for residential use through risk assessment, engineering, and administrative and property development controls.

Site Management and Remediation

Design and Implementation of Biodegradation Programs*, California

Kyle designed and implemented one of the first in-situ biodegradation programs in California; it involved 50,000 cubic yards of diesel-contaminated soils, and groundwater to depths of 70 feet below ground surface.

Soil and Groundwater Remediation Systems

Soil and Groundwater Contamination Assessments and Mitigation*, California (Project Manger)

Kyle managed numerous chlorinated solvent soil and groundwater contamination assessments and mitigation programs in southern California. The projects involved releases that impacted soil and groundwater to depth of groundwater more than 700 feet in multi-aquifer systems. One case involved with plume dimensions more than 1 mile from the source affecting residential properties.

Soil and Groundwater Assessment and Remediation Programs*

Implemented hundreds of soil and groundwater assessment and remediation programs at various service station facilities in Southern and Northern California, and Nevada. Work involved assessment, remedial design, installation, maintenance and monitoring. Closure has been received on a majority of these sites.

Assessment and Remediation Management*

Kyle managed the assessment and remediation of soil and groundwater manufacturing at dry cleaning facilities contaminated with chlorinated solvents.

Warehouse / Light Industrial

Glendale Redevelopment Project, Glendale, California (Project Manager)

Kyle managed the assessment and remedial actions during the redevelopment of an industrial property. The project involved the demolition of a historic manufacturing facility and a commercial dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. Remedial actions involved excavation by pattern drilling and off site disposal along with removal of former USTs. The total cost of remediation and assessment was \$450,000.00.

* denotes projects completed with other firms

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Compton Redevelopment Project, Compton, California (Project Manager)

Kyle is serving as project manager for the assessment and remedial actions for a large redevelopment project. The project involves the redevelopment of a historic manufacturing facility and a former dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. The industrial facility was also associated with significant volumes of buried waste that required removal and disposal. These wastes also included the chemical referenced above, as well as PCBs and heavy metals. Remediation has included excavation, vapor extraction, and chemical fixation. The total cost of this project has been \$2.8 million to date.

* denotes projects completed with other firms

Kyle D. Emerson PG, CEG

Managing Principal Geologist

PUBLICATIONS

In-Situ Bioremediation of an Underground Diesel Fuel Spill: A Case Study. *Environmental Management*, 1989.

PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA

Appendix C USER PROVIDED RECORDS



Stantec Consulting Services Inc.
25864-F Business Center Drive, Redlands, CA 92374-4515
Phone: 909-335-6116
Fax: 909-335-6120

PHASE I ESA USER'S QUESTIONNAIRE

In order to qualify for protection from land owner liability under CERCLA as an *innocent landowner, bona fide prospective purchaser, or contiguous property owner*, ASTM standard practice E1527-13 and the federal AAI rule (40 CFR 312) require that the User of the Phase I ESA report provide certain information (if available) to the Environmental Professional completing the assessment. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Information that is not or cannot be provided to the Environmental Professional may be identified as a "data gap" in the Phase I ESA report.

Please answer the following questions as completely as possible. Attach additional pages as needed. Return the completed questionnaire to Stantec Consulting Services Inc.

1. Property Information

Property Name: Anaheim (s. East & South) _____

Property Address: 711. S. East St _____

City: Anaheim _____ State CA _Zip 92805 _____

Property Owner Name: Steve Bickel, Trustee of Sidney E. Bickel family Trust _____

Property Owner Phone #: 949-495-2626 _____

2. Contact For Site Access

Name: Steve Bickel _____

Company/Organization/Title: owner _____

Phone # 949-495-2626 _____ E-Mail Address: _____

3. Environmental Cleanup Liens. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

_____ Yes _____X_____ No

If yes, describe or attach details of the lien _____



4. Activity and Land Use Limitations. Are you aware of any activity and 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 as applicable to the property as a result of environmental contamination, investigation, cleanup, or related matters?

_____ Yes ___X___ No

If yes, describe or attach details of the limitations _____

5. Specialized Knowledge or Experience. As the User of this ESA, 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, such that you would have specialized knowledge about chemicals and processes used by this type of business?

_____ Yes ___X___ No

If yes, describe or attach details of your specialized knowledge or experience _____

6. Relationship of Purchase Price to Fair Market Value of Property. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, do you have any reason to believe that the reduced purchase price may be related to contamination known or believed to be present at the property?

_____ Yes, I have reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property?

___X___ No, I have no reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property?

_____ Not applicable. User is not involved in a purchase of the property.



7. Commonly Known or Reasonably Ascertainable Information. Are you aware of commonly known or reasonably ascertainable information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases of hazardous substances or petroleum products? For example:

Do you know the past (present) uses of the property?

Yes (describe) present use auto auction. Adjoining gas station to south & recycling business across alley to west

No

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property?

Yes (describe) _____

No

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property?

Yes (describe) _____

No

No

Do you know of any environmental cleanups that have taken place at the property?

Yes (describe) _____

No



8. The Degree of Obviousness of Contamination. E1527-13 and the federal AAI rule (40 CFR 312.31) require that the Phase I ESA consider the degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation. 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 (describe) auto auction on site. Gas station to south and recycling center to west.

No

9. Availability of Previous Environmental Reports. Are you aware of previous environmental site assessment reports, other environmental reports, documents, correspondence, etc. concerning the property and its environmental condition?

Yes (describe) _____

No

Signature: *Sandi Gottlieb* _____

Name (printed): Sandi Gottlieb _____

Title: Director of Development _____

Date: 6/27/16 _____





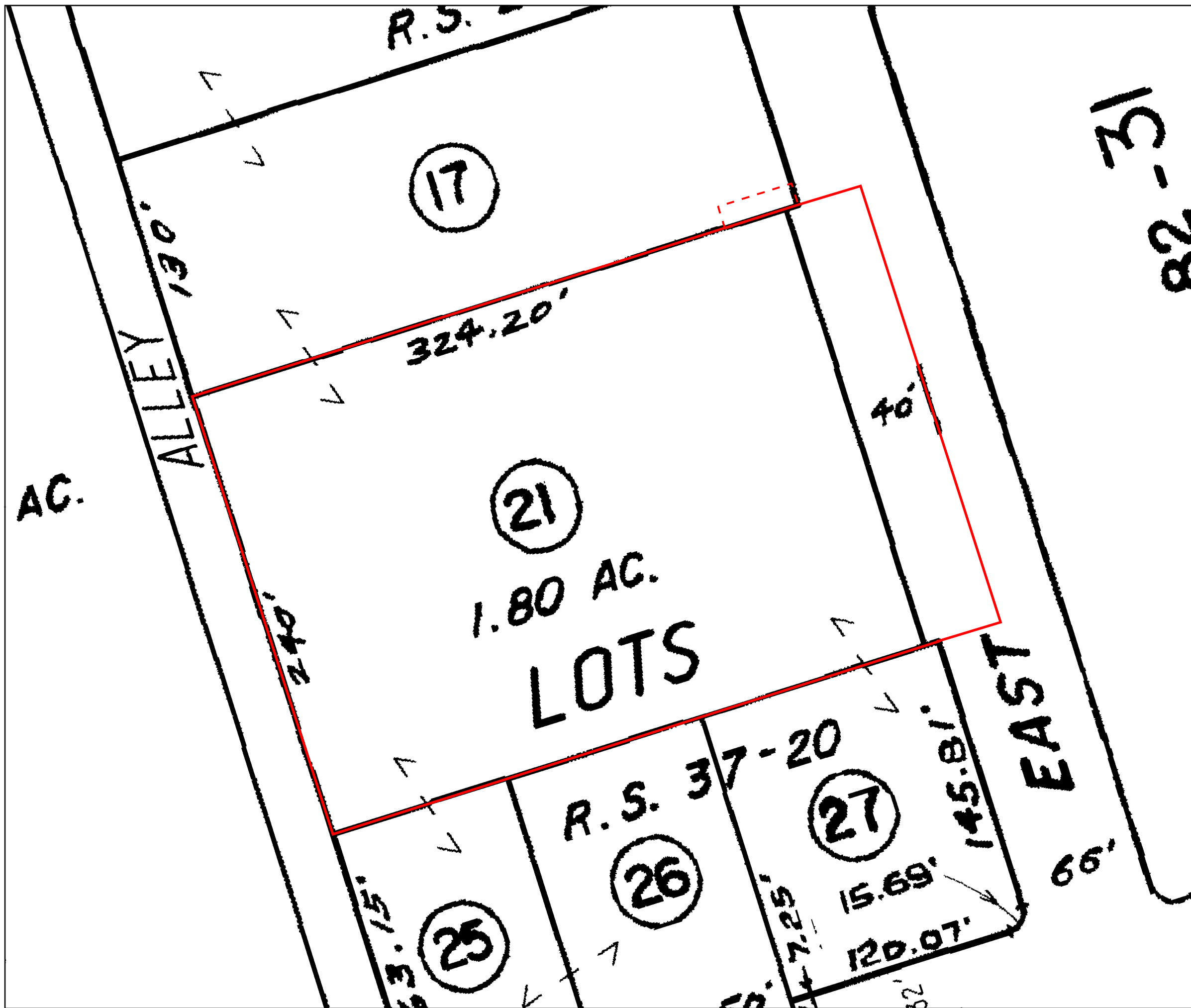
First American
Title Insurance Company

File No.: 5200264

Location: Orange County, CA

Legend

-  PARCEL 1
-  PARCEL 2



NOT TO SCALE

This map may or may not be an accurate description or identification of the land and is not intended nor may be it relied upon as a survey of the land depicted hereon. This map is solely intended to provide orientation as to the general location of the parcel or parcels depicted herein. First American Title Company, its subsidiaries and affiliates, expressly disclaim any and all liability for all loss or damage which may result from reliance or use of this map.



First American
Title Insurance Company


File No.: 5200264


Location: Orange County, CA

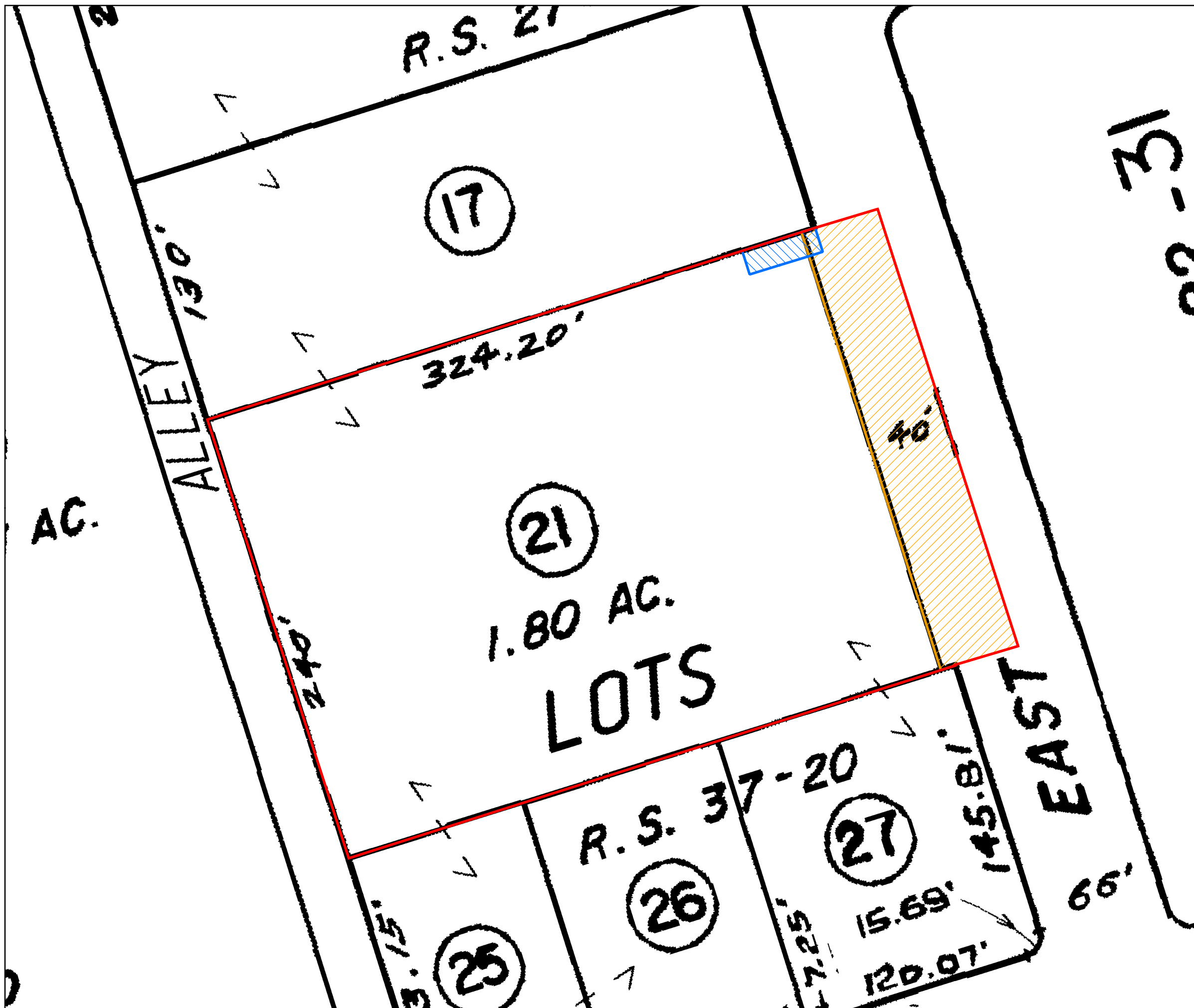
Legend

 PARCEL 1

01/14/1936 Bk726 Pg355
(Rights Of Way-Not Plottable)

 07/27/1955 Bk3152 Pg533
(Ingress And Egress)

 08/29/1972 Bk10299
Pg908 (Road And Public Utility)



This map may or may not be an accurate description or identification of the land and is not intended nor may be it relied upon as a survey of the land depicted hereon. This map is solely intended to provide orientation as to the general location of the parcel or parcels depicted herein. First American Title Company, its subsidiaries and affiliates, expressly disclaim any and all liability for all loss or damage which may result from reliance or use of this map.

NOT TO SCALE



First American Title

First American Title Company

1250 Corona Pointe Court, Suite 200
Corona, CA 92879

Sandi Gottlieb
The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740

Customer Reference: 711 S East St
Order Number: NHSC-5200264 (29)

Title Officer: Hugo Tello
Phone: (951)256-5883
Fax No.: (866)782-3439
E-Mail: htello@firstam.com

Buyer:
Property: 711 S East St
Anaheim, CA

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of June 01, 2016 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

To Be Determined

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

SIDNEY E. BICKEL TRUST - TRUST #95-6253755 DATED 6-15-70 SIDNEY E. BICKEL, AS TRUSTEE

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee as to Parcel(s) 1, an easement as to Parcel(s) 2.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2016-2017, a lien not yet due or payable.
2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.
3. A right of way along the Easterly line of said land, for a water pipe line of the Anaheim Union Water Company.
4. The terms and provisions contained in the document entitled "An Agreement Relating to Well and Pumping Plant Located on other Land and The Rights of Way in Connection Therewith" recorded January 14, 1936 as [Book 726, Page 355](#) of Official Records.
5. The effect of a map purporting to show the land and other property, filed [Book 37, Page 20](#) of Record of Surveys.
6. An easement for ingress and egress and incidental purposes, recorded July 27, 1955 in [Book 3152, Page 533](#) of Official Records.
In Favor of: Ralph Jensen and Pauline M. Jensen, husband and wife, as joint tenants
Affects: As described therein

7. An easement for road and public utility and incidental purposes, recorded August 29, 1972 in [Book 10299, Page 908](#) of Official Records.
In Favor of: City of Anaheim, a municipal corporation
Affects: As described therein
8. Any restrictions covering the future use of the land, as disclosed by a statement for a redevelopment project, recorded December 23, 1993 as Instrument No. [93-0895751](#) of Official Records, covering the herein described and other land
9. The fact that the land lies within the boundaries of the Alpha, River Valley, Plaza, Commercial/Industrial, West Anaheim Commercial Corridors, and Stadium Redevelopment Project Area, as disclosed by the document recorded June 01, 2004 as Instrument No. [2004000491197](#) of Official Records.

Document(s) declaring modifications thereof recorded September 18, 2006 as Instrument No. [2006000619354](#) of Official Records.

10. Rights of the public in and to that portion of the land lying within any Road, Street, Alley or Highway.
11. Any easements and/or servitudes affecting easement parcel(s) 2 herein described.
12. Water rights, claims or title to water, whether or not shown by the public records.
13. Rights of parties in possession.

Prior to the issuance of any policy of title insurance, the Company will require:

14. With respect to the trust referred to in the vesting:
 - a. A certification pursuant to Section 18100.5 of the California Probate Code in a form satisfactory to the Company.
 - b. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
 - c. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. General and special taxes and assessments for the fiscal year 2015-2016.

First Installment:	\$3,508.49, PAID
Penalty:	\$0.00
Second Installment:	\$3,508.49, PAID
Penalty:	\$0.00
Tax Rate Area:	01-212
A. P. No.:	037-130-21

2. According to the latest available equalized assessment roll in the office of the county tax assessor, there is located on the land a(n) Commercial Structure known as 711 South East Street, Anaheim, California.

NOTE: Premium shown are minimum amounts due and are subject to change upon disclosure of final policy amounts.

3. We find no open deeds of trust. Escrow please confirm before closing.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.



First American Title

First American Title Company
1250 Corona Pointe Court, Suite 200
Corona, CA 92879
(951)256-5880
Fax - (909)476-2401

WIRE INSTRUCTIONS

for

**First American Title Company, Demand/Draft Sub-Escrow Deposits
Riverside County, California**

First American Trust, FSB
5 First American Way
Santa Ana, CA 92707
Banking Services: (877) 600-9473

ABA 122241255
Credit to First American Title Company
Account No. 3097840000

Reference Title Order Number 5200264 and Title Officer Hugo Tello

Please wire the day before recording.

LEGAL DESCRIPTION

Real property in the City of Anaheim, County of Orange, State of California, described as follows:

PARCEL 1:

THE NORTHWESTERLY 240.00 FEET OF THAT PORTION OF VINEYARD LOT H-1, AS SHOWN ON A MAP OF THE LANDS OF ANAHEIM, IN THE CITY OF ANAHEIM, AS SHOWN ON A MAP THEREOF RECORDED IN [BOOK 4, PAGES 629 AND 630](#), DEEDS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT H-1, SAID SOUTHEAST CORNER BEING THE INTERSECTION OF THE WESTERLY LINE OF EAST STREET, 66.00 FEET WIDE, AND THE NORTHERLY LINE OF SOUTH STREET, 24.75 FEET WIDE AS SHOWN ON SAID MAP, THENCE NORTH 15° 30' 00" WEST ALONG SAID WESTERLY LINE OF EAST STREET, 402.99 FEET TO THE SOUTHEASTERLY CORNER OF THE LAND CONVEYED TO KEL-GER, INC., IN PARCEL 1 OF THE DEED RECORDED IN [BOOK 3459, PAGE 432](#), OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY; THENCE SOUTH 74° 22' 35" WEST ALONG THE SOUTHERLY LINE OF KEL-GER, INC., 331.20 FEET TO THE EASTERLY LINE OF THE 20.00 FOOT WIDE STRIP OF LAND CONVEYED TO THE CITY OF ANAHEIM, BY DEED RECORDED IN [BOOK 2729, PAGE 208](#), OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY; THENCE SOUTH 15° 30' 31" EAST ALONG SAID EASTERLY LINE, 403.15 FEET TO SAID NORTHERLY LINE OF SOUTH STREET; THENCE NORTH 74° 21' 04" EAST ALONG SAID NORTHERLY LINE, 331.14 FEET TO THE POINT OF BEGINNING.

PARCEL 2:

AN EASEMENT FOR INGRESS AND EGRESS OVER A STRIP OF LAND, 24.00 FEET IN WIDTH, THE CENTER LINE OF SAID STRIP BEING DESCRIBED AS FOLLOWS:

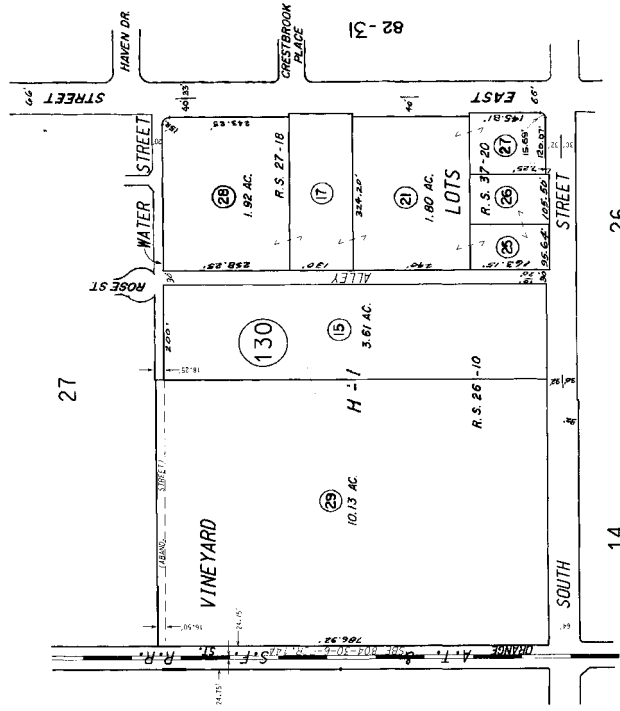
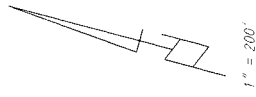
BEGINNING AT A POINT IN THE CENTER LINE OF EAST STREET, DISTANT NORTH 15° 30' 00" WEST 427.73 FEET FROM THE CENTER LINE OF SOUTH STREET, AS SHOWN ON A MAP OF SURVEY RECORDED IN [BOOK 27, PAGE 18](#), RECORD OF SURVEYS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY; THENCE SOUTH 74° 22' 35" WEST 74 FEET.

EXCEPTING THEREFROM THAT PORTION INCLUDED IN PARCEL 1, ABOVE DESCRIBED;

ALSO EXCEPTING THEREFROM THAT PORTION INCLUDED WITHIN EAST STREET.

APN: [037-130-21](#)

037-13



30

MARCH 1949

VINEYARD LOTS

L.A. 3-109, 110

NOTE - ASSESSOR'S BLOCK & PARCEL NUMBERS SHOWN IN CIRCLES

ASSESSOR'S MAP BOOK 037 PAGE 13 COUNTY OF ORANGE

* PRIVATE STREET



NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

**EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)**

**CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
EXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:

- | | |
|---------------|-------------------------------|
| (a) building; | (d) improvements on the Land; |
| (b) zoning; | (e) land division; and |
| (c) land use; | (f) environmental protection. |

This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
 - (a) that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
 - (b) that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
 - (c) that result in no loss to You; or
 - (d) that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.

5. Failure to pay value for Your Title.

6. Lack of a right:

- (a) to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
- (b) in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.

7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows: For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16: 1% of Policy Amount or \$2,500.00 (whichever is less)	\$10,000.00
Covered Risk 18: 1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 19: 1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 21: 1% of Policy Amount or \$2,500.00 (whichever is less)	\$5,000.00

**ALTA RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)
EXCLUSIONS**

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:

- (a) and use
- (b) improvements on the land
- (c) and division
- (d) environmental protection

This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.

This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.

2. The right to take the land by condemning it, unless:
 - (a) a notice of exercising the right appears in the public records on the Policy Date
 - (b) the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking
3. Title Risks:
 - (a) that are created, allowed, or agreed to by you
 - (b) that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records
 - (c) that result in no loss to you
 - (d) that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
 - (a) to any land outside the area specifically described and referred to in Item 3 of Schedule A OR
 - (b) in streets, alleys, or waterways that touch your land

This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

2006 ALTA LOAN POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such

- proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
 3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
 4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
 5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
 6. Any lien or right to a lien for services, labor or material not shown by the public records.

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.



First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA

Appendix D ENVIRONMENTAL AGENCY DATABASE SEARCH REPORT

711 South East Street

711 South East Street

Anaheim, CA 92805

Inquiry Number: 4674425.2s

July 15, 2016

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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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) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

711 SOUTH EAST STREET
ANAHEIM, CA 92805

COORDINATES

Latitude (North): 33.8300080 - 33° 49' 48.02"
Longitude (West): 117.9006860 - 117° 54' 2.46"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 416655.1
UTM Y (Meters): 3743478.8
Elevation: 167 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5641294 ANAHEIM, CA
Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140513
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
711 SOUTH EAST STREET
ANAHEIM, CA 92805

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	KWIKSET POWDERED MET	711 EAST SOUTH STREE	FINDS, ECHO		TP
A2	MCLOGAN SUPPLY CO IN	711 S EAST ST	HAZNET		TP
A3	KWIKSET POWDERED MET	711 EAST SOUTH STREE	RCRA NonGen / NLR		TP
A4	MCLOGEN SUPPLY CO IN	711 S EAST ST	HAZNET		TP
B5	ARCO FACILITY NO 097	727 S EAST ST	RCRA-SQG, FINDS, ECHO	Higher	264, 0.050, ESE
B6		727 S EAST ST	EDR Hist Auto	Higher	264, 0.050, ESE
B7	THRIFTY OIL CO #364	727 S EAST ST # 364	UST	Higher	264, 0.050, ESE
B8	THRIFTY OIL #364/ AR	727 S EAST ST	LUST	Higher	264, 0.050, ESE
B9	THRIFTY OIL CO. #364	727 S EAST ST	SWEEPS UST, CA FID UST, HAZNET	Higher	264, 0.050, ESE
10	THRIFTY OIL #364/ AR	727 EAST ST	LUST	Higher	275, 0.052, NE
C11	ORANGE COUNTY STRIPP	1017 E SOUTH STREET	RCRA-SQG	Lower	303, 0.057, South
C12		1028 E SOUTH ST	EDR Hist Auto	Lower	331, 0.063, South
C13	ON LINE GRAPHICS INC	1028 E ST	RCRA-SQG, FINDS, EMI, HAZNET, ECHO	Lower	331, 0.063, South
C14	DIXCO	1014 E SOUTH ST	SEMS-ARCHIVE	Lower	364, 0.069, SSW
C15	DIXCO DIVERSIFIED CH	1014 E SOUTH STREET	SEMS-ARCHIVE, ENVIROSTOR, LUST, UST, RCRA NonGen /.	Lower	364, 0.069, SSW
16	DURALITH CORP	605 S EAST ST	RCRA-SQG, FINDS, EMI, ECHO	Higher	535, 0.101, North
D17	ANAHEIM PLATING & PO	928 E. SOUTH STREET	RCRA-LQG, ENVIROSTOR, Orange Co. Industrial Site,...	Lower	556, 0.105, SW
D18	AMERICAN CAN CO	901 E SOUTH ST	RCRA-SQG, FINDS, ECHO	Lower	606, 0.115, SW
D19	HITACHI CONSUMER PRO	901 E SOUTH ST	UST	Lower	606, 0.115, SW
20	ANAHEIM PRECISION TO	559 S ROSE ST	RCRA-SQG, FINDS, ECHO	Higher	646, 0.122, NNW
D21	RH SIEGELE ENTERPRIS	919 E SOUTH ST	HIST UST	Lower	659, 0.125, SW
E22	JACO ENGINEERING INC	879 EAST S	UST	Lower	668, 0.127, SW
D23	HITACHI CONSUMER PRO	901 ES ST	RCRA-SQG, FINDS, ECHO	Lower	673, 0.127, SW
24	HITACHI CONSUMER PRO	901 E.	LUST, HIST CORTESE	Lower	682, 0.129, West
F25	FLAT & VERTICAL CONC	837 S EAST ST	UST	Higher	756, 0.143, SSE
F26	FLAT AND VERTICAL IN	837 S EAST ST	HIST UST, HAZNET	Higher	756, 0.143, SSE
E27	DIXCO DIVERSIFIED CH	847 EAST S	UST	Lower	772, 0.146, SW
F28	DIXCO DIVERSIFIED CH	847 S. EAST STREET	ENVIROSTOR, SWEEPS UST, CA FID UST, Orange Co....	Higher	817, 0.155, SSE
F29	FLAT & VERTICAL CONC	837 EAST	LUST, HIST CORTESE	Lower	824, 0.156, SSE
30	RSA SUTTER SOIL PROD	701 GROVE AVE	LUST, HIST CORTESE	Higher	966, 0.183, ENE
G31	BRYANT ORGANIZATION	865 S EAST ST	UST	Lower	994, 0.188, SSE
G32	AMERICAN CONTRACTING	865 S EAST ST	LUST	Lower	994, 0.188, SSE
H33	LAYCO CHEMICAL ENGIN	525 SOUTH ROSE ST	SEMS-ARCHIVE	Higher	1048, 0.198, NNW
H34	LAYCO CHEMICAL ENGIN	525 SOUTH ROSE	ENVIROSTOR	Higher	1048, 0.198, NNW
I35	ROTARY OFFSET PRINTI	700 E SOUTH ST	LUST, NPDES	Lower	1137, 0.215, WSW
I36	SPECIALTY SIGHTING I	700 E. SOUTH STREET	RCRA-SQG	Lower	1137, 0.215, WSW
I37	ROTARY OFFSET PRINTE	700 E SOUTH ST	RCRA-SQG	Lower	1137, 0.215, WSW
38	DELRO CO	875 S EAST ST	RCRA-SQG, ENVIROSTOR, FINDS, ECHO	Lower	1144, 0.217, SSE
J39	SPECTRA SIGN CO	863 AND 865 S ROSE P	RCRA-SQG, FINDS, ECHO	Lower	1181, 0.224, South

MAPPED SITES SUMMARY

Target Property Address:
711 SOUTH EAST STREET
ANAHEIM, CA 92805

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
I40	ROTARY OFFSET PRINTI	700 SOUTH ST	LUST, HIST CORTESE	Lower	1208, 0.229, WSW
K41	PORTER PLATING CO IN	510 S ROSE STREET	RCRA-SQG, HAZNET	Higher	1210, 0.229, NNW
K42	ROGERS PLATING COMPA	510 SOUTH ROSE STREE	RCRA-SQG	Higher	1210, 0.229, NNW
K43	PORTER PLATING CO.,	510 S. ROSE STREET	ENVIROSTOR, Orange Co. Industrial Site, EMI	Higher	1210, 0.229, NNW
K44	JT VONIC CO	515 S ROSE ST	RCRA-SQG	Higher	1227, 0.232, NNW
J45	ACTIVE GRINDING INC	880 S ROSE PL	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	1283, 0.243, South
L46	JACO ENGINEERING, IN	879 S EAST ST	RCRA-SQG, SWEEPS UST, CA FID UST, FINDS, HAZNET,...	Lower	1308, 0.248, SSE
L47	AMERICAN CONTRACTING	865 EAST ST	LUST	Lower	1333, 0.252, SSE
48	ATCHISON STREET HOUS	500-559 ATCHISON STR	ENVIROSTOR, VCP	Lower	1397, 0.265, WNW
49	ATCHISON STREET HOUS	500-559 ATCHISON STR	US BROWNFIELDS, FINDS, ECHO	Lower	1605, 0.304, WNW
M50	ANAHEIM POLICE DEPT.	901 E VERMONT ST	LUST, HIST UST	Lower	1693, 0.321, South
M51	CITY OF ANAHEIM UTIL	901 VERMONT	LUST, HIST CORTESE	Lower	1709, 0.324, South
M52	ANAHEIM POLICE DEPT	901 E VERMONT AVE	LUST, SWEEPS UST, CA FID UST	Lower	1740, 0.330, South
53	VINEYARD TOWNHOMES,	385 SOUTH VINE STREE	US BROWNFIELDS, FINDS, ECHO	Lower	1847, 0.350, NW
54	GOODYEAR TIRE & RUBB	424 425 ATCHISON	HIST CORTESE	Lower	1878, 0.356, NW
55	VIP RUBBER	945 EAST ST	LUST, HIST CORTESE	Lower	1892, 0.358, SSE
56	L 3 INTERSTATE ELECT	707 E VERMONT AVE	RCRA-TSDF, RCRA-SQG, EMI, HWP	Lower	1954, 0.370, SSW
57	ORANGE COUNTY TOWING	918 E VERMONT AVE	LUST	Lower	2028, 0.384, South
58	E C KRAEMER	1010 LACY ST	SEMS-ARCHIVE, LIENS 2	Lower	2068, 0.392, South
N59	KWIKSET CORP EMHART	516 E SANTA ANA ST	ENVIROSTOR, Orange Co. Industrial Site	Lower	2174, 0.412, WNW
N60	KWIKSET CORPORATION	516 EAST SANTA ANA S	LUST, SLIC, DEED, CHMIRS	Lower	2174, 0.412, WNW
N61	KWIKSET CORPORATION	516 E. SANTA ANA STR	RCRA-SQG, SLIC, SWEEPS UST, HIST UST, CA FID UST,...	Lower	2174, 0.412, WNW
N62	KWIKSET	516 EAST SANTA ANA S	US BROWNFIELDS	Lower	2174, 0.412, WNW
N63	KWIKSET LOCKS	516 SANTA ANA	LUST	Lower	2174, 0.412, WNW
64	ANAHEIM SCHOOL DISTR	501 VERMONT	LUST, HIST CORTESE	Lower	2179, 0.413, SSW
65	ANAHEIM REDEVELOPMEN	100 KROEGER ST	LUST	Higher	2207, 0.418, NNW
66	S K S INC-ANAHEIM GA	551 S OLIVE	LUST, SWEEPS UST, CA FID UST	Lower	2282, 0.432, West
O67	ANAHEIM CITY SCH DIS	501 E VERMONT	RCRA-SQG, LUST, UST, FINDS, HAZNET, ECHO	Lower	2339, 0.443, SSW
68	VIP RUBBER CO INC	945 S EAST ST	LUST, Orange Co. Industrial Site, RCRA NonGen /...	Lower	2342, 0.444, SSE
O69	LAKESIDE TOWING	512 VERMONT	LUST, HIST CORTESE	Lower	2385, 0.452, SSW
P70	ANAHEIM MAINTENANCE	1426 VERMONT AVE	LUST	Higher	2411, 0.457, ESE
P71	ANAHEIM MAINTENANCE	1426 E VERMONT AVE	LUST	Higher	2411, 0.457, ESE
Q72	JOHN SLACK OIL	501 S OLIVE	LUST, SWEEPS UST, CA FID UST	Lower	2502, 0.474, WNW
73	ANAHEIM SERVICE STAT	300 EAST, S.	LUST	Lower	2566, 0.486, WSW
Q74	SKS, INC.	501 OLIVE ST	LUST	Lower	2570, 0.487, WNW
75	PAN PACIFIC HOTEL	1717 WEST ST	LUST, HIST CORTESE	Higher	2581, 0.489, East
76	LINCOLN ELEMENTARY S	1413 EAST BROADWAY	ENVIROSTOR, SCH, NPDES	Higher	2620, 0.496, NNE
R77	ANAHEIM FLT MAINT.FU	955 MELROSE	LUST	Lower	2636, 0.499, SSW
R78	ANAHEIM FLT MAINT.FU	955 S MELROSE	LUST, CHMIRS	Lower	2636, 0.499, SSW

MAPPED SITES SUMMARY

Target Property Address:
 711 SOUTH EAST STREET
 ANAHEIM, CA 92805

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
79	MUNICIPAL LIGHT & WA	518 . ANAHEIM BLVD.	ENVIROSTOR	Lower	3469, 0.657, West
S80	SO CAL GAS/ANAHEIM M	200 N. BLOCK OF ATCH	ENVIROSTOR	Higher	3532, 0.669, NNW
S81	SO CAL GAS-ANAHEIM M	200 N BLOCK ATCHISON	EDR MGP	Higher	3653, 0.692, NNW
82	KATELLA HIGH SCHOOL	2200 EAST WAGNER AVE	ENVIROSTOR, SCH	Higher	4923, 0.932, ESE
83	HERITAGE SCHOOL	CYPRESS STREET/ANAHE	ENVIROSTOR, SCH	Lower	5050, 0.956, NW

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
KWIKSET POWDERED MET 711 EAST SOUTH STREE ANAHEIM, CA 92803	FINDS Registry ID:: 110002626739 ECHO	N/A
MCLOGAN SUPPLY CO IN 711 S EAST ST ANAHEIM, CA 92805	HAZNET GEPaid: CAL000282247	N/A
KWIKSET POWDERED MET 711 EAST SOUTH STREE ANAHEIM, CA 92803	RCRA NonGen / NLR EPA ID:: CAD000416156	CAD000416156
MCLOGEN SUPPLY CO IN 711 S EAST ST ANAHEIM, CA 92805	HAZNET GEPaid: CAC002557113	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

EXECUTIVE SUMMARY

SEMS..... Superfund Enterprise Management System

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA generators list

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

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database

SWRCY..... Recycler Database

HAULERS..... Registered Waste Tire Haulers Listing

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

EXECUTIVE SUMMARY

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory

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

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
Orange Co. Industrial Site..... List of Industrial Site Cleanups
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program

EXECUTIVE SUMMARY

UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
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
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
Notify 65.....	Proposition 65 Records
UIC.....	UIC Listing
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
FUELS PROGRAM.....	EPA Fuels Program Registered Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Cleaner..... EDR Exclusive Historic Dry Cleaners

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.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site list

SEMS-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.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 03/07/2016 has revealed that there are 4 SEMS-ARCHIVE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LAYCO CHEMICAL ENGIN	525 SOUTH ROSE ST	NNW 1/8 - 1/4 (0.198 mi.)	H33	66
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DIXCO	1014 E SOUTH ST	SSW 0 - 1/8 (0.069 mi.)	C14	28
<i>DIXCO DIVERSIFIED CH E C KRAEMER</i>	<i>1014 E SOUTH STREET 1010 LACY ST</i>	<i>SSW 0 - 1/8 (0.069 mi.) S 1/4 - 1/2 (0.392 mi.)</i>	<i>C15 58</i>	<i>30 145</i>

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: 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.

A review of the RCRA-TSDF list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>L 3 INTERSTATE ELECT</i>	<i>707 E VERMONT AVE</i>	<i>SSW 1/4 - 1/2 (0.370 mi.)</i>	<i>56</i>	<i>137</i>

Federal RCRA generators list

RCRA-LQG: 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

EXECUTIVE SUMMARY

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.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ANAHEIM PLATING & PO	928 E. SOUTH STREET	SW 0 - 1/8 (0.105 mi.)	D17	37

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/09/2015 has revealed that there are 16 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ARCO FACILITY NO 097	727 S EAST ST	ESE 0 - 1/8 (0.050 mi.)	B5	13
DURALITH CORP	605 S EAST ST	N 0 - 1/8 (0.101 mi.)	16	35
ANAHEIM PRECISION TO	559 S ROSE ST	NNW 0 - 1/8 (0.122 mi.)	20	49
PORTER PLATING CO IN	510 S ROSE STREET	NNW 1/8 - 1/4 (0.229 mi.)	K41	81
ROGERS PLATING COMPA	510 SOUTH ROSE STREE	NNW 1/8 - 1/4 (0.229 mi.)	K42	84
JT VONIC CO	515 S ROSE ST	NNW 1/8 - 1/4 (0.232 mi.)	K44	87

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ORANGE COUNTY STRIPP	1017 E SOUTH STREET	S 0 - 1/8 (0.057 mi.)	C11	20
ON LINE GRAPHICS INC	1028 E ST	S 0 - 1/8 (0.063 mi.)	C13	23
AMERICAN CAN CO	901 E SOUTH ST	SW 0 - 1/8 (0.115 mi.)	D18	47
HITACHI CONSUMER PRO	901 ES ST	SW 1/8 - 1/4 (0.127 mi.)	D23	51
SPECIALTY SIGHTING I	700 E. SOUTH STREET	WSW 1/8 - 1/4 (0.215 mi.)	I36	71
ROTARY OFFSET PRINTE	700 E SOUTH ST	WSW 1/8 - 1/4 (0.215 mi.)	I37	72
DELRU CO	875 S EAST ST	SSE 1/8 - 1/4 (0.217 mi.)	38	74
SPECTRA SIGN CO	863 AND 865 S ROSE P	S 1/8 - 1/4 (0.224 mi.)	J39	79
ACTIVE GRINDING INC	880 S ROSE PL	S 1/8 - 1/4 (0.243 mi.)	J45	88
JACO ENGINEERING, IN	879 S EAST ST	SSE 1/8 - 1/4 (0.248 mi.)	L46	91

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 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.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/02/2016 has revealed that there are

EXECUTIVE SUMMARY

13 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DIXCO DIVERSIFIED CH Facility Id: 71002483 Status: Inactive - Needs Evaluation	847 S. EAST STREET	SSE 1/8 - 1/4 (0.155 mi.)	F28	57
LAYCO CHEMICAL ENGIN Facility Id: 30280476 Status: Refer: Other Agency	525 SOUTH ROSE	NNW 1/8 - 1/4 (0.198 mi.)	H34	67
PORTER PLATING CO., Facility Id: 71003068 Status: Inactive - Needs Evaluation	510 S. ROSE STREET	NNW 1/8 - 1/4 (0.229 mi.)	K43	85
LINCOLN ELEMENTARY S Facility Id: 60001109 Status: No Further Action	1413 EAST BROADWAY	NNE 1/4 - 1/2 (0.496 mi.)	76	199
SO CAL GAS/ANAHEIM M Facility Id: 30490107 Status: No Further Action	200 N. BLOCK OF ATCH	NNW 1/2 - 1 (0.669 mi.)	S80	210
KATELLA HIGH SCHOOL Facility Id: 30820018 Status: No Further Action	2200 EAST WAGNER AVE	ESE 1/2 - 1 (0.932 mi.)	82	212
Lower Elevation	Address	Direction / Distance	Map ID	Page
DIXCO DIVERSIFIED CH Facility Id: 30280448 Status: Refer: Other Agency	1014 E SOUTH STREET	SSW 0 - 1/8 (0.069 mi.)	C15	30
ANAHEIM PLATING & PO Facility Id: 71002956 Status: Inactive - Needs Evaluation	928 E. SOUTH STREET	SW 0 - 1/8 (0.105 mi.)	D17	37
DELRU CO Facility Id: 71002755 Status: Active	875 S EAST ST	SSE 1/8 - 1/4 (0.217 mi.)	38	74
ATCHISON STREET HOUS Facility Id: 60001417 Status: No Further Action	500-559 ATCHISON STR	WNW 1/4 - 1/2 (0.265 mi.)	48	100
KWIKSET CORP EMHART Facility Id: 71002181 Status: Refer: Other Agency	516 E SANTA ANA ST	WNW 1/4 - 1/2 (0.412 mi.)	N59	147
MUNICIPAL LIGHT & WA Facility Id: 60000723 Status: Refer: 1248 Local Agency	518 . ANAHEIM BLVD.	W 1/2 - 1 (0.657 mi.)	79	209
HERITAGE SCHOOL Facility Id: 30590002 Status: Inactive - Needs Evaluation	CYPRESS STREET/ANAHE	NW 1/2 - 1 (0.956 mi.)	83	215

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 03/14/2016 has revealed that there are 31 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THRIFTY OIL #364/ AR Status: Completed - Case Closed Global Id: T0605902214	727 S EAST ST	ESE 0 - 1/8 (0.050 mi.)	B8	15
THRIFTY OIL #364/ AR Facility Status: Preliminary site assessment underway Global ID: T0605902214	727 EAST ST	NE 0 - 1/8 (0.052 mi.)	10	18
RSA SUTTER SOIL PROD Facility Status: Case Closed Global ID: T0605901916	701 GROVE AVE	ENE 1/8 - 1/4 (0.183 mi.)	30	63
ANAHEIM REDEVELOPMEN Facility Status: Pollution Characterization Global ID: T0605901198	100 KROEGER ST	NNW 1/4 - 1/2 (0.418 mi.)	65	171
ANAHEIM MAINTENANCE Facility Status: Case Closed Global ID: T0605900304	1426 VERMONT AVE	ESE 1/4 - 1/2 (0.457 mi.)	P70	188
ANAHEIM MAINTENANCE Status: Completed - Case Closed Global Id: T0605900304	1426 E VERMONT AVE	ESE 1/4 - 1/2 (0.457 mi.)	P71	189
PAN PACIFIC HOTEL Facility Status: Case Closed Global ID: T0605901606	1717 WEST ST	E 1/4 - 1/2 (0.489 mi.)	75	198
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DIXCO DIVERSIFIED CH Status: Completed - Case Closed Global Id: T0605901250	1014 E SOUTH STREET	SSW 0 - 1/8 (0.069 mi.)	C15	30
HITACHI CONSUMER PRO Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0605901179 Global ID: T0605901179	901 E.	W 1/8 - 1/4 (0.129 mi.)	24	53
FLAT & VERTICAL CONC Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0605901156 Global ID: T0605901156	837 EAST	SSE 1/8 - 1/4 (0.156 mi.)	F29	61
AMERICAN CONTRACTING Status: Completed - Case Closed Global Id: T0605901023	865 S EAST ST	SSE 1/8 - 1/4 (0.188 mi.)	G32	65
ROTARY OFFSET PRINTI	700 E SOUTH ST	WSW 1/8 - 1/4 (0.215 mi.)	I35	68

EXECUTIVE SUMMARY

Status: Completed - Case Closed Global Id: T0605900531				
ROTARY OFFSET PRINTI	700 SOUTH ST	WSW 1/8 - 1/4 (0.229 mi.)	I40	80
Facility Status: Case Closed Global ID: T0605900531				
AMERICAN CONTRACTING	865 EAST ST	SSE 1/4 - 1/2 (0.252 mi.)	L47	98
Facility Status: Case Closed Global ID: T0605901023				
ANAHEIM POLICE DEPT.	901 E VERMONT ST	S 1/4 - 1/2 (0.321 mi.)	M50	114
Status: Completed - Case Closed Global Id: T0605902162				
CITY OF ANAHEIM UTIL	901 VERMONT	S 1/4 - 1/2 (0.324 mi.)	M51	116
Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0605939432 Global Id: T0605900005 Global ID: T0605900005				
ANAHEIM POLICE DEPT	901 E VERMONT AVE	S 1/4 - 1/2 (0.330 mi.)	M52	120
Facility Status: Case Closed Global ID: T0605902162				
VIP RUBBER	945 EAST ST	SSE 1/4 - 1/2 (0.358 mi.)	55	136
Facility Status: Remediation Plan Global ID: T0605901142				
ORANGE COUNTY TOWING	918 E VERMONT AVE	S 1/4 - 1/2 (0.384 mi.)	57	144
Status: Completed - Case Closed Global Id: T0605902167				
KWIKSET CORPORATION	516 EAST SANTA ANA S	WNW 1/4 - 1/2 (0.412 mi.)	N60	148
Status: Completed - Case Closed Global Id: T0605920092				
KWIKSET LOCKS	516 SANTA ANA	WNW 1/4 - 1/2 (0.412 mi.)	N63	168
Facility Status: Case Closed Global ID: T0605920092				
ANAHEIM SCHOOL DISTR	501 VERMONT	SSW 1/4 - 1/2 (0.413 mi.)	64	170
Facility Status: Case Closed Global ID: T0605901154				
S K S INC-ANAHEIM GA	551 S OLIVE	W 1/4 - 1/2 (0.432 mi.)	66	172
Status: Completed - Case Closed Global Id: T0605901986				
ANAHEIM CITY SCH DIS	501 E VERMONT	SSW 1/4 - 1/2 (0.443 mi.)	O67	176
Status: Completed - Case Closed Global Id: T0605901154				
VIP RUBBER CO INC	945 S EAST ST	SSE 1/4 - 1/2 (0.444 mi.)	68	181
Status: Completed - Case Closed Global Id: T0605901142				
LAKESIDE TOWING	512 VERMONT	SSW 1/4 - 1/2 (0.452 mi.)	O69	186
Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0605900696 Global ID: T0605900696				
JOHN SLACK OIL	501 S OLIVE	WNW 1/4 - 1/2 (0.474 mi.)	Q72	190

EXECUTIVE SUMMARY

Status: Completed - Case Closed Global Id: T0605902047				
ANAHEIM SERVICE STAT	300 EAST, S.	WSW 1/4 - 1/2 (0.486 mi.)	73	195
Status: Completed - Case Closed Facility Status: Pollution Characterization Global Id: T0605993742 Global ID: T0605993742				
SKS, INC.	501 OLIVE ST	WNW 1/4 - 1/2 (0.487 mi.)	Q74	197
Facility Status: Case Closed Global ID: T0605902047				
ANAHEIM FLT MAINT.FU	955 MELROSE	SSW 1/4 - 1/2 (0.499 mi.)	R77	205
Facility Status: Case Closed Global ID: T0605901974				
ANAHEIM FLT MAINT.FU	955 S MELROSE	SSW 1/4 - 1/2 (0.499 mi.)	R78	207
Status: Completed - Case Closed Global Id: T0605901974				

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 03/14/2016 has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
KWIKSET CORPORATION	516 EAST SANTA ANA S	WNW 1/4 - 1/2 (0.412 mi.)	N60	148
Facility Status: Completed - Case Closed Global Id: SL208123867				
KWIKSET CORPORATION	516 E. SANTA ANA STR	WNW 1/4 - 1/2 (0.412 mi.)	N61	150
Facility Status: Closed				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 03/14/2016 has revealed that there are 7 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THRIFTY OIL CO #364	727 S EAST ST # 364	ESE 0 - 1/8 (0.050 mi.)	B7	15
Facility Id: 4880				
FLAT & VERTICAL CONC	837 S EAST ST	SSE 1/8 - 1/4 (0.143 mi.)	F25	55
Facility Id: 4878				
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DIXCO DIVERSIFIED CH	1014 E SOUTH STREET	SSW 0 - 1/8 (0.069 mi.)	C15	30

EXECUTIVE SUMMARY

Facility Id: 1799					
HITACHI CONSUMER PRO Facility Id: 3928	901 E SOUTH ST	SW 0 - 1/8 (0.115 mi.)	D19	49	
JACO ENGINEERING INC Facility Id: 1104	879 EAST S	SW 1/8 - 1/4 (0.127 mi.)	E22	51	
DIXCO DIVERSIFIED CH Facility Id: 9133	847 EAST S	SW 1/8 - 1/4 (0.146 mi.)	E27	56	
BRYANT ORGANIZATION Facility Id: 4914	865 S EAST ST	SSE 1/8 - 1/4 (0.188 mi.)	G31	64	

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 05/02/2016 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>ATCHISON STREET HOUS</i> Status: No Further Action Facility Id: 60001417	<i>500-559 ATCHISON STR</i>	<i>WNW 1/4 - 1/2 (0.265 mi.)</i>	<i>48</i>	<i>100</i>

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 03/21/2016 has revealed that there are 3 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>ATCHISON STREET HOUS</i>	<i>500-559 ATCHISON STR</i>	<i>WNW 1/4 - 1/2 (0.304 mi.)</i>	<i>49</i>	<i>103</i>
<i>VINEYARD TOWNHOMES,</i>	<i>385 SOUTH VINE STREE</i>	<i>NW 1/4 - 1/2 (0.350 mi.)</i>	<i>53</i>	<i>122</i>
<i>KWIKSET</i>	<i>516 EAST SANTA ANA S</i>	<i>WNW 1/4 - 1/2 (0.412 mi.)</i>	<i>N62</i>	<i>160</i>

EXECUTIVE SUMMARY

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 3 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THRIFTY OIL CO. #364 Status: A Tank Status: A Comp Number: 4880	727 S EAST ST	ESE 0 - 1/8 (0.050 mi.)	B9	17
DIXCO DIVERSIFIED CH Status: A Tank Status: A Comp Number: 9133	847 S. EAST STREET	SSE 1/8 - 1/4 (0.155 mi.)	F28	57

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JACO ENGINEERING, IN Status: A Tank Status: A Comp Number: 1104	879 S EAST ST	SSE 1/8 - 1/4 (0.248 mi.)	L46	91

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 2 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FLAT AND VERTICAL IN	837 S EAST ST	SSE 1/8 - 1/4 (0.143 mi.)	F26	55
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RH SIEGELE ENTERPRIS Facility Id: 00000047583	919 E SOUTH ST	SW 0 - 1/8 (0.125 mi.)	D21	50

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 3 CA FID UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THRIFTY OIL CO. #364 Facility Id: 30015705 Status: A	727 S EAST ST	ESE 0 - 1/8 (0.050 mi.)	B9	17
DIXCO DIVERSIFIED CH	847 S. EAST STREET	SSE 1/8 - 1/4 (0.155 mi.)	F28	57

EXECUTIVE SUMMARY

Facility Id: 30003001
Status: A

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JACO ENGINEERING, IN Facility Id: 30008704 Status: A	879 S EAST ST	SSE 1/8 - 1/4 (0.248 mi.)	L46	91

Local Land Records

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
KWIKSET CORPORATION Status: COMPLETED - CASE CLOSED Envirostor ID: SL208123867	516 EAST SANTA ANA S	WNW 1/4 - 1/2 (0.412 mi.)	N60	148

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DIXCO DIVERSIFIED CH	1014 E SOUTH STREET	SSW 0 - 1/8 (0.069 mi.)	C15	30

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 [CALSTATES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 10 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RSA SUTTER SOIL PROD Reg Id: 083002776T	701 GROVE AVE	ENE 1/8 - 1/4 (0.183 mi.)	30	63
PAN PACIFIC HOTEL	1717 WEST ST	E 1/4 - 1/2 (0.489 mi.)	75	198

EXECUTIVE SUMMARY

Reg Id: 083002178T

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HITACHI CONSUMER PRO Reg Id: 083001544T	901 E.	W 1/8 - 1/4 (0.129 mi.)	24	53
FLAT & VERTICAL CONC Reg Id: 083001516T	837 EAST	SSE 1/8 - 1/4 (0.156 mi.)	F29	61
ROTARY OFFSET PRINTI Reg Id: 083000670T	700 SOUTH ST	WSW 1/8 - 1/4 (0.229 mi.)	I40	80
CITY OF ANAHEIM UTIL Reg Id: 083000005T	901 VERMONT	S 1/4 - 1/2 (0.324 mi.)	M51	116
GOODYEAR TIRE & RUBB Reg Id: 2825	424 425 ATCHISON	NW 1/4 - 1/2 (0.356 mi.)	54	136
VIP RUBBER Reg Id: 083001497T	945 EAST ST	SSE 1/4 - 1/2 (0.358 mi.)	55	136
ANAHEIM SCHOOL DISTR Reg Id: 083001513T	501 VERMONT	SSW 1/4 - 1/2 (0.413 mi.)	64	170
LAKESIDE TOWING Reg Id: 083000881T	512 VERMONT	SSW 1/4 - 1/2 (0.452 mi.)	O69	186

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 02/22/2016 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
L 3 INTERSTATE ELECT EPA Id: CAD008289043 Cleanup Status: PROTECTIVE FILER	707 E VERMONT AVE	SSW 1/4 - 1/2 (0.370 mi.)	56	137

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: 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.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within

EXECUTIVE SUMMARY

approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SO CAL GAS-ANAHEIM M	200 N BLOCK ATCHISON	NNW 1/2 - 1 (0.692 mi.)	S81	212

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	727 S EAST ST	ESE 0 - 1/8 (0.050 mi.)	B6	15

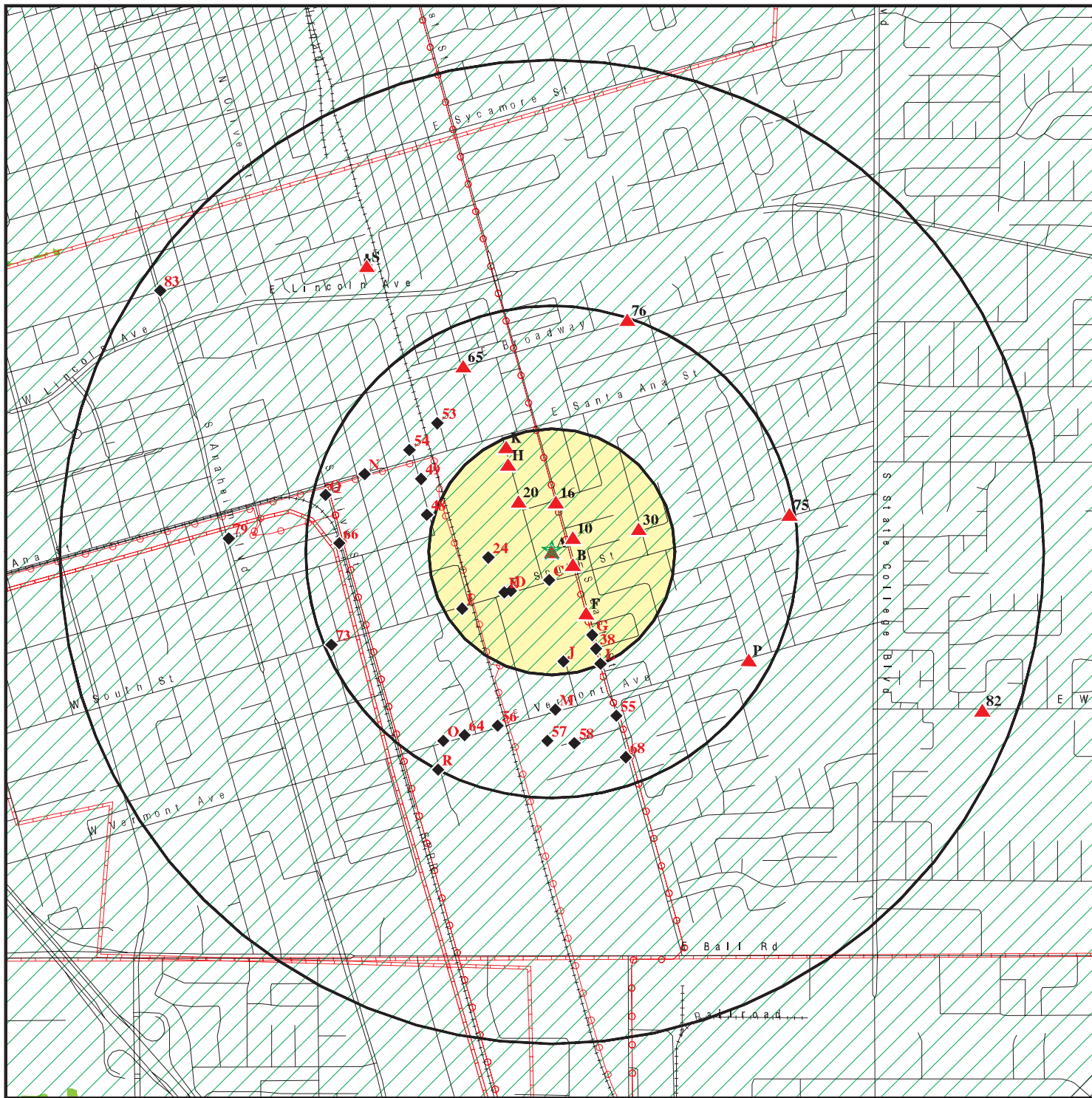
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	1028 E SOUTH ST	S 0 - 1/8 (0.063 mi.)	C12	22

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 7 records.

<u>Site Name</u>	<u>Database(s)</u>
SKS, INC.	LUST, HIST CORTESE
I AND S MINI MARKET	LUST, HIST CORTESE
NW CORN BROADWAY EAST STREET	NPDES
L3 COMMUNICATIONS POWER PARAGO - E	NPDES
METROPOLITAN RESIDENTIAL (PARCEL B	ENVIROSTOR, VCP
TAORMINA FAMILY / CITY OF ANAHEIM	ENVIROSTOR, SCH
DAVIS E L DUMP	ENVIROSTOR

OVERVIEW MAP - 4674425.2S



★ 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

■ Indian Reservations BIA

⚡ Power transmission lines

⚡ Pipelines

■ 100-year flood zone

■ 500-year flood zone

■ National Wetland Inventory

■ State Wetlands

■ Areas of Concern

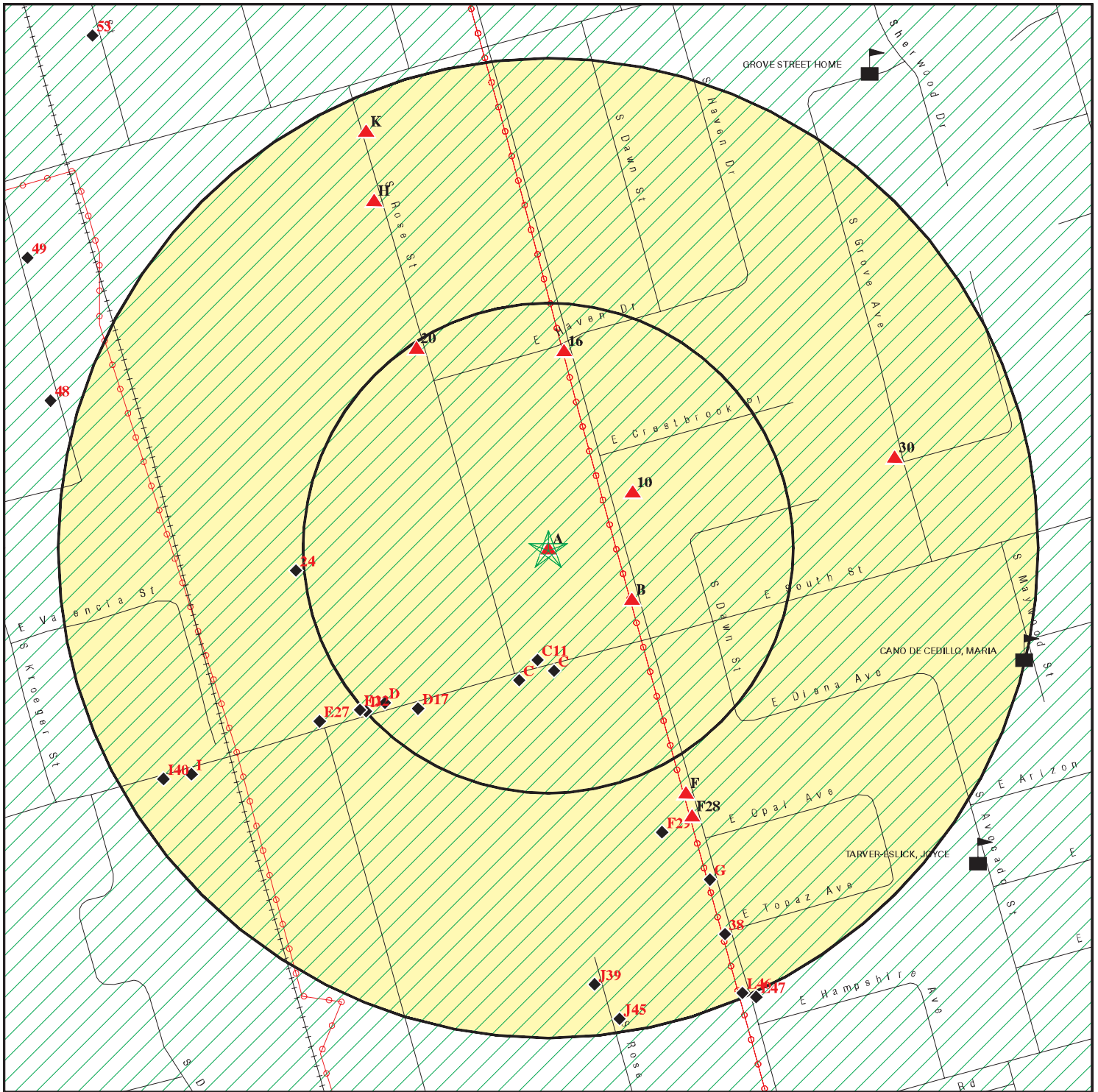


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 711 South East Street
 ADDRESS: 711 South East Street
 Anaheim CA 92805
 LAT/LONG: 33.830008 / 117.900686

CLIENT: Stantec
 CONTACT: Alicia Jansen
 INQUIRY #: 4674425.2s
 DATE: July 15, 2016 12:42 pm

DETAIL MAP - 4674425.2S



- ★ 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

- 🏠 Indian Reservations BIA
- 🔌 Power transmission lines
- 🌊 100-year flood zone
- 🌊 500-year flood zone
- 🔴 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: 711 South East Street
 ADDRESS: 711 South East Street
 Anaheim CA 92805
 LAT/LONG: 33.830008 / 117.900686

CLIENT: Stantec
 CONTACT: Alicia Jansen
 INQUIRY #: 4674425.2s
 DATE: July 15, 2016 12:43 pm

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								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		2	1	1	NR	NR	4
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	1	NR	NR	1
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		6	10	NR	NR	NR	16
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
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
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000		2	4	3	4	NR	13
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		3	6	22	NR	NR	31

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
SLIC	0.500		0	0	2	NR	NR	2
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		3	4	NR	NR	NR	7
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal voluntary cleanup sites</i>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
<i>State and tribal Brownfields sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	3	NR	NR	3
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
SWEEPS UST	0.250		1	2	NR	NR	NR	3
HIST UST	0.250		1	1	NR	NR	NR	2
CA FID UST	0.250		1	2	NR	NR	NR	3
<i>Local Land Records</i>								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	1	NR	NR	1
<i>Records of Emergency Release Reports</i>								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
Orange Co. Industrial Site SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	1	1	0	NR	NR	NR	2
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	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
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	2	NR	NR	NR	NR	NR	2
HIST CORTESE	0.500		0	4	6	NR	NR	10
HWP	1.000		0	0	1	0	NR	1

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
HWT	0.250		0	0	NR	NR	NR	0
MINES	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ECHO	TP	1	NR	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	1	NR	1
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0

- Totals -- 5 23 34 41 5 0 108

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 **KWIKSET POWDERED METAL PRODUCTS**
Target **711 EAST SOUTH STREET**
Property **ANAHEIM, CA 92803**

FINDS **1016187302**
ECHO **N/A**

Site 1 of 4 in cluster A

Actual:
167 ft.

FINDS:

Registry ID: 110002626739

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.

ECHO:

Envid: 1016187302
Registry ID: 110002626739
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002626739

A2 **MCLOGAN SUPPLY CO INC**
Target **711 S EAST ST**
Property **ANAHEIM, CA 92805**

HAZNET **S113132004**
N/A

Site 2 of 4 in cluster A

Actual:
167 ft.

HAZNET:

envid: S113132004
Year: 2011
GEPaid: CAL000282247
Contact: MAURICE BARRIOS
Telephone: 7149991194
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.075
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: S113132004
Year: 2011
GEPaid: CAL000282247
Contact: MAURICE BARRIOS
Telephone: 7149991194
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MCLOGAN SUPPLY CO INC (Continued)

S113132004

Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.005
Cat Decode: Off-specification, aged or surplus inorganics
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: S113132004
Year: 2009
GEPaid: CAL000282247
Contact: MAURICE BARRIOS
Telephone: 7149991194
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD044429835
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0075
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: S113132004
Year: 2009
GEPaid: CAL000282247
Contact: MAURICE BARRIOS
Telephone: 7149991194
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.02
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: S113132004
Year: 2009
GEPaid: CAL000282247
Contact: MAURICE BARRIOS
Telephone: 7149991194

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MCLOGAN SUPPLY CO INC (Continued)

S113132004

Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1917
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

[Click this hyperlink](#) while viewing on your computer to access 6 additional CA_HAZNET: record(s) in the EDR Site Report.

**A3
Target
Property**

**KWIKSET POWDERED METAL PRODUCTS
711 EAST SOUTH STREET
ANAHEIM, CA 92803**

**RCRA NonGen / NLR 1000272521
CAD000416156**

Site 3 of 4 in cluster A

**Actual:
167 ft.**

RCRA NonGen / NLR:
Date form received by agency: 08/18/1980
Facility name: KWIKSET POWDERED METAL PRODUCTS
Facility address: 711 EAST SOUTH STREET
ANAHEIM, CA 92803
EPA ID: CAD000416156
Mailing address: EAST SOUTH STREET
ANAHEIM, CA 92803
Contact: ENVIRONMENTAL MANAGER
Contact address: 711 EAST SOUTH STREET
ANAHEIM, CA 92803
Contact country: US
Contact telephone: (714) 535-8111
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: KWIKSET POWDERED METAL PRODUCTS
Owner/operator address: 711 EAST SOUTH ST
CITY NOT REPORTED, CA 99999
Owner/operator country: Not reported
Owner/operator telephone: (714) 535-8111
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported
Owner/operator name: EMHART INDUSTRIES INC
Owner/operator address: P O BOX 2730
HARTFORD, CT 06101
Owner/operator country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET POWDERED METAL PRODUCTS (Continued)

1000272521

Owner/operator telephone: (203) 677-4631
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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

**A4
Target
Property**

**MCLOGEN SUPPLY CO INC
711 S EAST ST
ANAHEIM, CA 92805**

**HAZNET S112925155
N/A**

Site 4 of 4 in cluster A

**Actual:
167 ft.**

HAZNET:
envid: S112925155
Year: 2004
GEPaid: CAC002557113
Contact: JIM HOWER
Telephone: 2137492269
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: 0.4
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Transfer Station
Facility County: Orange

envid: S112925155
Year: 2004
GEPaid: CAC002557113
Contact: JIM HOWER
Telephone: 2137492269
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MCLOGEN SUPPLY CO INC (Continued)

S112925155

Gen County: Not reported
TSD EPA ID: CAD044429835
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Tons: 0.22
Cat Decode: Unspecified oil-containing waste
Method Decode: Recycler
Facility County: Orange

envid: S112925155
Year: 2003
GEPaid: CAC002557113
Contact: JIM HOWER
Telephone: 2137492269
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Transfer Station
Tons: Not reported
Cat Decode: Not reported
Method Decode: Transfer Station
Facility County: Orange

envid: S112925155
Year: 2003
GEPaid: CAC002557113
Contact: JIM HOWER
Telephone: 2137492269
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: 0.02
Cat Decode: Off-specification, aged or surplus organics
Method Decode: Transfer Station
Facility County: Orange

envid: S112925155
Year: 2003
GEPaid: CAC002557113
Contact: JIM HOWER
Telephone: 2137492269
Mailing Name: Not reported
Mailing Address: 711 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 92805
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MCLOGEN SUPPLY CO INC (Continued)

S112925155

Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Transfer Station
Tons: 0.3
Cat Decode: Off-specification, aged or surplus inorganics
Method Decode: Transfer Station
Facility County: Orange

[Click this hyperlink](#) while viewing on your computer to access
11 additional CA_HAZNET: record(s) in the EDR Site Report.

B5
ESE
< 1/8
0.050 mi.
264 ft.

ARCO FACILITY NO 09730
727 S EAST ST
ANAHEIM, CA 92805
Site 1 of 5 in cluster B

RCRA-SQG 1005441329
FINDS CAR000117945
ECHO

Relative:
Higher

RCRA-SQG:

Actual:
167 ft.

Date form received by agency: 05/28/2002
Facility name: ARCO FACILITY NO 09730
Facility address: 727 S EAST ST
ANAHEIM, CA 92805
EPA ID: CAR000117945
Mailing address: P O BOX 6038
ARTESIA, CA 907026038
Contact: JACK OMAN
Contact address: P O BOX 6038
ARTESIA, CA 907026038
Contact country: US
Contact telephone: (714) 690-2425
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: B P WEST COAST PRODUCTS LLC
Owner/operator address: P O BOX 6038
ARTESIA, CA 90702
Owner/operator country: Not reported
Owner/operator telephone: (714) 690-2425
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARCO FACILITY NO 09730 (Continued)

1005441329

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

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110012544817

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

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.

Registry ID: 110058259753

**Environmental Interest/Information System
STATE MASTER**

ECHO:

Envid: 1005441329
Registry ID: 110012544817
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110012544817

Envid: 1005441329
Registry ID: 110058259753
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110058259753

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

B6
ESE
< 1/8
0.050 mi.
264 ft.

727 S EAST ST
ANAHEIM, CA 92805

Site 2 of 5 in cluster B

EDR Hist Auto **1015617889**
N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: ARCO ANAHEIM SOUTH EAST
Year: 2001
Address: 727 S EAST ST

Actual:
167 ft.

Name: ARCO
Year: 2010
Address: 727 S EAST ST

B7
ESE
< 1/8
0.050 mi.
264 ft.

THRIFTY OIL CO #364
727 S EAST ST # 364
ANAHEIM, CA 92805

Site 3 of 5 in cluster B

UST **U003949121**
N/A

Relative:
Higher

UST:

Facility ID: 4880
Permitting Agency: Not reported
Latitude: 33.83027
Longitude: -117.90009

Actual:
167 ft.

B8
ESE
< 1/8
0.050 mi.
264 ft.

THRIFTY OIL #364/ ARCO #9730
727 S EAST ST
ANAHEIM, CA 92805

Site 4 of 5 in cluster B

LUST **U001578727**
N/A

Relative:
Higher

LUST:

Region: STATE
Global Id: T0605902214
Latitude: 33.8300067
Longitude: -117.8999978
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/12/2003
Lead Agency: ANAHEIM CITY
Case Worker: RM
Local Agency: ANAHEIM CITY
RB Case Number: 083003292T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Actual:
167 ft.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0605902214
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THRIFTY OIL #364/ ARCO #9730 (Continued)

U001578727

City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605902214
Contact Type: Regional Board Caseworker
Contact Name: VALERIE JAHN-BULL
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: vjahn-bull@waterboards.ca.gov
Phone Number: 9517824903

Status History:

Global Id: T0605902214
Status: Completed - Case Closed
Status Date: 12/12/2003

Global Id: T0605902214
Status: Open - Case Begin Date
Status Date: 12/29/1997

Global Id: T0605902214
Status: Open - Remediation
Status Date: 04/09/2001

Global Id: T0605902214
Status: Open - Remediation
Status Date: 01/30/2003

Global Id: T0605902214
Status: Open - Remediation
Status Date: 07/31/2003

Global Id: T0605902214
Status: Open - Remediation
Status Date: 11/14/2003

Global Id: T0605902214
Status: Open - Site Assessment
Status Date: 04/29/1998

Regulatory Activities:

Global Id: T0605902214
Action Type: Other
Date: 12/29/1997
Action: Leak Discovery

Global Id: T0605902214
Action Type: Other
Date: 04/29/1998
Action: Leak Reported

Global Id: T0605902214
Action Type: REMEDIATION
Date: 04/09/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THRIFTY OIL #364/ ARCO #9730 (Continued)

U001578727

Action: Soil Vapor Extraction (SVE)

Global Id: T0605902214
Action Type: ENFORCEMENT
Date: 12/12/2003
Action: Closure/No Further Action Letter

B9
ESE
< 1/8
0.050 mi.
264 ft.

THRIFTY OIL CO. #364
727 S EAST ST
ANAHEIM, CA 92805

Site 5 of 5 in cluster B

SWEEPS UST **S101589490**
CA FID UST **N/A**
HAZNET

Relative:
Higher

SWEEPS UST:
Status: Active
Comp Number: 4880
Number: 1
Board Of Equalization: Not reported
Referral Date: 07-08-92
Action Date: 07-10-92
Created Date: 12-31-88
Owner Tank Id: 364101
SWRCB Tank Id: 30-011-004880-000001
Tank Status: A
Capacity: 10068
Active Date: 07-08-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Actual:
167 ft.

Status: Active
Comp Number: 4880
Number: 1
Board Of Equalization: Not reported
Referral Date: 07-08-92
Action Date: 07-10-92
Created Date: 12-31-88
Owner Tank Id: 364202
SWRCB Tank Id: 30-011-004880-000002
Tank Status: A
Capacity: 10068
Active Date: 07-08-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 4880
Number: 1
Board Of Equalization: Not reported
Referral Date: 07-08-92
Action Date: 07-10-92
Created Date: 12-31-88
Owner Tank Id: 364303
SWRCB Tank Id: 30-011-004880-000004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THRIFTY OIL CO. #364 (Continued)

S101589490

Tank Status: A
Capacity: 6259
Active Date: 07-10-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 30015705
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7145359136
Mail To: Not reported
Mailing Address: 10000 LAKEWOOD BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: ANAHEIM 92805
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:

envid: S101589490
Year: 2013
GEPaid: CAL000375019
Contact: ALLEN FAAS
Telephone: 9492895286
Mailing Name: Not reported
Mailing Address: 7180 KOLL CENTER PKWY STE 100
Mailing City,St,Zip: PLEASANTON, CA 945663184
Gen County: Orange
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.147
Cat Decode: Not reported
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Not reported

**10
NE
< 1/8
0.052 mi.
275 ft.**

**THRIFTY OIL #364/ ARCO #9730
727 EAST ST
ANAHEIM, CA 92805**

**LUST S104025172
N/A**

**Relative:
Higher**

LUST REG 8:

Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Preliminary site assessment underway

**Actual:
168 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THRIFTY OIL #364/ ARCO #9730 (Continued)

S104025172

Case Number:	083003292T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	SOUTH
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605902214
How Stopped Date:	Not reported
Enter Date:	11/6/1998
Date Confirmation of Leak Began:	4/29/1998
Date Preliminary Assessment Began:	1/1/1965
Discover Date:	12/29/1997
Enforcement Date:	Not reported
Close Date:	12/12/2003
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	11/14/2003
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	11/6/1998
GW Qualifies:	Not reported
Soil Qualifies:	=
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.82941828
Longitude:	-117.9000198
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	1
Max MTBE Soil:	11
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	VJJ
Staff Initials:	RM
Lead Agency:	Local Agency
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C11
South
< 1/8
0.057 mi.
303 ft.

ORANGE COUNTY STRIPPING
1017 E SOUTH STREET
ANAHEIM, CA 92805

RCRA-SQG **1001085762**
CAR000010900

Site 1 of 5 in cluster C

Relative:
Lower

RCRA-SQG:

Date form received by agency: 03/17/2004

Facility name: ORANGE COUNTY STRIPPING

Facility address: 1017 E SOUTH STREET

ANAHEIM, CA 92805

EPA ID: CAR000010900

Mailing address: 928 E SOUTH ST

ANAHEIM, CA 92805

Contact: GABRIEL BARRIGA

Contact address: Not reported

Not reported

Contact country: US

Contact telephone: (714) 776-3597

Contact email: Not reported

EPA Region: 09

Land type: Private

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: DIEGO BARRIGA

Owner/operator address: 928 E SOUTH ST

ANAHEIM, CA 92805

Owner/operator country: Not reported

Owner/operator telephone: (714) 776-3597

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Owner/operator name: DIEGO BARRIGA

Owner/operator address: Not reported

Not reported

Owner/operator country: US

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 07/26/1993

Owner/Op end date: Not reported

Owner/operator name: DIEGO BARRIGA

Owner/operator address: 928 E SOUTH ST

ANAHEIM, CA 92805

Owner/operator country: US

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 07/26/1993

Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ORANGE COUNTY STRIPPING (Continued)

1001085762

Owner/operator name: GABRIEL BARRIGA
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1990
Owner/Op end date: Not reported

Owner/operator name: GABRIEL BARRIGA
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 07/26/1993
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: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 03/17/2004
Site name: ORANGE COUNTY STRIPPING
Classification: Large Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 04/15/2002
Site name: ORANGE COUNTY STRIPPING
Classification: Large Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ORANGE COUNTY STRIPPING (Continued)

1001085762

. Waste name: CHROMIUM
. Waste code: D008
. Waste name: LEAD

Date form received by agency: 05/30/1996
Site name: ORANGE COUNTY STRIPPING
Classification: Small Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/24/2008
Date achieved compliance: 09/24/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 09/24/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/24/2008
Evaluation lead agency: State

Evaluation date: 02/18/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

C12
South
< 1/8
0.063 mi.
331 ft.

1028 E SOUTH ST
ANAHEIM, CA 92805

Site 2 of 5 in cluster C

EDR Hist Auto 1015132607
N/A

Relative:
Lower

EDR Historical Auto Stations:

Name: AUTO TREND INTERNATIONAL
Year: 2006
Address: 1028 E SOUTH ST

Actual:
166 ft.

Name: AUTO TREND INTERNATIONAL
Year: 2007
Address: 1028 E SOUTH ST

Name: AUTO TREND INTERNATIONAL
Year: 2008
Address: 1028 E SOUTH ST

Name: AUTO TREND INTERNATIONAL
Year: 2009

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

EDR ID Number
 EPA ID Number

(Continued)

1015132607

Address: 1028 E SOUTH ST
 Name: AUTO TREND INTL
 Year: 2010
 Address: 1028 E SOUTH ST

**C13
 South
 < 1/8
 0.063 mi.
 331 ft.**

**ON LINE GRAPHICS INC
 1028 E ST
 ANAHEIM, CA 92801
 Site 3 of 5 in cluster C**

**RCRA-SQG 1001959804
 FINDS CAR000064527
 EMI
 HAZNET
 ECHO**

**Relative:
 Lower**

RCRA-SQG:

Date form received by agency: 01/19/2000
 Facility name: MONITOR PLATING AND ANODIZING
 Facility address: 1028 E SOUTH ST
 ANAHEIM, CA 92805
 EPA ID: CAR000064527
 Contact: BRETT PIO
 Contact address: 1028 E SOUTH ST
 ANAHEIM, CA 92805
 Contact country: US
 Contact telephone: (714) 563-9771
 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

**Actual:
 166 ft.**

Owner/Operator Summary:

Owner/operator name: BRETT PIO
 Owner/operator address: 1028 E SOUTH ST
 ANAHEIM, CA 92805
 Owner/operator country: Not reported
 Owner/operator telephone: (714) 563-9771
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No
 Transporter of hazardous waste: 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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ON LINE GRAPHICS INC (Continued)

1001959804

Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110009539883

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

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.

Registry ID: 110009553964

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.

EMI:

Year: 1987
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2759
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 3
Reactive Organic Gases Tons/Yr: 3
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 1
Part. Matter 10 Micrometers and Smllr Tons/Yr:1

Year: 1990
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2759

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ON LINE GRAPHICS INC (Continued)

1001959804

Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 6
Reactive Organic Gases Tons/Yr: 3
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 Smlr Tons/Yr:0

Year: 1996
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 3479
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 3
Reactive Organic Gases Tons/Yr: 2
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 Smlr Tons/Yr:0

Year: 1997
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2754
Air District Name: SOUTH COAST 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: 2
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 Smlr Tons/Yr:0

Year: 1998
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2754
Air District Name: SOUTH COAST 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: 2
Carbon Monoxide Emissions Tons/Yr: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ON LINE GRAPHICS INC (Continued)

1001959804

NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1999
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2754
Air District Name: SOUTH COAST 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: 2
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 Smlr Tons/Yr:0

Year: 2000
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2754
Air District Name: SOUTH COAST 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: 2
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 Smlr Tons/Yr:0

Year: 2001
County Code: 30
Air Basin: SC
Facility ID: 5031
Air District Name: SC
SIC Code: 2754
Air District Name: SOUTH COAST 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: 2
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 Smlr Tons/Yr:0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ON LINE GRAPHICS INC (Continued)

1001959804

HAZNET:

envid: 1001959804
Year: 2001
GEPaid: CAR000064527
Contact: BRETT PIO
Telephone: Not reported
Mailing Name: Not reported
Mailing Address: 1028 E SOUTH ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD089446710
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.16
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Orange

envid: 1001959804
Year: 2001
GEPaid: CAR000064527
Contact: BRETT PIO
Telephone: Not reported
Mailing Name: Not reported
Mailing Address: 1028 E SOUTH ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD089446710
TSD County: Not reported
Waste Category: Liquids with pH <= 2
Disposal Method: Recycler
Tons: 0.06
Cat Decode: Liquids with pH <= 2
Method Decode: Recycler
Facility County: Orange

envid: 1001959804
Year: 2000
GEPaid: CAR000064527
Contact: BRETT PIO
Telephone: Not reported
Mailing Name: Not reported
Mailing Address: 1028 E SOUTH ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD089446710
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Transfer Station
Tons: 0.45
Cat Decode: Unspecified aqueous solution
Method Decode: Transfer Station
Facility County: Orange

envid: 1001959804
Year: 2000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ON LINE GRAPHICS INC (Continued)

1001959804

GEPaid: CAR000064527
Contact: BRETT PIO
Telephone: Not reported
Mailing Name: Not reported
Mailing Address: 1028 E SOUTH ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD089446710
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Tons: 4.17
Cat Decode: Unspecified aqueous solution
Method Decode: Recycler
Facility County: Orange

envid: 1001959804
Year: 2000
GEPaid: CAR000064527
Contact: BRETT PIO
Telephone: Not reported
Mailing Name: Not reported
Mailing Address: 1028 E SOUTH ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD089446710
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Disposal, Land Fill
Tons: 0.47
Cat Decode: Other organic solids
Method Decode: Disposal, Land Fill
Facility County: Orange

[Click this hyperlink](#) while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:

Envid: 1001959804
Registry ID: 110009539883
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110009539883

Envid: 1001959804
Registry ID: 110009553964
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110009553964

C14
SSW
< 1/8
0.069 mi.
364 ft.

DIXCO
1014 E SOUTH ST
ANAHEIM, CA 92803
Site 4 of 5 in cluster C

SEMS-ARCHIVE 1003878997
CAD981622251

Relative:
Lower

SEMS-ARCHIVE:
Site ID: 902476
EPA ID: CAD981622251
Federal Facility: N
NPL: Not on the NPL

Actual:
166 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO (Continued)

1003878997

Non NPL Status: Removal Only Site (No Site Assessment Work Needed)

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID: 0902476
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Removal Only Site (No Site Assessment Work Needed)

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13285949.00000
Person ID: 13003854.00000

Contact Sequence ID: 13291544.00000
Person ID: 13003858.00000

Contact Sequence ID: 13297402.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:

Action: REMOVAL
Date Started: 10/19/84
Date Completed: 12/01/84
Priority Level: Stabilized

Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 12/01/84
Date Completed: 12/05/84
Priority Level: Stabilized

Action: REMOVAL NEGOTIATIONS
Date Started: 02/15/85
Date Completed: 02/15/85
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

Action: PRE-CERCLIS SCREENING
Date Started: / /
Date Completed: 08/25/05
Priority Level: Not reported

Action: COST RECOVERY NEGOTIATIONS
Date Started: 12/12/91
Date Completed: 05/28/93
Priority Level: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

C15
SSW
< 1/8
0.069 mi.
364 ft.

DIXCO DIVERSIFIED CHEMICAL SALES INC
1014 E SOUTH STREET
ANAHEIM, CA 92805

Site 5 of 5 in cluster C

SEMS-ARCHIVE 1000175735
ENVIROSTOR CAD058230038
LUST
UST
RCRA NonGen / NLR
FINDS
EMI
ECHO

Relative:
Lower

Actual:
166 ft.

SEMS-ARCHIVE:
Site ID: 900133
EPA ID: CAD058230038
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: Addressed as Part of Another non-NPL Site

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID: 0900133
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Addressed as Part of Another non-NPL Site

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13289024.00000
Person ID: 13003854.00000

Contact Sequence ID: 13294619.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300477.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: DIXCO
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: / /
Date Completed: 12/01/87
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 09/01/88
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/01/88
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: PRE-CERCLIS SCREENING
Date Started: / /
Date Completed: 08/25/05
Priority Level: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICAL SALES INC (Continued)

1000175735

ENVIROSTOR:

Facility ID: 30280448
Status: Refer: Other Agency
Status Date: 02/08/1995
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: * Mmonroy
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: * CERC2
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.82860
Longitude: -117.9006
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * HYDROCARBON SOLVENTS * LIQUIDS WITH PH <= 2 * OXYGENATED SOLVENTS
* CONTAMINATED SOIL * ACID SOLUTION 2>PH WITH METALS * ACID SOLUTION
WITHOUT METALS * UNSPECIFIED ACID SOLUTION * OTHER PESTICIDE
CONTAINERS, 30 GALLONS OR MORE Cyanide (free
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: ADAMS CO
Alias Type: Alternate Name
Alias Name: 30280448
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/08/1995
Comments: DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 04/20/1988
Comments: PRELIM ASSESS DONE PENDING STATUS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/15/1987
Comments: SITE SCREENING DONE PA RECOM TO DETERMINE CURRENT STATUS OF CLEAN UP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICAL SALES INC (Continued)

1000175735

Completed Date: 08/15/1981
Comments: FACILITY IDENTIFIED VIA TELEPHONE DIRECTORY (1966) (ADAMS/DIXCO)
MISSILE COMPONENTS

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:

Region: STATE
Global Id: T0605901250
Latitude: 33.828609
Longitude: -117.900687
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/29/2001
Lead Agency: SANTA ANA RWQCB (REGION 8)
Case Worker: CAB
Local Agency: ANAHEIM CITY
RB Case Number: 083001642T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: * Chlorinated Hydrocarbons
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605901250
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605901250
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605901250
Status: Completed - Case Closed
Status Date: 05/29/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICAL SALES INC (Continued)

1000175735

Global Id: T0605901250
Status: Open - Case Begin Date
Status Date: 08/07/1990

Global Id: T0605901250
Status: Open - Remediation
Status Date: 04/15/1997

Global Id: T0605901250
Status: Open - Site Assessment
Status Date: 08/07/1990

Global Id: T0605901250
Status: Open - Site Assessment
Status Date: 07/16/1992

Global Id: T0605901250
Status: Open - Verification Monitoring
Status Date: 08/15/1997

Regulatory Activities:

Global Id: T0605901250
Action Type: Other
Date: 08/07/1990
Action: Leak Discovery

Global Id: T0605901250
Action Type: Other
Date: 08/29/1990
Action: Leak Reported

Global Id: T0605901250
Action Type: REMEDIATION
Date: 04/15/1997
Action: Soil Vapor Extraction (SVE)

Global Id: T0605901250
Action Type: ENFORCEMENT
Date: 05/29/2001
Action: Closure/No Further Action Letter

UST:

Facility ID: 1799
Permitting Agency: Not reported
Latitude: 33.8302694
Longitude: -117.8995503

RCRA NonGen / NLR:

Date form received by agency: 11/12/1980
Facility name: DIXCO DIVERSIFIED CHEMICAL SALES INC
Facility address: 1014 E SOUTH STREET
ANAHEIM, CA 92805
EPA ID: CAD058230038
Mailing address: E SOUTH STREET
ANAHEIM, CA 92805

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICAL SALES INC (Continued)

1000175735

Contact: ENVIRONMENTAL MANAGER
Contact address: 1014 E SOUTH STREET
ANAHEIM, CA 92805
Contact country: US
Contact telephone: (714) 535-0646
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: DIXCO DIVERSIFIED CHEMICAL SALES INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
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

FINDS:

Registry ID: 110002651602

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DIXCO DIVERSIFIED CHEMICAL SALES INC (Continued)

1000175735

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.

EMI:

Year: 1987
 County Code: 30
 Air Basin: SC
 Facility ID: 9271
 Air District Name: SC
 SIC Code: 2842
 Air District Name: SOUTH COAST AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0
 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

ECHO:

Envid: 1000175735
 Registry ID: 110002651602
 DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002651602

16
North
< 1/8
0.101 mi.
535 ft.

DURALITH CORP
605 S EAST ST
ANAHEIM, CA 92805

RCRA-SQG 1000148998
FINDS CAD981386758
EMI
ECHO

Relative:
Higher

RCRA-SQG:

Date form received by agency: 02/13/1986
 Facility name: DURALITH CORP
 Facility address: 605 S EAST ST
 ANAHEIM, CA 92805
 EPA ID: CAD981386758
 Mailing address: S EAST ST
 ANAHEIM, CA 92805
 Contact: ENVIRONMENTAL MANAGER
 Contact address: 605 S EAST ST
 ANAHEIM, CA 92805
 Contact country: US
 Contact telephone: (714) 776-6700
 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

Actual:
168 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DURALITH CORP (Continued)

1000148998

Owner/Operator Summary:

Owner/operator name: LUCAS INDUSTRIES
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
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

FINDS:

Registry ID: 110002689591

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.

EMI:

Year: 1987
County Code: 30

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DURALITH CORP (Continued)

1000148998

Air Basin: SC
 Facility ID: 35235
 Air District Name: SC
 SIC Code: 3613
 Air District Name: SOUTH COAST AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 6
 Reactive Organic Gases Tons/Yr: 2
 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 Smlr Tons/Yr:0

Year: 1990
 County Code: 30
 Air Basin: SC
 Facility ID: 35235
 Air District Name: SC
 SIC Code: 3613
 Air District Name: SOUTH COAST 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 Smlr Tons/Yr:0

ECHO:

Envid: 1000148998
 Registry ID: 110002689591
 DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002689591

D17
SW
 < 1/8
 0.105 mi.
 556 ft.

ANAHEIM PLATING & POLISHING
928 E. SOUTH STREET
ANAHEIM, CA 92805
 Site 1 of 5 in cluster D

RCRA-LQG **1000240287**
ENVIROSTOR **CAD982009417**
 Orange Co. Industrial Site
 US AIRS
 NPDES
 WDS

Relative:
Lower

RCRA-LQG:
 Date form received by agency: 07/27/2010
 Facility name: ANAHEIM PLATING & POLISHING
 Facility address: 928 E. SOUTH STREET
 ANAHEIM, CA 92805
 EPA ID: CAD982009417
 Mailing address: E. SOUTH STREET
 ANAHEIM, CA 92805
 Contact: GABRIEL BARRIGA
 Contact address: E. SOUTH STREET
 ANAHEIM, CA 92805
 Contact country: US
 Contact telephone: (714) 776-3597

Actual:
165 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

Telephone ext.: N/A
Contact email: Not reported
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: DIEGO BARRIGA
Owner/operator address: 928 E. SOUTH STREET
ANAHEIM, CA 92805
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/01/1990
Owner/Op end date: Not reported

Owner/operator name: GABRIEL BARRIGA
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1990
Owner/Op end date: Not reported

Owner/operator name: FRANCISCO RIOS
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

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

. Waste code: 181
. Waste name: 181

. Waste code: 726
. Waste name: 726

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Historical Generators:

Date form received by agency: 02/25/2008
Site name: ANAHEIM PLATING & POLISHING
Classification: Large Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: F006
- . Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/16/2006

Site name: ANAHEIM PLATING & POLISHING, INC.

Classification: Large Quantity Generator

- . Waste code: 171
- . Waste name: 171

- . Waste code: 181
- . Waste name: 181

- . Waste code: 791
- . Waste name: 791

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: F006
- . Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 03/17/2004

Site name: ANAHEIM PLATING & POLISHING, INC.

Classification: Large Quantity Generator

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: F006
- . Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 09/01/1996
Site name: ANAHEIM PLATING
Classification: Large Quantity Generator

Date form received by agency: 02/28/1996
Site name: ANAHEIM PLATING INC
Classification: Large Quantity Generator

Date form received by agency: 06/26/1987
Site name: ANAHEIM PLATING
Classification: Small Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: FR - 40 CFR 262.41
Area of violation: Generators - Records/Reporting
Date violation determined: 10/28/2003
Date achieved compliance: 12/18/2003
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 12/19/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 40 CFR 262.41
Area of violation: Generators - Records/Reporting
Date violation determined: 10/28/2003
Date achieved compliance: 12/18/2003
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 12/19/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: 2200
Paid penalty amount: Not reported

Regulation violated: FR - 40 CFR 262.41
Area of violation: Generators - Records/Reporting
Date violation determined: 10/27/2003
Date achieved compliance: 12/19/2003
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 12/19/2003
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 10/28/2003
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Generators - Records/Reporting
Date achieved compliance: 12/18/2003
Evaluation lead agency: EPA

Evaluation date: 10/27/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - Records/Reporting
Date achieved compliance: 12/19/2003
Evaluation lead agency: EPA

ENVIROSTOR:

Facility ID: 71002956
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.82840
Longitude: -117.9015
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982009417
Alias Type: EPA Identification Number
Alias Name: 110001138910
Alias Type: EPA (FRS #)
Alias Name: 71002956
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

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

Orange Co. Industrial Site:

Case ID: 89IC051
Record ID: RO0000229
Current Status: CLOSED 5/24/1994
Closure Type: Closure certification issued
Released Chemical: PLATING WASTE - OTHER METALS

US AIRS MINOR:

Envid: 1000240287
Region Code: 09
Programmatic ID: AIR 0900000006059R9717
Facility Registry ID: 110001138910
D and B Number: Not reported
Primary SIC Code: 3471
NAICS Code: 332813
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:

Region Code: 09
Programmatic ID: AIR 0900000006059R9717
Facility Registry ID: 110001138910
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2000-07-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

NPDES:

Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 8
Regulatory Measure Id: 208761
Order No: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 301011206
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:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	10/6/1994
STATUS CODE NAME:	Active
STATUS DATE:	10/6/1994
PLACE SIZE:	18000
PLACE SIZE UNIT:	53
FACILITY CONTACT NAME:	Gabriel Barriga
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	7147763597
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Anaheim Plating & Polishing Inc
OPERATOR ADDRESS:	928 E South St
OPERATOR CITY:	Anaheim
OPERATOR STATE:	California
OPERATOR ZIP:	92805
OPERATOR CONTACT NAME:	Gabriel Barriga
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-776-3597
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-776-3597
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 COMMERCIAL 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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

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:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	208761
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 30I011206
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/06/1994
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Anaheim Plating Polishing Inc
Discharge Address:	928 E South St
Discharge City:	Anaheim
Discharge State:	California
Discharge Zip:	92805
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY 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 NAME:	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 NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

DEVELOPER STATE: Not reported
DEVELOPER ZIP: Not reported
DEVELOPER CONTACT NAME: Not reported
DEVELOPER CONTACT TITLE: Not reported
CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: 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 DESRIPTION: 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 NAME: Not reported
CERTIFIER TITLE: Not reported
CERTIFICATION DATE: Not reported
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

WDS:

Facility ID: Santa Ana River 30I011206
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 8
Facility Telephone: 7147763597
Facility Contact: GABRIEL
Agency Name: ANAHEIM PLATING
Agency Address: 928 E SOUTH ST
Agency City,St,Zip: ANAHEIM 92805
Agency Contact: GABRIEL
Agency Telephone: 7147763597
Agency Type: Private
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ANAHEIM PLATING & POLISHING (Continued)

1000240287

Waste Type2: Not reported
 Waste2: Not reported
 Primary Waste Type: Not reported
 Secondary Waste: Not reported
 Secondary Waste Type: Not reported
 Design Flow: 0
 Baseline Flow: 0
 Reclamation: Not reported
 POTW: Not reported
 Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
 Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

D18
SW
< 1/8
0.115 mi.
606 ft.

AMERICAN CAN CO
901 E SOUTH ST
ANAHEIM, CA 92803
Site 2 of 5 in cluster D

RCRA-SQG 1000360657
FINDS CAD009550823
ECHO

Relative:
Lower

RCRA-SQG:

Date form received by agency: 09/01/1996
 Facility name: AMERICAN CAN CO
 Facility address: 901 E SOUTH ST
 ANAHEIM, CA 92803
 EPA ID: CAD009550823
 Mailing address: 901 EAST SOUTH ST PO 3671
 ANAHEIM, CA 92803
 Contact: Not reported
 Contact address: Not reported
 Contact country: US
 Contact telephone: Not reported
 Contact email: Not reported
 EPA Region: 09
 Classification: Small Small Quantity Generator
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Actual:
165 ft.

Owner/Operator Summary:

Owner/operator name: AMERICAN CAN COMPANY
 Owner/operator address: AMERICANLN1B9ENVIRONMENTALDEPT
 CITY NOT REPORTED, CT 99999
 Owner/operator country: Not reported
 Owner/operator telephone: (203) 552-2181
 Legal status: Private

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AMERICAN CAN CO (Continued)

1000360657

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: AMERICAN CAN COMPANY
Owner/operator address: AMERICANLN1B9ENVIRONMENTALDEPT
GREENWICH, CT 06830

Owner/operator country: Not reported
Owner/operator telephone: (203) 552-2181
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 08/18/1980
Site name: AMERICAN CAN CO
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002636988

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.

ECHO:

Envid: 1000360657
Registry ID: 110002636988
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002636988

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

D19
SW
< 1/8
0.115 mi.
606 ft.

HITACHI CONSUMER PROD
901 E SOUTH ST
ANAHEIM, CA 92805

Site 3 of 5 in cluster D

UST **U003713249**
N/A

Relative:
Lower

UST:
Facility ID: 3928
Permitting Agency: Not reported
Latitude: 33.831195
Longitude: -117.90158

Actual:
165 ft.

20
NNW
< 1/8
0.122 mi.
646 ft.

ANAHEIM PRECISION TOOL & GRINDING
559 S ROSE ST
ANAHEIM, CA 92805

RCRA-SQG **1000240284**
FINDS **CAD981982630**
ECHO

Relative:
Higher

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: ANAHEIM PRECISION TOOL & GRINDING
Facility address: 559 S ROSE ST
 ANAHEIM, CA 92805
EPA ID: CAD981982630
Mailing address: S ROSE ST
 ANAHEIM, CA 92805
Contact: Not reported
Contact address: Not reported
 Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Actual:
167 ft.

Owner/Operator Summary:
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
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MUMMA BART
Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM PRECISION TOOL & GRINDING (Continued)

1000240284

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

FINDS:

Registry ID: 110002764116

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.

ECHO:

Envid: 1000240284
Registry ID: 110002764116
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002764116

D21
SW
< 1/8
0.125 mi.
659 ft.

RH SIEGELE ENTERPRISES
919 E SOUTH ST
ANAHEIM, CA 92805
Site 4 of 5 in cluster D

HIST UST U001578784
N/A

Relative:
Lower

HIST UST:
File Number: 0002ED00
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002ED00.pdf>
Region: STATE
Facility ID: 00000047583
Facility Type: Other
Other Type: BUSINESS
Contact Name: R.H. SIEGELE
Telephone: 7146352181
Owner Name: R.H. SIEGELE
Owner Address: 832 N. WEST ST.
Owner City,St,Zip: ANAHEIM, CA 92801

Actual:
164 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RH SIEGELE ENTERPRISES (Continued)

U001578784

Total Tanks: 0001
 Tank Num: 001
 Container Num: 1
 Year Installed: Not reported
 Tank Capacity: 00002000
 Tank Used for: PRODUCT
 Type of Fuel: DIESEL
 Container Construction Thickness: Not reported
 Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

E22
SW
 1/8-1/4
 0.127 mi.
 668 ft.

JACO ENGINEERING INC
879 EAST S
ANAHEIM, CA 92805

UST U003778817
N/A

Site 1 of 2 in cluster E

Relative:
Lower

UST:
 Facility ID: 1104
 Permitting Agency: Not reported
 Latitude: 33.8280399
 Longitude: -117.897938

Actual:
164 ft.

D23
SW
 1/8-1/4
 0.127 mi.
 673 ft.

HITACHI CONSUMER PRODUCTS
901 ES ST
ANAHEIM, CA 92805

RCRA-SQG 1000144134
FINDS CAD980813901
ECHO

Site 5 of 5 in cluster D

Relative:
Lower

RCRA-SQG:
 Date form received by agency: 02/25/1987
 Facility name: HITACHI CONSUMER PRODUCTS
 Facility address: 901 ES ST
 ANAHEIM, CA 92805
 EPA ID: CAD980813901
 Contact: ENVIRONMENTAL MANAGER
 Contact address: 901 ES ST
 ANAHEIM, CA 92805
 Contact country: US
 Contact telephone: (714) 533-0640
 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

Actual:
164 ft.

Owner/Operator Summary:
 Owner/operator name: HITACHI CONSUMER PROD
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HITACHI CONSUMER PRODUCTS (Continued)

1000144134

Owner/operator telephone: (415) 555-1212
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
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

FINDS:

Registry ID: 110002671984

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.

ECHO:

Envid: 1000144134
Registry ID: 110002671984
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002671984

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

24
West
1/8-1/4
0.129 mi.
682 ft.

HITACHI CONSUMER PRODUCTS
901 E.
ANAHEIM, CA 92805

LUST **S105022499**
HIST CORTESE **N/A**

Relative:
Lower

LUST:

Actual:
164 ft.

Region: STATE
Global Id: T0605901179
Latitude: 33.829842
Longitude: -117.902924
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/25/1990
Lead Agency: ORANGE COUNTY LOP
Case Worker: AM
Local Agency: ORANGE COUNTY LOP
RB Case Number: 083001544T
LOC Case Number: 90UT140
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Lead
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605901179
Contact Type: Local Agency Caseworker
Contact Name: ANTHONY MARTINEZ
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: amartinez@ochca.com
Phone Number: 7144336011

Global Id: T0605901179
Contact Type: Regional Board Caseworker
Contact Name: PATRICIA HANNON
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: phannon@waterboards.ca.gov
Phone Number: Not reported

Status History:

Global Id: T0605901179
Status: Completed - Case Closed
Status Date: 09/25/1990

Global Id: T0605901179
Status: Open - Case Begin Date
Status Date: 05/21/1990

Regulatory Activities:

Global Id: T0605901179
Action Type: Other
Date: 05/21/1990
Action: Leak Discovery

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HITACHI CONSUMER PRODUCTS (Continued)

S105022499

Global Id: T0605901179
Action Type: Other
Date: 05/21/1990
Action: Leak Reported

LUST REG 8:

Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083001544T
Local Case Num: 90UT140
Case Type: Soil only
Substance: Lead
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global ID: T0605901179
How Stopped Date: 9/9/9999
Enter Date: Not reported
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 5/21/1990
Enforcement Date: Not reported
Close Date: 9/25/1990
Date Prelim Assessment Workplan Submitted: 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: Not reported
Enter Date: Not reported
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST
Latitude: 33.8287486
Longitude: -117.902825
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: PAH
Staff Initials: WJ
Lead Agency: Local Agency
Local Agency: 30000L

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HITACHI CONSUMER PRODUCTS (Continued)

S105022499

Hydr Basin #: Not reported
 Beneficial: MUN
 Priority: Not reported
 Cleanup Fund Id: Not reported
 Work Suspended: Not reported
 Summary: Not reported

HIST CORTESE:

Region: CORTESE
 Facility County Code: 30
 Reg By: LTNKA
 Reg Id: 083001544T

F25
SSE
 1/8-1/4
 0.143 mi.
 756 ft.

FLAT & VERTICAL CONCRETE SAW
837 S EAST ST
ANAHEIM, CA 92805
 Site 1 of 4 in cluster F

UST U003802832
N/A

Relative:
Higher

UST:
 Facility ID: 4878
 Permitting Agency: Not reported
 Latitude: 33.829258
 Longitude: -117.898332

Actual:
167 ft.

F26
SSE
 1/8-1/4
 0.143 mi.
 756 ft.

FLAT AND VERTICAL INC
837 S EAST ST
ANAHEIM, CA 92805
 Site 2 of 4 in cluster F

HIST UST S113033823
HAZNET N/A

Relative:
Higher

HIST UST:
 File Number: 0002E90F
 URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002E90F.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

Actual:
167 ft.

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FLAT AND VERTICAL INC (Continued)

S113033823

[Click here for Geo Tracker PDF:](#)

HAZNET:

envid: S113033823
Year: 2009
GEPaid: CAL000031973
Contact: UNDELIVERABLE SURVEY 1-24-95JV
Telephone: --
Mailing Name: Not reported
Mailing Address: 837 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.1
Cat Decode: Other inorganic solid waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: S113033823
Year: 2009
GEPaid: CAL000031973
Contact: UNDELIVERABLE SURVEY 1-24-95JV
Telephone: --
Mailing Name: Not reported
Mailing Address: 837 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons: 0.693
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County: Orange

**E27
SW
1/8-1/4
0.146 mi.
772 ft.**

**DIXCO DIVERSIFIED CHEMICAL SALES INC
847 EAST S
ANAHEIM, CA 92805
Site 2 of 2 in cluster E**

**UST U003996962
N/A**

**Relative:
Lower**

UST:
Facility ID: 9133
Permitting Agency: Not reported
Latitude: 33.829068
Longitude: -117.899229

**Actual:
164 ft.**

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

F28
SSE
1/8-1/4
0.155 mi.
817 ft.

DIXCO DIVERSIFIED CHEMICALS, INC.
847 S. EAST STREET
ANAHEIM, CA 92805
Site 3 of 4 in cluster F

ENVIROSTOR **S101589197**
SWEEPS UST **N/A**
CA FID UST
Orange Co. Industrial Site

Relative:
Higher

ENVIROSTOR:
 Facility ID: 71002483
 Status: Inactive - Needs Evaluation
 Status Date: Not reported
 Site Code: Not reported
 Site Type: Tiered Permit
 Site Type Detailed: Tiered Permit
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: NONE SPECIFIED
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Not reported
 Division Branch: Cleanup Cypress
 Assembly: 69
 Senate: 34
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: Not reported
 Latitude: 33.82777
 Longitude: -117.9004
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: CAD058230038
 Alias Type: EPA Identification Number
 Alias Name: 110002651602
 Alias Type: EPA (FRS #)
 Alias Name: 71002483
 Alias Type: Envirostor ID Number

Actual:
167 ft.

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

SWEEPS UST:
 Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICALS, INC. (Continued)

S101589197

Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000005
Tank Status: A
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: GASHOL
Number Of Tanks: 9

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000006
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000007
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICALS, INC. (Continued)

S101589197

Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000008
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000009
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000010
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000011
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: PETROLEUM

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICALS, INC. (Continued)

S101589197

STG: W
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000012
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 9133
Number: 9
Board Of Equalization: Not reported
Referral Date: 03-18-92
Action Date: 03-18-92
Created Date: 12-31-88
Owner Tank Id: 1702
SWRCB Tank Id: 30-011-009133-000013
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 30003001
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7145350646
Mail To: Not reported
Mailing Address: 847 S EAST ST
Mailing Address 2: Not reported
Mailing City,St,Zip: ANAHEIM 92805
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIXCO DIVERSIFIED CHEMICALS, INC. (Continued)

S101589197

Orange Co. Industrial Site:

Case ID: 89IC027
Record ID: RO0000202
Current Status: CLOSED 8/3/1990
Closure Type: Closed pre 1994, file review required to determine closure type
Released Chemical: OXIDIZERS

F29
SSE
1/8-1/4
0.156 mi.
824 ft.

FLAT & VERTICAL CONCRETE
837 EAST
ANAHEIM, CA 92805
Site 4 of 4 in cluster F

LUST **S105022509**
HIST CORTESE **N/A**

Relative:
Lower

LUST:

Region: STATE
Global Id: T0605901156
Latitude: 33.827905
Longitude: -117.899675
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/12/1990
Lead Agency: ORANGE COUNTY LOP
Case Worker: AM
Local Agency: ORANGE COUNTY LOP
RB Case Number: 083001516T
LOC Case Number: 90UT104
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Actual:
166 ft.

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605901156
Contact Type: Local Agency Caseworker
Contact Name: ANTHONY MARTINEZ
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: amartinez@ochca.com
Phone Number: 7144336011

Global Id: T0605901156
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605901156
Status: Completed - Case Closed
Status Date: 07/12/1990

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FLAT & VERTICAL CONCRETE (Continued)

S105022509

Global Id: T0605901156
Status: Open - Case Begin Date
Status Date: 04/17/1990

Regulatory Activities:

Global Id: T0605901156
Action Type: Other
Date: 04/17/1990
Action: Leak Discovery

Global Id: T0605901156
Action Type: Other
Date: 04/17/1990
Action: Leak Reported

LUST REG 8:

Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083001516T
Local Case Num: 90UT104
Case Type: Soil only
Substance: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global ID: T0605901156
How Stopped Date: 9/9/9999
Enter Date: Not reported
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 4/17/1990
Enforcement Date: Not reported
Close Date: 7/12/1990
Date Prelim Assessment Workplan Submitted: 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: Not reported
Enter Date: Not reported
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST
Latitude: 33.8275476
Longitude: -117.8993639

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

FLAT & VERTICAL CONCRETE (Continued)

S105022509

MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	WJ
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083001516T

30
ENE
1/8-1/4
0.183 mi.
966 ft.

RSA SUTTER SOIL PRODUCTS
701 GROVE AVE
ORANGE, CA 92805

LUST **S100852372**
HIST CORTESE **N/A**

Relative:
Higher

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002776T
Local Case Num:	Not reported
Case Type:	Aquifer affected
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Vapor Extraction
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605901916
How Stopped Date:	3/27/1995
Enter Date:	12/20/1995
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	3/27/1995
Enforcement Date:	Not reported
Close Date:	11/18/1996
Date Prelim Assessment Workplan Submitted:	4/1/1995

Actual:
170 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RSA SUTTER SOIL PRODUCTS (Continued)

S100852372

Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: 5/17/1996
Date Post Remedial Action Monitoring: Not reported
Enter Date: 12/20/1995
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST
Latitude: 33.821091
Longitude: -117.8597815
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE. Includes Unknown and Not Analyzed.
MTBE Class: *
Staff: VJJ
Staff Initials: UNK
Lead Agency: Regional Board
Local Agency: Orange, Orange County
Hydr Basin #: COASTAL PLAIN OF ORA
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: GASOLINE AND DIESEL. INSTALLED MONITORING WELL. VES (SOIL).

HIST CORTESE:

Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083002776T

G31
SSE
1/8-1/4
0.188 mi.
994 ft.

BRYANT ORGANIZATION INC
865 S EAST ST
ANAHEIM, CA 92805
Site 1 of 2 in cluster G

UST U003783127
N/A

Relative:
Lower

UST:
Facility ID: 4914
Permitting Agency: Not reported
Latitude: 33.828697
Longitude: -117.898155

Actual:
166 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

G32 **AMERICAN CONTRACTING SERVICES**
SSE **865 S EAST ST**
1/8-1/4 **ANAHEIM, CA 92805**
0.188 mi.
994 ft. **Site 2 of 2 in cluster G**

LUST **U001578718**
N/A

Relative:
Lower

LUST:

Actual:
166 ft.

Region: STATE
Global Id: T0605901023
Latitude: 33.827343
Longitude: -117.899499
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/13/1991
Lead Agency: ANAHEIM CITY
Case Worker: RM
Local Agency: ANAHEIM CITY
RB Case Number: 083001346T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605901023
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Status History:

Global Id: T0605901023
Status: Completed - Case Closed
Status Date: 05/13/1991

Global Id: T0605901023
Status: Open - Case Begin Date
Status Date: 10/11/1989

Global Id: T0605901023
Status: Open - Site Assessment
Status Date: 11/08/1989

Global Id: T0605901023
Status: Open - Site Assessment
Status Date: 11/15/1989

Regulatory Activities:

Global Id: T0605901023
Action Type: Other
Date: 10/11/1989
Action: Leak Discovery

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AMERICAN CONTRACTING SERVICES (Continued)

U001578718

Global Id: T0605901023
Action Type: Other
Date: 11/09/1989
Action: Leak Reported

Global Id: T0605901023
Action Type: ENFORCEMENT
Date: 05/13/1991
Action: Closure/No Further Action Letter

Global Id: T0605901023
Action Type: ENFORCEMENT
Date: 05/13/1991
Action: Closure/No Further Action Letter

**H33
NNW
1/8-1/4
0.198 mi.
1048 ft.**

**LAYCO CHEMICAL ENGINEERING #3
525 SOUTH ROSE ST
ANAHEIM, CA 92805
Site 1 of 2 in cluster H**

**SEMS-ARCHIVE 1003879400
CAD981401466**

**Relative:
Higher**

SEMS-ARCHIVE:
Site ID: 903496
EPA ID: CAD981401466
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**Actual:
168 ft.**

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0903496
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13286879.00000
Person ID: 13003854.00000

Contact Sequence ID: 13292474.00000
Person ID: 13003858.00000

Contact Sequence ID: 13298332.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: ANAHEIM PLASTIC CO
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: / /
Date Completed: 12/01/87
Priority Level: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAYCO CHEMICAL ENGINEERING #3 (Continued)

1003879400

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 12/21/88
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 12/21/88
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

**H34
NNW
1/8-1/4
0.198 mi.
1048 ft.**

**LAYCO CHEMICAL ENGINEERING #3
525 SOUTH ROSE
ANAHEIM, CA 92805
Site 2 of 2 in cluster H**

**ENVIROSTOR S102860929
N/A**

**Relative:
Higher**

ENVIROSTOR:

**Actual:
168 ft.**

Facility ID: 30280476
Status: Refer: Other Agency
Status Date: 06/23/1988
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: * Mmonroy
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: * CERC2
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.83277
Longitude: -117.9022
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: ANAHEIM PLASTICS CO.
Alias Type: Alternate Name
Alias Name: 30280476
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/28/1994
Comments: Database Validation Program confirms NFA for DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAYCO CHEMICAL ENGINEERING #3 (Continued)

S102860929

Completed Date: 06/30/1988
Comments: PRELIM ASSESS DONE DRUMS ARE STORED ONLY UNTIL ORIGINAL MFG. PICKS THEM UP.NO FURTHER ACTION

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/23/1987
Comments: SITE SCREENING DONE CERCLA GRANT SITE; WILL UNDERGO PA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 11/17/1982
Comments: FACILITY IDENTIFIED DURING DRIVEBY FACILITY DRIVE-BY YARD ADJ TO BLDG CONTAINS DRUMS-OLD, CORRODED & POSSIBLY ABAND EMPTY.

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

I35
WSW
1/8-1/4
0.215 mi.
1137 ft.

ROTARY OFFSET PRINTING
700 E SOUTH ST
ANAHEIM, CA 92805
Site 1 of 4 in cluster I

LUST U001578658
NPDES N/A

Relative:
Lower

LUST:

Actual:
162 ft.

Region: STATE
Global Id: T0605900531
Latitude: 33.827453
Longitude: -117.903619
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/02/1995
Lead Agency: ANAHEIM CITY
Case Worker: ROW
Local Agency: ANAHEIM CITY
RB Case Number: 083000670T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: UST Case closed 8/2/1995. In 2010 a health risk assessment was conducted when land use changed to residential. Letter approving HRA sent 10/4/2010.

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0605900531
Contact Type: Local Agency Caseworker

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROTARY OFFSET PRINTING (Continued)

U001578658

Contact Name: RICHARD O. WILSON
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. #601
City: ANAHEIM
Email: dwilson@anaheim.net
Phone Number: Not reported

Global Id: T0605900531
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605900531
Status: Completed - Case Closed
Status Date: 08/02/1995

Global Id: T0605900531
Status: Open - Case Begin Date
Status Date: 01/17/1987

Global Id: T0605900531
Status: Open - Site Assessment
Status Date: 01/17/1987

Global Id: T0605900531
Status: Open - Site Assessment
Status Date: 10/15/1987

Regulatory Activities:

Global Id: T0605900531
Action Type: Other
Date: 07/12/1987
Action: Leak Reported

Global Id: T0605900531
Action Type: ENFORCEMENT
Date: 08/02/1995
Action: Closure/No Further Action Letter

Global Id: T0605900531
Action Type: ENFORCEMENT
Date: 10/04/2010
Action: Technical Correspondence / Assistance / Other

NPDES:

Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 8
Regulatory Measure Id: 412374

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROTARY OFFSET PRINTING (Continued)

U001578658

Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	8 30C360504
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:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	2/25/2011
PROCESSED DATE:	3/2/2011
STATUS CODE NAME:	Active
STATUS DATE:	3/2/2011
PLACE SIZE:	3.21
PLACE SIZE UNIT:	52
FACILITY CONTACT NAME:	Liane Takano
FACILITY CONTACT TITLE:	Project Manager
FACILITY CONTACT PHONE:	949-660-7272
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	ltakano@related.com
OPERATOR NAME:	Anaheim Housing Authority
OPERATOR ADDRESS:	201 South Anaheim Blvd
OPERATOR CITY:	Anaheim
OPERATOR STATE:	California
OPERATOR ZIP:	92805
OPERATOR CONTACT NAME:	Andy Nogal
OPERATOR CONTACT TITLE:	Project Manager
OPERATOR CONTACT PHONE:	714-765-4568
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	anogal@anaheim.net
OPERATOR TYPE:	City Agency
DEVELOPER NAME:	Related Companies of California
DEVELOPER ADDRESS:	18201 Von Karman Ave
DEVELOPER CITY:	Irvine
DEVELOPER STATE:	California
DEVELOPER ZIP:	92612
DEVELOPER CONTACT NAME:	Liane Takano
DEVELOPER CONTACT TITLE:	Project Manager
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	949-660-7272
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 COMMERCIAL 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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROTARY OFFSET PRINTING (Continued)

U001578658

CONSTYPE RESIDENTIAL IND: Y
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: N
RECEIVING WATER NAME: Coyote Creek Watershed
CERTIFIER NAME: Abby Semblantes
CERTIFIER TITLE: Not reported
CERTIFICATION DATE: 25-FEB-11
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

I36
WSW
1/8-1/4
0.215 mi.
1137 ft.

SPECIALTY SIGHTING INC.
700 E. SOUTH STREET
ANAHEIM, CA 92805

RCRA-SQG 1000171521
CAD982370637

Site 2 of 4 in cluster I

Relative:
Lower

RCRA-SQG:

Date form received by agency: 09/01/1996

Facility name: SPECIALTY SIGHTING INC.

Facility address: 700 E. SOUTH STREET
ANAHEIM, CA 92805

EPA ID: CAD982370637

Mailing address: E. SOUTH STREET
ANAHEIM, CA 92805

Contact: Not reported

Contact address: Not reported

Contact country: US

Contact telephone: Not reported

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

Owner/Operator Summary:

Owner/operator name: E. A. FENNER, PRESIDENT

Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported

Owner/operator telephone: (415) 555-1212

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPECIALTY SIGHTING INC. (Continued)

1000171521

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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

Evaluation Action Summary:

Evaluation date: 02/17/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

I37
WSW
1/8-1/4
0.215 mi.
1137 ft.

ROTARY OFFSET PRINTERS
700 E SOUTH ST
ANAHEIM, CA 92803
Site 3 of 4 in cluster I

RCRA-SQG 1000156607
CAD009522459

Relative:
Lower

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: ROTARY OFFSET PRINTERS
Facility address: 700 E SOUTH ST
ANAHEIM, CA 92803
EPA ID: CAD009522459
Mailing address: PO BOX 3882
ANAHEIM, CA 92803
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

Actual:
162 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROTARY OFFSET PRINTERS (Continued)

1000156607

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

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
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: ARCATA CORPORATION
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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
Used 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: 04/16/1990
Site name: RINGIER AMERICA, INC.
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: ROTARY OFFSET PRINTERS
Classification: Large Quantity Generator

Violation Status: No violations found

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

38
SSE
1/8-1/4
0.217 mi.
1144 ft.

DELRU CO
875 S EAST ST
ANAHEIM, CA 92805

RCRA-SQG **1000370390**
ENVIROSTOR **CAD981375959**
FINDS
ECHO

Relative:
Lower

RCRA-SQG:

Date form received by agency: 09/01/1996
 Facility name: DELRU CO
 Facility address: 875 S EAST ST
 ANAHEIM, CA 92805
 EPA ID: CAD981375959
 Contact: Not reported
 Contact address: Not reported
 Contact country: US
 Contact telephone: Not reported
 Contact email: Not reported
 EPA Region: 09
 Classification: Small Small Quantity Generator
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Actual:
166 ft.

Owner/Operator Summary:

Owner/operator name: BERNICE DEHLINGER
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported
 Owner/operator telephone: (415) 555-1212
 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
 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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DELRU CO (Continued)

1000370390

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: 09/01/1996
Site name: DELRU CO
Classification: Small Quantity Generator

Date form received by agency: 03/27/1996
Site name: DELRU COMPANY
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994
Site name: DELRU COMPANY
Classification: Large Quantity Generator

Date form received by agency: 02/27/1992
Site name: DELRU COMPANY
Classification: Large Quantity Generator

Date form received by agency: 05/07/1990
Site name: DELRU CO
Classification: Large Quantity Generator

Date form received by agency: 01/30/1986
Site name: DELRU CO
Classification: Small Quantity Generator

Violation Status: No violations found

ENVIROSTOR:

Facility ID: 71002755
Status: Active
Status Date: 04/10/2013
Site Code: 400834
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: 1
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Poonam Acharya
Supervisor: Emad Yemut
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.82708
Longitude: -117.8994
APN: NONE SPECIFIED
Past Use: MANUFACTURING - ELECTRONIC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DELRU CO (Continued)

1000370390

Potential COC: Total Chromium (1:6 ratio Cr VI:Cr III Lead Silver
1,1,1-Trichloroethane (TCA Trichloroethylene (TCE
Confirmed COC: Lead Total Chromium (1:6 ratio Cr VI:Cr III 1,1,1-Trichloroethane
(TCA Silver Trichloroethylene (TCE
Potential Description: CSS, SOIL
Alias Name: CAD981375959
Alias Type: EPA Identification Number
Alias Name: 400834
Alias Type: Project Code (Site Code)
Alias Name: 71002755
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Oversight
Completed Date: 04/07/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 05/30/2000
Comments: Inspection report sent on 5/30/2000

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 10/18/2010
Comments: First Cost Recovery Collection Letter sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/07/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 11/17/2010
Comments: Second Collection Letter sent certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 06/02/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 06/02/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DELRU CO (Continued)

1000370390

Completed Date: 09/18/2013
Comments: VCP invite letter was mailed out through certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/18/2013
Comments: I&SE determination letter was mailed through certified mail

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Ability To Pay
Completed Date: 04/14/2014
Comments: Mr. Patolia's ability to pay claim was denied. His outstanding payments have been referred to the Collections Unit for handling as an invoice dispute.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 04/23/2014
Comments: Collections & Resolution Unit recommended that Legal work with Program on a payment plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/14/2015
Comments: Annual Cost Estimate completed for FY 1516.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/30/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 11/27/2013
Comments: The Work plan was conditionally approved for the implementation of the fieldwork.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 05/08/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DELRU CO (Continued)

1000370390

Completed Document Type: Fact Sheets
Completed Date: 11/12/2015
Comments: community Update was sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/12/2015
Comments: Public notice sent.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Remedial Action Completion Report
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Acknowledgement of Satisfaction
Future Due Date: 2017
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: CEQA - Notice of Exemption
Future Due Date: 2016
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Corrective Measure Implementation Workplan
Schedule Due Date: 06/10/2016
Schedule Revised Date: Not reported

FINDS:

Registry ID: 110000783484

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.

ECHO:

Envid: 1000370390
Registry ID: 110000783484
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110000783484

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J39
South
1/8-1/4
0.224 mi.
1181 ft.

SPECTRA SIGN CO
863 AND 865 S ROSE PL
ANAHEIM, CA 92805

Site 1 of 2 in cluster J

RCRA-SQG 1000181189
FINDS CAD066160532
ECHO

Relative:
Lower

RCRA-SQG:

Actual:
165 ft.

Date form received by agency: 08/13/1991
Facility name: SPECTRA SIGN CO
Facility address: 863 AND 865 S ROSE PL
ANAHEIM, CA 92805
EPA ID: CAD066160532
Mailing address: 865 S ROSE PL
ANAHEIM, CA 92805
Contact: ENV MGR
Contact address: 863 AND 865 S ROSE PL
ANAHEIM, CA 92805
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: DON E LEE PHILIP J SOLIS PARTNERSHIP
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
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

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SPECTRA SIGN CO (Continued)

1000181189

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

FINDS:

Registry ID: 110008262619

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.

ECHO:

Envid: 1000181189
 Registry ID: 110008262619
 DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110008262619

I40
WSW
1/8-1/4
0.229 mi.
1208 ft.

ROTARY OFFSET PRINTING
700 SOUTH ST
ANAHEIM, CA 92805
Site 4 of 4 in cluster I

LUST **S105022498**
HIST CORTESE **N/A**

Relative:
Lower

LUST REG 8:
 Region: 8
 County: Orange
 Regional Board: Santa Ana Region
 Facility Status: Case Closed
 Case Number: 083000670T
 Local Case Num: Not reported
 Case Type: Soil only
 Substance: Methylene Chloride
 Qty Leaked: Not reported
 Abate Method: Not reported
 Cross Street: EAST
 Enf Type: Not reported
 Funding: Not reported
 How Discovered: Not reported
 How Stopped: Not reported
 Leak Cause: Not reported
 Leak Source: Not reported
 Global ID: T0605900531
 How Stopped Date: Not reported
 Enter Date: 10/15/1987
 Date Confirmation of Leak Began: 1/17/1987
 Date Preliminary Assessment Began: Not reported
 Discover Date: Not reported

Actual:
162 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROTARY OFFSET PRINTING (Continued)

S105022498

Enforcement Date: Not reported
Close Date: 8/2/1995
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: 10/15/1987
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 10/15/1987
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST
Latitude: 33.8281666
Longitude: -117.9043181
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: CAB
Staff Initials: SW
Lead Agency: Local Agency
Local Agency: 30011
Hydr Basin #: COASTAL PLAIN OF ORA
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

HIST CORTESE:

Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083000670T

**K41
NNW
1/8-1/4
0.229 mi.
1210 ft.**

**PORTER PLATING CO INC
510 S ROSE STREET
ANAHEIM, CA 92805
Site 1 of 4 in cluster K**

**RCRA-SQG 1000401499
HAZNET CAD982479578**

**Relative:
Higher**

RCRA-SQG:
Date form received by agency: 07/13/1988
Facility name: PORTER PLATING CO INC
Facility address: 510 S ROSE STREET
ANAHEIM, CA 92805
EPA ID: CAD982479578
Mailing address: S ROSE STREET
ANAHEIM, CA 92805
Contact: ENVIRONMENTAL MANAGER
Contact address: 510 S ROSE STREET
ANAHEIM, CA 92805

**Actual:
168 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORTER PLATING CO INC (Continued)

1000401499

Contact country: US
Contact telephone: (714) 956-2010
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: PORTER JERRY
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
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

HAZNET:

envid: 1000401499
Year: 1997
GEPaid: CAD982479578
Contact: JERRY PORTER
Telephone: 7149562010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORTER PLATING CO INC (Continued)

1000401499

Mailing Name: Not reported
Mailing Address: 510 S ROSE ST
Mailing City,St,Zip: ANAHEIM, CA 928054751
Gen County: Not reported
TSD EPA ID: CAL099452708
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Recycler
Tons: 2.7105
Cat Decode: Not reported
Method Decode: Recycler
Facility County: Orange

envid: 1000401499
Year: 1997
GEPaid: CAD982479578
Contact: JERRY PORTER
Telephone: 7149562010
Mailing Name: Not reported
Mailing Address: 510 S ROSE ST
Mailing City,St,Zip: ANAHEIM, CA 928054751
Gen County: Not reported
TSD EPA ID: CAT080025711
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: 15.9502
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Recycler
Facility County: Orange

envid: 1000401499
Year: 1996
GEPaid: CAD982479578
Contact: JERRY PORTER
Telephone: 7149562010
Mailing Name: Not reported
Mailing Address: 510 S ROSE ST
Mailing City,St,Zip: ANAHEIM, CA 928054751
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Alkaline solution (pH >= 12.5) with metals
Disposal Method: Disposal, Other
Tons: 1.5000
Cat Decode: Alkaline solution (pH >= 12.5) with metals
Method Decode: Disposal, Other
Facility County: Orange

envid: 1000401499
Year: 1995
GEPaid: CAD982479578
Contact: JERRY PORTER
Telephone: 7149562010
Mailing Name: Not reported
Mailing Address: 510 S ROSE ST
Mailing City,St,Zip: ANAHEIM, CA 928054751

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORTER PLATING CO INC (Continued)

1000401499

Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Alkaline solution (pH >= 12.5) with metals
Disposal Method: Disposal, Other
Tons: 1.0000
Cat Decode: Alkaline solution (pH >= 12.5) with metals
Method Decode: Disposal, Other
Facility County: Orange

envid: 1000401499
Year: 1995
GEPaid: CAD982479578
Contact: JERRY PORTER
Telephone: 7149562010
Mailing Name: Not reported
Mailing Address: 510 S ROSE ST
Mailing City, St, Zip: ANAHEIM, CA 928054751
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Liquids with chromium (VI) >= 500 Mg./L
Disposal Method: Recycler
Tons: 8.3400
Cat Decode: Liquids with chromium (VI) >= 500 Mg./L
Method Decode: Recycler
Facility County: Orange

[Click this hyperlink](#) while viewing on your computer to access 6 additional CA_HAZNET: record(s) in the EDR Site Report.

K42
NNW
1/8-1/4
0.229 mi.
1210 ft.

ROGERS PLATING COMPANY
510 SOUTH ROSE STREET
ANAHEIM, CA 92805

RCRA-SQG 1000217896
CAT000625129

Site 2 of 4 in cluster K

Relative:
Higher

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: ROGERS PLATING COMPANY
Facility address: 510 SOUTH ROSE STREET
ANAHEIM, CA 92805

Actual:
168 ft.

EPA ID: CAT000625129
Mailing address: 536 SOUTH ROSE STREET
ANAHEIM, CA 92805

Contact: Not reported
Contact address: Not reported
Not reported

Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09

Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROGERS PLATING COMPANY (Continued)

1000217896

Owner/Operator Summary:

Owner/operator name: PLATING ON PLASTIC INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 08/18/1980
Site name: ROGERS PLATING COMPANY
Classification: Large Quantity Generator

Violation Status: No violations found

**K43
NNW
1/8-1/4
0.229 mi.
1210 ft.**

**PORTER PLATING CO., INC.
510 S. ROSE STREET
ANAHEIM, CA 92805
Site 3 of 4 in cluster K**

**ENVIROSTOR S103982291
Orange Co. Industrial Site N/A
EMI**

**Relative:
Higher**

ENVIROSTOR:
Facility ID: 71003068
Status: Inactive - Needs Evaluation
Status Date: 09/09/2011
Site Code: Not reported
Site Type: Tiered Permit

**Actual:
168 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORTER PLATING CO., INC. (Continued)

S103982291

Site Type Detailed: Tiered Permit
Acres: 0
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: John Scandura
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.83298
Longitude: -117.9019
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982479578
Alias Type: EPA Identification Number
Alias Name: 71003068
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Order
Completed Date: 06/30/2005
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

Orange Co. Industrial Site:

Case ID: 88IC082
Record ID: RO0000163
Current Status: CLOSED 1/25/1996
Closure Type: Referred to Department of Toxic Substance Control
Released Chemical: PLATING WASTE - OTHER METALS

EMI:

Year: 1987
County Code: 30
Air Basin: SC
Facility ID: 40370
Air District Name: SC
SIC Code: 3471

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORTER PLATING CO., INC. (Continued)

S103982291

Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
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 Smlr Tons/Yr:0

Year: 1990
County Code: 30
Air Basin: SC
Facility ID: 40370
Air District Name: SC
SIC Code: 3471
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
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 Smlr Tons/Yr:0

K44
NNW
1/8-1/4
0.232 mi.
1227 ft.

JT VONIC CO
515 S ROSE ST
ANAHEIM, CA 92805
Site 4 of 4 in cluster K

RCRA-SQG **1001022965**
CAR000003095

Relative:
Higher

RCRA-SQG:

Actual:
168 ft.

Date form received by agency:06/01/1995
Facility name: JT VONIC CO
Facility address: 515 S ROSE ST
ANAHEIM, CA 92805
EPA ID: CAR000003095
Mailing address: S ROSE ST
ANAHEIM, CA 92805
Contact: JEFF VONIC
Contact address: 515 S ROSE ST
ANAHEIM, CA 92805
Contact country: US
Contact telephone: (714) 533-3333
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:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JT VONIC CO (Continued)

1001022965

Owner/operator name: JEFF S VONIC
Owner/operator address: 515 S ROSE ST
ANAHEIM, CA 92805
Owner/operator country: Not reported
Owner/operator telephone: (714) 533-3333
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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

J45
South
1/8-1/4
0.243 mi.
1283 ft.

ACTIVE GRINDING INC
880 S ROSE PL
ANAHEIM, CA 92805
Site 2 of 2 in cluster J

RCRA-SQG 1000686367
FINDS CAD983636408
HAZNET
ECHO

Relative:
Lower

RCRA-SQG:

Date form received by agency: 05/14/1992
Facility name: ACTIVE GRINDING INC
Facility address: 880 S ROSE PL
ANAHEIM, CA 92805
EPA ID: CAD983636408
Mailing address: S ROSE PL
ANAHEIM, CA 92805
Contact: JOE LEMAY
Contact address: 880 S ROSE PL
ANAHEIM, CA 92805
Contact country: US
Contact telephone: (714) 772-7610
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

Actual:
165 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ACTIVE GRINDING INC (Continued)

1000686367

Owner/Operator Summary:

Owner/operator name: ACTIVE GRINDING INC
Owner/operator address: 880 S ROSE PL
ANAHEIM, CA 92805
Owner/operator country: Not reported
Owner/operator telephone: (714) 772-7610
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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

FINDS:

Registry ID: 110002876399

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

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.

HAZNET:

envid: 1000686367
Year: 2013
GEPaid: CAD983636408
Contact: PAUL SHEPHERD
Telephone: 7145200058
Mailing Name: Not reported
Mailing Address: 871 S ROSE PL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ACTIVE GRINDING INC (Continued)

1000686367

Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Orange
TSD EPA ID: AZR000501510
TSD County: 99
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.8
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

envid: 1000686367
Year: 2012
GEPaid: CAD983636408
Contact: PAUL SHEPHERD
Telephone: 7145200058
Mailing Name: Not reported
Mailing Address: 871 S ROSE PL
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Orange
TSD EPA ID: AZR000501510
TSD County: 99
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.9
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: 1000686367
Year: 2009
GEPaid: CAD983636408
Contact: PAUL SHEPHERD
Telephone: 7145200058
Mailing Name: Not reported
Mailing Address: 871 S ROSE PL
Mailing City,St,Zip: ANAHEIM, CA 928055337
Gen County: Not reported
TSD EPA ID: CAD981696420
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.0425
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: Orange

envid: 1000686367
Year: 2009
GEPaid: CAD983636408
Contact: PAUL SHEPHERD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ACTIVE GRINDING INC (Continued)

1000686367

Telephone: 7145200058
Mailing Name: Not reported
Mailing Address: 871 S ROSE PL
Mailing City,St,Zip: ANAHEIM, CA 928055337
Gen County: Not reported
TSD EPA ID: AZR000501510
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.4
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: 1000686367
Year: 2008
GEPaid: CAD983636408
Contact: PAUL SHEPHERD
Telephone: 7145200058
Mailing Name: Not reported
Mailing Address: 871 S ROSE PL
Mailing City,St,Zip: ANAHEIM, CA 928055337
Gen County: Not reported
TSD EPA ID: CAD981696420
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.7105
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: Orange

[Click this hyperlink](#) while viewing on your computer to access 21 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:

Envid: 1000686367
Registry ID: 110002876399
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002876399

L46
SSE
1/8-1/4
0.248 mi.
1308 ft.

JACO ENGINEERING, INC
879 S EAST ST
ANAHEIM, CA 92805
Site 1 of 2 in cluster L

RCRA-SQG 1000325261
SWEEPS UST CAD070943691
CA FID UST
FINDS
HAZNET
NPDES
ECHO

Relative:
Lower

RCRA-SQG:

Actual:
166 ft.

Date form received by agency: 09/01/1996
Facility name: JACO ENGINEERING, INC
Facility address: 879 S EAST ST
ANAHEIM, CA 92805

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

EPA ID: CAD070943691
Contact: Not reported
Contact address: Not reported
Contact country: US
Contact telephone: Not reported
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

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: H J MEAGHER
Owner/operator address: NOT REQUIRED
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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
Used 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: 02/04/1986

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

Site name: JACO ENGINEERING, INC
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 06/08/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

SWEEPS UST:

Status: Active
Comp Number: 1104
Number: 1
Board Of Equalization: 44-015776
Referral Date: 11-10-92
Action Date: 11-10-92
Created Date: 12-31-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-011-001104-000002
Tank Status: A
Capacity: 1000
Active Date: 11-10-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 1

CA FID UST:

Facility ID: 30008704
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7149911680
Mail To: Not reported
Mailing Address: 879 S EAST ST
Mailing Address 2: Not reported
Mailing City,St,Zip: ANAHEIM 92805
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: 110002656368

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART)
provides California with information on hazardous waste shipments for

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

generators, transporters, and treatment, storage, and disposal facilities.

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.

HAZNET:

envid: 1000325261
Year: 2014
GEPaid: CAD070943691
Contact: SHARON MALONEY OFFICE MANAGER
Telephone: 7149911680
Mailing Name: Not reported
Mailing Address: 879 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928055356
Gen County: Orange
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 2.28
Cat Decode: Waste oil and mixed oil
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Orange

envid: 1000325261
Year: 2013
GEPaid: CAD070943691
Contact: SHARON MALONEY OFFICE MANAGER
Telephone: 7149911680
Mailing Name: Not reported
Mailing Address: 879 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928055356
Gen County: Orange
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.0775
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Not reported

envid: 1000325261
Year: 2012
GEPaid: CAD070943691
Contact: SHARON MALONEY OFFICE MANAGER
Telephone: 7149911680

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

Mailing Name: Not reported
Mailing Address: 879 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928055356
Gen County: Orange
TSD EPA ID: CAD981696420
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.5012
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: 1000325261
Year: 2011
GEPaid: CAD070943691
Contact: SHARON MALONEY OFFICE MANAGER
Telephone: 7149911680
Mailing Name: Not reported
Mailing Address: 879 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928055356
Gen County: Not reported
TSD EPA ID: CAR000157206
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Biological Treatment With Or Without Precitation
Tons: 1.577
Cat Decode: Waste oil and mixed oil
Method Decode: Biological Treatment With Or Without Precitation
Facility County: Orange

envid: 1000325261
Year: 2011
GEPaid: CAD070943691
Contact: SHARON MALONEY OFFICE MANAGER
Telephone: 7149911680
Mailing Name: Not reported
Mailing Address: 879 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928055356
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.175
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

[Click this hyperlink](#) while viewing on your computer to access 28 additional CA_HAZNET: record(s) in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	288902
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 30I019477
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:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	5/5/2005
STATUS CODE NAME:	Active
STATUS DATE:	5/5/2005
PLACE SIZE:	24167
PLACE SIZE UNIT:	53
FACILITY CONTACT NAME:	Patrick Meagher
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-991-1680
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	pat@jacoengineering.com
OPERATOR NAME:	H J Meagher
OPERATOR ADDRESS:	879 S East St
OPERATOR CITY:	Anaheim
OPERATOR STATE:	California
OPERATOR ZIP:	92805
OPERATOR CONTACT NAME:	Sharon Maloney
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-991-1680
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Sharonmaloney@jacoengineering.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-991-1680
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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESCRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	H J Meagher
CERTIFIER TITLE:	President
CERTIFICATION DATE:	29-APR-05
PRIMARY SIC:	3599-Industrial and Commercial Machinery and Equipment, NEC
SECONDARY SIC:	3291-Abrasive Products
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	288902
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 301019477
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/05/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	H J Meagher
Discharge Address:	879 S East St
Discharge City:	Anaheim
Discharge State:	California
Discharge Zip:	92805
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY 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 NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

JACO ENGINEERING, INC (Continued)

1000325261

OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	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 DESRIPTION:	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 NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

ECHO:

Envid:	1000325261
Registry ID:	110002656368
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002656368

L47
SSE
1/4-1/2
0.252 mi.
1333 ft.

AMERICAN CONTRACTING SERVICES
865 EAST ST
ANAHEIM, CA 92805
Site 2 of 2 in cluster L

LUST S104164249
N/A

Relative:
Lower

LUST REG 8:	
Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001346T
Local Case Num:	Not reported

Actual:
166 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AMERICAN CONTRACTING SERVICES (Continued)

S104164249

Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	VERMONT
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605901023
How Stopped Date:	Not reported
Enter Date:	11/4/1989
Date Confirmation of Leak Began:	11/8/1989
Date Preliminary Assessment Began:	11/15/1989
Discover Date:	10/11/1989
Enforcement Date:	1/1/1965
Close Date:	5/13/1991
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	11/4/1989
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8266686
Longitude:	-117.8990659
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

48
WNW
1/4-1/2
0.265 mi.
1397 ft.

ATCHISON STREET HOUSING SITE
500-559 ATCHISON STREET
ANAHEIM, CA 92805

ENVIROSTOR **S110769669**
VCP **N/A**

Relative:
Lower

ENVIROSTOR:

Actual:
163 ft.

Facility ID: 60001417
Status: No Further Action
Status Date: 08/24/2011
Site Code: 900245
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 12
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Angela Garcia
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 69
Senate: 34
Special Program: Polanco Redevelopment MOA
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.83083
Longitude: -117.9048
APN: NONE SPECIFIED
Past Use: MACHINE SHOP, MAINTENANCE / CLEANING, MANUFACTURING - ELECTRONIC,
UNDERGROUND STORAGE TANKS

Potential COC: Tetrachloroethylene (PCE
Confirmed COC: Tetrachloroethylene (PCE
Potential Description: SOIL, SV
Alias Name: 900245
Alias Type: Project Code (Site Code)
Alias Name: 60001417
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/08/2011
Comments: CRU Memo completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/23/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation is necessary.

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

S110769669

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/08/2011
Comments: DTSC letter completed: site is adequate for unrestricted land use and
no further environmental investigation is necessary.

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: 60001417
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 12
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Angela Garcia
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 900245
Assembly: 69
Senate: 34
Special Programs Code: Polanco Redevelopment MOA
Status: No Further Action
Status Date: 08/24/2011
Restricted Use: NO

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

S110769669

Funding: Responsible Party
Lat/Long: 33.83083 / -117.9048
APN: NONE SPECIFIED
Past Use: MACHINE SHOP, MAINTENANCE / CLEANING, MANUFACTURING - ELECTRONIC,
UNDERGROUND STORAGE TANKS
Potential COC: 30022
Confirmed COC: 30022
Potential Description: SOIL, SV
Alias Name: 900245
Alias Type: Project Code (Site Code)
Alias Name: 60001417
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/08/2011
Comments: CRU Memo completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/23/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/12/2011
Comments: DTSC determination that Site is adequate for unrestricted land use;
no further environmental investigation is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/08/2011

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

S110769669

Comments: DTSC letter completed: site is adequate for unrestricted land use and no further environmental investigation is necessary.

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

49
WNW
1/4-1/2
0.304 mi.
1605 ft.

ATCHISON STREET HOUSING SITE
500-559 ATCHISON STREET
ANAHEIM, CA 92805

US BROWNFIELDS
FINDS
ECHO

1016353666
N/A

Relative:
Lower

US BROWNFIELDS:

Recipient name: Anaheim Redevelopment Agency
 Grant type: Assessment
 Property name: ATCHISON STREET HOUSING SITE
 Property #: 037-130-34, 037-124-01, 02, 03, 04, 05, 037-123-03, 06, 21
 Parcel size: 12
 Property Description: The site contains all or portions of nine separate parcels. The properties were developed with a variety of commercial and industrial uses over the past 70 years.

Actual:
164 ft.

Latitude: 33.832489
 Longitude: -117.905478
 HCM label: Global Positioning Method-Unspecified Parameters
 Map scale: 1
 Point of reference: Entrance Point of a Facility or Station
 Datum: North American Datum of 1983
 ACRES property ID: 85241
 Start date: Not reported
 Completed date: Not reported
 Acres cleaned up: Not reported
 Cleanup funding: Not reported
 Cleanup funding source: Not reported
 Assessment funding: 65304
 Assessment funding source: US EPA - Brownfields Assessment Cooperative Agreement
 Redevelopment funding: Not reported
 Redev. funding source: Not reported
 Redev. funding entity name: Not reported
 Redevelopment start date: Not reported
 Assessment funding entity: US EPA
 Cleanup funding entity: Not reported
 Grant type: Hazardous
 Accomplishment type: Phase II Environmental Assessment
 Accomplishment count: 0
 Cooperative agreement #: 99957501
 Ownership entity: Government
 Current owner: Anaheim Redevelopment Agency
 Did owner change: N
 Cleanup required: No
 Video available: No
 Photo available: Yes

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Institutional controls required:	U
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	Not reported
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Y
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	0
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	12
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Copper cleaned up: Not reported
 Iron cleaned up: Not reported
 mercury cleaned up: Not reported
 nickel cleaned up: Not reported
 No clean up: Not reported
 Pesticides cleaned up: Not reported
 Selenium cleaned up: Not reported
 SVOCs cleaned up: Not reported
 Unknown clean up: Not reported
 Arsenic contaminant found: Not reported
 Cadmium contaminant found: Not reported
 Chromium contaminant found: Not reported
 Copper contaminant found: Not reported
 Iron contaminant found: Not reported
 Mercury contaminant found: Not reported
 Nickel contaminant found: Not reported
 No contaminant found: Not reported
 Pesticides contaminant found: Not reported
 Selenium contaminant found: Not reported
 SVOCs contaminant found: Not reported
 Unknown contaminant found: Not reported
 Future Use: Multistory Not reported
 Media affected Bluiding Material: Not reported
 Media affected indoor air: Not reported
 Building material media cleaned up: Not reported
 Indoor air media cleaned up: Not reported
 Unknown media cleaned up: Not reported
 Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
 Grant type: Assessment
 Property name: ATCHISON STREET HOUSING SITE
 Property #: 037-130-34, 037-124-01, 02, 03, 04, 05, 037-123-03, 06, 21
 Parcel size: 12
 Property Description: The site contains all or portions of nine separate parcels. The properties were developed with a variety of commercial and industrial uses over the past 70 years.

Latitude: 33.832489
 Longitude: -117.905478
 HCM label: Global Positioning Method-Unspecified Parameters
 Map scale: 1
 Point of reference: Entrance Point of a Facility or Station
 Datum: North American Datum of 1983
 ACRES property ID: 85241
 Start date: Not reported
 Completed date: Not reported
 Acres cleaned up: Not reported
 Cleanup funding: Not reported
 Cleanup funding source: Not reported
 Assessment funding: 25118
 Assessment funding source: US EPA - Brownfields Assessment Cooperative Agreement
 Redevelopment funding: Not reported
 Redev. funding source: Not reported
 Redev. funding entity name: Not reported
 Redevelopment start date: Not reported
 Assessment funding entity: EPA
 Cleanup funding entity: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Grant type:	Hazardous
Accomplishment type:	Cleanup Planning
Accomplishment count:	0
Cooperative agreement #:	99957501
Ownership entity:	Government
Current owner:	Anaheim Redevelopment Agency
Did owner change:	N
Cleanup required:	No
Video available:	No
Photo available:	Yes
Institutional controls required:	U
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	Not reported
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Y
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	0
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Past use industrial acreage: 12
 Future use greenspace acreage: Not reported
 Future use residential acreage: Not reported
 Future use commercial acreage: Not reported
 Future use industrial acreage: Not reported
 Greenspace acreage and type: Not reported
 Superfund Fed. landowner flag: N
 Arsenic cleaned up: Not reported
 Cadmium cleaned up: Not reported
 Chromium cleaned up: Not reported
 Copper cleaned up: Not reported
 Iron cleaned up: Not reported
 mercury cleaned up: Not reported
 nickel cleaned up: Not reported
 No clean up: Not reported
 Pesticides cleaned up: Not reported
 Selenium cleaned up: Not reported
 SVOCs cleaned up: Not reported
 Unknown clean up: Not reported
 Arsenic contaminant found: Not reported
 Cadmium contaminant found: Not reported
 Chromium contaminant found: Not reported
 Copper contaminant found: Not reported
 Iron contaminant found: Not reported
 Mercury contaminant found: Not reported
 Nickel contaminant found: Not reported
 No contaminant found: Not reported
 Pesticides contaminant found: Not reported
 Selenium contaminant found: Not reported
 SVOCs contaminant found: Not reported
 Unknown contaminant found: Not reported
 Future Use: Multistory Not reported
 Media affected Bluiding Material: Not reported
 Media affected indoor air: Not reported
 Building material media cleaned up: Not reported
 Indoor air media cleaned up: Not reported
 Unknown media cleaned up: Not reported
 Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
 Grant type: Assessment
 Property name: ATCHISON STREET HOUSING SITE
 Property #: 037-130-34, 037-124-01, 02, 03, 04, 05, 037-123-03, 06, 21
 Parcel size: 12
 Property Description: The site contains all or portions of nine separate parcels. The properties were developed with a variety of commercial and industrial uses over the past 70 years.
 Latitude: 33.832489
 Longitude: -117.905478
 HCM label: Global Positioning Method-Unspecified Parameters
 Map scale: 1
 Point of reference: Entrance Point of a Facility or Station
 Datum: North American Datum of 1983
 ACRES property ID: 85241
 Start date: Not reported
 Completed date: Not reported
 Acres cleaned up: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Cleanup funding:	Not reported
Cleanup funding source:	Not reported
Assessment funding:	25540
Assessment funding source:	US EPA - Brownfields Assessment Cooperative Agreement
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	Not reported
Assessment funding entity:	EPA
Cleanup funding entity:	Not reported
Grant type:	Hazardous
Accomplishment type:	Supplemental Assessment
Accomplishment count:	0
Cooperative agreement #:	99957501
Ownership entity:	Government
Current owner:	Anaheim Redevelopment Agency
Did owner change:	N
Cleanup required:	No
Video available:	No
Photo available:	Yes
Institutional controls required:	U
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	Not reported
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Y
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Soil affected: Y
Soil cleaned up: Not reported
Surface water cleaned: Not reported
VOCs found: Y
VOCs cleaned: Not reported
Cleanup other description: Not reported
Num. of cleanup and re-dev. jobs: 0
Past use greenspace acreage: Not reported
Past use residential acreage: Not reported
Past use commercial acreage: Not reported
Past use industrial acreage: 12
Future use greenspace acreage: Not reported
Future use residential acreage: Not reported
Future use commercial acreage: Not reported
Future use industrial acreage: Not reported
Greenspace acreage and type: Not reported
Superfund Fed. landowner flag: N
Arsenic cleaned up: Not reported
Cadmium cleaned up: Not reported
Chromium cleaned up: Not reported
Copper cleaned up: Not reported
Iron cleaned up: Not reported
mercury cleaned up: Not reported
nickel cleaned up: Not reported
No clean up: Not reported
Pesticides cleaned up: Not reported
Selenium cleaned up: Not reported
SVOCs cleaned up: Not reported
Unknown clean up: Not reported
Arsenic contaminant found: Not reported
Cadmium contaminant found: Not reported
Chromium contaminant found: Not reported
Copper contaminant found: Not reported
Iron contaminant found: Not reported
Mercury contaminant found: Not reported
Nickel contaminant found: Not reported
No contaminant found: Not reported
Pesticides contaminant found: Not reported
Selenium contaminant found: Not reported
SVOCs contaminant found: Not reported
Unknown contaminant found: Not reported
Future Use: Multistory Not reported
Media affected Bluiding Material: Not reported
Media affected indoor air: Not reported
Building material media cleaned up: Not reported
Indoor air media cleaned up: Not reported
Unknown media cleaned up: Not reported
Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
Grant type: Assessment
Property name: ATCHISON STREET HOUSING SITE
Property #: 037-130-34, 037-124-01, 02, 03, 04, 05, 037-123-03, 06, 21
Parcel size: 12
Property Description: The site contains all or portions of nine separate parcels. The properties were developed with a variety of commercial and industrial uses over the past 70 years.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Latitude:	33.832489
Longitude:	-117.905478
HCM label:	Global Positioning Method-Unspecified Parameters
Map scale:	1
Point of reference:	Entrance Point of a Facility or Station
Datum:	North American Datum of 1983
ACRES property ID:	85241
Start date:	Not reported
Completed date:	Not reported
Acres cleaned up:	Not reported
Cleanup funding:	Not reported
Cleanup funding source:	Not reported
Assessment funding:	53689
Assessment funding source:	US EPA - Brownfields Assessment Cooperative Agreement
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	Not reported
Assessment funding entity:	EPA
Cleanup funding entity:	Not reported
Grant type:	Hazardous
Accomplishment type:	Supplemental Assessment
Accomplishment count:	0
Cooperative agreement #:	99957501
Ownership entity:	Government
Current owner:	Anaheim Redevelopment Agency
Did owner change:	N
Cleanup required:	No
Video available:	No
Photo available:	Yes
Institutional controls required:	U
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	Not reported
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Y
Other metals cleaned:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	0
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	12
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Past Use:	Multistory	Not reported
Recipient name:	Anaheim Redevelopment Agency	
Grant type:	Assessment	
Property name:	ATCHISON STREET HOUSING SITE	
Property #:	037-130-34, 037-124-01, 02, 03, 04, 05, 037-123-03, 06, 21	
Parcel size:	12	
Property Description:	The site contains all or portions of nine separate parcels. The properties were developed with a variety of commercial and industrial uses over the past 70 years.	
Latitude:	33.832489	
Longitude:	-117.905478	
HCM label:	Global Positioning Method-Unspecified Parameters	
Map scale:	1	
Point of reference:	Entrance Point of a Facility or Station	
Datum:	North American Datum of 1983	
ACRES property ID:	85241	
Start date:	Not reported	
Completed date:	Not reported	
Acres cleaned up:	Not reported	
Cleanup funding:	Not reported	
Cleanup funding source:	Not reported	
Assessment funding:	10301	
Assessment funding source:	US EPA - Brownfields Assessment Cooperative Agreement	
Redevelopment funding:	Not reported	
Redev. funding source:	Not reported	
Redev. funding entity name:	Not reported	
Redevelopment start date:	Not reported	
Assessment funding entity:	US EPA	
Cleanup funding entity:	Not reported	
Grant type:	Hazardous	
Accomplishment type:	Phase II Environmental Assessment	
Accomplishment count:	1	
Cooperative agreement #:	99957501	
Ownership entity:	Government	
Current owner:	Anaheim Redevelopment Agency	
Did owner change:	N	
Cleanup required:	No	
Video available:	No	
Photo available:	Yes	
Institutional controls required:	U	
IC Category proprietary controls:	Not reported	
IC cat. info. devices:	Not reported	
IC cat. gov. controls:	Not reported	
IC cat. enforcement permit tools:	Not reported	
IC in place date:	Not reported	
IC in place:	Not reported	
State/tribal program date:	Not reported	
State/tribal program ID:	Not reported	
State/tribal NFA date:	Not reported	
Air contaminated:	Not reported	
Air cleaned:	Not reported	
Asbestos found:	Not reported	
Asbestos cleaned:	Not reported	
Controlled substance found:	Not reported	
Controlled substance cleaned:	Not reported	
Drinking water affected:	Not reported	

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Y
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	0
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	12
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATCHISON STREET HOUSING SITE (Continued)

1016353666

Pesticides contaminant found: Not reported
Selenium contaminant found: Not reported
SVOCs contaminant found: Not reported
Unknown contaminant found: Not reported
Future Use: Multistory Not reported
Media affected Bluiding Material: Not reported
Media affected indoor air: Not reported
Building material media cleaned up: Not reported
Indoor air media cleaned up: Not reported
Unknown media cleaned up: Not reported
Past Use: Multistory Not reported

FINDS:

Registry ID: 110040477347

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

ECHO:

Envid: 1016353666
Registry ID: 110040477347
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110040477347

M50
South
1/4-1/2
0.321 mi.
1693 ft.

ANAHEIM POLICE DEPT. HELIPORT
901 E VERMONT ST
ANAHEIM, CA 92805
Site 1 of 3 in cluster M

LUST **U001578803**
HIST UST **N/A**

Relative:
Lower

LUST:

Actual:
164 ft.

Region: STATE
Global Id: T0605902162
Latitude: 33.8252404
Longitude: -117.9008968
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 01/25/2002
Lead Agency: SANTA ANA RWQCB (REGION 8)
Case Worker: NOM
Local Agency: ANAHEIM CITY
RB Case Number: 083003181T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Aviation
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0605902162
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM POLICE DEPT. HELIPORT (Continued)

U001578803

Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605902162
Contact Type: Regional Board Caseworker
Contact Name: NANCY OLSON-MARTIN
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: nolson-martin@waterboards.ca.gov
Phone Number: Not reported

Status History:

Global Id: T0605902162
Status: Completed - Case Closed
Status Date: 01/25/2002

Global Id: T0605902162
Status: Open - Case Begin Date
Status Date: 01/23/1998

Global Id: T0605902162
Status: Open - Site Assessment
Status Date: 01/23/1998

Regulatory Activities:

Global Id: T0605902162
Action Type: Other
Date: 01/23/1998
Action: Leak Discovery

Global Id: T0605902162
Action Type: Other
Date: 05/27/1998
Action: Leak Reported

Global Id: T0605902162
Action Type: ENFORCEMENT
Date: 01/25/2002
Action: Closure/No Further Action Letter

HIST UST:

File Number: 0002E776
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002E776.pdf>
Region: STATE
Facility ID: 00000057226
Facility Type: Other
Other Type: CITY UTILITIES SVC.
Contact Name: BOB BLYTHE
Telephone: 7149995140
Owner Name: CITY OF ANAHEIM-DEPARTMENT OF
Owner Address: 200 SOUTH ANAHEIM BOULEVARD, S

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM POLICE DEPT. HELIPORT (Continued)

U001578803

Owner City,St,Zip: ANAHEIM, CA 92805
Total Tanks: 0002

Tank Num: 001
Container Num: 49
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 50
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

M51
South
1/4-1/2
0.324 mi.
1709 ft.

CITY OF ANAHEIM UTILITY YARD
901 VERMONT
ANAHEIM, CA 92805
Site 2 of 3 in cluster M

LUST **S102423977**
HIST CORTESE **N/A**

Relative:
Lower

LUST:
Region: STATE
Global Id: T0605939432
Latitude: 33.825256
Longitude: -117.90073
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/12/1988
Lead Agency: ORANGE COUNTY LOP
Case Worker: AM
Local Agency: ORANGE COUNTY LOP
RB Case Number: Not reported
LOC Case Number: 86UT119
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Actual:
164 ft.

[Click here to access the California GeoTracker records for this facility:](#)

Contact:
Global Id: T0605939432
Contact Type: Local Agency Caseworker
Contact Name: ANTHONY MARTINEZ
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: amartinez@ochca.com
Phone Number: 7144336011

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ANAHEIM UTILITY YARD (Continued)

S102423977

Global Id: T0605939432
Contact Type: Regional Board Caseworker
Contact Name: NANCY OLSON-MARTIN
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: nolson-martin@waterboards.ca.gov
Phone Number: Not reported

Status History:

Global Id: T0605939432
Status: Completed - Case Closed
Status Date: 10/12/1988

Global Id: T0605939432
Status: Open - Case Begin Date
Status Date: 12/05/1986

Regulatory Activities:

Global Id: T0605939432
Action Type: Other
Date: 12/05/1986
Action: Leak Discovery

Global Id: T0605939432
Action Type: Other
Date: 12/05/1986
Action: Leak Reported

Region: STATE
Global Id: T0605900005
Latitude: 33.8252404
Longitude: -117.9008968
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/20/1989
Lead Agency: ORANGE COUNTY LOP
Case Worker: AM
Local Agency: ORANGE COUNTY LOP
RB Case Number: 08300005T
LOC Case Number: 89UT121
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605900005
Contact Type: Local Agency Caseworker
Contact Name: ANTHONY MARTINEZ
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: amartinez@ochca.com

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ANAHEIM UTILITY YARD (Continued)

S102423977

Phone Number: 7144336011

Global Id: T0605900005
Contact Type: Regional Board Caseworker
Contact Name: PATRICIA HANNON
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: phannon@waterboards.ca.gov
Phone Number: Not reported

Status History:
Global Id: T0605900005
Status: Completed - Case Closed
Status Date: 09/20/1989

Global Id: T0605900005
Status: Open - Case Begin Date
Status Date: 06/12/1989

Regulatory Activities:
Global Id: T0605900005
Action Type: Other
Date: 06/12/1989
Action: Leak Discovery

Global Id: T0605900005
Action Type: Other
Date: 06/12/1989
Action: Leak Reported

LUST REG 8:
Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083000005T
Local Case Num: 89UT121
Case Type: Soil only
Substance: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global ID: T0605900005
How Stopped Date: 9/9/9999
Enter Date: Not reported
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 6/12/1989

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF ANAHEIM UTILITY YARD (Continued)

S102423977

Enforcement Date:	Not reported
Close Date:	9/20/1989
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.82570873
Longitude:	-117.9011549
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	PAH
Staff Initials:	WJ
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported
Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	86UT119
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605939432
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	12/5/1986

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CITY OF ANAHEIM UTILITY YARD (Continued)

S102423977

Enforcement Date:	Not reported
Close Date:	10/12/1988
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	NOM
Staff Initials:	WJ
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083000005T

M52 ANAHEIM POLICE DEPT HELIPOINT
South 901 E VERMONT AVE
1/4-1/2 ANAHEIM, CA 92805
0.330 mi.
1740 ft. Site 3 of 3 in cluster M

LUST S101589184
SWEEPS UST N/A
CA FID UST

Relative:	LUST REG 8:
Lower	Region: 8
	County: Orange
Actual:	Regional Board: Santa Ana Region
164 ft.	Facility Status: Case Closed
	Case Number: 083003181T
	Local Case Num: Not reported
	Case Type: Soil only
	Substance: Jet Fuel
	Qty Leaked: Not reported
	Abate Method: Recovered jet fuel a

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM POLICE DEPT HELIPORT (Continued)

S101589184

Cross Street:	EAST
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	Other Cause
Leak Source:	Other Source
Global ID:	T0605902162
How Stopped Date:	Not reported
Enter Date:	6/29/1998
Date Confirmation of Leak Began:	1/23/1998
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/23/1998
Enforcement Date:	Not reported
Close Date:	1/25/2002
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	6/29/1998
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Yes
Oversite Program:	LUST
Latitude:	33.8250256
Longitude:	-117.9020299
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	NOM
Staff Initials:	UNK
Lead Agency:	Regional Board
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Nozzle leak released 150 gallons (surface spill)

SWEEPS UST:

Status:	Active
Comp Number:	8242
Number:	4
Board Of Equalization:	Not reported
Referral Date:	08-10-92
Action Date:	08-10-92
Created Date:	12-31-88
Owner Tank Id:	UNKNOWN
SWRCB Tank Id:	30-011-008242-000001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM POLICE DEPT HELIPORT (Continued)

S101589184

Tank Status: A
Capacity: 10000
Active Date: 08-10-92
Tank Use: M.V. FUEL
STG: P
Content: JET FUEL
Number Of Tanks: 2

Status: Active
Comp Number: 8242
Number: 4
Board Of Equalization: Not reported
Referral Date: 08-10-92
Action Date: 08-10-92
Created Date: 12-31-88
Owner Tank Id: UNKNOWN
SWRCB Tank Id: 30-011-008242-000002
Tank Status: A
Capacity: 10000
Active Date: 08-10-92
Tank Use: M.V. FUEL
STG: P
Content: AVIA. GAS
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 30002653
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: 200 S ANAHEIM BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: ANAHEIM 92805
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

53
NW
1/4-1/2
0.350 mi.
1847 ft.

VINEYARD TOWNHOMES, VINE STREET APARTMENTS
385 SOUTH VINE STREET
ANAHEIM, CA 92805

US BROWNFIELDS 1016346812
FINDS N/A
ECHO

Relative:
Lower

US BROWNFIELDS:

Recipient name: Anaheim Redevelopment Agency
Grant type: BCRLF
Property name: VINEYARD TOWNHOMES, VINE STREET APARTMENTS
Property #: APN 037-162-01, -02, -03, -04
Parcel size: 2
Property Description: Formerly comprised of four separate parcels that were developed at

Actual:
166 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

different times beginning in 1907. The property included several structures used for commercial, light industrial, bulk storage of petroleum products, and residential purposes.

Latitude: 33.83428
Longitude: -117.90485
HCM label: Address Matching-House Number
Map scale: 1:24,000
Point of reference: Center of a Facility or Station
Datum: World Geodetic System of 1984
ACRES property ID: 28521
Start date: 10/26/2006 00:00:00
Completed date: 02/23/2007 00:00:00
Acres cleaned up: 2
Cleanup funding: 165232
Cleanup funding source: Other Federal Funding
Assessment funding: Not reported
Assessment funding source: Not reported
Redevelopment funding: 6898632
Redev. funding source: Other Federal Funding
Redev. funding entity name: US Dept. of HUD - HOME Funds
Redevelopment start date: 03/27/2006 00:00:00
Assessment funding entity: Not reported
Cleanup funding entity: Department of HUD HOME Funds for Environmental Insurance
Grant type: Hazardous
Accomplishment type: Not reported
Accomplishment count: 0
Cooperative agreement #: 97971201
Ownership entity: Government
Current owner: Anaheim Housing Authority
Did owner change: Y
Cleanup required: Yes
Video available: No
Photo available: Yes
Institutional controls required: Y
IC Category proprietary controls: Y
IC cat. info. devices: Not reported
IC cat. gov. controls: Not reported
IC cat. enforcement permit tools: Not reported
IC in place date: Not reported
IC in place: No
State/tribal program date: Not reported
State/tribal program ID: Not reported
State/tribal NFA date: Not reported
Air contaminated: Not reported
Air cleaned: Not reported
Asbestos found: Not reported
Asbestos cleaned: Not reported
Controlled substance found: Not reported
Controlled substance cleaned: Not reported
Drinking water affected: Not reported
Drinking water cleaned: Not reported
Groundwater affected: Not reported
Groundwater cleaned: Not reported
Lead contaminant found: Y
Lead cleaned up: Y
No media affected: Not reported
Unknown media affected: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Y
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	160
Past use greenspace acreage:	Not reported
Past use residential acreage:	2
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	2
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Y
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Building material media cleaned up: Not reported
Indoor air media cleaned up: Not reported
Unknown media cleaned up: Not reported
Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
Grant type: BCRLF
Property name: VINEYARD TOWNHOMES, VINE STREET APARTMENTS
Property #: APN 037-162-01, -02, -03, -04
Parcel size: 2
Property Description: Formerly comprised of four separate parcels that were developed at different times beginning in 1907. The property included several structures used for commercial, light industrial, bulk storage of petroleum products, and residential purposes.

Latitude: 33.83428
Longitude: -117.90485
HCM label: Address Matching-House Number
Map scale: 1:24,000
Point of reference: Center of a Facility or Station
Datum: World Geodetic System of 1984
ACRES property ID: 28521
Start date: 10/26/2006 00:00:00
Completed date: 02/23/2007 00:00:00
Acres cleaned up: 2
Cleanup funding: 194926
Cleanup funding source: Brownfields RLF Grant Funds Subgranted
Assessment funding: Not reported
Assessment funding source: Not reported
Redevelopment funding: 6898632
Redev. funding source: Other Federal Funding
Redev. funding entity name: US Dept. of HUD - HOME Funds
Redevelopment start date: 03/27/2006 00:00:00
Assessment funding entity: Not reported
Cleanup funding entity: Anaheim Housing Authority
Grant type: Hazardous
Accomplishment type: Not reported
Accomplishment count: 0
Cooperative agreement #: 97971201
Ownership entity: Government
Current owner: Anaheim Housing Authority
Did owner change: Y
Cleanup required: Yes
Video available: No
Photo available: Yes
Institutional controls required: Y
IC Category proprietary controls: Y
IC cat. info. devices: Not reported
IC cat. gov. controls: Not reported
IC cat. enforcement permit tools: Not reported
IC in place date: Not reported
IC in place: No
State/tribal program date: Not reported
State/tribal program ID: Not reported
State/tribal NFA date: Not reported
Air contaminated: Not reported
Air cleaned: Not reported
Asbestos found: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Y
Lead cleaned up:	Y
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contaminants found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Y
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	160
Past use greenspace acreage:	Not reported
Past use residential acreage:	2
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	2
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Y
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Recipient name:	Anaheim Redevelopment Agency
Grant type:	BCRLF
Property name:	VINEYARD TOWNHOMES, VINE STREET APARTMENTS
Property #:	APN 037-162-01, -02, -03, -04
Parcel size:	2
Property Description:	Formerly comprised of four separate parcels that were developed at different times beginning in 1907. The property included several structures used for commercial, light industrial, bulk storage of petroleum products, and residential purposes.
Latitude:	33.83428
Longitude:	-117.90485
HCM label:	Address Matching-House Number
Map scale:	1:24,000
Point of reference:	Center of a Facility or Station
Datum:	World Geodetic System of 1984
ACRES property ID:	28521
Start date:	10/26/2006 00:00:00
Completed date:	02/23/2007 00:00:00
Acres cleaned up:	2
Cleanup funding:	194926
Cleanup funding source:	Brownfields RLF Grant Funds Subgranted
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	51000000
Redev. funding source:	Private/Other Funding
Redev. funding entity name:	Constrct. & Mortg. Loans AHP Funds
Redevelopment start date:	03/27/2006 00:00:00
Assessment funding entity:	Not reported
Cleanup funding entity:	Anaheim Housing Authority
Grant type:	Hazardous
Accomplishment type:	Not reported
Accomplishment count:	0
Cooperative agreement #:	97971201
Ownership entity:	Government
Current owner:	Anaheim Housing Authority
Did owner change:	Y
Cleanup required:	Yes
Video available:	No
Photo available:	Yes
Institutional controls required:	Y
IC Category proprietary controls:	Y

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	No
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Y
Lead cleaned up:	Y
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Y
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	160
Past use greenspace acreage:	Not reported
Past use residential acreage:	2
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	2
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Y
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

mercury cleaned up: Not reported
 nickel cleaned up: Not reported
 No clean up: Not reported
 Pesticides cleaned up: Not reported
 Selenium cleaned up: Not reported
 SVOCs cleaned up: Not reported
 Unknown clean up: Not reported
 Arsenic contaminant found: Not reported
 Cadmium contaminant found: Not reported
 Chromium contaminant found: Not reported
 Copper contaminant found: Not reported
 Iron contaminant found: Not reported
 Mercury contaminant found: Not reported
 Nickel contaminant found: Not reported
 No contaminant found: Not reported
 Pesticides contaminant found: Not reported
 Selenium contaminant found: Not reported
 SVOCs contaminant found: Not reported
 Unknown contaminant found: Not reported
 Future Use: Multistory Not reported
 Media affected Bluiding Material: Not reported
 Media affected indoor air: Not reported
 Building material media cleaned up: Not reported
 Indoor air media cleaned up: Not reported
 Unknown media cleaned up: Not reported
 Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
 Grant type: BCRLF
 Property name: VINEYARD TOWNHOMES, VINE STREET APARTMENTS
 Property #: APN 037-162-01, -02, -03, -04
 Parcel size: 2
 Property Description: Formerly comprised of four separate parcels that were developed at different times beginning in 1907. The property included several structures used for commercial, light industrial, bulk storage of petroleum products, and residential purposes.

Latitude: 33.83428
 Longitude: -117.90485
 HCM label: Address Matching-House Number
 Map scale: 1:24,000
 Point of reference: Center of a Facility or Station
 Datum: World Geodetic System of 1984
 ACRES property ID: 28521
 Start date: 10/26/2006 00:00:00
 Completed date: 02/23/2007 00:00:00
 Acres cleaned up: 2
 Cleanup funding: 24544
 Cleanup funding source: Local Funding
 Assessment funding: Not reported
 Assessment funding source: Not reported
 Redevelopment funding: 6898632
 Redev. funding source: Other Federal Funding
 Redev. funding entity name: US Dept. of HUD - HOME Funds
 Redevelopment start date: 03/27/2006 00:00:00
 Assessment funding entity: Not reported
 Cleanup funding entity: Anaheim Redevelopment Agency
 Grant type: Hazardous

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Accomplishment type:	Not reported
Accomplishment count:	0
Cooperative agreement #:	97971201
Ownership entity:	Government
Current owner:	Anaheim Housing Authority
Did owner change:	Y
Cleanup required:	Yes
Video available:	No
Photo available:	Yes
Institutional controls required:	Y
IC Category proprietary controls:	Y
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	No
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Y
Lead cleaned up:	Y
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Y
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	160
Past use greenspace acreage:	Not reported
Past use residential acreage:	2
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Future use greenspace acreage: Not reported
 Future use residential acreage: 2
 Future use commercial acreage: Not reported
 Future use industrial acreage: Not reported
 Greenspace acreage and type: Not reported
 Superfund Fed. landowner flag: Y
 Arsenic cleaned up: Not reported
 Cadmium cleaned up: Not reported
 Chromium cleaned up: Not reported
 Copper cleaned up: Not reported
 Iron cleaned up: Not reported
 mercury cleaned up: Not reported
 nickel cleaned up: Not reported
 No clean up: Not reported
 Pesticides cleaned up: Not reported
 Selenium cleaned up: Not reported
 SVOCs cleaned up: Not reported
 Unknown clean up: Not reported
 Arsenic contaminant found: Not reported
 Cadmium contaminant found: Not reported
 Chromium contaminant found: Not reported
 Copper contaminant found: Not reported
 Iron contaminant found: Not reported
 Mercury contaminant found: Not reported
 Nickel contaminant found: Not reported
 No contaminant found: Not reported
 Pesticides contaminant found: Not reported
 Selenium contaminant found: Not reported
 SVOCs contaminant found: Not reported
 Unknown contaminant found: Not reported
 Future Use: Multistory Not reported
 Media affected Bluiding Material: Not reported
 Media affected indoor air: Not reported
 Building material media cleaned up: Not reported
 Indoor air media cleaned up: Not reported
 Unknown media cleaned up: Not reported
 Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
 Grant type: BCRLF
 Property name: VINEYARD TOWNHOMES, VINE STREET APARTMENTS
 Property #: APN 037-162-01, -02, -03, -04
 Parcel size: 2
 Property Description: Formerly comprised of four separate parcels that were developed at different times beginning in 1907. The property included several structures used for commercial, light industrial, bulk storage of petroleum products, and residential purposes.
 Latitude: 33.83428
 Longitude: -117.90485
 HCM label: Address Matching-House Number
 Map scale: 1:24,000
 Point of reference: Center of a Facility or Station
 Datum: World Geodetic System of 1984
 ACRES property ID: 28521
 Start date: 10/26/2006 00:00:00
 Completed date: 02/23/2007 00:00:00
 Acres cleaned up: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Cleanup funding: 165232
Cleanup funding source: Other Federal Funding
Assessment funding: Not reported
Assessment funding source: Not reported
Redevelopment funding: 51000000
Redev. funding source: Private/Other Funding
Redev. funding entity name: Constrct. & Mortg. Loans AHP Funds
Redevelopment start date: 03/27/2006 00:00:00
Assessment funding entity: Not reported
Cleanup funding entity: Department of HUD HOME Funds for Environmental Insurance
Grant type: Hazardous
Accomplishment type: Not reported
Accomplishment count: 0
Cooperative agreement #: 97971201
Ownership entity: Government
Current owner: Anaheim Housing Authority
Did owner change: Y
Cleanup required: Yes
Video available: No
Photo available: Yes
Institutional controls required: Y
IC Category proprietary controls: Y
IC cat. info. devices: Not reported
IC cat. gov. controls: Not reported
IC cat. enforcement permit tools: Not reported
IC in place date: Not reported
IC in place: No
State/tribal program date: Not reported
State/tribal program ID: Not reported
State/tribal NFA date: Not reported
Air contaminated: Not reported
Air cleaned: Not reported
Asbestos found: Not reported
Asbestos cleaned: Not reported
Controlled substance found: Not reported
Controlled substance cleaned: Not reported
Drinking water affected: Not reported
Drinking water cleaned: Not reported
Groundwater affected: Not reported
Groundwater cleaned: Not reported
Lead contaminant found: Y
Lead cleaned up: Y
No media affected: Not reported
Unknown media affected: Not reported
Other cleaned up: Not reported
Other metals found: Not reported
Other metals cleaned: Not reported
Other contaminants found: Not reported
Other contams found description: Not reported
PAHs found: Y
PAHs cleaned up: Y
PCBs found: Not reported
PCBs cleaned up: Not reported
Petro products found: Y
Petro products cleaned: Y
Sediments found: Not reported
Sediments cleaned: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	160
Past use greenspace acreage:	Not reported
Past use residential acreage:	2
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	2
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Y
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported

Recipient name:	Anaheim Redevelopment Agency
Grant type:	BCRLF
Property name:	VINEYARD TOWNHOMES, VINE STREET APARTMENTS
Property #:	APN 037-162-01, -02, -03, -04
Parcel size:	2
Property Description:	Formerly comprised of four separate parcels that were developed at different times beginning in 1907. The property included several structures used for commercial, light industrial, bulk storage of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

petroleum products, and residential purposes.
Latitude: 33.83428
Longitude: -117.90485
HCM label: Address Matching-House Number
Map scale: 1:24,000
Point of reference: Center of a Facility or Station
Datum: World Geodetic System of 1984
ACRES property ID: 28521
Start date: 10/26/2006 00:00:00
Completed date: 02/23/2007 00:00:00
Acres cleaned up: 2
Cleanup funding: 24544
Cleanup funding source: Local Funding
Assessment funding: Not reported
Assessment funding source: Not reported
Redevelopment funding: 51000000
Redev. funding source: Private/Other Funding
Redev. funding entity name: Constrct. & Mortg. Loans AHP Funds
Redevelopment start date: 03/27/2006 00:00:00
Assessment funding entity: Not reported
Cleanup funding entity: Anaheim Redevelopment Agency
Grant type: Hazardous
Accomplishment type: Not reported
Accomplishment count: 0
Cooperative agreement #: 97971201
Ownership entity: Government
Current owner: Anaheim Housing Authority
Did owner change: Y
Cleanup required: Yes
Video available: No
Photo available: Yes
Institutional controls required: Y
IC Category proprietary controls: Y
IC cat. info. devices: Not reported
IC cat. gov. controls: Not reported
IC cat. enforcement permit tools: Not reported
IC in place date: Not reported
IC in place: No
State/tribal program date: Not reported
State/tribal program ID: Not reported
State/tribal NFA date: Not reported
Air contaminated: Not reported
Air cleaned: Not reported
Asbestos found: Not reported
Asbestos cleaned: Not reported
Controlled substance found: Not reported
Controlled substance cleaned: Not reported
Drinking water affected: Not reported
Drinking water cleaned: Not reported
Groundwater affected: Not reported
Groundwater cleaned: Not reported
Lead contaminant found: Y
Lead cleaned up: Y
No media affected: Not reported
Unknown media affected: Not reported
Other cleaned up: Not reported
Other metals found: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Y
PAHs cleaned up:	Y
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	160
Past use greenspace acreage:	Not reported
Past use residential acreage:	2
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	2
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Y
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VINEYARD TOWNHOMES, VINE STREET APARTMENTS (Continued)

1016346812

Unknown media cleaned up: Not reported
 Past Use: Multistory Not reported

FINDS:

Registry ID: 110038712818

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

ECHO:

Envid: 1016346812
 Registry ID: 110038712818
 DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110038712818

**54
 NW
 1/4-1/2
 0.356 mi.
 1878 ft.**

**GOODYEAR TIRE & RUBBER CO
 424 425 ATCHISON
 ANAHEIM, CA 92805**

**HIST CORTESE S105022519
 N/A**

**Relative:
 Lower**

HIST CORTESE:
 Region: CORTESE
 Facility County Code: 30
 Reg By: LTNKA
 Reg Id: 2825

**Actual:
 164 ft.**

**55
 SSE
 1/4-1/2
 0.358 mi.
 1892 ft.**

**VIP RUBBER
 945 EAST ST
 ANAHEIM, CA 92805**

**LUST S105022512
 HIST CORTESE N/A**

**Relative:
 Lower**

LUST REG 8:
 Region: 8
 County: Orange
 Regional Board: Santa Ana Region
 Facility Status: Remediation Plan
 Case Number: 083001497T
 Local Case Num: Not reported
 Case Type: Soil only
 Substance: Hydrocarbons
 Qty Leaked: Not reported
 Abate Method: Not reported
 Cross Street: Not reported
 Enf Type: None Taken
 Funding: Not reported
 How Discovered: Not reported
 How Stopped: Not reported
 Leak Cause: Not reported
 Leak Source: Not reported
 Global ID: T0605901142

**Actual:
 165 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIP RUBBER (Continued)

S105022512

How Stopped Date: Not reported
Enter Date: 4/13/1990
Date Confirmation of Leak Began: 3/16/1990
Date Preliminary Assessment Began: 4/20/1990
Discover Date: 2/26/1990
Enforcement Date: 1/1/1965
Close Date: Not reported
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: 5/22/1996
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring:
Enter Date: 4/13/1990
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST
Latitude: 33.8251256
Longitude: -117.8985768
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: CAB
Staff Initials: ROW
Lead Agency: Local Agency
Local Agency: 30011
Hydr Basin #: COASTAL PLAIN OF ORA
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: NO FILE NO FILE
NO FILE
NO FILE

HIST CORTESE:

Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083001497T

56
SSW
1/4-1/2
0.370 mi.
1954 ft.

L 3 INTERSTATE ELECTRONICS CORPORATION
707 E VERMONT AVE
ANAHEIM, CA 92805

RCRA-TSDF 1000219058
RCRA-SQG CAD008289043
EMI
HWP

Relative:
Lower

RCRA-TSDF:
Date form received by agency: 04/12/2001
Facility name: L 3 INTERSTATE ELECTRONICS CORPORATION
Facility address: 707 E VERMONT AVE

Actual:
162 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

EPA ID: ANAHEIM, CA 92805
CAD008289043
Contact: MARTIN HERNANDEZ
Contact address: 707 E VERMONT AVE
ANAHEIM, CA 92805
Contact country: US
Contact telephone: (714) 758-4098
Contact email: Not reported
EPA Region: 09
Land type: Private
Classification: TSDf
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

Owner/Operator Summary:

Owner/operator name: INTERSTATE ELECTRONICS CORPORATION
Owner/operator address: PO BOX 3117
CITY NOT REPORTED, CA 99999
Owner/operator country: Not reported
Owner/operator telephone: (714) 772-2811
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: L 3 COMMUNICATIONS
Owner/operator address: 600 3RD AVE
NEW YORK, NY 10016
Owner/operator country: Not reported
Owner/operator telephone: (212) 697-1111
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined
. Waste code: D001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D003
- . Waste name: REACTIVE WASTE
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:

Date form received by agency: 03/17/1994
Site name: INTERSTATE ELECTRONICS CORP
Classification: Large Quantity Generator

Date form received by agency: 09/16/1993
Site name: L 3 INTERSTATE ELECTRONICS CORPORATION
Classification: Not a generator, verified

Date form received by agency: 01/29/1992
Site name: INTERSTATE ELECTRONICS CORPORA
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 01/01/1990
Event: CA029ST

Facility Has Received Notices of Violations:

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 03/23/1988

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

Date achieved compliance: 06/22/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/21/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 03/23/1988
Date achieved compliance: 08/15/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/05/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 03/23/1988
Date achieved compliance: 06/22/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/21/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 03/22/1988
Date achieved compliance: 06/22/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 01/29/1986
Date achieved compliance: 01/31/1986

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/23/1985
Date achieved compliance: 12/23/1985
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/05/1985
Date achieved compliance: 12/23/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/25/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 03/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 06/22/1988
Evaluation lead agency: State

Evaluation date: 03/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/22/1988
Evaluation lead agency: State

Evaluation date: 03/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 08/15/1988
Evaluation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

Evaluation date: 03/22/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 06/22/1988
Evaluation lead agency: State

Evaluation date: 01/29/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/31/1986
Evaluation lead agency: EPA

Evaluation date: 12/23/1985
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Generators - General
Date achieved compliance: 12/23/1985
Evaluation lead agency: State

Evaluation date: 11/05/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 12/23/1985
Evaluation lead agency: State

Evaluation date: 11/05/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

EMI:

Year: 1996
County Code: 30
Air Basin: SC
Facility ID: 19047
Air District Name: SC
SIC Code: 3679
Air District Name: SOUTH COAST 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 Smlr Tons/Yr: 0

Year: 2002
County Code: 30
Air Basin: SC
Facility ID: 126773
Air District Name: SC
SIC Code: 3812
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

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

Year: 2003
County Code: 30
Air Basin: SC
Facility ID: 126773
Air District Name: SC
SIC Code: 3812
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
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

Year: 2004
County Code: 30
Air Basin: SC
Facility ID: 126773
Air District Name: SC
SIC Code: 3812
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.1674
Reactive Organic Gases Tons/Yr: 0.12
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

Year: 2005
County Code: 30
Air Basin: SC
Facility ID: 126773
Air District Name: SC
SIC Code: 3812
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .03479
Reactive Organic Gases Tons/Yr: .034075985
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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L 3 INTERSTATE ELECTRONICS CORPORATION (Continued)

1000219058

HWP:

EPA Id: CAD008289043
Cleanup Status: PROTECTIVE FILER
Latitude: 33.82495
Longitude: -117.9022
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 69
Senate District: 34
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:

EPA Id: CAD008289043
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, WASTPILE1
Event Description: Protective Filer Status - PROTECTIVE FILER (RECEIVED)
Actual Date: 04/11/1988

EPA Id: CAD008289043
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, WASTPILE1
Event Description: Protective Filer Status - PROTECTIVE FILER (APPROVED)
Actual Date: 06/30/1988

57
South
1/4-1/2
0.384 mi.
2028 ft.

ORANGE COUNTY TOWING
918 E VERMONT AVE
ANAHEIM, CA 92805

LUST S108215524
N/A

Relative:
Lower

LUST:

Region: STATE
Global Id: T0605902167
Latitude: 33.8248396
Longitude: -117.9018449
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/20/1998
Lead Agency: ANAHEIM CITY
Case Worker: ROW
Local Agency: ANAHEIM CITY
RB Case Number: 083003199T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Actual:
163 ft.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0605902167
Contact Type: Local Agency Caseworker

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ORANGE COUNTY TOWING (Continued)

S108215524

Contact Name: RICHARD O. WILSON
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. #601
City: ANAHEIM
Email: dwilson@anaheim.net
Phone Number: Not reported

Global Id: T0605902167
Contact Type: Regional Board Caseworker
Contact Name: NANCY OLSON-MARTIN
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: nolson-martin@waterboards.ca.gov
Phone Number: Not reported

Status History:
Global Id: T0605902167
Status: Completed - Case Closed
Status Date: 07/20/1998

Global Id: T0605902167
Status: Open - Case Begin Date
Status Date: 06/17/1998

Global Id: T0605902167
Status: Open - Site Assessment
Status Date: 07/10/1998

Regulatory Activities:
Global Id: T0605902167
Action Type: Other
Date: 06/17/1998
Action: Leak Discovery

Global Id: T0605902167
Action Type: Other
Date: 06/25/1998
Action: Leak Reported

Global Id: T0605902167
Action Type: ENFORCEMENT
Date: 07/28/1998
Action: Closure/No Further Action Letter

58
South
1/4-1/2
0.392 mi.
2068 ft.

E C KRAEMER
1010 LACY ST
ANAHEIM, CA 92805

SEMS-ARCHIVE 1003878991
LIENS 2 CAD981622079

Relative:
Lower

SEMS-ARCHIVE:
Site ID: 902470
EPA ID: CAD981622079
Federal Facility: N
NPL: Not on the NPL

Actual:
164 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E C KRAEMER (Continued)

1003878991

Non NPL Status: Removal Only Site (No Site Assessment Work Needed)

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID: 0902470
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Removal Only Site (No Site Assessment Work Needed)

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13285199.00000
Person ID: 13003854.00000

Contact Sequence ID: 13290794.00000
Person ID: 13003858.00000

Contact Sequence ID: 13296652.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: E C KRAMER CO
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:

Action: REMOVAL
Date Started: 11/19/86
Date Completed: 05/15/87
Priority Level: Cleaned up

Action: ADMINISTRATIVE RECORDS
Date Started: 06/17/91
Date Completed: 06/17/91
Priority Level: Admin Record Compiled for a Removal Event

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

LIENS 2:

Facility name: E C KRAEMER
Facility address: 1010 LACY ST
ANAHEIM, CA 92805
EPA ID: CAD981622079
Effective date: Not reported
Lien: LP001
Party name: Not reported
Reg: 09
Release date: Not reported
Start date: 09/11/1988
Complete date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

N59
WNW
1/4-1/2
0.412 mi.
2174 ft.

KWIKSET CORP EMHART HARDWARE
516 E SANTA ANA ST
ANAHEIM, CA 92805

ENVIROSTOR
Orange Co. Industrial Site

U001578642
N/A

Site 1 of 5 in cluster N

Relative:
Lower

ENVIROSTOR:

Actual:
163 ft.

Facility ID: 71002181
Status: Refer: Other Agency
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.83225
Longitude: -117.9073
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD008301467
Alias Type: EPA Identification Number
Alias Name: 71002181
Alias Type: Envirostor ID Number

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

Orange Co. Industrial Site:

Case ID: 87IC023
Record ID: RO0000105
Current Status: CLOSED 4/21/1994

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORP EMHART HARDWARE (Continued)

U001578642

Closure Type: Closed pre 1994, file review required to determine closure type
Released Chemical: PERCHLOROETHYLENE

N60
WNW
1/4-1/2
0.412 mi.
2174 ft.

KWIKSET CORPORATION
516 EAST SANTA ANA STREET
ANAHEIM, CA 92803

Site 2 of 5 in cluster N

LUST S105655772
SLIC N/A
DEED
CHMIRS

Relative:
Lower

LUST:

Region: STATE
Global Id: T0605920092
Latitude: 33.831256
Longitude: -117.90682
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/19/1987
Lead Agency: ORANGE COUNTY LOP
Case Worker: AM
Local Agency: ORANGE COUNTY LOP
RB Case Number: SL20812
LOC Case Number: 86UT238
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: * Chlorinated Hydrocarbons
Site History: Not reported

Actual:
163 ft.

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605920092
Contact Type: Local Agency Caseworker
Contact Name: ANTHONY MARTINEZ
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: amartinez@ochca.com
Phone Number: 7144336011

Status History:

Global Id: T0605920092
Status: Completed - Case Closed
Status Date: 12/19/1987

Global Id: T0605920092
Status: Open - Case Begin Date
Status Date: 12/19/1987

SLIC:

Region: STATE
Facility Status: Completed - Case Closed
Status Date: 03/09/2007
Global Id: SL208123867
Lead Agency: SANTA ANA RWQCB (REGION 8)
Lead Agency Case Number: Not reported
Latitude: 33.832205

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

S105655772

Longitude: -117.906726
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: KwiksetAnaheim
File Location: Regional Board
Potential Media Affected: Not reported
Potential Contaminants of Concern: Tetrachloroethylene (PCE)
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

DEED:

Envirostor ID: SL208123867
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: ~~1~~
Deed Date(s): 05/30/2001

CHMIRS:

OES Incident Number: 8-2768
OES notification: 06/16/1998
OES Date: Not reported
OES Time: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: Unknown
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Contractor

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KWIKSET CORPORATION (Continued)

S105655772

Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1998
Agency:	Kwikset Corp
Incident Date:	6/11/199812:00:00 AM
Admin Agency:	Anaheim Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	perchloroethylene
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	The release was from a degreaser line. The release has been stopped. Soil investigation revealed the release. Potential ground water impact. Testing in progress.

N61 **KWIKSET CORPORATION**
WNW **516 E. SANTA ANA STREET**
1/4-1/2 **ANAHEIM, CA 92805**
0.412 mi.
2174 ft. **Site 3 of 5 in cluster N**

RCRA-SQG **1000272519**
SLIC **CAD008301467**
SWEEPS UST
HIST UST
CA FID UST
FTTS
HIST FTTS
EMI

Relative:
Lower

Actual: RCRA-SQG:
163 ft. Date form received by agency:02/16/2006
 Facility name: KWIKSET CORPORATION
 Facility address: 516 E. SANTA ANA STREET
 ANAHEIM, CA 92805
 EPA ID: CAD008301467
 Mailing address: 19701 DA VINCI
 LAKE FOREST, CA 92610
 Contact: KENNY HOM
 Contact address: Not reported
 Not reported
 Contact country: US

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Contact telephone: (949) 672-4085
Contact email: KENNY.HOM@BDHHI.COM
EPA Region: 09
Land type: Private
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: VOIT ANAHEIM BUSINESS PARK, LLC
Owner/operator address: 21700 OXNARD STREET
WOODLAND HILLS, CA 91367
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/03/2000
Owner/Op end date: Not reported

Owner/operator name: KWIKSET CORPORATION
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1948
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/16/2006
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator
Waste code: D007
Waste name: CHROMIUM

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Date form received by agency: 02/27/2002
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/16/1999
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: KWIKSET CORP EMHART HARDWARE GROUP
Classification: Large Quantity Generator

Date form received by agency: 03/20/1996
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/25/1994
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/01/1992
Site name: KWIKSET CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/08/1990
Site name: KWIKSET CORP/EMHART HARDWARE GRP
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: KWIKSET CORP EMHART HARDWARE GROUP
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 07/01/1992
Date achieved compliance: 07/01/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - FEA
Area of violation: Formal Enforcement Agreement or Order
Date violation determined: 07/10/1987
Date achieved compliance: 01/14/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Enforcement action date: 06/01/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 05/07/1987
Date achieved compliance: 09/14/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 01/29/1986
Date achieved compliance: 02/25/1986
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 07/01/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/01/1997
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/10/1987
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Formal Enforcement Agreement or Order
Date achieved compliance: 01/14/2003
Evaluation lead agency: State

Evaluation date: 05/07/1987
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 09/14/1987
Evaluation lead agency: State

Evaluation date: 05/07/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/29/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/25/1986
Evaluation lead agency: EPA

SLIC REG 8:

Type: Soil and Groundwater
Facility Status: Closed
Staff: WDM
Substance: TCE, PCE
Lead Agency: Regional Board
Location Code: A-30
Thomas Bros Code: 768-J5

SWEEPS UST:

Status: Not reported
Comp Number: 5027
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: 30-011-005027-000009
Tank Status: Not reported
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 3

Status: Not reported
Comp Number: 5027
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: 30-011-005027-000010
Tank Status: Not reported
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 5027
Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

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: 30-011-005027-000011
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:

File Number: 0002E8A2
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002E8A2.pdf>
Region: STATE
Facility ID: 00000067888
Facility Type: Other
Other Type: MANUFACTURING
Contact Name: JOHN LANG
Telephone: 7145358111
Owner Name: EMHART CORPORATION
Owner Address: 426 COLT HIGHWAY
Owner City,St,Zip: FARMINGTON, CT 06032
Total Tanks: 0003

Tank Num: 001
Container Num: 47 FO
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: 4
Container Construction Thickness: X
Leak Detection: None

Tank Num: 001
Container Num: 47 FO
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: 4
Container Construction Thickness: X
Leak Detection: None

Tank Num: 002
Container Num: 48 FO
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 48 FO

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 46 WO
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 46 WO
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

[Click here for Geo Tracker PDF:](#)

CA FID UST:

Facility ID: 30000005
Regulated By: UTKNI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7145358111
Mail To: Not reported
Mailing Address: 516 E SANTA ANA ST
Mailing Address 2: Not reported
Mailing City,St,Zip: ANAHEIM 92803
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

FTTS INSP:

Inspection Number: 19961115T01CA 1
Region: 09
Inspection Date: 11/15/96
Inspector: MCOERS
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

HIST FTTS INSP:

Inspection Number: 19961115T01CA 1
Region: 09
Inspection Date: Not reported
Inspector: MCOERS
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

EMI:

Year: 1987
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3444
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 56
Reactive Organic Gases Tons/Yr: 25
Carbon Monoxide Emissions Tons/Yr: 2
NOX - Oxides of Nitrogen Tons/Yr: 6
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 1990
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3444
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 36
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 4
NOX - Oxides of Nitrogen Tons/Yr: 9
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 8
Part. Matter 10 Micrometers and Smllr Tons/Yr:5

Year: 1995
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3444
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Total Organic Hydrocarbon Gases Tons/Yr: 81
Reactive Organic Gases Tons/Yr: 8
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 7
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 4
Part. Matter 10 Micrometers and Smlr Tons/Yr:3

Year: 1996
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3444
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 149
Reactive Organic Gases Tons/Yr: 56
Carbon Monoxide Emissions Tons/Yr: 3
NOX - Oxides of Nitrogen Tons/Yr: 10
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 7
Part. Matter 10 Micrometers and Smlr Tons/Yr:5

Year: 1997
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3499
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 58
Reactive Organic Gases Tons/Yr: 5
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 5
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 4
Part. Matter 10 Micrometers and Smlr Tons/Yr:1

Year: 1998
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3499
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 58
Reactive Organic Gases Tons/Yr: 5
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 5
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 4

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET CORPORATION (Continued)

1000272519

Part. Matter 10 Micrometers and Smlr Tons/Yr:1

Year: 1999
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3499
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 58
Reactive Organic Gases Tons/Yr: 5
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 5
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 4
Part. Matter 10 Micrometers and Smlr Tons/Yr:1

Year: 2000
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3499
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 58
Reactive Organic Gases Tons/Yr: 5
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 5
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 4
Part. Matter 10 Micrometers and Smlr Tons/Yr:1

Year: 2001
County Code: 30
Air Basin: SC
Facility ID: 57329
Air District Name: SC
SIC Code: 3499
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Y
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 1
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

N62
WNW
1/4-1/2
0.412 mi.
2174 ft.

KWIKSET
516 EAST SANTA ANA STREET
ANAHEIM, CA 92805

US BROWNFIELDS

1011620831
N/A

Site 4 of 5 in cluster N

Relative:
Lower

US BROWNFIELDS:

Actual:
163 ft.

Recipient name: Grant type: Property name: Property #: Parcel size: Property Description: Latitude: Longitude: HCM label: Map scale: Point of reference: Datum: ACRES property ID: Start date: Completed date: Acres cleaned up: Cleanup funding: Cleanup funding source: Assessment funding: Assessment funding source: Redevelopment funding: Redev. funding source: Redev. funding entity name: Redevelopment start date: Assessment funding entity: Cleanup funding entity: Grant type: Accomplishment type: Accomplishment count: Cooperative agreement #: Ownership entity: Current owner: Did owner change: Cleanup required: Video available: Photo available: Institutional controls required: IC Category proprietary controls: IC cat. info. devices: IC cat. gov. controls: IC cat. enforcement permit tools: IC in place date: IC in place: State/tribal program date: State/tribal program ID: State/tribal NFA date: Air contaminated: Air cleaned: Asbestos found: Asbestos cleaned:	Anaheim Redevelopment Agency BCRLF KWIKSET APN 037-123-08 16 From 1948 through 1998 the site contained a manufacturing facility with a metal-plating operation to produce residential hardware for the Kwikset Corporation. 33.83246 -117.90754 Address Matching-House Number Not reported Center of a Facility or Station World Geodetic System of 1984 15188 07/01/2004 00:00:00 01/01/2006 00:00:00 16 2622079 Local Funding Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported Anaheim Redevelopment Agency Hazardous Not reported 0 97971201 Government Anaheim Redevelopment Agency N Yes Not reported Yes Y Y Not reported Not reported Not reported Not reported No Not reported Not reported Not reported No Not reported Not reported Not reported Not reported Not reported Y
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Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET (Continued)

1011620831

Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Y
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Y
Other metals found:	Y
Other metals cleaned:	Y
Other contaminants found:	Y
Other contams found description:	Cyanide
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Y
PCBs cleaned up:	Y
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Cyanide
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET (Continued)

1011620831

Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Recipient name:	Anaheim Redevelopment Agency
Grant type:	BCRLF
Property name:	KWIKSET
Property #:	APN 037-123-08
Parcel size:	16
Property Description:	From 1948 through 1998 the site contained a manufacturing facility with a metal-plating operation to produce residential hardware for the Kwikset Corporation.
Latitude:	33.83246
Longitude:	-117.90754
HCM label:	Address Matching-House Number
Map scale:	Not reported
Point of reference:	Center of a Facility or Station
Datum:	World Geodetic System of 1984
ACRES property ID:	15188
Start date:	07/01/2004 00:00:00
Completed date:	01/01/2006 00:00:00
Acres cleaned up:	16
Cleanup funding:	148268
Cleanup funding source:	Local Funding
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	Not reported
Assessment funding entity:	Not reported
Cleanup funding entity:	Anaheim Redevelopment Agency for environmental insurance
Grant type:	Hazardous
Accomplishment type:	Not reported
Accomplishment count:	0
Cooperative agreement #:	97971201
Ownership entity:	Government
Current owner:	Anaheim Redevelopment Agency
Did owner change:	N
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Yes
Institutional controls required:	Y
IC Category proprietary controls:	Y
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET (Continued)

1011620831

IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	No
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Y
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Y
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Y
Other metals found:	Y
Other metals cleaned:	Y
Other contaminants found:	Y
Other contaminants found description:	Cyanide
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Y
PCBs cleaned up:	Y
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Cyanide
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET (Continued)

1011620831

No clean up: Not reported
Pesticides cleaned up: Not reported
Selenium cleaned up: Not reported
SVOCs cleaned up: Not reported
Unknown clean up: Not reported
Arsenic contaminant found: Not reported
Cadmium contaminant found: Not reported
Chromium contaminant found: Not reported
Copper contaminant found: Not reported
Iron contaminant found: Not reported
Mercury contaminant found: Not reported
Nickel contaminant found: Not reported
No contaminant found: Not reported
Pesticides contaminant found: Not reported
Selenium contaminant found: Not reported
SVOCs contaminant found: Not reported
Unknown contaminant found: Not reported
Future Use: Multistory Not reported
Media affected Bluiding Material: Not reported
Media affected indoor air: Not reported
Building material media cleaned up: Not reported
Indoor air media cleaned up: Not reported
Unknown media cleaned up: Not reported
Past Use: Multistory Not reported

Recipient name: Anaheim Redevelopment Agency
Grant type: BCRLF
Property name: KWIKSET
Property #: APN 037-123-08
Parcel size: 16
Property Description: From 1948 through 1998 the site contained a manufacturing facility with a metal-plating operation to produce residential hardware for the Kwikset Corporation.

Latitude: 33.83246
Longitude: -117.90754
HCM label: Address Matching-House Number
Map scale: Not reported
Point of reference: Center of a Facility or Station
Datum: World Geodetic System of 1984
ACRES property ID: 15188
Start date: 07/01/2004 00:00:00
Completed date: 01/01/2006 00:00:00
Acres cleaned up: 16
Cleanup funding: 600000
Cleanup funding source: Brownfields RLF Grant Funds Loaned
Assessment funding: Not reported
Assessment funding source: Not reported
Redevelopment funding: Not reported
Redev. funding source: Not reported
Redev. funding entity name: Not reported
Redevelopment start date: Not reported
Assessment funding entity: Not reported
Cleanup funding entity: Borrower: Anaheim Redevelopment Agency
Grant type: Hazardous
Accomplishment type: Not reported
Accomplishment count: 0
Cooperative agreement #: 97971201

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET (Continued)

1011620831

Ownership entity:	Government
Current owner:	Anaheim Redevelopment Agency
Did owner change:	N
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Yes
Institutional controls required:	Y
IC Category proprietary controls:	Y
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	No
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Y
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Y
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Y
Other metals found:	Y
Other metals cleaned:	Y
Other contaminants found:	Y
Other contams found description:	Cyanide
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Y
PCBs cleaned up:	Y
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y
VOCs cleaned:	Y
Cleanup other description:	Cyanide
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KWIKSET (Continued)

1011620831

Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Recipient name:	Anaheim Redevelopment Agency
Grant type:	BCRLF
Property name:	KWIKSET
Property #:	APN 037-123-08
Parcel size:	16
Property Description:	From 1948 through 1998 the site contained a manufacturing facility with a metal-plating operation to produce residential hardware for the Kwikset Corporation.
Latitude:	33.83246
Longitude:	-117.90754
HCM label:	Address Matching-House Number
Map scale:	Not reported
Point of reference:	Center of a Facility or Station
Datum:	World Geodetic System of 1984
ACRES property ID:	15188
Start date:	07/01/2004 00:00:00
Completed date:	01/01/2006 00:00:00
Acres cleaned up:	16
Cleanup funding:	7000000
Cleanup funding source:	Private/Other Funding
Assessment funding:	Not reported
Assessment funding source:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET (Continued)

1011620831

Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	Not reported
Assessment funding entity:	Not reported
Cleanup funding entity:	Black & Decker Corp.
Grant type:	Hazardous
Accomplishment type:	Not reported
Accomplishment count:	0
Cooperative agreement #:	97971201
Ownership entity:	Government
Current owner:	Anaheim Redevelopment Agency
Did owner change:	N
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Yes
Institutional controls required:	Y
IC Category proprietary controls:	Y
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	Not reported
IC in place:	No
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Y
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Y
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Y
Other metals found:	Y
Other metals cleaned:	Y
Other contaminants found:	Y
Other contams found description:	Cyanide
PAHs found:	Y
PAHs cleaned up:	Not reported
PCBs found:	Y
PCBs cleaned up:	Y
Petro products found:	Y
Petro products cleaned:	Y
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Y
Surface water cleaned:	Not reported
VOCs found:	Y

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KWIKSET (Continued)

1011620831

VOCs cleaned:	Y
Cleanup other description:	Cyanide
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
nickel cleaned up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported

N63
WNW
1/4-1/2
0.412 mi.
2174 ft.

KWIKSET LOCKS
516 SANTA ANA
ANAHEIM, CA 92805
Site 5 of 5 in cluster N

LUST S106175684
N/A

Relative:
Lower

LUST REG 8:
 Region: 8
 County: Orange
 Regional Board: Santa Ana Region
 Facility Status: Case Closed
 Case Number: SL20812
 Local Case Num: 86UT238

Actual:
163 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KWIKSET LOCKS (Continued)

S106175684

Case Type:	Soil only
Substance:	Chlorinated Hydrocarbons
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605920092
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/1/1965
Enforcement Date:	Not reported
Close Date:	12/19/1987
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	WDM
Staff Initials:	WJ
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

64
SSW
1/4-1/2
0.413 mi.
2179 ft.

ANAHEIM SCHOOL DISTRICT
501 VERMONT
ANAHEIM, CA 92805

LUST **S102770005**
HIST CORTESE **N/A**

Relative:
Lower

LUST REG 8:

Actual:
160 ft.

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001513T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Cross Street:	Not reported
Enf Type:	Cleanup and Abatement Orders
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Corrosion
Leak Source:	Tank
Global ID:	T0605901154
How Stopped Date:	3/22/1990
Enter Date:	4/30/1990
Date Confirmation of Leak Began:	5/8/1990
Date Preliminary Assessment Began:	5/14/1990
Discover Date:	3/22/1990
Enforcement Date:	1/1/1965
Close Date:	10/19/1994
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	4/30/1990
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Yes
Oversite Program:	LUST
Latitude:	33.8243586
Longitude:	-117.905053
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	CAB
Staff Initials:	ROW
Lead Agency:	Local Agency
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ANAHEIM SCHOOL DISTRICT (Continued)

S102770005

Beneficial: Not reported
 Priority: Not reported
 Cleanup Fund Id: Not reported
 Work Suspended: Not reported
 Summary: Not reported

HIST CORTESE:

Region: CORTESE
 Facility County Code: 30
 Reg By: LTNKA
 Reg Id: 083001513T

65
NNW
1/4-1/2
0.418 mi.
2207 ft.

ANAHEIM REDEVELOPMENT AGENCY
100 KROEGER ST
ANAHEIM, CA 92805

LUST S101299286
N/A

Relative:
Higher

LUST REG 8:

Actual:
168 ft.

Region: 8
 County: Orange
 Regional Board: Santa Ana Region
 Facility Status: Pollution Characterization
 Case Number: 083001569T
 Local Case Num: Not reported
 Case Type: Aquifer affected
 Substance: Diesel
 Qty Leaked: Not reported
 Abate Method: Not reported
 Cross Street: CENTER
 Enf Type: None Taken
 Funding: Not reported
 How Discovered: Not reported
 How Stopped: Not reported
 Leak Cause: Not reported
 Leak Source: Not reported
 Global ID: T0605901198
 How Stopped Date: Not reported
 Enter Date: 6/25/1990
 Date Confirmation of Leak Began: Not reported
 Date Preliminary Assessment Began: Not reported
 Discover Date: 5/30/1990
 Enforcement Date: 1/1/1965
 Close Date: Not reported
 Date Prelim Assessment Workplan Submitted: Not reported
 Date Pollution Characterization Began: 6/26/1990
 Date Remediation Plan Submitted: Not reported
 Date Remedial Action Underway: Not reported
 Date Post Remedial Action Monitoring: Not reported
 Enter Date: 6/25/1990
 GW Qualifies: <
 Soil Qualifies: Not reported
 Operator: Not reported
 Facility Contact: Not reported
 Interim: Not reported
 Oversight Program: LUST
 Latitude: 33.83665771

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM REDEVELOPMENT AGENCY (Continued)

S101299286

Longitude: -117.9078253
MTBE Date: 12/15/1998
Max MTBE GW: 1
MTBE Concentration: 1
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class: D
Staff: CAB
Staff Initials: UNK
Lead Agency: Regional Board
Local Agency: 30011
Hydr Basin #: COASTAL PLAIN OF ORA
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: ALSO SOLVENT CONTAMINATION. 7/27/94 - LETTER FROM ARA STATING ARA WILL BE SELECTING BIDS 8/12/96 - AGAIN REQUESTING THE TWO MONITORING WELLS

66
West
1/4-1/2
0.432 mi.
2282 ft.

S K S INC-ANAHEIM GAS CARDLOCK
551 S OLIVE
ANAHEIM, CA 92805

LUST S101589472
SWEEPS UST N/A
CA FID UST

Relative:
Lower

Actual:
160 ft.

LUST:
Region: STATE
Global Id: T0605901986
Latitude: 33.83021
Longitude: -117.908468
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/24/2002
Lead Agency: ANAHEIM CITY
Case Worker: ROW
Local Agency: ANAHEIM CITY
RB Case Number: 083002898T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0605901986
Contact Type: Local Agency Caseworker
Contact Name: RICHARD O. WILSON
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. #601
City: ANAHEIM
Email: dwilson@anaheim.net
Phone Number: Not reported

Global Id: T0605901986
Contact Type: Regional Board Caseworker

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

S K S INC-ANAHEIM GAS CARDLOCK (Continued)

S101589472

Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605901986
Status: Completed - Case Closed
Status Date: 05/24/2002

Global Id: T0605901986
Status: Open - Case Begin Date
Status Date: 08/12/1996

Global Id: T0605901986
Status: Open - Remediation
Status Date: 03/17/1999

Global Id: T0605901986
Status: Open - Site Assessment
Status Date: 08/12/1996

Global Id: T0605901986
Status: Open - Site Assessment
Status Date: 09/04/1997

Global Id: T0605901986
Status: Open - Verification Monitoring
Status Date: 08/01/2001

Regulatory Activities:

Global Id: T0605901986
Action Type: Other
Date: 08/12/1996
Action: Leak Discovery

Global Id: T0605901986
Action Type: Other
Date: 08/12/1996
Action: Leak Reported

Global Id: T0605901986
Action Type: ENFORCEMENT
Date: 08/14/2013
Action: File review

Global Id: T0605901986
Action Type: ENFORCEMENT
Date: 05/24/2002
Action: Closure/No Further Action Letter

SWEEPS UST:

Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

S K S INC-ANAHEIM GAS CARDLOCK (Continued)

S101589472

Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88
Owner Tank Id: 551-1
SWRCB Tank Id: 30-011-006312-000001
Tank Status: A
Capacity: 10000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 7

Status: Active
Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88
Owner Tank Id: 551-2
SWRCB Tank Id: 30-011-006312-000002
Tank Status: A
Capacity: 10000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88
Owner Tank Id: 551-3
SWRCB Tank Id: 30-011-006312-000003
Tank Status: A
Capacity: 10000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

S K S INC-ANAHEIM GAS CARDLOCK (Continued)

S101589472

Owner Tank Id: 551-4
SWRCB Tank Id: 30-011-006312-000004
Tank Status: A
Capacity: 10000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88
Owner Tank Id: 551-5
SWRCB Tank Id: 30-011-006312-000005
Tank Status: A
Capacity: 10000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88
Owner Tank Id: 551-6
SWRCB Tank Id: 30-011-006312-000006
Tank Status: A
Capacity: 10000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 6312
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-24-94
Created Date: 12-31-88
Owner Tank Id: 887
SWRCB Tank Id: 30-011-006312-000007
Tank Status: A
Capacity: 5000
Active Date: Not reported
Tank Use: M.V. FUEL

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

S K S INC-ANAHEIM GAS CARDLOCK (Continued)

S101589472

STG: P
 Content: JET FUEL
 Number Of Tanks: Not reported

CA FID UST:

Facility ID: 30014242
 Regulated By: UTNKA
 Regulated ID: Not reported
 Cortese Code: Not reported
 SIC Code: Not reported
 Facility Phone: 7149561379
 Mail To: Not reported
 Mailing Address: P O BOX
 Mailing Address 2: Not reported
 Mailing City,St,Zip: ANAHEIM 92805
 Contact: Not reported
 Contact Phone: Not reported
 DUNs Number: Not reported
 NPDES Number: Not reported
 EPA ID: Not reported
 Comments: Not reported
 Status: Active

O67
SSW
1/4-1/2
0.443 mi.
2339 ft.

ANAHEIM CITY SCH DIST
501 E VERMONT
ANAHEIM, CA 92805
Site 1 of 2 in cluster O

RCRA-SQG 1000240286
LUST CAD981988942
UST
FINDS
HAZNET
ECHO

Relative:
Lower

RCRA-SQG:

Date form received by agency: 03/24/1987
 Facility name: ANAHEIM CITY SCH DIST
 Facility address: 501 E VERMONT
 ANAHEIM, CA 92805
 EPA ID: CAD981988942
 Mailing address: E VERMONT
 ANAHEIM, CA 92805
 Contact: ENVIRONMENTAL MANAGER
 Contact address: 501 E VERMONT
 ANAHEIM, CA 92805
 Contact country: US
 Contact telephone: (714) 535-6001
 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

Actual:
160 ft.

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM CITY SCH DIST (Continued)

1000240286

Owner/operator telephone: (415) 555-1212
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: ANAHEIM CITY SCHOOL
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: 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:

Region: STATE
Global Id: T0605901154
Latitude: 33.8244123
Longitude: -117.9044834
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/19/1994
Lead Agency: ANAHEIM CITY
Case Worker: ROW
Local Agency: ANAHEIM CITY
RB Case Number: 083001513T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605901154
Contact Type: Local Agency Caseworker

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM CITY SCH DIST (Continued)

1000240286

Contact Name: RICHARD O. WILSON
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. #601
City: ANAHEIM
Email: dwilson@anaheim.net
Phone Number: Not reported

Global Id: T0605901154
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605901154
Status: Completed - Case Closed
Status Date: 10/19/1994

Global Id: T0605901154
Status: Open - Case Begin Date
Status Date: 03/22/1990

Global Id: T0605901154
Status: Open - Site Assessment
Status Date: 05/08/1990

Global Id: T0605901154
Status: Open - Site Assessment
Status Date: 05/14/1990

Regulatory Activities:

Global Id: T0605901154
Action Type: Other
Date: 03/22/1990
Action: Leak Discovery

Global Id: T0605901154
Action Type: Other
Date: 05/09/1990
Action: Leak Reported

Global Id: T0605901154
Action Type: ENFORCEMENT
Date: 10/19/1994
Action: Clean-up and Abatement Order

Global Id: T0605901154
Action Type: Other
Date: 03/22/1990
Action: Leak Stopped

Global Id: T0605901154
Action Type: ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM CITY SCH DIST (Continued)

1000240286

Date: 10/19/1994
Action: Closure/No Further Action Letter

UST:

Facility ID: 7514
Permitting Agency: Not reported
Latitude: 33.82432
Longitude: -117.90485

FINDS:

Registry ID: 110002767621

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.

HAZNET:

envid: 1000240286
Year: 2001
GEPaid: CAD981988942
Contact: UNDELIVERABLE PER VF97 AH
Telephone: 7145356001
Mailing Name: Not reported
Mailing Address: 1001 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: AZD983476680
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Not reported
Tons: 1.16
Cat Decode: Other organic solids
Method Decode: Not reported
Facility County: Orange

envid: 1000240286
Year: 1999
GEPaid: CAD981988942
Contact: ANAHEIM CITY SCHOOL DISTRICT
Telephone: 7145356001
Mailing Name: Not reported
Mailing Address: 1001 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: .3000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM CITY SCH DIST (Continued)

1000240286

Cat Decode: Unspecified organic liquid mixture
Method Decode: Recycler
Facility County: Orange

envid: 1000240286
Year: 1999
GEPaid: CAD981988942
Contact: ANAHEIM CITY SCHOOL DISTRICT
Telephone: 7145356001
Mailing Name: Not reported
Mailing Address: 1001 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: AZD983476680
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Not reported
Tons: .2250
Cat Decode: Other organic solids
Method Decode: Not reported
Facility County: Orange

envid: 1000240286
Year: 1998
GEPaid: CAD981988942
Contact: ANAHEIM CITY SCHOOL DISTRICT
Telephone: 7145356001
Mailing Name: Not reported
Mailing Address: 1001 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: AZD983476680
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Not reported
Tons: .2000
Cat Decode: Other organic solids
Method Decode: Not reported
Facility County: Orange

envid: 1000240286
Year: 1997
GEPaid: CAD981988942
Contact: ANAHEIM CITY SCHOOL DISTRICT
Telephone: 7145356001
Mailing Name: Not reported
Mailing Address: 1001 S EAST ST
Mailing City,St,Zip: ANAHEIM, CA 928050000
Gen County: Not reported
TSD EPA ID: CAL000827758
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Not reported
Tons: .5000
Cat Decode: Other organic solids
Method Decode: Not reported
Facility County: Orange

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM CITY SCH DIST (Continued)

1000240286

[Click this hyperlink](#) while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:

Envid: 1000240286
Registry ID: 110002767621
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002767621

68
SSE
1/4-1/2
0.444 mi.
2342 ft.

VIP RUBBER CO INC
945 S EAST ST
ANAHEIM, CA 92805

LUST **1000130286**
Orange Co. Industrial Site **CAD981368608**
RCRA NonGen / NLR
EMI
NPDES

Relative:
Lower

LUST:

Actual:
165 ft.

Region: STATE
Global Id: T0605901142
Latitude: 33.824093
Longitude: -117.898471
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/23/2007
Lead Agency: ANAHEIM CITY
Case Worker: RM
Local Agency: ANAHEIM CITY
RB Case Number: 083001497T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0605901142
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605901142
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605901142
Status: Completed - Case Closed
Status Date: 05/23/2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIP RUBBER CO INC (Continued)

1000130286

Global Id: T0605901142
Status: Open - Case Begin Date
Status Date: 02/26/1990

Global Id: T0605901142
Status: Open - Remediation
Status Date: 05/22/1996

Global Id: T0605901142
Status: Open - Remediation
Status Date: 11/05/2005

Global Id: T0605901142
Status: Open - Site Assessment
Status Date: 03/16/1990

Global Id: T0605901142
Status: Open - Site Assessment
Status Date: 04/20/1990

Global Id: T0605901142
Status: Open - Verification Monitoring
Status Date: 12/08/2005

Regulatory Activities:

Global Id: T0605901142
Action Type: Other
Date: 02/26/1990
Action: Leak Discovery

Global Id: T0605901142
Action Type: Other
Date: 04/18/1990
Action: Leak Reported

Global Id: T0605901142
Action Type: ENFORCEMENT
Date: 05/23/2007
Action: Closure/No Further Action Letter

Orange Co. Industrial Site:

Case ID: 95IC030
Record ID: RO0000510
Current Status: CLOSED 9/15/1995
Closure Type: Voluntary Cleanup Program Termination
Released Chemical: WASTE (OR SLOP) OIL

RCRA NonGen / NLR:

Date form received by agency: 06/27/1995
Facility name: VIP RUBBER CO INC
Facility address: 945 S EAST ST
ANAHEIM, CA 92805
EPA ID: CAD981368608
Mailing address: 540 S CYPRESS
LA HABRA, CA 906316127

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIP RUBBER CO INC (Continued)

1000130286

Contact: HOWARD VIPPERMAN
Contact address: 945 S EAST ST
ANAHEIM, CA 92805
Contact country: US
Contact telephone: (800) 722-4847
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: VIP RUBBER CO INC
Owner/operator address: 945 S EAST ST
ANAHEIM, CA 92805
Owner/operator country: Not reported
Owner/operator telephone: (310) 905-3456
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
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
Used 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

EMI:

Year: 1987
County Code: 30
Air Basin: SC
Facility ID: 425
Air District Name: SC
SIC Code: 3069

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIP RUBBER CO INC (Continued)

1000130286

Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
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 Smlr Tons/Yr:0

Year: 1990
County Code: 30
Air Basin: SC
Facility ID: 425
Air District Name: SC
SIC Code: 3069
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
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 Smlr Tons/Yr:0

NPDES:

Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 8
Regulatory Measure Id: 208505
Order No: Not reported
Regulatory Measure Type: Industrial
Place Id: Not reported
WDID: 8 301004953
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: Not reported
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
RECEIVED DATE: 5/9/2008
PROCESSED DATE: 4/7/1992
STATUS CODE NAME: Terminated
STATUS DATE: 4/7/1992
PLACE SIZE: 40000
PLACE SIZE UNIT: 53
FACILITY CONTACT NAME: Not reported
FACILITY CONTACT TITLE: Not reported
FACILITY CONTACT PHONE: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIP RUBBER CO INC (Continued)

1000130286

FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Vip Rubber
OPERATOR ADDRESS:	945 S East St
OPERATOR CITY:	Anaheim
OPERATOR STATE:	California
OPERATOR ZIP:	92805
OPERATOR CONTACT NAME:	JEFF Bell
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-774-7635
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	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 DESRIPTION:	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 NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3069-Fabricated Rubber Products, NEC
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

O69 **LAKESIDE TOWING**
SSW **512 VERMONT**
1/4-1/2 **ANAHEIM, CA 92805**
0.452 mi.
2385 ft. **Site 2 of 2 in cluster O**

LUST **S102432476**
HIST CORTESE **N/A**

Relative:
Lower

LUST:

Actual:
159 ft.

Region: STATE
Global Id: T0605900696
Latitude: 33.823948
Longitude: -117.904319
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/12/1987
Lead Agency: ORANGE COUNTY LOP
Case Worker: AM
Local Agency: ORANGE COUNTY LOP
RB Case Number: 083000881T
LOC Case Number: 87UT032
File Location: Local Agency
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605900696
Contact Type: Local Agency Caseworker
Contact Name: ANTHONY MARTINEZ
Organization Name: ORANGE COUNTY LOP
Address: 1241 E. DYER ROAD SUITE 120
City: SANTA ANA
Email: amartinez@ochca.com
Phone Number: 7144336011

Global Id: T0605900696
Contact Type: Regional Board Caseworker
Contact Name: PATRICIA HANNON
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: phannon@waterboards.ca.gov
Phone Number: Not reported

Status History:

Global Id: T0605900696
Status: Completed - Case Closed
Status Date: 08/12/1987

Global Id: T0605900696
Status: Open - Case Begin Date
Status Date: 08/12/1987

LUST REG 8:

Region: 8
County: Orange
Regional Board: Santa Ana Region

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE TOWING (Continued)

S102432476

Facility Status:	Case Closed
Case Number:	083000881T
Local Case Num:	87UT032
Case Type:	Undefined
Substance:	Diesel
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900696
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/1/1965
Enforcement Date:	Not reported
Close Date:	8/12/1987
Date Prelim Assessment Workplan Submitted:	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:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8241746
Longitude:	-117.904864
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	WJ
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE TOWING (Continued)

S102432476

Reg By: LTNKA
Reg Id: 083000881T

P70
ESE
1/4-1/2
0.457 mi.
2411 ft.

ANAHEIM MAINTENANCE YARD
1426 VERMONT AVE
ANAHEIM, CA 92805
Site 1 of 2 in cluster P

LUST S105034921
N/A

Relative:
Higher

LUST REG 8:

Actual:
172 ft.

Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083000382T
Local Case Num: Not reported
Case Type: Soil only
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: SUNKIST
Enf Type: CLOS
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Global ID: T0605900304
How Stopped Date: Not reported
Enter Date: 6/11/1987
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: 8/30/1989
Discover Date: 6/21/1989
Enforcement Date: Not reported
Close Date: 11/7/2000
Date Prelim Assessment Workplan Submitted: 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: Not reported
Enter Date: 6/11/1987
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST
Latitude: 33.8267696
Longitude: -117.8938777
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE. Includes Unknown and Not Analyzed.
MTBE Class: *
Staff: CAB
Staff Initials: UNK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM MAINTENANCE YARD (Continued)

S105034921

Lead Agency: Regional Board
Local Agency: 30011
Hydr Basin #: COASTAL PLAIN OF ORA
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

**P71
ESE
1/4-1/2
0.457 mi.
2411 ft.**

**ANAHEIM MAINTENANCE YARD
1426 E VERMONT AVE
ANAHEIM, CA 92805
Site 2 of 2 in cluster P**

**LUST U001578779
N/A**

**Relative:
Higher**

LUST:

**Actual:
172 ft.**

Region: STATE
Global Id: T0605900304
Latitude: 33.8267696
Longitude: -117.8938777
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/07/2000
Lead Agency: SANTA ANA RWQCB (REGION 8)
Case Worker: CAB
Local Agency: ANAHEIM CITY
RB Case Number: 083000382T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0605900304
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605900304
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605900304
Status: Completed - Case Closed
Status Date: 11/07/2000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM MAINTENANCE YARD (Continued)

U001578779

Global Id: T0605900304
Status: Open - Case Begin Date
Status Date: 06/21/1989

Global Id: T0605900304
Status: Open - Site Assessment
Status Date: 08/30/1989

Regulatory Activities:

Global Id: T0605900304
Action Type: Other
Date: 06/21/1989
Action: Leak Discovery

Global Id: T0605900304
Action Type: Other
Date: 07/26/1989
Action: Leak Reported

Global Id: T0605900304
Action Type: ENFORCEMENT
Date: 11/07/2000
Action: Closure/No Further Action Letter

Q72
WNW
1/4-1/2
0.474 mi.
2502 ft.

JOHN SLACK OIL
501 S OLIVE
ANAHEIM, CA 92805

Site 1 of 2 in cluster Q

LUST **S101589610**
SWEEPS UST **N/A**
CA FID UST

Relative:
Lower

LUST:

Actual:
161 ft.

Region: STATE
Global Id: T0605902047
Latitude: 33.831628
Longitude: -117.909087
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/17/1998
Lead Agency: ANAHEIM CITY
Case Worker: ROW
Local Agency: ANAHEIM CITY
RB Case Number: 083002988T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0605902047
Contact Type: Local Agency Caseworker
Contact Name: RICHARD O. WILSON
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. #601
City: ANAHEIM

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHN SLACK OIL (Continued)

S101589610

Email: dwilson@anaheim.net
Phone Number: Not reported

Global Id: T0605902047
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605902047
Status: Completed - Case Closed
Status Date: 06/17/1998

Global Id: T0605902047
Status: Open - Case Begin Date
Status Date: 03/18/1997

Global Id: T0605902047
Status: Open - Site Assessment
Status Date: 03/18/1997

Regulatory Activities:

Global Id: T0605902047
Action Type: Other
Date: 03/18/1997
Action: Leak Discovery

Global Id: T0605902047
Action Type: Other
Date: 05/02/1997
Action: Leak Reported

Global Id: T0605902047
Action Type: ENFORCEMENT
Date: 10/14/2013
Action: File review

Global Id: T0605902047
Action Type: Other
Date: 03/18/1997
Action: Leak Stopped

Global Id: T0605902047
Action Type: ENFORCEMENT
Date: 06/17/1998
Action: Closure/No Further Action Letter

SWEEPS UST:

Status: Active
Comp Number: 4895
Number: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHN SLACK OIL (Continued)

S101589610

Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 887
SWRCB Tank Id: 30-011-004895-000003
Tank Status: A
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: UNKNOWN
Number Of Tanks: 9

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 887
SWRCB Tank Id: 30-011-004895-000004
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: GASHOL
Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 887
SWRCB Tank Id: 30-011-004895-000005
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: GASHOL
Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 887
SWRCB Tank Id: 30-011-004895-000006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHN SLACK OIL (Continued)

S101589610

Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 887
SWRCB Tank Id: 30-011-004895-000007
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 501-1
SWRCB Tank Id: 30-011-004895-000008
Tank Status: A
Capacity: 12000
Active Date: 11-08-93
Tank Use: OIL
STG: P
Content: MOTOR OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 501-2
SWRCB Tank Id: 30-011-004895-000009
Tank Status: A
Capacity: 12000
Active Date: 11-08-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHN SLACK OIL (Continued)

S101589610

Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 501-3
SWRCB Tank Id: 30-011-004895-000010
Tank Status: A
Capacity: 12000
Active Date: 11-08-93
Tank Use: OIL
STG: P
Content: MOTOR OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 4895
Number: 1
Board Of Equalization: 44-023165
Referral Date: 11-08-93
Action Date: 05-16-94
Created Date: 12-31-88
Owner Tank Id: 501-4
SWRCB Tank Id: 30-011-004895-000011
Tank Status: A
Capacity: 12000
Active Date: 11-08-93
Tank Use: OIL
STG: P
Content: ATF
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 30017735
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7145331379
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: ANAHEIM 92805
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

73
WSW
1/4-1/2
0.486 mi.
2566 ft.

ANAHEIM SERVICE STATION
300 EAST, S.
ANAHEIM, CA 92806

LUST **S105624578**
N/A

Relative:
Lower

LUST:

Actual:
157 ft.

Region: STATE
Global Id: T0605993742
Latitude: 33.835746
Longitude: -117.901557
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/05/2002
Lead Agency: ANAHEIM CITY
Case Worker: RM
Local Agency: ANAHEIM CITY
RB Case Number: 083003875T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605993742
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605993742
Contact Type: Regional Board Caseworker
Contact Name: ROSE SCOTT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: rscott@waterboards.ca.gov
Phone Number: 9513206375

Status History:

Global Id: T0605993742
Status: Completed - Case Closed
Status Date: 12/05/2002

Global Id: T0605993742
Status: Open - Case Begin Date
Status Date: 02/15/2002

Global Id: T0605993742
Status: Open - Site Assessment
Status Date: 03/05/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM SERVICE STATION (Continued)

S105624578

Regulatory Activities:

Global Id:	T0605993742
Action Type:	Other
Date:	02/15/2002
Action:	Leak Reported
Global Id:	T0605993742
Action Type:	ENFORCEMENT
Date:	12/05/2002
Action:	Closure/No Further Action Letter
Global Id:	T0605993742
Action Type:	ENFORCEMENT
Date:	08/28/2002
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0605993742
Action Type:	ENFORCEMENT
Date:	09/18/2002
Action:	Technical Correspondence / Assistance / Other

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Pollution Characterization
Case Number:	083003875T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	BROADWAY
Enf Type:	TA-CLO
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	Not reported
Global ID:	T0605993742
How Stopped Date:	Not reported
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	Not reported
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	3/5/2002
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	=

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ANAHEIM SERVICE STATION (Continued)

S105624578

Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.835804
Longitude:	-117.901594
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	2
Max MTBE Soil:	.51
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	RS
Staff Initials:	RM
Lead Agency:	Local Agency
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

Q74
WNW
1/4-1/2
0.487 mi.
2570 ft.

SKS, INC.
501 OLIVE ST
ANAHEIM, CA 92015
Site 2 of 2 in cluster Q

LUST S106784794
N/A

Relative:
Lower

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002988T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Waste Oil
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Cross Street:	SANTA ANA
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Overfill
Leak Source:	Other Source
Global ID:	T0605902047
How Stopped Date:	3/18/1997
Enter Date:	6/19/1997
Date Confirmation of Leak Began:	3/18/1997
Date Preliminary Assessment Began:	3/18/1997
Discover Date:	3/18/1997
Enforcement Date:	Not reported
Close Date:	6/17/1998
Date Prelim Assessment Workplan Submitted:	Not reported

Actual:
160 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SKS, INC. (Continued)

S106784794

Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	6/19/1997
GW Qualifies:	Not reported
Soil Qualifies:	<
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.83087145
Longitude:	-117.9086063
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	1
Max MTBE Soil:	10
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	CAB
Staff Initials:	ROW
Lead Agency:	Local Agency
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

75
East
1/4-1/2
0.489 mi.
2581 ft.

PAN PACIFIC HOTEL
1717 WEST ST
ANAHEIM, CA 92802

LUST **S105022508**
HIST CORTESE **N/A**

Relative:
Higher

LUST REG 8:

Actual:
176 ft.

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002178T
Local Case Num:	Not reported
Case Type:	Aquifer affected
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	KATELLA
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605901606
How Stopped Date:	Not reported
Enter Date:	1/6/1993

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PAN PACIFIC HOTEL (Continued)

S105022508

Date Confirmation of Leak Began:	10/1/1992
Date Preliminary Assessment Began:	Not reported
Discover Date:	9/2/1992
Enforcement Date:	Not reported
Close Date:	5/15/1995
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	12/4/1992
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	1/6/1993
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8049909
Longitude:	-117.9242152
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	VJJ
Staff Initials:	ROW
Lead Agency:	Local Agency
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002178T

76
NNE
1/4-1/2
0.496 mi.
2620 ft.

LINCOLN ELEMENTARY SCHOOL
1413 EAST BROADWAY
ANAHEIM, CA 92805

ENVIROSTOR **S109548310**
SCH **N/A**
NPDES

Relative:
Higher

ENVIROSTOR:	
Facility ID:	60001109
Status:	No Further Action
Status Date:	03/02/2010
Site Code:	404831
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	10.17

Actual:
174 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LINCOLN ELEMENTARY SCHOOL (Continued)

S109548310

NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Christine Chiu
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.8373
Longitude: -117.8983
APN: 037-173-20, 037-173-21, 037-253-01, 037-253-07, 037-253-08
Past Use: AGRICULTURAL - ORCHARD, SCHOOL - ELEMENTARY
Potential COC: Arsenic Chlordane DDD DDE DDT Lead
Confirmed COC: 30001-NO 30004-NO 30013-NO 30006-NO 30007-NO 30008-NO
Potential Description: SOIL
Alias Name: 037-173-20
Alias Type: APN
Alias Name: 037-173-21
Alias Type: APN
Alias Name: 037-253-01
Alias Type: APN
Alias Name: 037-253-07
Alias Type: APN
Alias Name: 037-253-08
Alias Type: APN
Alias Name: 404831
Alias Type: Project Code (Site Code)
Alias Name: 60001109
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/10/2009
Comments: Signed agreement sent (FedEx) to the District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/02/2010
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Tech Memo
Completed Date: 06/29/2009
Comments: DTSC approved the preliminary Environmental Assessment Technical Memorandum for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 10/16/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LINCOLN ELEMENTARY SCHOOL (Continued)

S109548310

Comments: On 10/16/2009, fieldwork sampling activities were conducted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/01/2010
Comments: DTSC approved the PEA with a No Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/25/2010
Comments: On January 25, 2010, DTSC received a copy of the public notice regarding the Draft PEA Report advertised in The Orange County Register on January 18, 2010.

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

SCH:

Facility ID: 60001109
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10.17
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Christine Chiu
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404831
Assembly: 69
Senate: 34
Special Program Status: Not reported
Status: No Further Action
Status Date: 03/02/2010
Restricted Use: NO
Funding: School District
Latitude: 33.8373
Longitude: -117.8983
APN: 037-173-20, 037-173-21, 037-253-01, 037-253-07, 037-253-08
Past Use: AGRICULTURAL - ORCHARD, SCHOOL - ELEMENTARY
Potential COC: Arsenic, Chlordane, DDD, DDE, DDT, Lead
Confirmed COC: 30001-NO, 30004-NO, 30013-NO, 30006-NO, 30007-NO, 30008-NO
Potential Description: SOIL
Alias Name: 037-173-20
Alias Type: APN

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LINCOLN ELEMENTARY SCHOOL (Continued)

S109548310

Alias Name: 037-173-21
Alias Type: APN
Alias Name: 037-253-01
Alias Type: APN
Alias Name: 037-253-07
Alias Type: APN
Alias Name: 037-253-08
Alias Type: APN
Alias Name: 404831
Alias Type: Project Code (Site Code)
Alias Name: 60001109
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/10/2009
Comments: Signed agreement sent (FedEx) to the District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/02/2010
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Tech Memo
Completed Date: 06/29/2009
Comments: DTSC approved the preliminary Environmental Assessment Technical Memorandum for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 10/16/2009
Comments: On 10/16/2009, fieldwork sampling activities were conducted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/01/2010
Comments: DTSC approved the PEA with a No Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/25/2010
Comments: On January 25, 2010, DTSC received a copy of the public notice regarding the Draft PEA Report advertised in The Orange County Register on January 18, 2010.

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LINCOLN ELEMENTARY SCHOOL (Continued)

S109548310

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

NPDES:

Npdes Number: CAS000002
Facility Status: Terminated
Agency Id: 0
Region: 9
Regulatory Measure Id: 412032
Order No: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 9 37C360563
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 03/11/2011
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 11/17/2013
Discharge Name: Anaheim City School District
Discharge Address: 1001 S East St
Discharge City: Anaheim
Discharge State: California
Discharge Zip: 92805
RECEIVED DATE: Not reported
PROCESSED DATE: Not reported
STATUS CODE NAME: Not reported
STATUS DATE: Not reported
PLACE SIZE: Not reported
PLACE SIZE UNIT: Not reported
FACILITY CONTACT NAME: Not reported
FACILITY CONTACT TITLE: Not reported
FACILITY CONTACT PHONE: Not reported
FACILITY CONTACT PHONE EXT: Not reported
FACILITY 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 NAME: 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 NAME: Not reported
DEVELOPER ADDRESS: Not reported
DEVELOPER CITY: Not reported
DEVELOPER STATE: Not reported
DEVELOPER ZIP: Not reported
DEVELOPER CONTACT NAME: Not reported
DEVELOPER CONTACT TITLE: Not reported
CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: Not reported
EMERGENCY PHONE EXT: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LINCOLN ELEMENTARY SCHOOL (Continued)

S109548310

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 DESRIPTION: 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 NAME: Not reported
CERTIFIER TITLE: Not reported
CERTIFICATION DATE: Not reported
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 8
Regulatory Measure Id: 412032
Order No: Not reported
Regulatory Measure Type: Construction
Place Id: Not reported
WDID: 8 30C360563
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: Not reported
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
RECEIVED DATE: 2/16/2011
PROCESSED DATE: 3/11/2011
STATUS CODE NAME: Active
STATUS DATE: 3/11/2011
PLACE SIZE: 5.61
PLACE SIZE UNIT: 52
FACILITY CONTACT NAME: Thomas Rizzuti
FACILITY CONTACT TITLE: Director, Facilities and Planning
FACILITY CONTACT PHONE: 714-517-7549
FACILITY CONTACT PHONE EXT: Not reported
FACILITY CONTACT EMAIL: trizzuti@acsd.k12.ca.us
OPERATOR NAME: Anaheim City School District
OPERATOR ADDRESS: 1411 S Anaheim Blvd

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LINCOLN ELEMENTARY SCHOOL (Continued)

S109548310

OPERATOR CITY: Anaheim
OPERATOR STATE: California
OPERATOR ZIP: 92805
OPERATOR CONTACT NAME: Thomas Rizzuti
OPERATOR CONTACT TITLE: Director, Facilities and Planning
OPERATOR CONTACT PHONE: 714-517-7549
OPERATOR CONTACT PHONE EXT: Not reported
OPERATOR CONTACT EMAIL: trizzuti@acsd.k12.ca.us
OPERATOR TYPE: Special District
DEVELOPER NAME: Anaheim City School District
DEVELOPER ADDRESS: 1411 S Anaheim Blvd
DEVELOPER CITY: Anaheim
DEVELOPER STATE: California
DEVELOPER ZIP: 92805
DEVELOPER CONTACT NAME: Thomas Rizzuti
DEVELOPER CONTACT TITLE: Director, Facilities and Planning
CONSTYPE LINEAR UTILITY IND: N
EMERGENCY PHONE NO: 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 DESRIPTION: School
CONSTYPE OTHER IND: Y
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Y
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: N
RECEIVING WATER NAME: Not reported
CERTIFIER NAME: Thomas Rizzuti
CERTIFIER TITLE: Director, Facilities and Planning
CERTIFICATION DATE: 16-FEB-11
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

R77 ANAHEIM FLT MAINT.FUELING FAC.
SSW 955 MELROSE
1/4-1/2 ANAHEIM, CA 92805
0.499 mi.
2636 ft. Site 1 of 2 in cluster R

LUST 1000240285
N/A

Relative:
Lower

LUST REG 8:
Region: 8
County: Orange
Actual: Regional Board: Santa Ana Region
159 ft. Facility Status: Case Closed
Case Number: 083002879T
Local Case Num: Not reported
Case Type: Soil only

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM FLT MAINT.FUELING FAC. (Continued)

1000240285

Substance:	Unleaded Gasoline
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Corrosion
Leak Source:	Piping
Global ID:	T0605901974
How Stopped Date:	Not reported
Enter Date:	9/16/1996
Date Confirmation of Leak Began:	8/26/1996
Date Preliminary Assessment Began:	Not reported
Discover Date:	8/26/1996
Enforcement Date:	Not reported
Close Date:	6/3/1999
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	5/17/1999
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	9/16/1996
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8228077
Longitude:	-117.9036199
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	NOM
Staff Initials:	UNK
Lead Agency:	Regional Board
Local Agency:	30011
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	DIESEL ALSO. REFERED TO RB 12/04/96. PIPING UPGRADED 9/1/96 - CORROSION ON PIPING CAUSED LEAK. DISPENSER AREA EXCAVATED & CONTAMINATED SOIL WAS FOUND.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

R78 ANAHEIM FLT MAINT.FUELING FAC.
SSW 955 S MELROSE
1/4-1/2 ANAHEIM, CA 92805
0.499 mi.
2636 ft. Site 2 of 2 in cluster R

LUST S109284720
CHMIRS N/A

Relative:
Lower

LUST:

Actual:
159 ft.

Region: STATE
Global Id: T0605901974
Latitude: 33.8228077
Longitude: -117.9036199
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/03/1999
Lead Agency: SANTA ANA RWQCB (REGION 8)
Case Worker: NOM
Local Agency: ANAHEIM CITY
RB Case Number: 083002879T
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0605901974
Contact Type: Local Agency Caseworker
Contact Name: RALPH MCCAFFREY
Organization Name: ANAHEIM CITY
Address: 201 S. ANAHEIM BLVD. MS 601
City: ANAHEIM
Email: rmccaffrey@anaheim.net
Phone Number: Not reported

Global Id: T0605901974
Contact Type: Regional Board Caseworker
Contact Name: NANCY OLSON-MARTIN
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: nolson-martin@waterboards.ca.gov
Phone Number: Not reported

Status History:

Global Id: T0605901974
Status: Completed - Case Closed
Status Date: 06/03/1999

Global Id: T0605901974
Status: Open - Case Begin Date
Status Date: 08/26/1996

Global Id: T0605901974
Status: Open - Site Assessment
Status Date: 08/26/1996

Global Id: T0605901974

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANAHEIM FLT MAINT.FUELING FAC. (Continued)

S109284720

Status: Open - Site Assessment
Status Date: 05/17/1999

Regulatory Activities:

Global Id: T0605901974
Action Type: Other
Date: 08/26/1996
Action: Leak Discovery

Global Id: T0605901974
Action Type: Other
Date: 08/26/1996
Action: Leak Reported

Global Id: T0605901974
Action Type: ENFORCEMENT
Date: 06/03/1999
Action: Closure/No Further Action Letter

CHMIRS:

OES Incident Number: 10-2451
OES notification: 04/19/2010
OES Date: Not reported
OES Time: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: No
Waterway: Not reported
Spill Site: Oil Field
Cleanup By: Unknown
Containment: Not reported
What Happened: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ANAHEIM FLT MAINT.FUELING FAC. (Continued)

S109284720

Type:	Not reported
Measure:	Unknown
Other:	Not reported
Date/Time:	1100
Year:	2010
Agency:	City of Anaheim
Incident Date:	4/19/2010
Admin Agency:	Anaheim Fire Department
Amount:	Not reported
Contained:	Unknown
Site Type:	Not reported
E Date:	Not reported
Substance:	Hydraulic Fluid
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	The fluid may have leaked from a hydraulic lift. A contractor is en route to dig up the area under the lift.

79
West
1/2-1
0.657 mi.
3469 ft.

MUNICIPAL LIGHT & WATER WORKS FACILITY(FORMER)
518 . ANAHEIM BLVD.
ANAHEIM, CA 92805

ENVIROSTOR **S108936067**
N/A

Relative:
Lower

Actual:
156 ft.

ENVIROSTOR:
 Facility ID: 60000723
 Status: Refer: 1248 Local Agency
 Status Date: 09/21/2007
 Site Code: Not reported
 Site Type: Evaluation
 Site Type Detailed: Evaluation
 Acres: 0
 NPL: NO
 Regulatory Agencies: ORANGE COUNTY
 Lead Agency: ORANGE COUNTY
 Program Manager: Not reported
 Supervisor: Referred - Not Assigned
 Division Branch: Cleanup Cypress
 Assembly: 69
 Senate: 34
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MUNICIPAL LIGHT & WATER WORKS FACILITY(FORMER) (Continued)

S108936067

Funding: Not Applicable
Latitude: 33.83052
Longitude: -117.9115
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 60000723
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: SB 1248 Notification
Completed Date: 09/21/2007
Comments: DTSC is not involved with this project.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

**S80
NNW
1/2-1
0.669 mi.
3532 ft.**

**SO CAL GAS/ANAHEIM MGP
200 N. BLOCK OF ATCHISON STREET
ANAHEIM, CA 92805**

**ENVIROSTOR S100270073
N/A**

Site 1 of 2 in cluster S

**Relative:
Higher**

ENVIROSTOR:

Facility ID: 30490107
Status: No Further Action
Status Date: 06/01/1995
Site Code: 400294
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: DTSC
Lead Agency: DTSC
Program Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: * Town Gas
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.8358
Longitude: -117.9066
APN: NONE SPECIFIED
Past Use: MANUFACTURED GAS PLANT

**Actual:
167 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SO CAL GAS/ANAHEIM MGP (Continued)

S100270073

Potential COC: Polynuclear aromatic hydrocarbons (PAHs)
Confirmed COC: 30019-NO
Potential Description: SOIL
Alias Name: ANAHEIM TOWN GAS
Alias Type: Alternate Name
Alias Name: SOUTHERN CALIFORNIA GAS
Alias Type: Alternate Name
Alias Name: SOUTHERN CALIFORNIA GAS COMPANY
Alias Type: Alternate Name
Alias Name: TOWN GAS PLANT - ANAHEIM #1
Alias Type: Alternate Name
Alias Name: 400294
Alias Type: Project Code (Site Code)
Alias Name: 30490107
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/25/1994
Comments: Database verification program confirmed NFA for DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/10/1992
Comments: Region 4 approved So. Cal. Gas Co's PEA report concurring with NFA recommendation. DTSC required general and specific comments be attached to the report for clarification.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/01/1991
Comments: Received PEA report from So Cal Gas Company for the former coal gassification plant site in Anaheim, located on Atchison Street north of Lincoln Avenue. Property is on the east of ATSF RR right of way.

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

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

S81
NNW
1/2-1
0.692 mi.
3653 ft.

SO CAL GAS-ANAHEIM MGP
200 N BLOCK ATCHISON STREET
ANAHEIM, CA 92805

EDR MGP **1008407654**
N/A

Site 2 of 2 in cluster S

Relative:
Higher

Manufactured Gas Plants:

Alternate Name:ANAHEIM TOWN GAS. No additional information available

Actual:
167 ft.

82
ESE
1/2-1
0.932 mi.
4923 ft.

KATELLA HIGH SCHOOL
2200 EAST WAGNER AVENUE
ANAHEIM, CA 92806

ENVIROSTOR **S103950116**
SCH **N/A**

Relative:
Higher

ENVIROSTOR:

Actual:
178 ft.

Facility ID: 30820018
 Status: No Further Action
 Status Date: 09/04/2003
 Site Code: 404431
 Site Type: School Investigation
 Site Type Detailed: School
 Acres: 1
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Not reported
 Supervisor: Shahir Haddad
 Division Branch: Southern California Schools & Brownfields Outreach
 Assembly: 69
 Senate: 34
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: School District
 Latitude: 33.82351
 Longitude: -117.8859
 APN: 253-101-01
 Past Use: AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA, SCHOOL - HIGH SCHOOL
 Potential COC: Arsenic Benzene Chlordane DDD DDE DDT Lead Mercury (elemental)
 Toxaphene Aldrin 1,2-Dibromo-3-chloropropane (DBCP) Dieldrin
 Heptachlor Hexachlorobenzene HCH (gamma) Lindane Methoxychlor Mirex
 Trifluralin
 Confirmed COC: 30575-NO 30023-NO 30043-NO 30181-NO 30207-NO 30308-NO 30311-NO
 30315-NO 30367-NO 30400-NO 30001-NO 30003-NO 30004-NO 30006-NO
 30007-NO 30008-NO 30013-NO 30014-NO 31000-NO
 Potential Description: NMA
 Alias Name: ANAHEIM UNION HIGH SCHOOL DISTRICT
 Alias Type: Alternate Name
 Alias Name: ANAHEIM UNION HSD-KATELLA HS
 Alias Type: Alternate Name
 Alias Name: KATELLA HIGH SCHOOL
 Alias Type: Alternate Name
 Alias Name: 253-101-01
 Alias Type: APN
 Alias Name: 404431
 Alias Type: Project Code (Site Code)
 Alias Name: 30820018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KATELLA HIGH SCHOOL (Continued)

S103950116

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/16/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/04/2003
Comments: DTSC approved the Preliminary Endangerment Assessment (PEA) and determined neither an actual or a potential release of hazardous material, nor the presence of naturally occurring hazardous material indicated at the site pose a threat to human health or the environment under any land use. Therefore, DTSC concurred that no further environmental investigation or cleanup was required at this site, and approved the PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/16/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2003
Comments: As part of the Master Oversight Agreement between DTSC and the AUHSD, DTSC will provide oversight for a Preliminary Endangerment Assessment for the Katella High School.

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

SCH:

Facility ID: 30820018
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KATELLA HIGH SCHOOL (Continued)

S103950116

Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404431
Assembly: 69
Senate: 34
Special Program Status: Not reported
Status: No Further Action
Status Date: 09/04/2003
Restricted Use: NO
Funding: School District
Latitude: 33.82351
Longitude: -117.8859
APN: 253-101-01
Past Use: AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA, SCHOOL - HIGH SCHOOL
Potential COC: Arsenic, Arsenic, Benzene, Chlordane, DDD, DDE, DDT, Lead, Mercury (elemental), Toxaphene, Aldrin, 1,2-Dibromo-3-chloropropane (DBCP, Dieldrin, Heptachlor, Hexachlorobenzene, HCH (gamma) Lindane, Methoxychlor, Mirex, Trifluralin
Confirmed COC: 30575-NO, 30023-NO, 30043-NO, 30181-NO, 30207-NO, 30308-NO, 30311-NO, 30315-NO, 30367-NO, 30400-NO, 30001-NO, 30003-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO, 30014-NO, 31000-NO
Potential Description: NMA
Alias Name: ANAHEIM UNION HIGH SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: ANAHEIM UNION HSD-KATELLA HS
Alias Type: Alternate Name
Alias Name: KATELLA HIGH SCHOOL
Alias Type: Alternate Name
Alias Name: 253-101-01
Alias Type: APN
Alias Name: 404431
Alias Type: Project Code (Site Code)
Alias Name: 30820018
Alias Type: Envirostor ID Number
Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/16/2003
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/04/2003
Comments: DTSC approved the Preliminary Endangerment Assessment (PEA) and determined neither an actual or a potential release of hazardous material, nor the presence of naturally occurring hazardous material indicated at the site pose a threat to human health or the environment under any land use. Therefore, DTSC concurred that no further environmental investigation or cleanup was required at this site, and approved the PEA.
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/16/2003

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KATELLA HIGH SCHOOL (Continued)

S103950116

Comments: Not reported

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Environmental Oversight Agreement
 Completed Date: 02/10/2003
 Comments: As part of the Master Oversight Agreement between DTSC and the AUHSD, DTSC will provide oversight for a Preliminary Endangerment Assessment for the Katella High School.

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

**83
 NW
 1/2-1
 0.956 mi.
 5050 ft.**

**HERITAGE SCHOOL
 CYPRESS STREET/ANAHEIM BOULEVARD
 ANAHEIM, CA 92805**

**ENVIROSTOR S107736441
 SCH N/A**

**Relative:
 Lower**

ENVIROSTOR:
 Facility ID: 30590002
 Status: Inactive - Needs Evaluation
 Status Date: 09/10/2002
 Site Code: 404249
 Site Type: School Investigation
 Site Type Detailed: School
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Not reported
 Supervisor: * Rebecca Chou
 Division Branch: Southern California Schools & Brownfields Outreach
 Assembly: 69
 Senate: 34
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: School District
 Latitude: 33.81309
 Longitude: -117.9068
 APN: NONE SPECIFIED
 Past Use: * RETIAL - MISC.
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: ANAHEIM CITY SCHOOL DISTRICT
 Alias Type: Alternate Name
 Alias Name: ANAHEIM CITY SD-HERITAGE SCHOOL SITE
 Alias Type: Alternate Name
 Alias Name: HERITAGE SCHOOL (PROPOSED)

**Actual:
 159 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HERITAGE SCHOOL (Continued)

S107736441

Alias Type: Alternate Name
Alias Name: 404249
Alias Type: Project Code (Site Code)
Alias Name: 30590002
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/31/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/10/2002
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

SCH:

Facility ID: 30590002
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: Not reported
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: * Rebecca Chou
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404249
Assembly: 69
Senate: 34
Special Program Status: Not reported
Status: Inactive - Needs Evaluation
Status Date: 09/10/2002
Restricted Use: NO
Funding: School District
Latitude: 33.81309
Longitude: -117.9068
APN: NONE SPECIFIED
Past Use: * RETIAL - MISC.
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HERITAGE SCHOOL (Continued)

S107736441

Potential Description: NONE SPECIFIED
Alias Name: ANAHEIM CITY SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: ANAHEIM CITY SD-HERITAGE SCHOOL SITE
Alias Type: Alternate Name
Alias Name: HERITAGE SCHOOL (PROPOSED)
Alias Type: Alternate Name
Alias Name: 404249
Alias Type: Project Code (Site Code)
Alias Name: 30590002
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/31/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/10/2002
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: 7 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ANAHEIM	S112057181	METROPOLITAN RESIDENTIAL (PARCEL B	407-425 S. ANAHEIM BLVD., 100-	92805	ENVIROSTOR, VCP
ANAHEIM	S117706459	NW CORN BROADWAY EAST STREET	NW CORN BROADWAY EAST STREET	92805	NPDES
ANAHEIM	S118597953	L3 COMMUNICATIONS POWER PARAGO - E	1055 EAST	92805	NPDES
ANAHEIM	S118353704	DAVIS E L DUMP	LINCOLN AVENUE AND BEACH BOULE	92805	ENVIROSTOR
ANAHEIM	S117038743	TAORMINA FAMILY / CITY OF ANAHEIM	903-925 W. LINCOLN AVE. & 109	92805	ENVIROSTOR, SCH
ANAHEIM	S104745722	SKS, INC.	551 OLIVE ST	92805	LUST, HIST CORTESE
ANAHEIM	S104753117	I AND S MINI MARKET	770 EAST ST	92805	LUST, HIST CORTESE

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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 07/07/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 10/17/2016
	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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 07/07/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 10/17/2016
	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	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 07/07/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 10/17/2016
	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: 11/13/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2016	Telephone: 703-603-8704
Date Made Active in Reports: 05/20/2016	Last EDR Contact: 07/06/2016
Number of Days to Update: 135	Next Scheduled EDR Contact: 10/17/2016
	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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/01/2016
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/01/2016
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2015	Source: EPA
Date Data Arrived at EDR: 03/02/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/17/2016
	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: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Varies

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: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 05/16/2016
Number of Days to Update: 13	Next Scheduled EDR Contact: 08/29/2016
	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: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 05/25/2016
Number of Days to Update: 53	Next Scheduled EDR Contact: 09/12/2016
	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: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 05/25/2016
Number of Days to Update: 53	Next Scheduled EDR Contact: 09/12/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

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: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
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 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.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
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 inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 34

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	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	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	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	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 61

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: 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: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
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: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
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: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
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: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC: Statewide SLIC Cases

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: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 61

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/14/2016	Source: SWRCB
Date Data Arrived at EDR: 03/16/2016	Telephone: 916-341-5851
Date Made Active in Reports: 05/04/2016	Last EDR Contact: 06/14/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 09/26/2016
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 07/07/2016
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Quarterly

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: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 120	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Semi-Annually

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: 11/05/2015	Source: EPA Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-6136
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/08/2016
	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: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-9424
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/26/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 04/29/2016
Number of Days to Update: 65	Next Scheduled EDR Contact: 08/08/2016
	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: 01/26/2016	Source: EPA Region 8
Date Data Arrived at EDR: 02/05/2016	Telephone: 303-312-6137
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 119	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

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: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

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: 02/25/2016	Source: EPA Region 9
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3368
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	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: 05/02/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/04/2016	Telephone: 916-323-3400
Date Made Active in Reports: 06/21/2016	Last EDR Contact: 05/04/2016
Number of Days to Update: 48	Next Scheduled EDR Contact: 08/15/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 07/01/2016
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields 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: 02/29/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/07/2016	Telephone: 916-323-7905
Date Made Active in Reports: 05/04/2016	Last EDR Contact: 06/15/2016
Number of Days to Update: 58	Next Scheduled EDR Contact: 09/19/2016
	Data Release Frequency: Varies

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: 03/21/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/22/2016	Telephone: 202-566-2777
Date Made Active in Reports: 07/13/2016	Last EDR Contact: 06/22/2016
Number of Days to Update: 113	Next Scheduled EDR Contact: 10/03/2016
	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 05/06/2016
Number of Days to Update: 30	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 54

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/12/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 50

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/13/2016
Next Scheduled EDR Contact: 08/22/2016
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: 04/27/2016
Next Scheduled EDR Contact: 08/15/2016
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: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
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

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: 05/04/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 40

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 06/13/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
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: 12/31/2015
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Varies

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: 05/04/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 40

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 09/12/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 06/07/2016
Date Data Arrived at EDR: 06/09/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 14

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2016
Next Scheduled EDR Contact: 09/12/2016
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

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: 03/08/2016
Date Data Arrived at EDR: 03/11/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 54

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
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: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/07/2016	Source: DTSC and SWRCB
Date Data Arrived at EDR: 03/08/2016	Telephone: 916-323-3400
Date Made Active in Reports: 05/04/2016	Last EDR Contact: 06/07/2016
Number of Days to Update: 57	Next Scheduled EDR Contact: 09/19/2016
	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: 06/24/2015	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 06/26/2015	Telephone: 202-366-4555
Date Made Active in Reports: 09/02/2015	Last EDR Contact: 06/28/2016
Number of Days to Update: 68	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Annually

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: 04/11/2016	Source: Office of Emergency Services
Date Data Arrived at EDR: 04/27/2016	Telephone: 916-845-8400
Date Made Active in Reports: 06/17/2016	Last EDR Contact: 04/27/2016
Number of Days to Update: 51	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/14/2016	Source: State Water Quality Control Board
Date Data Arrived at EDR: 03/16/2016	Telephone: 866-480-1028
Date Made Active in Reports: 05/16/2016	Last EDR Contact: 06/14/2016
Number of Days to Update: 61	Next Scheduled EDR Contact: 09/26/2016
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/14/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/16/2016	Telephone: 866-480-1028
Date Made Active in Reports: 05/16/2016	Last EDR Contact: 06/14/2016
Number of Days to Update: 61	Next Scheduled EDR Contact: 09/26/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/02/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Varies

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	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 06/10/2016
Number of Days to Update: 97	Next Scheduled EDR Contact: 09/19/2016
	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	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/15/2016
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/25/2016
	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	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/15/2016
Number of Days to Update: 339	Next Scheduled EDR Contact: 07/25/2016
	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
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: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
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: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/12/2016
Next Scheduled EDR Contact: 08/22/2016
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: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/03/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2016
Next Scheduled EDR Contact: 09/05/2016
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: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
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: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
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: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 05/12/2016
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/22/2016
	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: 07/01/2014	Source: EPA
Date Data Arrived at EDR: 10/15/2014	Telephone: 202-566-0500
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 04/12/2016
Number of Days to Update: 33	Next Scheduled EDR Contact: 07/25/2016
	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: 01/23/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/06/2015	Telephone: 202-564-5088
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 07/07/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 10/24/2016
	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	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/20/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/05/2016
	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	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/20/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/05/2016
	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: 03/07/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/18/2016	Telephone: 301-415-7169
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 05/06/2016
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 06/09/2016
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/19/2016
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 06/10/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/19/2016
	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: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 04/26/2016
Number of Days to Update: 83	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/09/2015	Telephone: 202-343-9775
Date Made Active in Reports: 09/16/2015	Last EDR Contact: 07/07/2016
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/17/2016
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

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: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
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: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/05/2016
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: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/15/2016
Next Scheduled EDR Contact: 07/25/2016
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: 03/11/2016
Date Data Arrived at EDR: 03/15/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 80

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/08/2016
Next Scheduled EDR Contact: 10/17/2016
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 1931 and 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: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/10/2016
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: 02/09/2016
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/12/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
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: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

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: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 06/20/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 03/01/2016
Date Data Arrived at EDR: 03/03/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

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).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 40

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

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: 02/08/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
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: 12/31/2014
Date Data Arrived at EDR: 03/22/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 48

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/03/2016
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: 01/26/2016
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
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: 02/17/2016
Date Data Arrived at EDR: 02/23/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 38

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 08/29/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/15/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Annually

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: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
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: 04/11/2016
Date Data Arrived at EDR: 04/12/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 50

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/24/2016
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: 03/15/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 54

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Varies

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: 02/29/2016
Date Data Arrived at EDR: 03/08/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 57

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 36

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
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: 03/07/2016
Date Data Arrived at EDR: 03/08/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 69

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 54

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
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: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/03/2016
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: 02/12/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 89

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/16/2016
Next Scheduled EDR Contact: 09/26/2016
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 board's review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

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: 06/24/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/25/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 49

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

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 Historic Gas 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Historic Dry 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:

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: 04/12/2016
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 48

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 48

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 06/06/2016
Date Data Arrived at EDR: 06/09/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 12

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 18

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 04/29/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 45

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/27/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 22

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/24/2016
Date Data Arrived at EDR: 02/26/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 35

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 04/08/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 50

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

FRESNO COUNTY:

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: 04/04/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 28

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 03/16/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list.

Date of Government Version: 04/26/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 50

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/05/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 03/01/2016
Date Data Arrived at EDR: 03/03/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 67

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

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: 05/25/2016
Date Data Arrived at EDR: 05/27/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 26

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 04/26/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 51

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

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: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/30/2016
Date Data Arrived at EDR: 04/01/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 38

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/18/2016
Date Data Arrived at EDR: 04/20/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 42

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/20/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/05/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

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: 03/02/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 02/26/2016
Date Data Arrived at EDR: 03/01/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 64

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 21

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 47

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 04/18/2016
Date Data Arrived at EDR: 05/06/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 42

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/17/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 35

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/17/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 35

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2016	Source: Health Care Agency
Date Data Arrived at EDR: 05/11/2016	Telephone: 714-834-3446
Date Made Active in Reports: 06/01/2016	Last EDR Contact: 05/11/2016
Number of Days to Update: 21	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/07/2016	Source: Placer County Health and Human Services
Date Data Arrived at EDR: 03/09/2016	Telephone: 530-745-2363
Date Made Active in Reports: 05/04/2016	Last EDR Contact: 06/15/2016
Number of Days to Update: 56	Next Scheduled EDR Contact: 09/19/2016
	Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/13/2016	Source: Department of Environmental Health
Date Data Arrived at EDR: 04/15/2016	Telephone: 951-358-5055
Date Made Active in Reports: 05/09/2016	Last EDR Contact: 06/20/2016
Number of Days to Update: 24	Next Scheduled EDR Contact: 10/03/2016
	Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 04/13/2016	Source: Department of Environmental Health
Date Data Arrived at EDR: 04/15/2016	Telephone: 951-358-5055
Date Made Active in Reports: 06/01/2016	Last EDR Contact: 06/20/2016
Number of Days to Update: 47	Next Scheduled EDR Contact: 10/03/2016
	Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/02/2016	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 04/06/2016	Telephone: 916-875-8406
Date Made Active in Reports: 06/01/2016	Last EDR Contact: 07/06/2016
Number of Days to Update: 56	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Quarterly

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: 02/02/2016	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 04/06/2016	Telephone: 916-875-8406
Date Made Active in Reports: 06/01/2016	Last EDR Contact: 07/05/2016
Number of Days to Update: 56	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/15/2016	Source: San Bernardino County Fire Department Hazardous Materials Division
Date Data Arrived at EDR: 03/18/2016	Telephone: 909-387-3041
Date Made Active in Reports: 05/09/2016	Last EDR Contact: 05/09/2016
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 09/23/2013	Source: Hazardous Materials Management Division
Date Data Arrived at EDR: 09/24/2013	Telephone: 619-338-2268
Date Made Active in Reports: 10/17/2013	Last EDR Contact: 06/02/2016
Number of Days to Update: 23	Next Scheduled EDR Contact: 09/19/2016
	Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015	Source: Department of Health Services
Date Data Arrived at EDR: 11/07/2015	Telephone: 619-338-2209
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 04/21/2016
Number of Days to Update: 58	Next Scheduled EDR Contact: 08/08/2016
	Data Release Frequency: Varies

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	Source: San Diego County Department of Environmental Health
Date Data Arrived at EDR: 06/15/2010	Telephone: 619-338-2371
Date Made Active in Reports: 07/09/2010	Last EDR Contact: 06/02/2016
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/19/2016
	Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008	Source: Department Of Public Health San Francisco County
Date Data Arrived at EDR: 09/19/2008	Telephone: 415-252-3920
Date Made Active in Reports: 09/29/2008	Last EDR Contact: 05/06/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010	Source: Department of Public Health
Date Data Arrived at EDR: 03/10/2011	Telephone: 415-252-3920
Date Made Active in Reports: 03/15/2011	Last EDR Contact: 05/06/2016
Number of Days to Update: 5	Next Scheduled EDR Contact: 08/22/2016
	Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 04/06/2016	Source: Environmental Health Department
Date Data Arrived at EDR: 04/08/2016	Telephone: N/A
Date Made Active in Reports: 05/04/2016	Last EDR Contact: 06/15/2016
Number of Days to Update: 26	Next Scheduled EDR Contact: 10/03/2016
	Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 05/23/2016	Source: San Luis Obispo County Public Health Department
Date Data Arrived at EDR: 05/24/2016	Telephone: 805-781-5596
Date Made Active in Reports: 06/21/2016	Last EDR Contact: 05/23/2016
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/05/2016
	Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 06/07/2016	Telephone: 650-363-1921
Date Made Active in Reports: 06/22/2016	Last EDR Contact: 05/27/2016
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/26/2016
	Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/14/2016	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 03/15/2016	Telephone: 650-363-1921
Date Made Active in Reports: 05/09/2016	Last EDR Contact: 06/08/2016
Number of Days to Update: 55	Next Scheduled EDR Contact: 09/26/2016
	Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

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

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: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 02/10/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 51

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 05/31/2016
Date Data Arrived at EDR: 06/02/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 19

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SHASTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa Facility List.

Date of Government Version: 03/18/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/22/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 48

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

Date of Government Version: 04/05/2016
Date Data Arrived at EDR: 04/08/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 26

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 34

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 16

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list

Date of Government Version: 05/03/2016
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

VENTURA COUNTY:

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: 03/28/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 49

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

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: 06/28/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Annually

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: 05/13/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

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: 03/28/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 54

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2016
Date Data Arrived at EDR: 03/17/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 48

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/16/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 04/12/2016	Source: Yolo County Department of Health
Date Data Arrived at EDR: 04/19/2016	Telephone: 530-666-8646
Date Made Active in Reports: 06/01/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 43	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/29/2016	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 05/03/2016	Telephone: 530-749-7523
Date Made Active in Reports: 06/17/2016	Last EDR Contact: 04/29/2016
Number of Days to Update: 45	Next Scheduled EDR Contact: 08/15/2016
	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: 07/30/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/19/2013	Telephone: 860-424-3375
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 05/13/2016
Number of Days to Update: 45	Next Scheduled EDR Contact: 08/29/2016
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/17/2015	Telephone: N/A
Date Made Active in Reports: 08/12/2015	Last EDR Contact: 07/11/2016
Number of Days to Update: 26	Next Scheduled EDR Contact: 10/24/2016
	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: 05/01/2016	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/06/2016	Telephone: 518-402-8651
Date Made Active in Reports: 06/17/2016	Last EDR Contact: 05/06/2016
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/15/2016
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/06/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/13/2016
Next Scheduled EDR Contact: 09/26/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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 & Game

Telephone: 916-445-0411

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

711 SOUTH EAST STREET
711 SOUTH EAST STREET
ANAHEIM, CA 92805

TARGET PROPERTY COORDINATES

Latitude (North):	33.830008 - 33° 49' 48.03"
Longitude (West):	117.900686 - 117° 54' 2.47"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	416655.1
UTM Y (Meters):	3743478.8
Elevation:	167 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5641294 ANAHEIM, 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 principal 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).

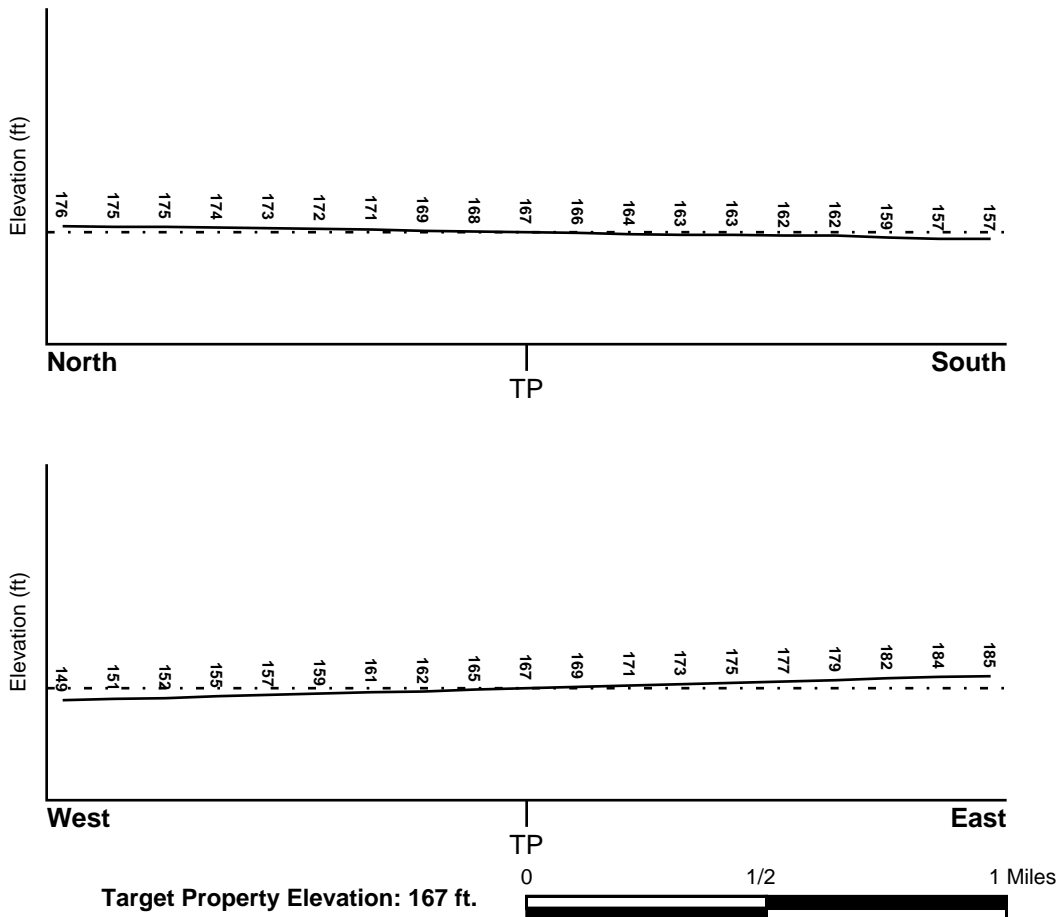
TOPOGRAPHIC INFORMATION

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



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

<u>Target Property County</u> ORANGE, CA	FEMA Flood <u>Electronic Data</u> YES - refer to the Overview Map and Detail Map
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Flood Plain Panel at Target Property: 06059C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> ANAHEIM	NWI Electronic <u>Data Coverage</u> 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.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
1	0 - 1/8 Mile South	SSW
4	1/4 - 1/2 Mile SSE	SW
6	1/2 - 1 Mile WNW	Not Reported
B7	1/2 - 1 Mile North	NW
B8	1/2 - 1 Mile North	NW
11	1/2 - 1 Mile West	Not Reported
12	1/2 - 1 Mile NW	Not Reported
22	1/2 - 1 Mile South	Not Reported
26	1/2 - 1 Mile WNW	Not Reported

* ©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

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
28	1/2 - 1 Mile SSW	Not Reported
29	1/2 - 1 Mile NE	SW
30	1/2 - 1 Mile WSW	Not Reported

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

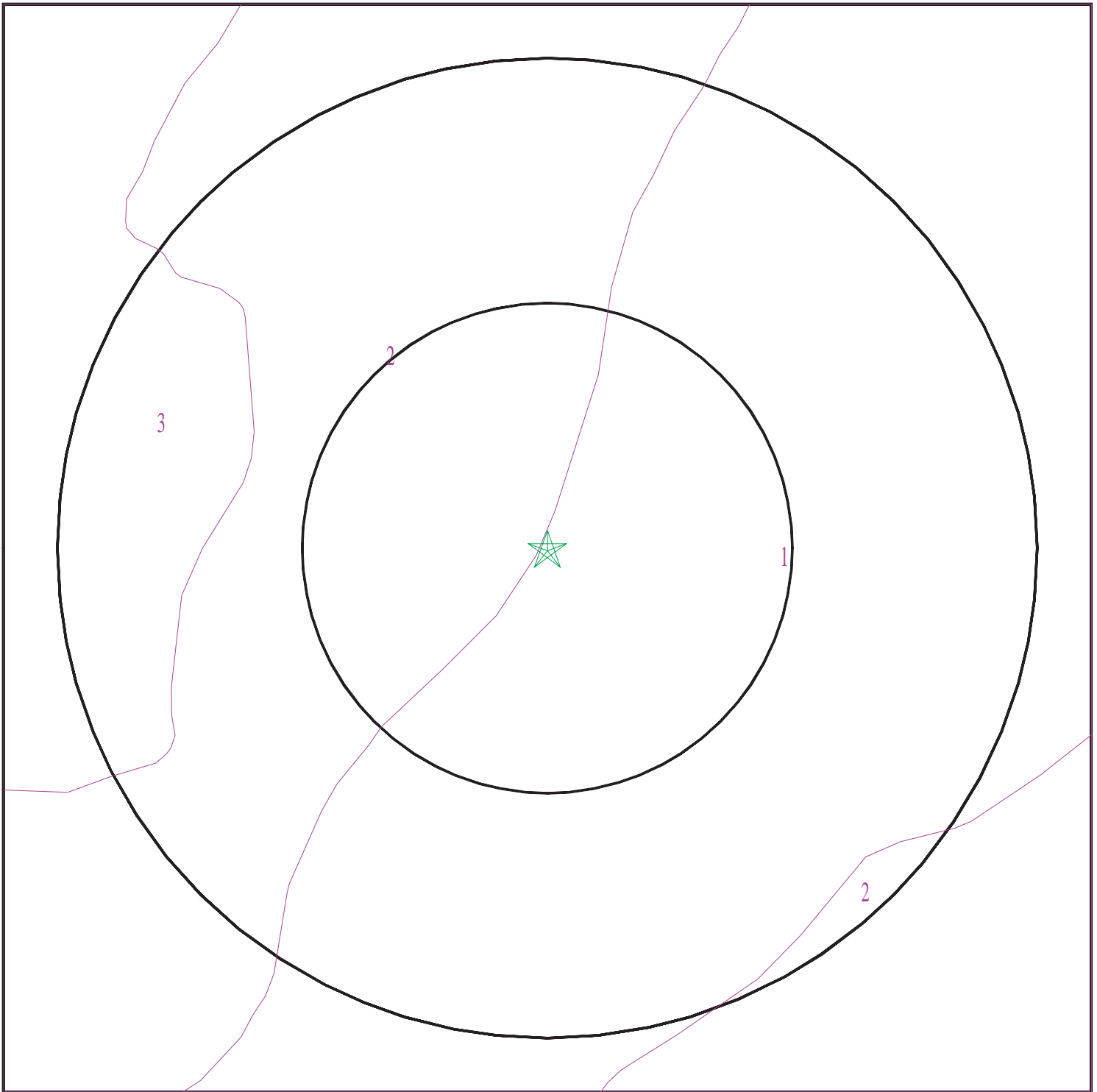
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified 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 - 4674425.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: 711 South East Street
ADDRESS: 711 South East Street
Anaheim CA 92805
LAT/LONG: 33.830008 / 117.900686

CLIENT: Stantec
CONTACT: Alicia Jansen
INQUIRY #: 4674425.2s
DATE: July 15, 2016 12:43 pm

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: METZ

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy sand	Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 6.6
2	16 inches	40 inches	stratified sand to sandy clay loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 6.6
3	40 inches	46 inches	silt loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 6.6
4	46 inches	59 inches	stratified sandy clay loam	Not reported	Not reported	Max: 14.11 Min: 1	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: METZ

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
2	16 inches	62 inches	stratified sand to fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: SAN EMIGDIO

Soil Surface Texture: fine sandy 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: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sandy loam	Not reported	Not reported	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	7 inches	61 inches	stratified gravelly loamy coarse sand to very fine sandy loam	Not reported	Not reported	Max: 42 Min: 14	Max: 8.4 Min: 7.9

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.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
5	USGS40000138510	1/4 - 1/2 Mile NE
D15	USGS40000138463	1/2 - 1 Mile ESE
C18	USGS40000138481	1/2 - 1 Mile West
E20	USGS40000138447	1/2 - 1 Mile SW
25	USGS40000138407	1/2 - 1 Mile South

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

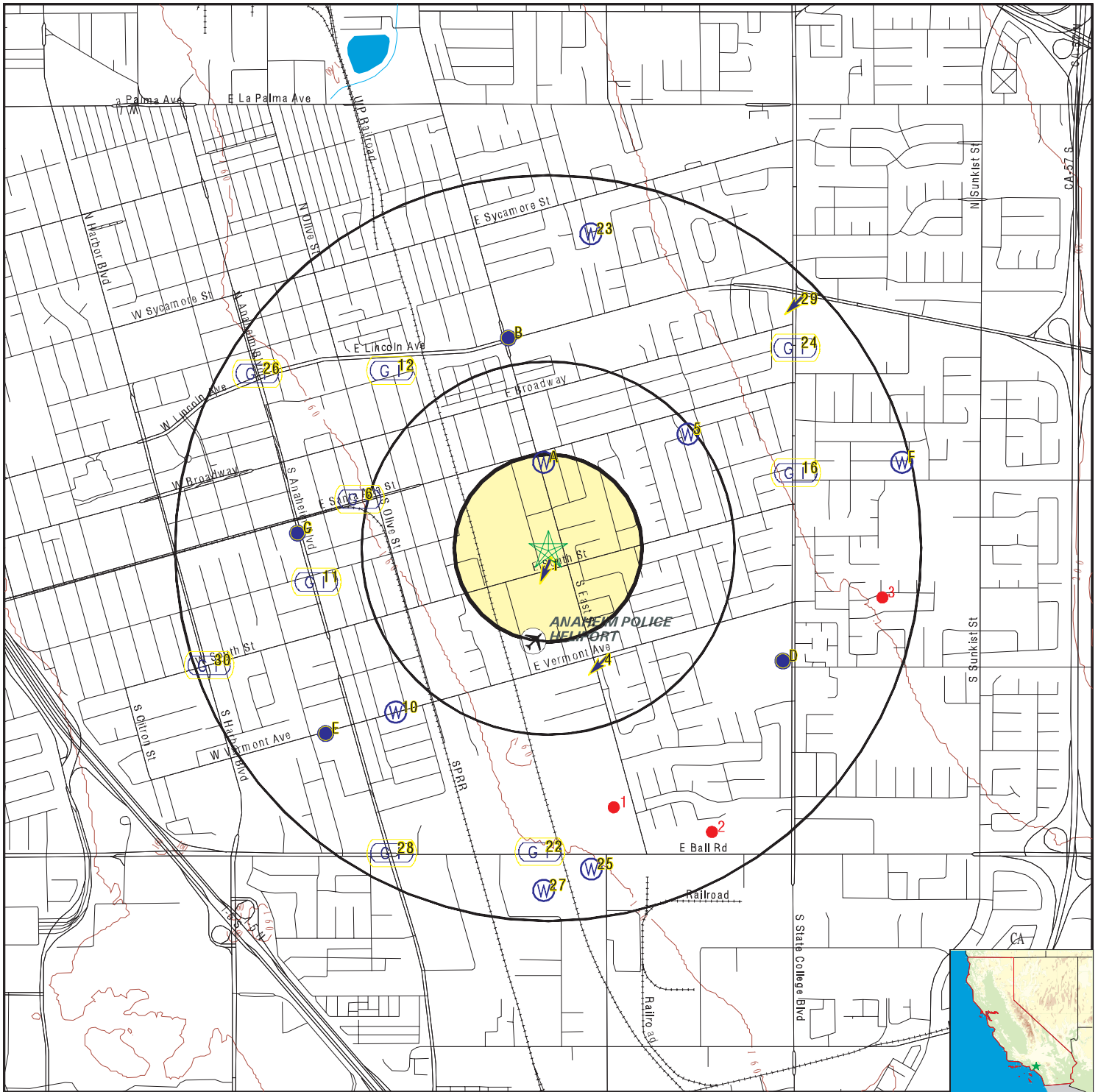
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	5121	1/8 - 1/4 Mile North
A3	5125	1/8 - 1/4 Mile North
10	5234	1/2 - 1 Mile SW
C13	CADW60000020985	1/2 - 1 Mile West
D14	5122	1/2 - 1 Mile ESE
D17	CADW60000003003	1/2 - 1 Mile ESE
D19	CADW60000020984	1/2 - 1 Mile ESE
E21	CADW60000003004	1/2 - 1 Mile SW
23	5221	1/2 - 1 Mile North
27	5124	1/2 - 1 Mile South
F31	5120	1/2 - 1 Mile ENE
F32	5123	1/2 - 1 Mile ENE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG11000217688	1/2 - 1 Mile SSE
2	CAOG11000217690	1/2 - 1 Mile SSE
3	CAOG11000217965	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 4674425.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- 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: 711 South East Street
 ADDRESS: 711 South East Street
 Anaheim CA 92805
 LAT/LONG: 33.830008 / 117.900686

CLIENT: Stantec
 CONTACT: Alicia Jansen
 INQUIRY #: 4674425.2s
 DATE: July 15, 2016 12:43 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1	Site ID:	083001642T	
South	Groundwater Flow:	SSW	AQUIFLOW 38635
0 - 1/8 Mile	Shallow Water Depth:	Not Reported	
Higher	Deep Water Depth:	Not Reported	
	Average Water Depth:	108	
	Date:	07/16/1992	

A2			
North			CA WELLS 5121
1/8 - 1/4 Mile			
Higher			

Water System Information:

Prime Station Code: 04S/10W-14D02 S	User ID: TEE
FRDS Number: 3010001015	County: Orange
District Number: 08	Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type: Well/Groundwater	Well Status: Active Untreated
Source Lat/Long: 335000.0 1175400.0	Precision: Undefined
Source Name: WELL 022	
System Number: 3010001	
System Name: City of Anaheim	
Organization That Operates System: P.O. BOX 3222 (#559) ANAHEIM, CA 92805	
Pop Served: 292900	Connections: 57397
Area Served: ANAHEIM	

A3			
North			CA WELLS 5125
1/8 - 1/4 Mile			
Higher			

Water System Information:

Prime Station Code: 04S/10W-15B05 S	User ID: TEE
FRDS Number: 3010001027	County: Orange
District Number: 08	Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type: Well/Groundwater	Well Status: Active Untreated
Source Lat/Long: 335000.0 1175400.0	Precision: Undefined
Source Name: WELL 034	
System Number: 3010001	
System Name: City of Anaheim	
Organization That Operates System: P.O. BOX 3222 (#559) ANAHEIM, CA 92805	
Pop Served: 292900	Connections: 57397
Area Served: ANAHEIM	
Sample Collected: 03-JAN-06	Findings: 1.1 UG/L
Chemical: BROMOFORM (THM)	

4	Site ID:	083001497T	
SSE	Groundwater Flow:	SW	AQUIFLOW 69453
1/4 - 1/2 Mile	Shallow Water Depth:	Not Reported	
Lower	Deep Water Depth:	Not Reported	
	Average Water Depth:	120	
	Date:	11/29/1995	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

5			
NE		FED USGS	USGS40000138510
1/4 - 1/2 Mile			
Higher			

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335004117533901		
Monloc name:	004S010W11Q002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8344444
Longitude:	-117.8941667	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	173
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	402
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

6	Site ID:	083002988T		
WNW	Groundwater Flow:	Not Reported	AQUIFLOW	65117
1/2 - 1 Mile	Shallow Water Depth:	70		
Lower	Deep Water Depth:	80		
	Average Water Depth:	Not Reported		
	Date:	02/10/1998		

B7	Site ID:	083000774T		
North	Groundwater Flow:	NW	AQUIFLOW	54918
1/2 - 1 Mile	Shallow Water Depth:	124.1		
Higher	Deep Water Depth:	125.0		
	Average Water Depth:	Not Reported		
	Date:	01/31/1992		

B8	Site ID:	083000774T		
North	Groundwater Flow:	NW	AQUIFLOW	54919
1/2 - 1 Mile	Shallow Water Depth:	124.1		
Higher	Deep Water Depth:	125.0		
	Average Water Depth:	Not Reported		
	Date:	01/31/1992		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B9 North 1/2 - 1 Mile Higher	Site ID: 083000971T Groundwater Flow: Not Reported Shallow Water Depth: Not Reported Deep Water Depth: Not Reported Average Water Depth: 100 Date: 12/20/1994	AQUIFLOW	54920
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10 SW 1/2 - 1 Mile Lower		CA WELLS	5234
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Water System Information:

Prime Station Code: 04S/11W-15R02 S	User ID: TEE
FRDS Number: 3000539001	County: Orange
District Number: 08	Station Type: WELL/AMBNT/MUN/INTAKE
Water Type: Well/Groundwater	Well Status: Destroyed
Source Lat/Long: 334925.0 1175425.0	Precision: 1,000 Feet (10 Seconds)
Source Name: WELL 01 - DESTROYED	
System Number: 3000539	
System Name: SAVANNA MUTUAL WATER CORP	
Organization That Operates System: Not Reported	
Pop Served: Unknown, Small System	Connections: Unknown, Small System
Area Served: Not Reported	

11 West 1/2 - 1 Mile Lower	Site ID: 083001372T Groundwater Flow: Not Reported Shallow Water Depth: Not Reported Deep Water Depth: Not Reported Average Water Depth: 50 ft Date: 10/09/1990	AQUIFLOW	50948
---	--	-----------------	--------------

12 NW 1/2 - 1 Mile Lower	Site ID: 083001569T Groundwater Flow: Not Reported Shallow Water Depth: Not Reported Deep Water Depth: Not Reported Average Water Depth: 98.50 Date: 09/20/1996	AQUIFLOW	34059
---	--	-----------------	--------------

C13 West 1/2 - 1 Mile Lower		CA WELLS	CADW60000020985
--	--	-----------------	------------------------

Objectid:	20985
Latitude:	33.8309
Longitude:	-117.9119
Site code:	338309N1179119W001
State well numbe:	04S10W15B001S
Local well name:	"
Well use id:	6
Well use descrip:	Unknown
County id:	30
County name:	Orange

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Basin code: '8-1'
 Basin desc: Coastal Plain Of Orange County
 Dwr region id: 80238
 Dwr region: Southern Region Office
 Site id: CADW60000020985

D14
ESE
1/2 - 1 Mile
Higher

CA WELLS 5122

Water System Information:

Prime Station Code: 04S/10W-14H03 S	User ID: TEE	
FRDS Number: 3010001051	County: Orange	
District Number: 08	Station Type: WELL/AMBNT/MUN/INTAKE	
Water Type: Well/Groundwater	Well Status: Active Untreated	
Source Lat/Long: 334934.0 1175320.0	Precision: 100 Feet (one Second)	
Source Name: WELL 046		
System Number: 3010001		
System Name: City of Anaheim		
Organization That Operates System:		
	P.O. BOX 3222 (#559)	
	ANAHEIM, CA 92805	
Pop Served: 292900	Connections: 57397	
Area Served: ANAHEIM		
Sample Collected: 11-JUL-11	Findings: 668. MG/L	
Chemical: TOTAL DISSOLVED SOLIDS		
Sample Collected: 11-JUL-11	Findings: 17.3 MG/L	
Chemical: NITRATE (AS NO3)		
Sample Collected: 11-JUL-11	Findings: 1.4 NTU	
Chemical: TURBIDITY, LABORATORY		
Sample Collected: 11-JUL-11	Findings: 0.16 MG/L	
Chemical: BROMIDE		
Sample Collected: 11-JUL-11	Findings: 3900. UG/L	
Chemical: NITRATE + NITRITE (AS N)		
Sample Collected: 05-OCT-11	Findings: 18.8 MG/L	
Chemical: NITRATE (AS NO3)		
Sample Collected: 05-OCT-11	Findings: 4250. UG/L	
Chemical: NITRATE + NITRITE (AS N)		
Sample Collected: 04-JAN-12	Findings: 18.08 MG/L	
Chemical: NITRATE (AS NO3)		
Sample Collected: 04-JAN-12	Findings: 0.7 UG/L	
Chemical: TOTAL TRIHALOMETHANES		
Sample Collected: 04-JAN-12	Findings: 4090. UG/L	
Chemical: NITRATE + NITRITE (AS N)		
Sample Collected: 03-APR-12	Findings: 17.3 MG/L	
Chemical: NITRATE (AS NO3)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03-APR-12	Findings:	3900. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	18-APR-12	Findings:	616. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	18-APR-12	Findings:	552. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09-JUL-12	Findings:	17.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09-JUL-12	Findings:	3910. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	01-OCT-12	Findings:	16.99 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-12	Findings:	3840. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	16-JAN-13	Findings:	16.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-JAN-13	Findings:	3750. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	16-APR-13	Findings:	15.62 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-APR-13	Findings:	3530. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	01-JUL-13	Findings:	17.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUL-13	Findings:	3860. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	01-OCT-13	Findings:	16.9 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-13	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01-OCT-13	Findings:	3810. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	21-JAN-14	Findings:	16.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-JAN-14	Findings:	3740. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	01-APR-14	Findings:	. 16.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-14	Findings:	. 3740. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	01-JUL-14	Findings:	. 1000. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	01-JUL-14	Findings:	. 7.9
Chemical:	PH, LABORATORY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	01-JUL-14	Findings:	. 203. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	01-JUL-14	Findings:	. 203. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	01-JUL-14	Findings:	. 0.41 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	01-JUL-14	Findings:	. 325. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	01-JUL-14	Findings:	. 100. MG/L
Chemical:	CALCIUM		
Sample Collected:	01-JUL-14	Findings:	. 18. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	01-JUL-14	Findings:	. 75.9 MG/L
Chemical:	SODIUM		
Sample Collected:	01-JUL-14	Findings:	. 4.4 MG/L
Chemical:	POTASSIUM		
Sample Collected:	01-JUL-14	Findings:	. 95.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	01-JUL-14	Findings:	. 0.45 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	01-JUL-14	Findings:	. 107. UG/L
Chemical:	BARIUM		
Sample Collected:	01-JUL-14	Findings:	. 240. UG/L
Chemical:	BORON		
Sample Collected:	01-JUL-14	Findings:	. 3.9 UG/L
Chemical:	VANADIUM		
Sample Collected:	01-JUL-14	Findings:	. 604. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	01-JUL-14	Findings:	. 15.8 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	01-JUL-14	Findings:	. 0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01-JUL-14	Findings:	. 0.2 MG/L
Chemical:	BROMIDE		
Sample Collected:	01-JUL-14	Findings:	. 3580. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	01-JUL-14	Findings:	. 9.21 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01-JUL-14	Findings:	. 2.36 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01-JUL-14	Findings:	. 0.633 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	01-JUL-14	Findings:	. 5.45 PCI/L
Chemical:	URANIUM (PCI/L)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	01-JUL-14	Findings:	. 1.24 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	01-JUL-14	Findings:	. 1.11 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	01-JUL-14	Findings:	. 0.3 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	01-JUL-14	Findings:	. 0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	01-JUL-14	Findings:	. 0.166 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	01-JUL-14	Findings:	. 0.418 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	06-JAN-11	Findings:	17.93 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-11	Findings:	4050. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	12-APR-11	Findings:	17.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-APR-11	Findings:	3990. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	07-JUL-11	Findings:	11.8 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	07-JUL-11	Findings:	2.03 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07-JUL-11	Findings:	10.2 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	07-JUL-11	Findings:	1.11 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	11-JUL-11	Findings:	987. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	11-JUL-11	Findings:	8.1
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUL-11	Findings:	205. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	11-JUL-11	Findings:	248. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	11-JUL-11	Findings:	0.46 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	11-JUL-11	Findings:	334. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	11-JUL-11	Findings:	102. MG/L
Chemical:	CALCIUM		
Sample Collected:	11-JUL-11	Findings:	19.3 MG/L
Chemical:	MAGNESIUM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	11-JUL-11	Findings:	80.1 MG/L
Chemical:	SODIUM		
Sample Collected:	11-JUL-11	Findings:	4.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	11-JUL-11	Findings:	95. MG/L
Chemical:	CHLORIDE		
Sample Collected:	11-JUL-11	Findings:	0.47 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	11-JUL-11	Findings:	210. UG/L
Chemical:	BORON		
Sample Collected:	11-JUL-11	Findings:	4.1 UG/L
Chemical:	VANADIUM		

**D15
ESE
1/2 - 1 Mile
Higher**

FED USGS USGS40000138463

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334932117532401		
Monloc name:	004S010W14H003S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8256556
Longitude:	-117.8899694	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	178
Vert measure units:	feet	Vertacc measure val:	12
Vert accmeasure units:	feet		
Vertcollection method:	Reported		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Alluvium		
Aquifer type:	Unconfined single aquifer		
Construction date:	19921126	Welldepth:	1550
Welldepth units:	ft	Wellholedepth:	1565
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 3

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-06-07	143		2003-06-04	138	
1999-04-22	120				

**16
ENE
1/2 - 1 Mile
Higher**

Site ID:	083002356T
Groundwater Flow:	Not Reported
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	107
Date:	11/28/1993

AQUIFLOW 69382

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

D17
ESE
1/2 - 1 Mile
Higher

CA WELLS CADW60000003003

Objectid: 3003
 Latitude: 33.8255
 Longitude: -117.8899
 Site code: 338255N1178899W001
 State well numbe: 04S10W14H002S
 Local well name: "
 Well use id: 6
 Well use descrip: Unknown
 County id: 30
 County name: Orange
 Basin code: '8-1'
 Basin desc: Coastal Plain Of Orange County
 Dwr region id: 80238
 Dwr region: Southern Region Office
 Site id: CADW60000003003

C18
West
1/2 - 1 Mile
Lower

FED USGS USGS40000138481

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334949117544301		
Monloc name:	004S010W15B005S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8302932
Longitude:	-117.9128368	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	154
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Unconfined single aquifer		
Construction date:	Not Reported	Welldepth:	411
Welldepth units:	ft	Wellholedepth:	411
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

	Feet below	Feet to
Date	Surface	Sealevel

1999-04-13	112	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

D19
ESE
1/2 - 1 Mile
Higher

CA WELLS CADW60000020984

Objectid: 20984
 Latitude: 33.8252
 Longitude: -117.8893
 Site code: 338252N1178893W001
 State well numbe: 04S10W14H001S
 Local well name: "
 Well use id: 6
 Well use descrip: Unknown
 County id: 30
 County name: Orange
 Basin code: '8-1'
 Basin desc: Coastal Plain Of Orange County
 Dwr region id: 80238
 Dwr region: Southern Region Office
 Site id: CADW60000020984

E20
SW
1/2 - 1 Mile
Lower

FED USGS USGS40000138447

Org. Identifier: USGS-CA
 Formal name: USGS California Water Science Center
 Monloc Identifier: USGS-334922117543501
 Monloc name: 004S010W15J004S
 Monloc type: Well
 Monloc desc: Not Reported
 Huc code: 18070201 Drainagearea value: Not Reported
 Drainagearea Units: Not Reported Contrib drainagearea: Not Reported
 Contrib drainagearea units: Not Reported Latitude: 33.8227934
 Longitude: -117.9106144 Sourcemap scale: 24000
 Horiz Acc measure: 1 Horiz Acc measure units: seconds
 Horiz Collection method: Interpolated from map
 Horiz coord refsys: NAD83 Vert measure val: 150.00
 Vert measure units: feet Vertacc measure val: 2.5
 Vert accmeasure units: feet
 Vertcollection method: Interpolated from topographic map
 Vert coord refsys: NGVD29 Countrycode: US
 Aquifername: California Coastal Basin aquifers
 Formation type: Not Reported
 Aquifer type: Not Reported
 Construction date: Not Reported Welldepth: Not Reported
 Welldepth units: Not Reported Wellholedepth: Not Reported
 Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1977-10-28	157.80	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

E21
SW
1/2 - 1 Mile
Lower

CA WELLS CADW60000003004

Objectid: 3004
 Latitude: 33.8228
 Longitude: -117.9115
 Site code: 338228N1179115W001
 State well numbe: 04S10W15J004S
 Local well name: "
 Well use id: 6
 Well use descrip: Unknown
 County id: 30
 County name: Orange
 Basin code: '8-1'
 Basin desc: Coastal Plain Of Orange County
 Dwr region id: 80238
 Dwr region: Southern Region Office
 Site id: CADW60000003004

22
South
1/2 - 1 Mile
Lower

Site ID: 083002312T
 Groundwater Flow: Not Reported
 Shallow Water Depth: 82.36
 Deep Water Depth: 86.15
 Average Water Depth: Not Reported
 Date: 07/15/1998

AQUIFLOW 64496

23
North
1/2 - 1 Mile
Higher

CA WELLS 5221

Water System Information:

Prime Station Code:	04S/11W-11C01 S	User ID:	TEE
FRDS Number:	3000734002	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Abandoned
Source Lat/Long:	335032.0 1175352.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 02 SCHOOLYARD NORTH WELL - ABANDOND		
System Number:	3000734		
System Name:	KNOTTS BERRY FARM		
Organization That Operates System:	Not Reported		
Pop Served:	10000	Connections:	Unknown, Small System
Area Served:	Not Reported		

24
NE
1/2 - 1 Mile
Higher

Site ID: 083000627T
 Groundwater Flow: Not Reported
 Shallow Water Depth: 135
 Deep Water Depth: 144
 Average Water Depth: Not Reported
 Date: 05/04/1990

AQUIFLOW 65041

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

25
South
1/2 - 1 Mile
Lower

FED USGS USGS40000138407

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334903117535201		
Monloc name:	004S010W23B002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8175158
Longitude:	-117.8986695	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	158
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Unconfined single aquifer		
Construction date:	Not Reported	Welldepth:	356
Welldepth units:	ft	Wellholedepth:	356
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

2001-01-05	85	

26
WNW
1/2 - 1 Mile
Lower

Site ID: 083002984T
 Groundwater Flow: Not Reported
 Shallow Water Depth: Not Reported
 Deep Water Depth: Not Reported
 Average Water Depth: 115
 Date: 10/01/1997

AQUIFLOW 37852

27
South
1/2 - 1 Mile
Lower

CA WELLS 5124

Water System Information:

Prime Station Code:	04S/10W-14M01 S	User ID:	TEE
FRDS Number:	3010001018	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	334900.0 1175400.0	Precision:	Undefined
Source Name:	WELL 025		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System Number:	3010001		
System Name:	City of Anaheim		
Organization That Operates System:	P.O. BOX 3222 (#559)		
	ANAHEIM, CA 92805		
Pop Served:	292900	Connections:	57397
Area Served:	ANAHEIM		
Sample Collected:	02-APR-08	Findings:	17.39 MG/L
Chemical:	NITRATE (AS NO3)		

28 SSW 1/2 - 1 Mile Lower	Site ID:	083002738T		
	Groundwater Flow:	Not Reported	AQUIFLOW	33996
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	70		
	Date:	12/11/1995		

29 NE 1/2 - 1 Mile Higher	Site ID:	083000886T		
	Groundwater Flow:	SW	AQUIFLOW	66466
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	133		
	Date:	12/18/1989		

30 WSW 1/2 - 1 Mile Lower	Site ID:	083002528T		
	Groundwater Flow:	Not Reported	AQUIFLOW	68300
	Shallow Water Depth:	40		
	Deep Water Depth:	50		
	Average Water Depth:	Not Reported		
	Date:	06/1995		

F31 ENE 1/2 - 1 Mile Higher			CA WELLS	5120
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Water System Information:

Prime Station Code:	04S/10W-11Q02 S	User ID:	TEE
FRDS Number:	3010001022	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	335000.0 1175300.0	Precision:	Undefined
Source Name:	WELL 029		
System Number:	3010001		
System Name:	City of Anaheim		
Organization That Operates System:	P.O. BOX 3222 (#559)		
	ANAHEIM, CA 92805		
Pop Served:	292900	Connections:	57397
Area Served:	ANAHEIM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected: 21-MAR-06 Findings: 21.58 MG/L
Chemical: NITRATE (AS NO3)

F32
ENE
1/2 - 1 Mile
Higher

CA WELLS 5123

Water System Information:

Prime Station Code:	04S/10W-14H04 S	User ID:	TEE
FRDS Number:	3010001010	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	335000.0 1175300.0	Precision:	Undefined
Source Name:	WELL 015 - DESTROYED		
System Number:	3010001		
System Name:	City of Anaheim		
Organization That Operates System:	P.O. BOX 3222 (#559)		
	ANAHEIM, CA 92805		
Pop Served:	292900	Connections:	57397
Area Served:	ANAHEIM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

SSE

1/2 - 1 Mile

OIL_GAS

CAOG11000217688

District nun:	1	Api number:	05900879
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	British-American Oil Producing Co.		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	14
Township:	04S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Bank Of America	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217688		

2

SSE

1/2 - 1 Mile

OIL_GAS

CAOG11000217690

District nun:	1	Api number:	05900881
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	British-American Oil Producing Co.		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	14
Township:	04S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Mauerham	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217690		

3

East

1/2 - 1 Mile

OIL_GAS

CAOG11000217965

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

District nun:	1	Api number:	05901187
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	13
Township:	04S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Wagner-Community	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217965		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92805	27	1

Federal EPA Radon Zone for ORANGE County: 3

- 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 ORANGE COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.763 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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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 & Game

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.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

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.

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

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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**PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA**

Appendix E – Historical Records
June 7, 2016

Appendix E HISTORICAL RECORDS



Un St

S Rose St

Un-Alley-A



S East St

E Crestbrook Pl

E Haven Dr

S Dawn St

E Opal

E Diana

E-Line-Oa

East South Street / South East Street

East South Street / South East Street

Anaheim, CA 92805

Inquiry Number: 4668952.3

July 08, 2016

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/08/16

Site Name:

East South Street / South East
East South Street / South East
Anaheim, CA 92805
EDR Inquiry # 4668952.3

Client Name:

Stantec
25864-F Business Center Drive
Redlands, CA 92374
Contact: Alicia Jansen



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Stantec 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 # 304D-4242-B9B3

PO # NA

Project NA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 304D-4242-B9B3

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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East South Street / South East Street

East South Street / South East Street

Anaheim, CA 92805

Inquiry Number: 4668952.4

July 08, 2016

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

07/08/16

Site Name:

East South Street / South East
East South Street / South East
Anaheim, CA 92805
EDR Inquiry # 4668952.4

Client Name:

Stantec
25864-F Business Center Drive
Redlands, CA 92374
Contact: Alicia Jansen



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Stantec 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. EDR's 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.# NA
Project: NA

Latitude: 33.829105 33° 49' 45" North
Longitude: -117.900674 -117° 54' 2" West
UTM Zone: Zone 11 North
UTM X Meters: 416657.20
UTM Y Meters: 3743572.45
Elevation: 166.00' above sea level

Maps Provided:

2012	1902
1981	1901
1972	1898
1964, 1965	1896
1950	
1949	
1942	
1935	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

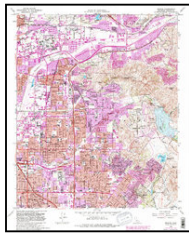


Orange
2012
7.5-minute, 24000

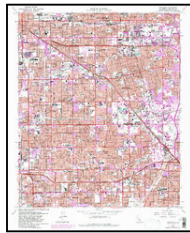


Anaheim
2012
7.5-minute, 24000

1981 Source Sheets

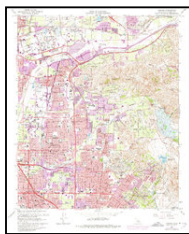


Orange
1981
7.5-minute, 24000
Photo Revised 1981
Aerial Photo Revised 1978



Anaheim
1981
7.5-minute, 24000
Photo Revised 1981
Aerial Photo Revised 1963

1972 Source Sheets

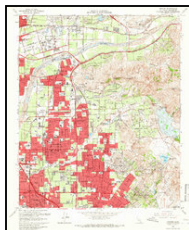


Orange
1972
7.5-minute, 24000
Photo Revised 1972
Aerial Photo Revised 1972

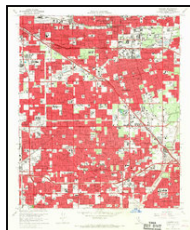


Anaheim
1972
7.5-minute, 24000
Photo Revised 1972
Aerial Photo Revised 1972

1964, 1965 Source Sheets



Orange
1964
7.5-minute, 24000
Aerial Photo Revised 1963



Anaheim
1965
7.5-minute, 24000
Aerial Photo Revised 1963

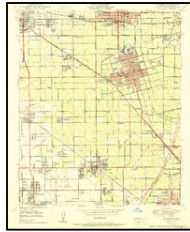
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1950 Source Sheets



Orange
1950
7.5-minute, 24000
Aerial Photo Revised 1946

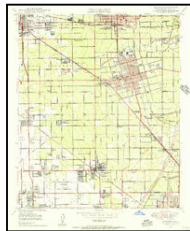


Anaheim
1950
7.5-minute, 24000
Aerial Photo Revised 1947

1949 Source Sheets

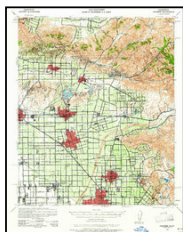


Orange
1949
7.5-minute, 24000
Aerial Photo Revised 1946



Anaheim
1949
7.5-minute, 24000
Aerial Photo Revised 1947

1942 Source Sheets



Anaheim
1942
15-minute, 62500
Aerial Photo Revised 1939

1935 Source Sheets



Garden Grove
1935
7.5-minute, 31680

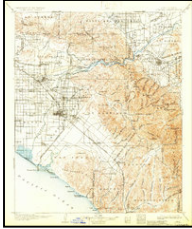


Orange
1935
7.5-minute, 31680

Topo Sheet Key

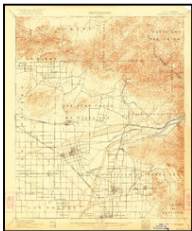
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1902 Source Sheets



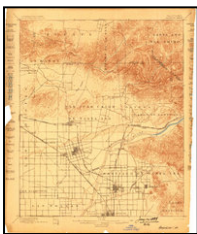
Corona
1902
30-minute, 125000

1901 Source Sheets



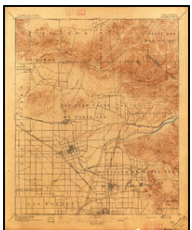
Anaheim
1901
15-minute, 62500

1898 Source Sheets

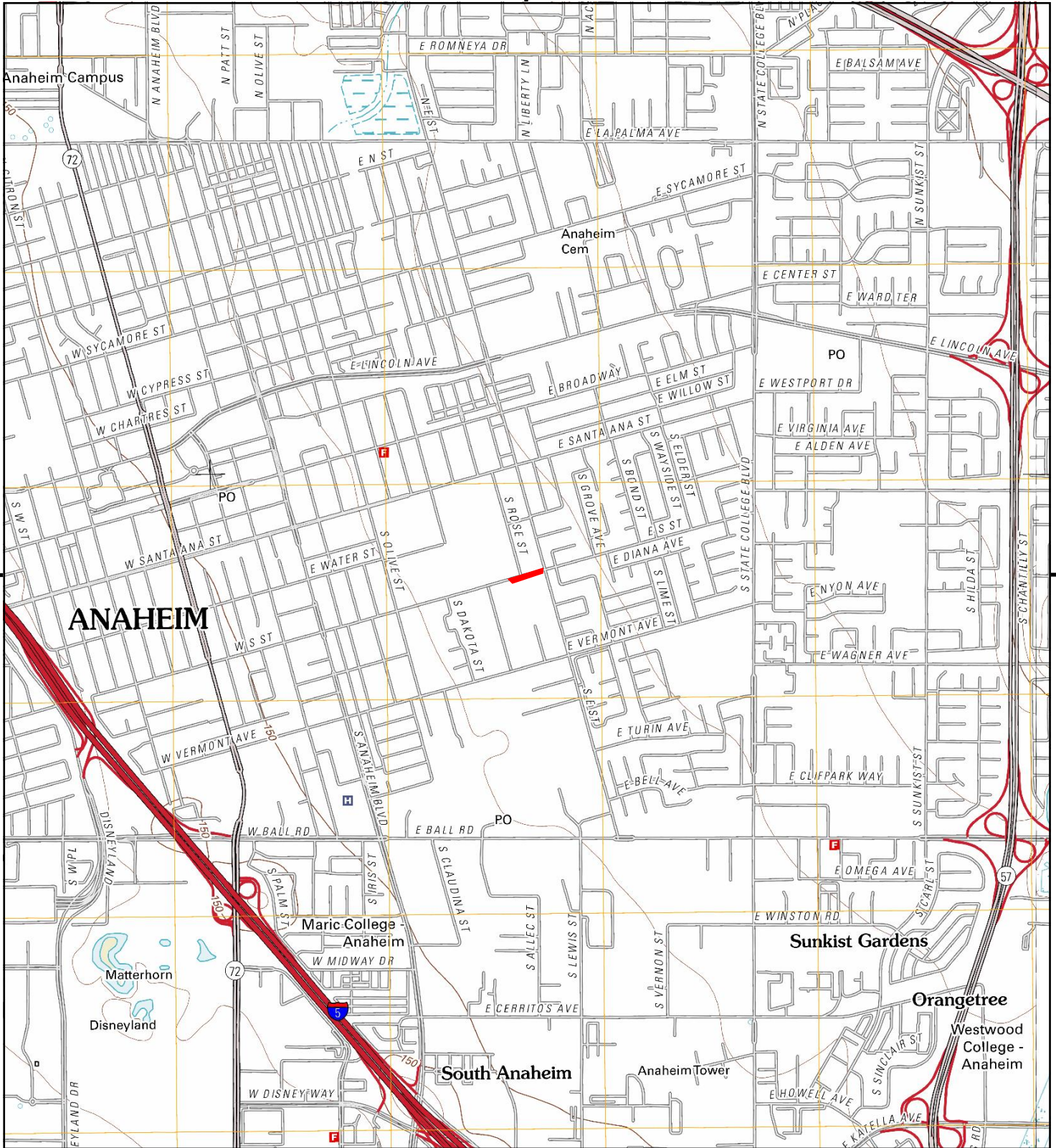


Anaheim
1898
15-minute, 62500

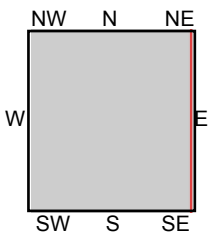
1896 Source Sheets



Anaheim
1896
15-minute, 62500



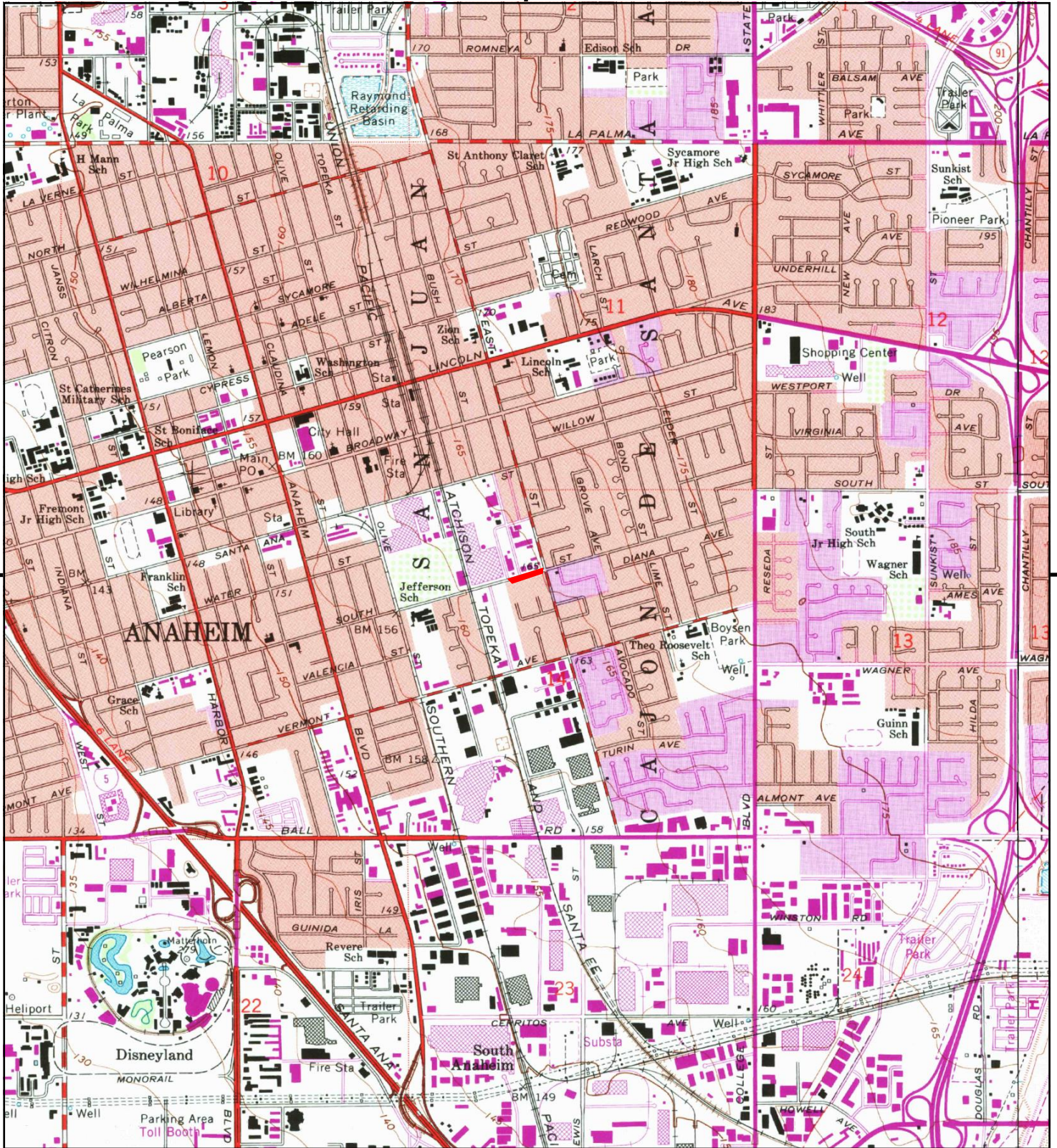
This report includes information from the following map sheet(s).



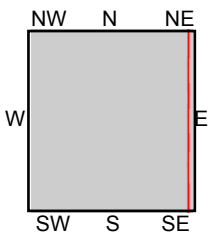
TP, Anaheim, 2012, 7.5-minute
E, Orange, 2012, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





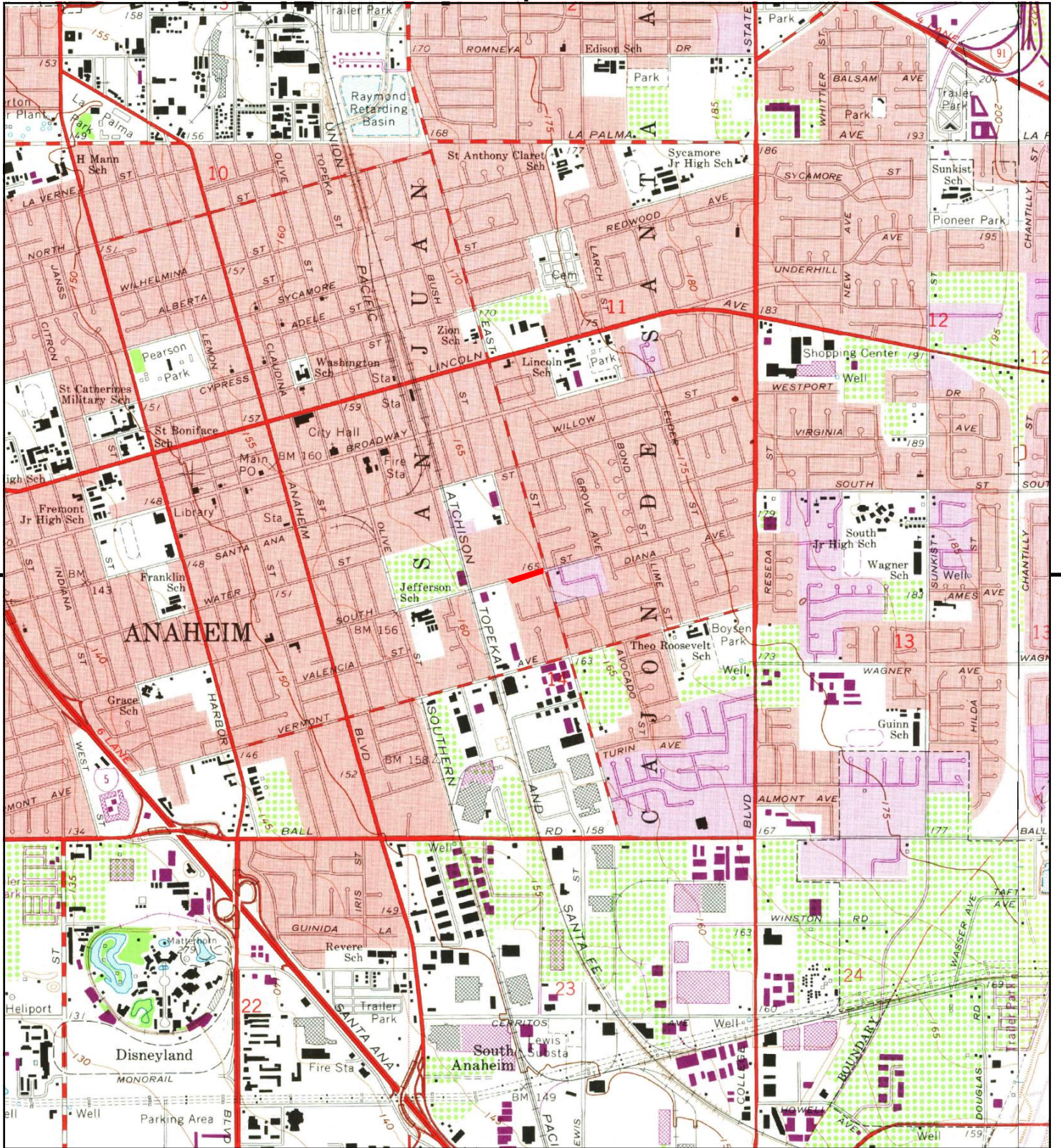
This report includes information from the following map sheet(s).



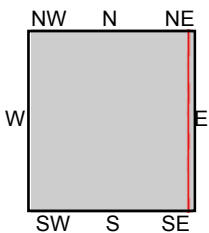
TP, Anaheim, 1981, 7.5-minute
E, Orange, 1981, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





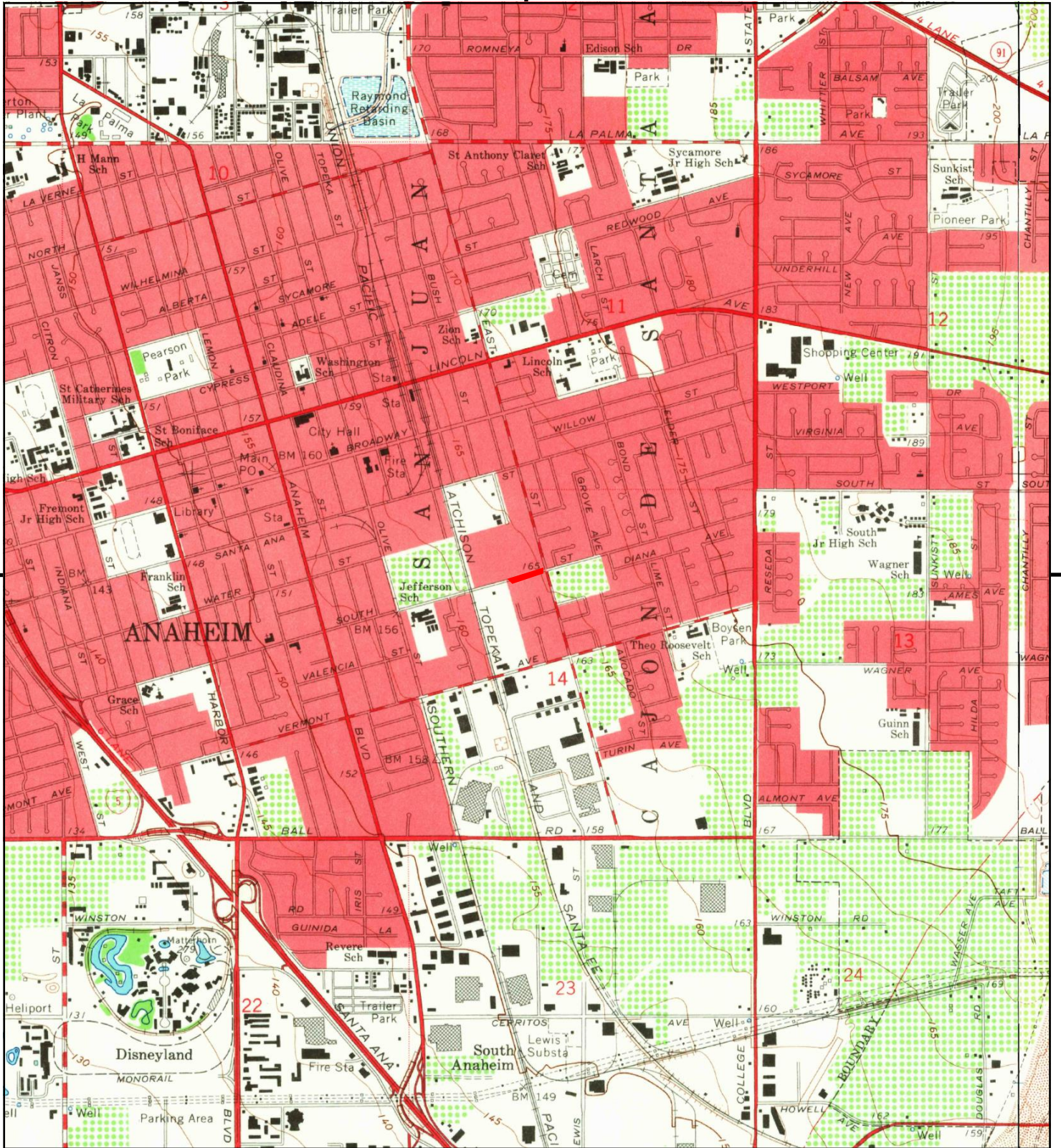
This report includes information from the following map sheet(s).



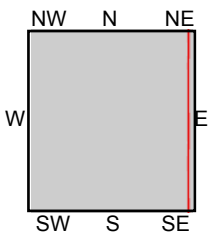
TP, Anaheim, 1972, 7.5-minute
E, Orange, 1972, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





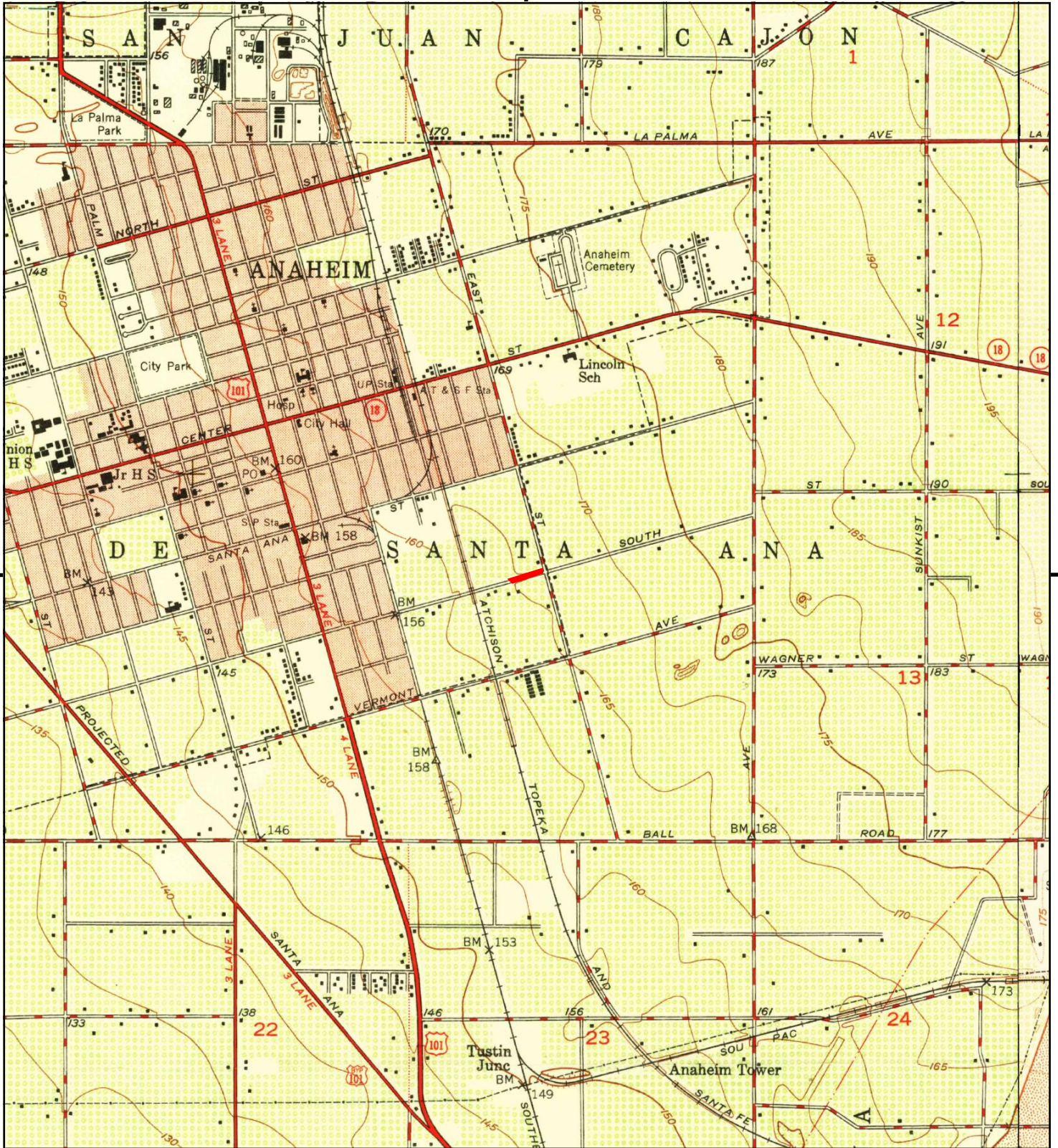
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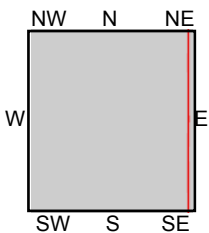
TP, Anaheim, 1965, 7.5-minute
E, Orange, 1964, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





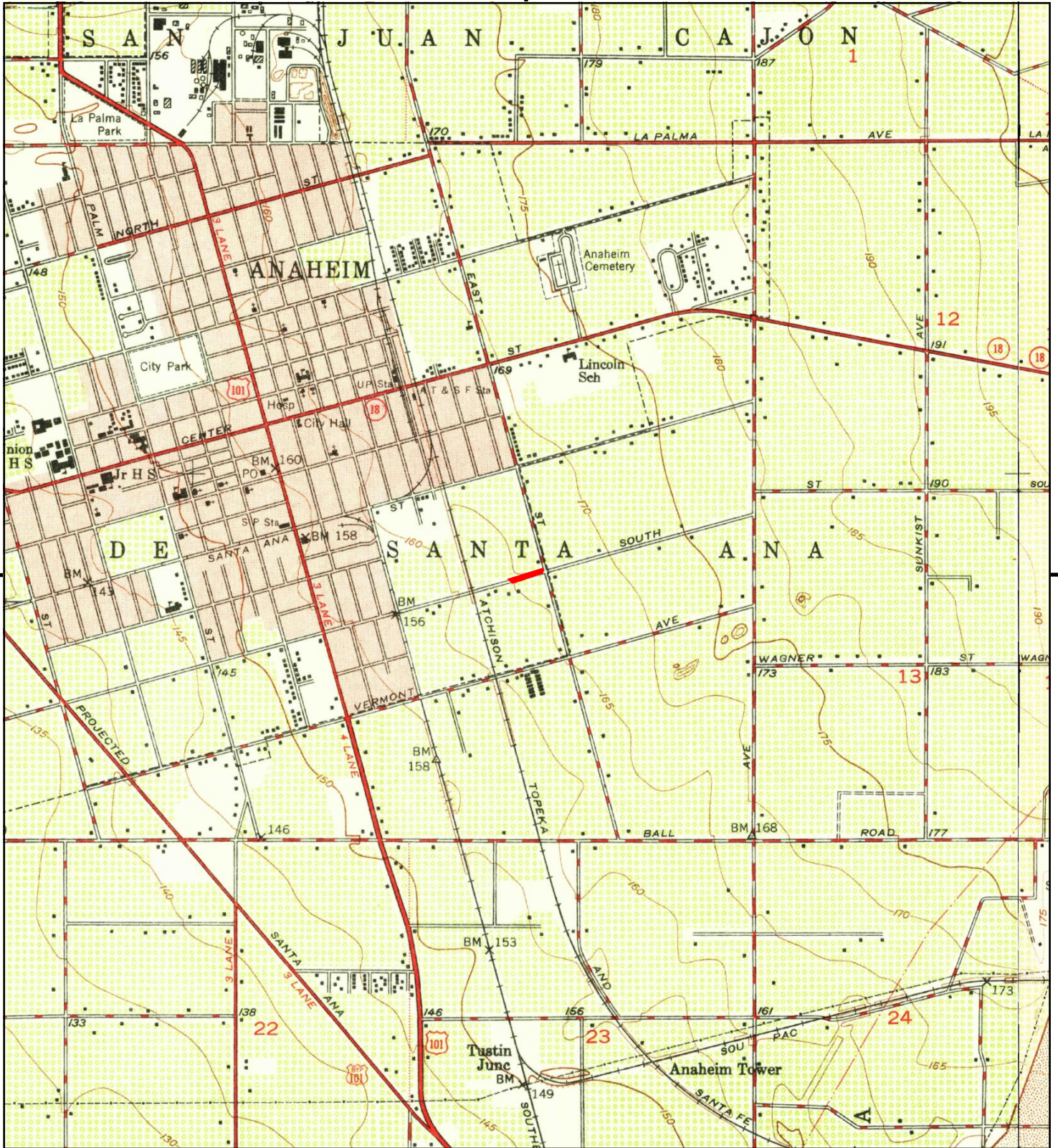
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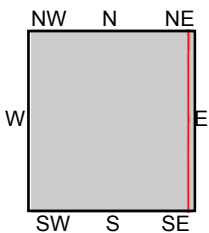
TP, Anaheim, 1950, 7.5-minute
E, Orange, 1950, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





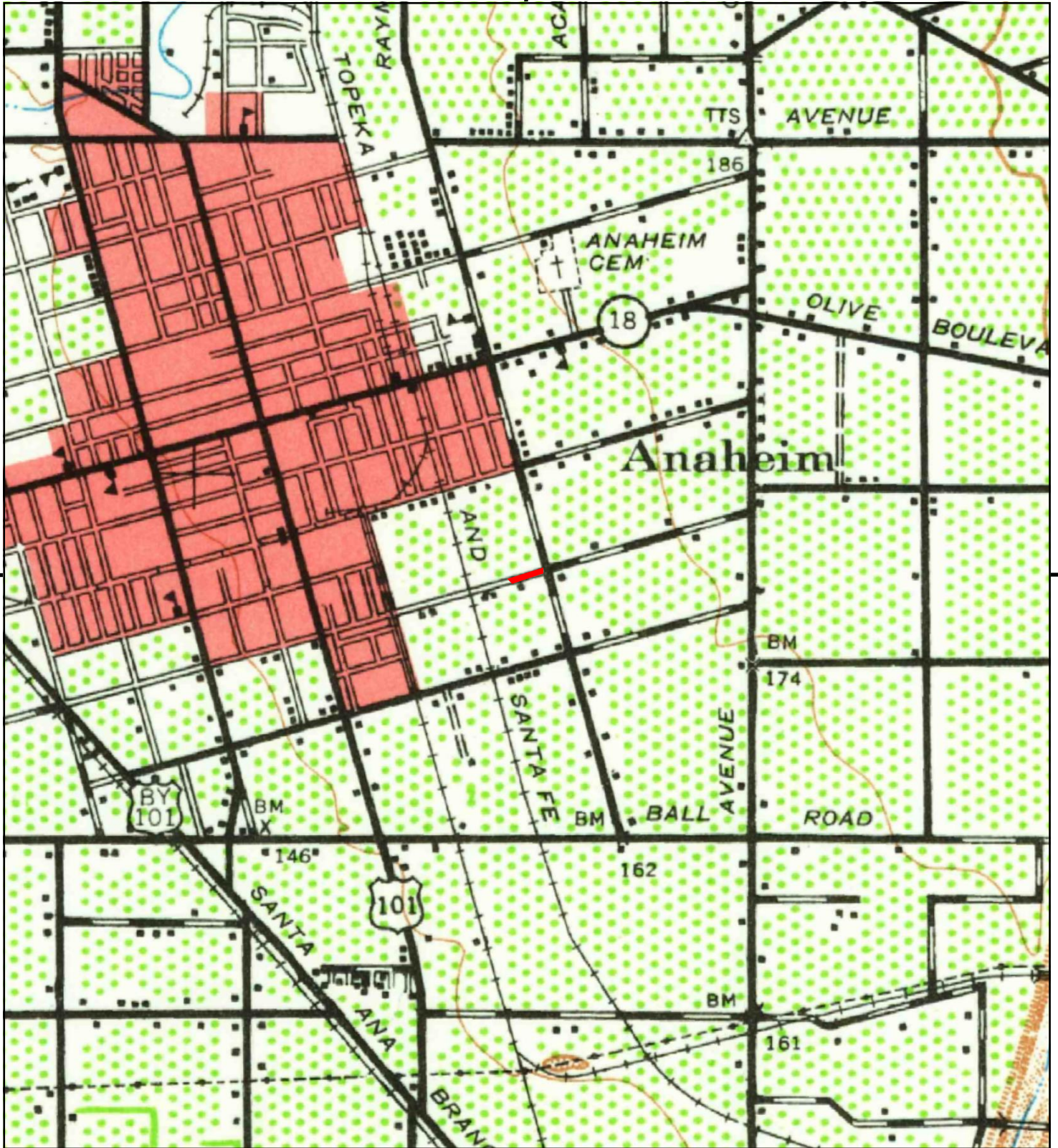
This report includes information from the following map sheet(s).



TP, Anaheim, 1949, 7.5-minute
E, Orange, 1949, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





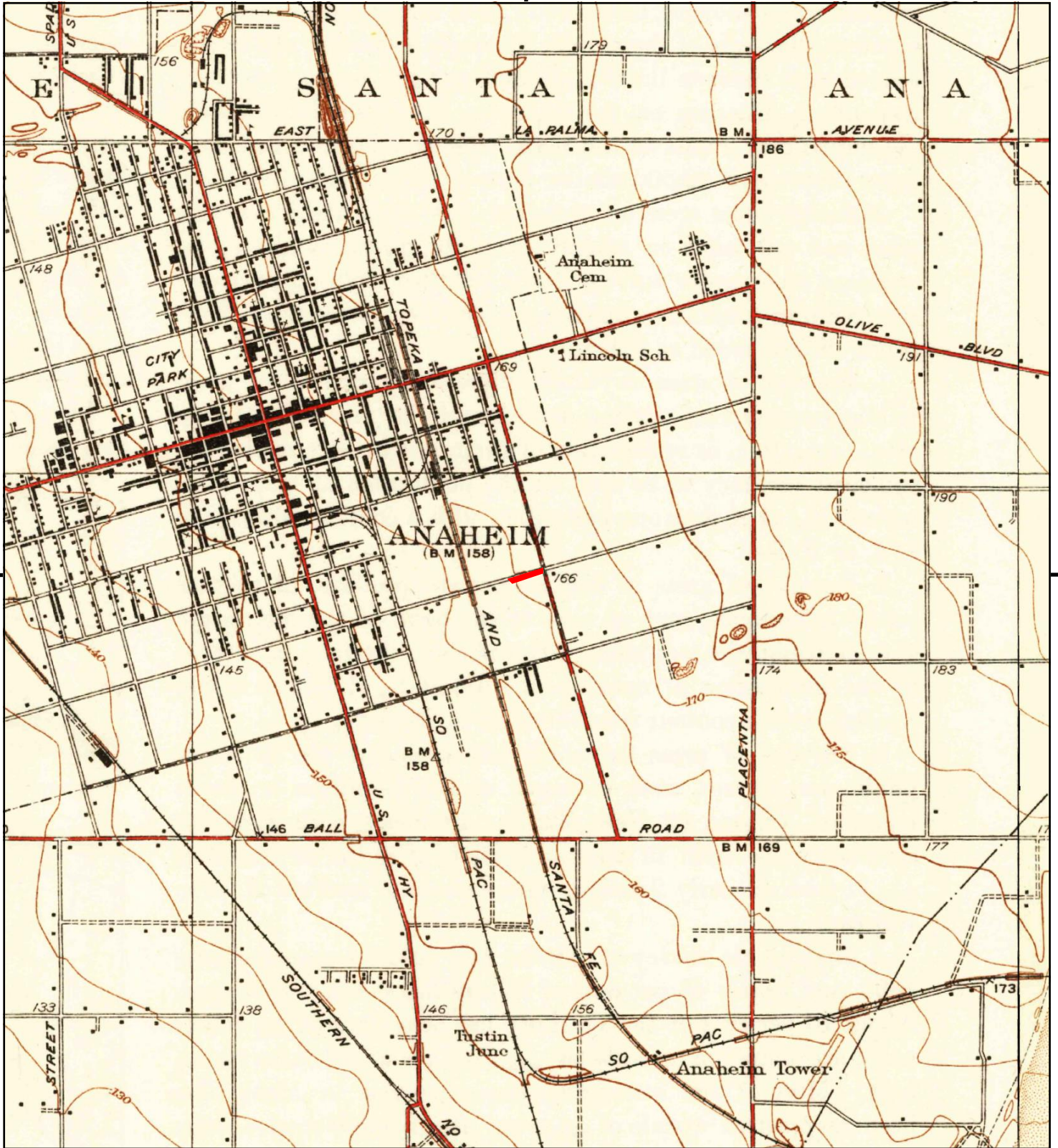
This report includes information from the following map sheet(s).



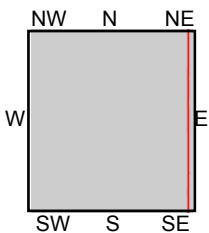
TP, Anaheim, 1942, 15-minute

SITE NAME: East South Street / South East Street
 ADDRESS: East South Street / South East Street
 Anaheim, CA 92805
 CLIENT: Stantec





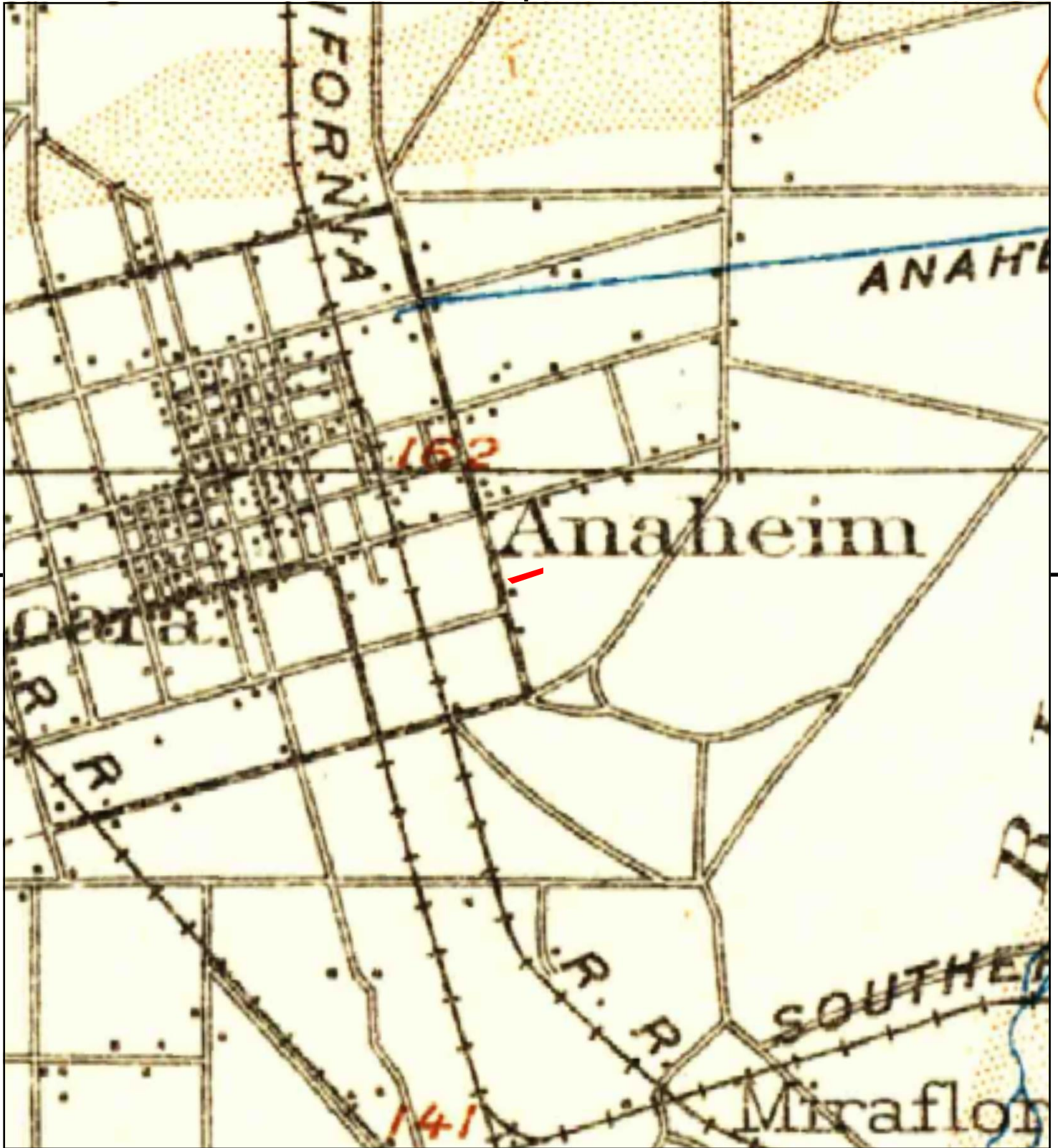
This report includes information from the following map sheet(s).



TP, Garden Grove, 1935, 7.5-minute
E, Orange, 1935, 7.5-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





This report includes information from the following map sheet(s).



TP, Corona, 1902, 30-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





This report includes information from the following map sheet(s).



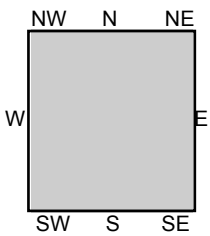
TP, Anaheim, 1901, 15-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
 Anaheim, CA 92805
CLIENT: Stantec





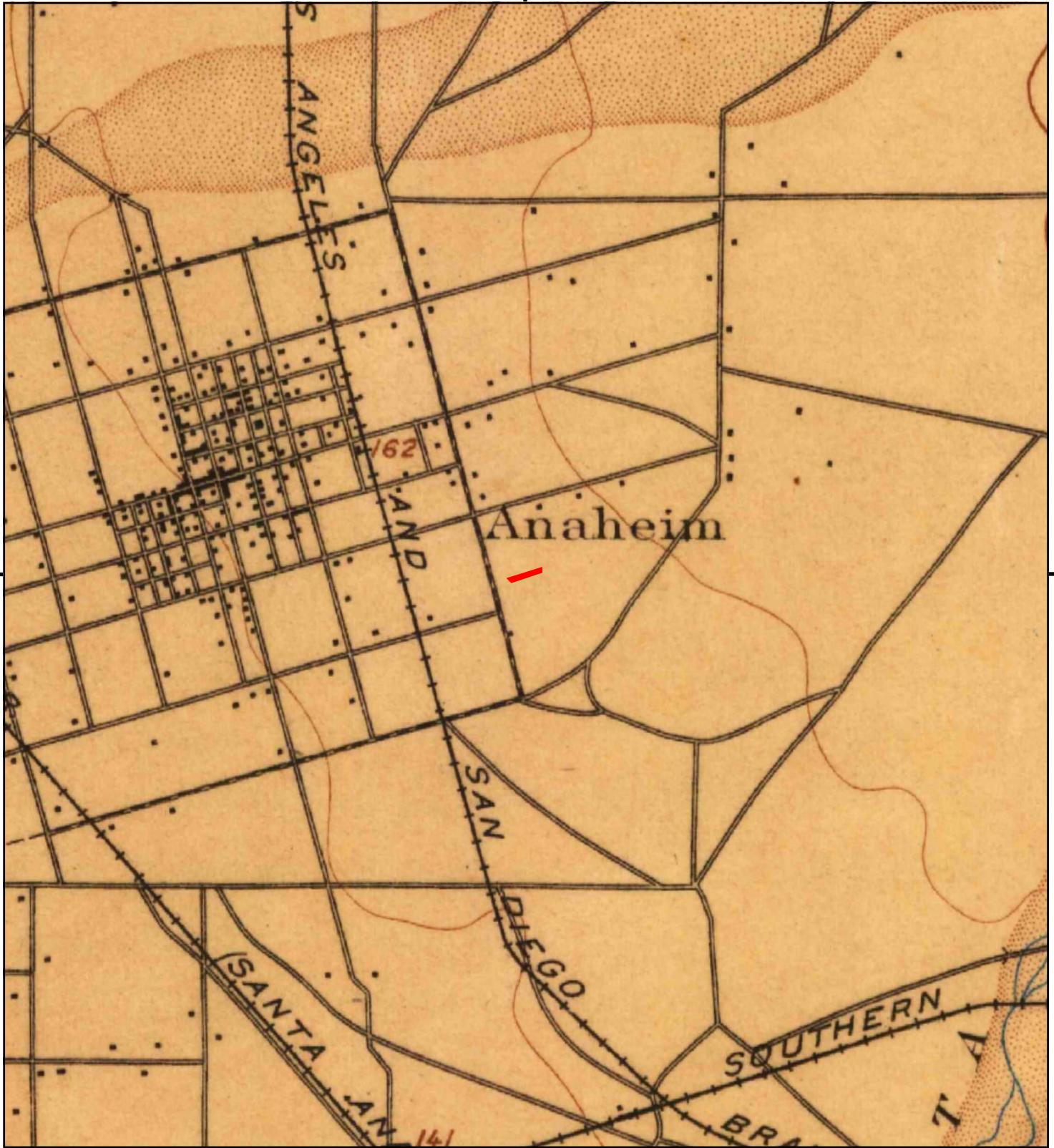
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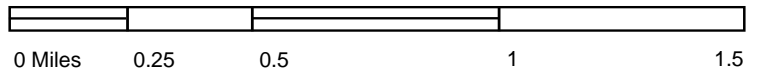
TP, Anaheim, 1898, 15-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec





This report includes information from the following map sheet(s).



TP, Anaheim, 1896, 15-minute

SITE NAME: East South Street / South East Street
ADDRESS: East South Street / South East Street
Anaheim, CA 92805
CLIENT: Stantec



East South Street / South East Street

East South Street / South East Street

Anaheim, CA 92805

Inquiry Number: 4668952.9

July 08, 2016

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

07/08/16

Site Name:

East South Street / South East
East South Street / South East
Anaheim, CA 92805
EDR Inquiry # 4668952.9

Client Name:

Stantec
25864-F Business Center Drive
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Contact: Alicia Jansen



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Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1995	1"=500'	Acquisition Date: October, 03 1995	USGS/DOQQ
1990	1"=500'	Flight Date: September, 06 1990	USDA
1987	1"=500'	Flight Date: March, 29 1987	USDA
1977	1"=500'	Flight Date: January, 18 1977	EDR Proprietary Brewster Pacific
1972	1"=500'	Flight Date: October, 30 1972	USGS
1963	1"=500'	Flight Date: February, 28 1963	USGS
1953	1"=500'	Flight Date: May, 30 1953	USDA
1938	1"=500'	Flight Date: June, 21 1938	USDA

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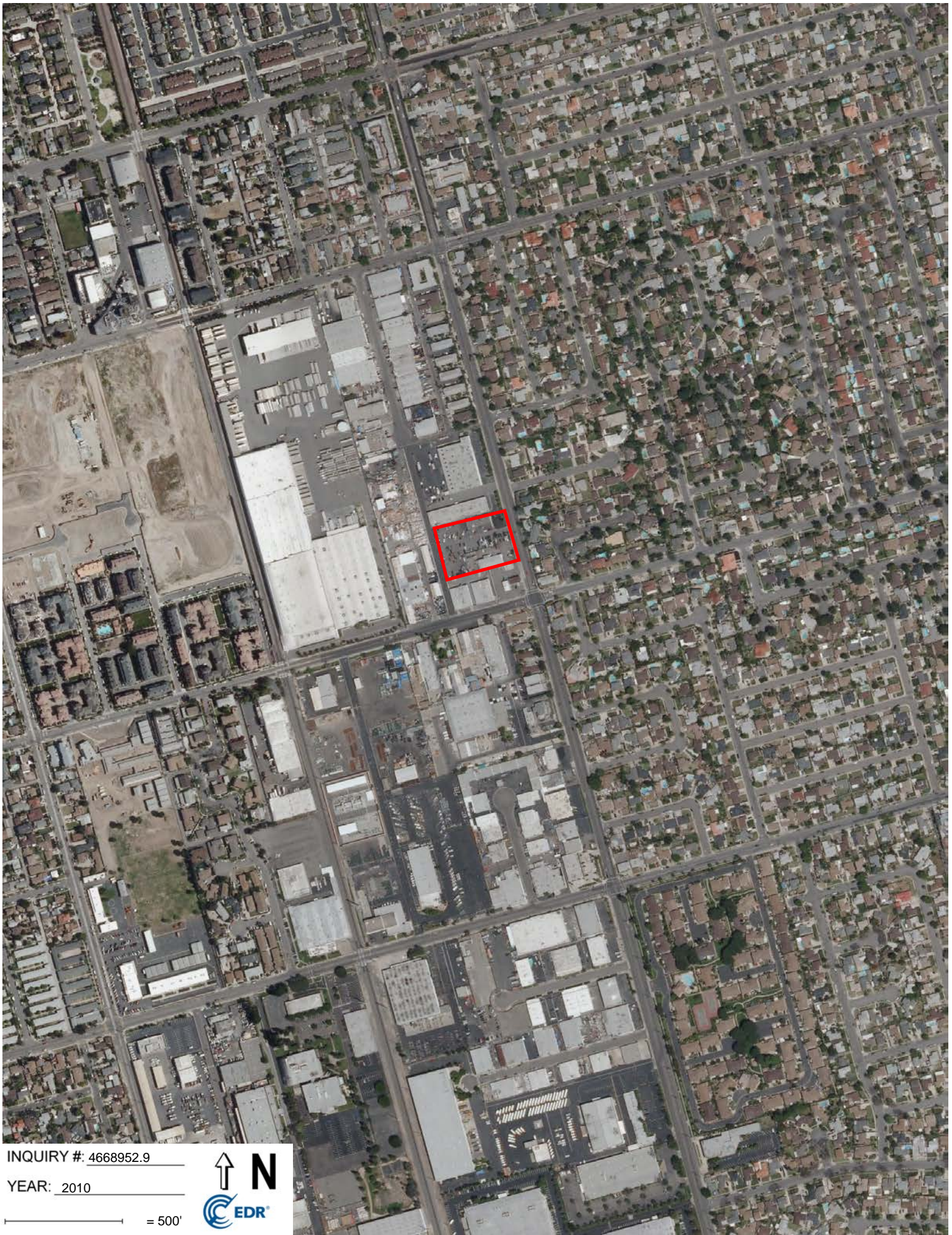


INQUIRY #: 4668952.9

YEAR: 2012

— = 500'



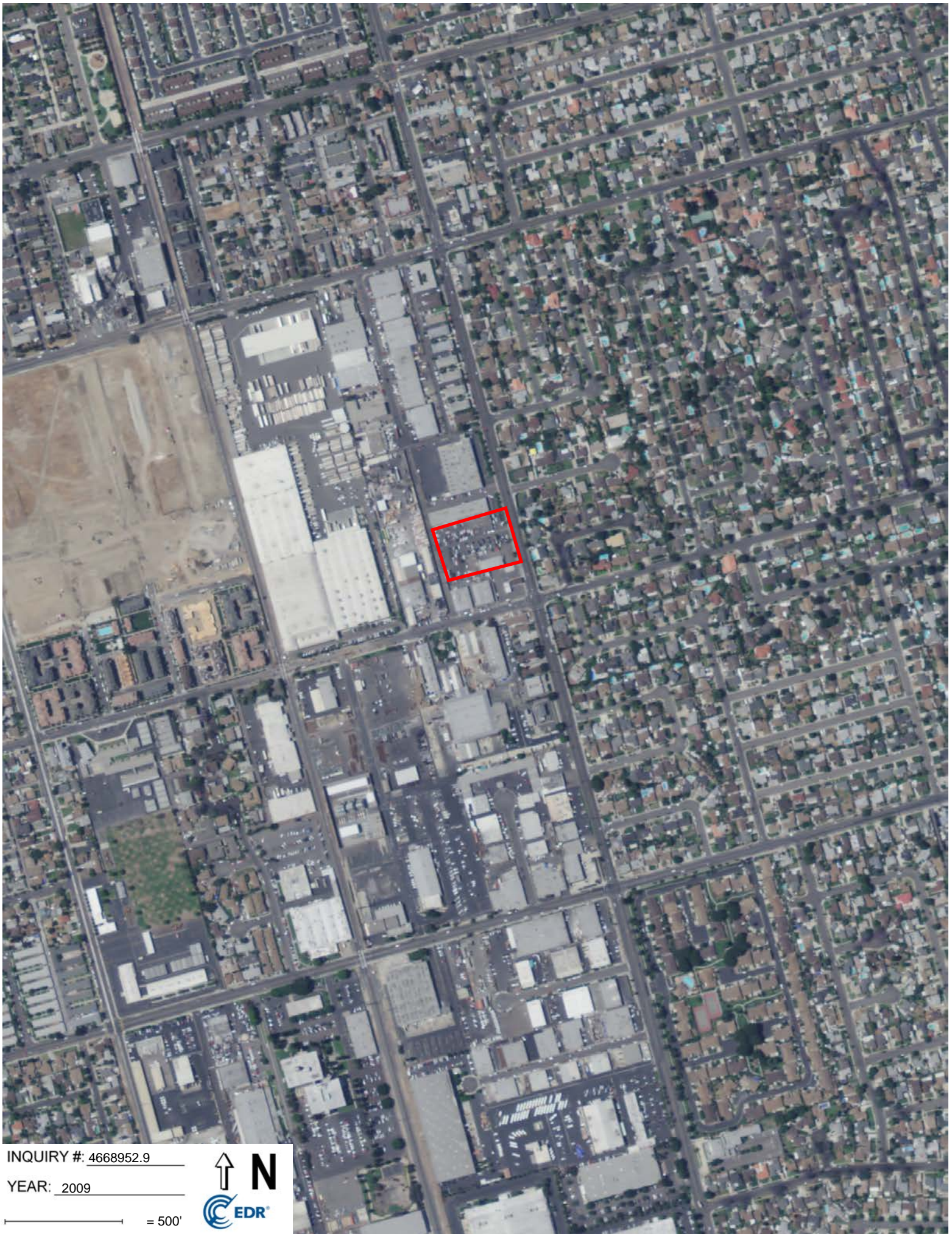


INQUIRY #: 4668952.9

YEAR: 2010

— = 500'





INQUIRY #: 4668952.9

YEAR: 2009

— = 500'





INQUIRY #: 4668952.9

YEAR: 2005

— = 500'



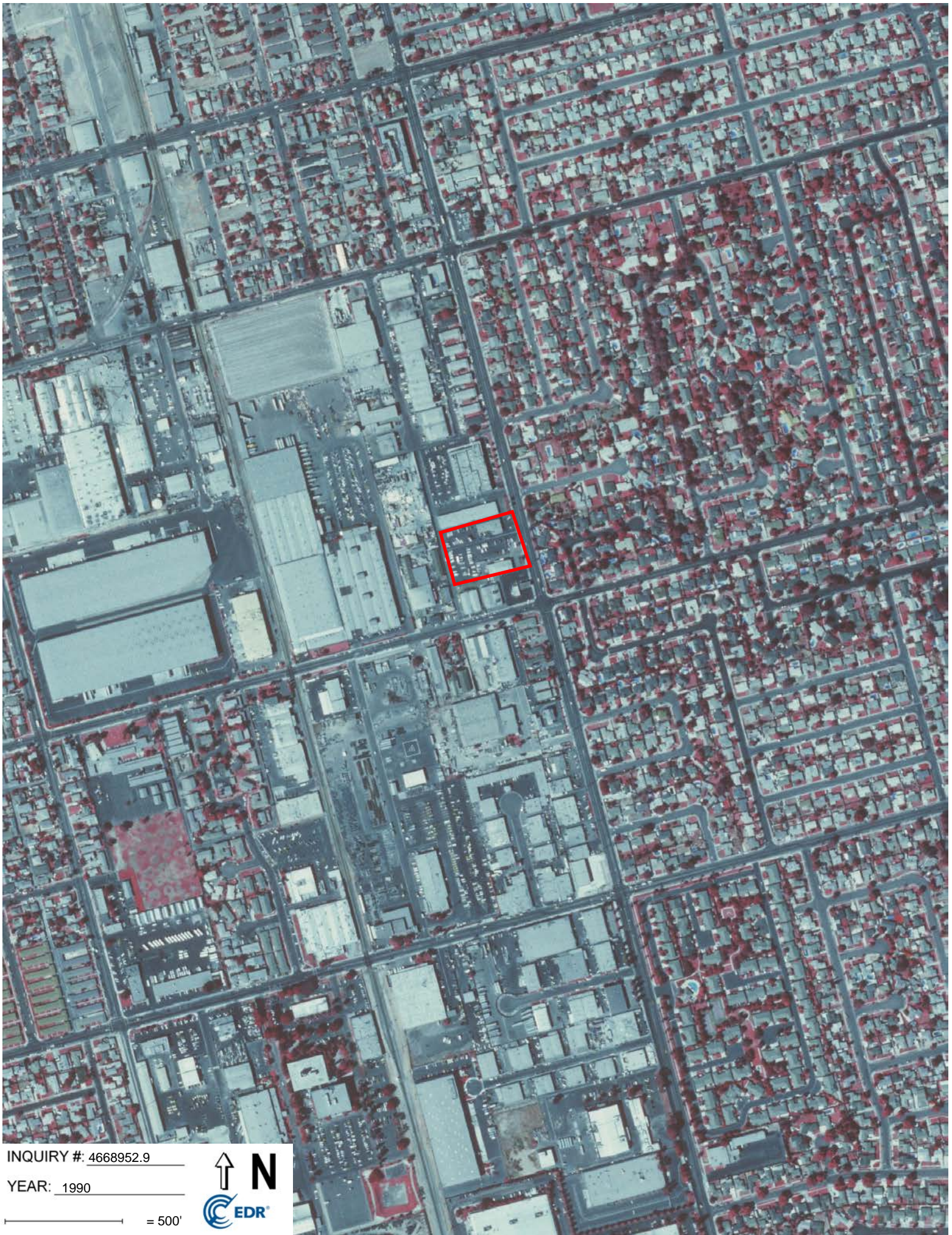


INQUIRY #: 4668952.9

YEAR: 1995

— = 500'





INQUIRY #: 4668952.9

YEAR: 1990

— = 500'





INQUIRY #: 4668952.9

YEAR: 1987

— = 500'





INQUIRY #: 4668952.9

YEAR: 1977

— = 500'





INQUIRY #: 4668952.9

YEAR: 1972

— = 500'





INQUIRY #: 4668952.9

YEAR: 1963

— = 500'





INQUIRY #: 4668952.9

YEAR: 1953

— = 500'





INQUIRY #: 4668952.9

YEAR: 1938

— = 500'



East South Street / South East Street

East South Street / South East Street
Anaheim, CA 92805

Inquiry Number: 4668952.5
July 11, 2016

The EDR-City Directory Abstract

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City Directory Images

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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 2013. 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.

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.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2013	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2008	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2003	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2002	Haines Company	-	-	-	-
2001	Pacific Telephone	-	-	-	-
1997	Pacific Bell	-	-	-	-
1995	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1992	Pacific Bell	-	-	-	-
1991	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1980	Pacific Telephone	-	X	X	-
1975	Luskey Brothers & Co., Inc.	-	X	X	-
1971	Luskey Brothers Co., Inc.	-	-	-	-
1970	General Telephone Co., of California	-	X	X	-
	General Telephone Co., of California	X	X	X	-
	Ross Publications	-	X	X	-
	Ross Publications	X	X	X	-
1966	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1965	Ross Publications, Inc.,	-	-	-	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1961	Luskey Brothers & Co.,	-	X	X	-
1960	Unknown	-	-	-	-
1956	The Pacific Telephone and Telegraph Co.	-	-	-	-
1955	The Pacific Telephone and Telegraph Co.	-	X	X	-
1952	Luskeys Directory Service Co.	-	-	-	-
1950	West Directory Co.	-	-	-	-
1946	Southern California Telephone Co.	-	-	-	-
1945	Western Directory Co.	-	-	-	-
1941	Southern California Telephone Co.	-	X	X	-
1936	Western Directory Co.	-	-	-	-
1930	Western Directory Co.	-	-	-	-
1926	Pacific Telephone	-	-	-	-
1925	Western Directory Co.	-	-	-	-
1922	Kaasen Directory Co.	-	-	-	-
1921	Western Directory Co.	-	-	-	-
1920	Santa Ana Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
803 South East Street	Client Entered	X
1028 South East Street	Client Entered	
1014 East South Street	Client Entered	X
1006 East South Street	Client Entered	X
1008 East South Street	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

East South Street / South East Street
Anaheim, CA 92805

FINDINGS DETAIL

Target Property research detail.

E SOUTH ST

1006 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	SUPERIOR SERVICE	Cole Information Services
2008	SOCAL BIOFUEL INC	Cole Information Services
	SUPERIOR SERVICE	Cole Information Services
2003	SUPERIOR SERVICE	Cole Information Services
1995	VInces Machinery Co	Pacific Bell
1970	B & K Custom Repair	General Telephone Co., of California
1966	R & H Kellering Mach Shop	Pacific Telephone

1008 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Pietrok Vincent P	Pacific Bell
1966	Pietrok Vincent	Pacific Telephone
	Vinces Mach Co	Pacific Telephone

1014 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	ALLIANCE CORP	Cole Information Services
2003	AG & R ALLIANCE CORP	Cole Information Services
	J & H DRILLING CO	Cole Information Services
1995	J & H Drilling Co Inc	Pacific Bell
1986	Dixco Diversified Chemical Sales	Pacific Bell
	DIXCODIVE RS IFIE D CHE MICAL S ALE S	Pacific Bell
1970	ADAMS C K CO missile computer & alrcrft pts	General Telephone Co., of California
	BEDELL MFG CO	General Telephone Co., of California
	Bedell Mfg Corp	General Telephone Co., of California
	Milton J Wershow Co	General Telephone Co., of California
	Orlando Tecinical Products Co	General Telephone Co., of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Bedell Mfg Co	Pacific Telephone

1028 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	HB PERFORMANCE COASTING INC	Cole Information Services
	WICKED CREATIONS	Cole Information Services
2008	ALCARAZ & GARCIA ENTERPRISE	Cole Information Services
	AUTO TREND INTERNATIONAL	Cole Information Services
2003	ALCARAZ & GARCIA ENTERPRISES INC	Cole Information Services
	TEN HOEVE BROTHERS INC	Cole Information Services
1995	ON LINE GRAPHICS INC	Pacific Bell
	Screen Graphics	Pacific Bell
1986	ON LIN E GRAPHICS IN C	Pacific Bell
	Screen Graphics	Pacific Bell
1966	Frazier Sidney A	Pacific Telephone

East South Street

1006 East South Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	VInces Machinery Co	Pacific Bell
1970	B & K Custom Repair	General Telephone Co., of California
1966	R & H Kellering Mach Shop	Pacific Telephone

1008 East South Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Pietrok Vincent P	Pacific Bell
1966	Pietrok Vincent	Pacific Telephone
	Vinces Mach Co	Pacific Telephone

1014 East South Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	J & H Drilling Co Inc	Pacific Bell
1986	Dixco Diversified Chemical Sales	Pacific Bell
	DIXCODIVE RS IFIE D CHE MICAL S ALE S	Pacific Bell
1970	ADAMS C K CO missile computer & alrcrft pts	General Telephone Co., of California
	BEDELL MFG CO	General Telephone Co., of California
	Bedell Mfg Corp	General Telephone Co., of California
	Milton J Wershow Co	General Telephone Co., of California
	Orlando Tecinical Products Co	General Telephone Co., of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Bedell Mfg Co	Pacific Telephone

S EAST ST

803 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Sauceda Maria	Pacific Bell
1966	Powis Martha	Pacific Telephone
	Powis Wm H	Pacific Telephone

South East Street

803 South East Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Sauceda Maria	Pacific Bell
1966	Powis Martha	Pacific Telephone
	Powis Wm H	Pacific Telephone

1028 South East Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
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FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

CRESTBROOK PL

1209 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	JJ BRADY PR 2 aa	Luskey Brothers & Co.,

1211 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	CW MONROE	Luskey Brothers & Co.,

1212 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Glass Anthony	Pacific Telephone
1961	AJ GLASS PR 4 aa	Luskey Brothers & Co.,

1218 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Schafer Chas	Pacific Telephone
1961	CG SCHAFTER KE 5 aa	Luskey Brothers & Co.,

1222 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Riley C W	Pacific Telephone
1961	CW RILEY PR 4 aa	Luskey Brothers & Co.,

1225 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	JC HANGER KE 3 aa	Luskey Brothers & Co.,

1230 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	AV TRUMAN KE 3 aa	Luskey Brothers & Co.,

1231 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Stinson John L	Pacific Telephone
1961	JL STINSON a KF 5 aa	Luskey Brothers & Co.,

FINDINGS

1236 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Kessler Epbralm	Pacific Telephone

1240 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Hall Harold	Pacific Telephone
1961	WH HALL o PR 4 aa	Luskey Brothers & Co.,

1241 CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Eggert A Irene	Pacific Telephone
1961	16 aa	Luskey Brothers & Co.,
	L EGGERT ap R 4 aa	Luskey Brothers & Co.,

CRESTBROOK PL E

1209 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCHELHORN BARBARA E CRESTBROOK PL ANH	Ross Publications

1212 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GLASS ANTHONY (WANDA) E CRESTBROOK PL ANH	Ross Publications

1218 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCHAFER CHAS (GRACE) E CRESTBROOK PL ANH	Ross Publications

1219 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MEISTER WALTER (CLARA) E CRESTBROOK PL ANH	Ross Publications

1222 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RILEY CLARENCE W (VERA) E CRESTBROOK PL ANH	Ross Publications

FINDINGS

1225 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HANGER JOHN C (ELLEN) E CRESTBROOK PL ANH	Ross Publications

1230 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TRUMAN ARLIE V E CRESTBROOK PL ANH	Ross Publications

1231 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STINSON JOHN L (FRANCES) E CRESTBROOK PL ANH	Ross Publications

1236 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KESSLER EPHRAIM (JULIA) E CRESTBROOK PL ANH	Ross Publications

1237 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BERNIE BERNARD ORCHESTRAS E CRESTBROOK PL ANH	Ross Publications
	GOTTLIEB BERNARD (JOAN) E CRESTBROOK PL ANH	Ross Publications

1240 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HALL HAROLD (ATEE) E CRESTBROOK PL ANH	Ross Publications

1241 CRESTBROOK PL E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	EGGERT LEONARD (IRENE) E CRESTBROOK PL ANH	Ross Publications

DAWN ST S

711 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STONE LAURENCE M (SARAH) S DAWN ANH	Ross Publications

FINDINGS

717 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MOORE HERBERT J (DEE) DAWN ANH	Ross Publications

721 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HEILESON OR (LUELLA) S DAWN ANH	Ross Publications

727 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BLOOD HAROLD D (CONNIE) DAWN ANH	Ross Publications

807 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HARDY VINCENT D (IDAMY) DAWN ANH	Ross Publications

813 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PRESSEL EA (DOROTHY) S DAWN ANH	Ross Publications

819 DAWN ST S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PLESCIA PHILLIP F DAWN ANH	Ross Publications

DIANA

1230 DIANA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Ann & Howard Neldiger	Pacific Bell

1237 DIANA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Mc Michael J W	Pacific Telephone

1253 DIANA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Mc Query Wm	Pacific Telephone

FINDINGS

DIANA AVE E

1206 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	VENTURELLI GA (JEAN) DIANA AV ANH	Ross Publications

1212 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHASE ROBT L (MARY LOU) DIANA AV ANH	Ross Publications

1218 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	EL-HINN DAVID (HUDA) E DIANA AV ANH	Ross Publications

1219 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JOHNSON DAVE DIANA AV ANH	Ross Publications

1227 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	NICKLER REX (VIRGINIA) DIANA AV ANH	Ross Publications

1230 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ANDERSON CHAS H (LOUISE) DIANA AV ANH	Ross Publications
	JONES ARTHUR V DIANA AV ANH	Ross Publications

1233 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HUDSON JOHN D (GEORGIA) E DIANA AV ANH	Ross Publications

1236 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PUGH KELLY (LUCY) DIANA AV ANH	Ross Publications

1240 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CROSS ROBT M (JUDITH) DIANA AV ANH	Ross Publications

FINDINGS

1241 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCDANIEL LOUIS B (JEANETTE) DIANA AV ANH	Ross Publications

1247 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LANG GREGORY R (CLOTILDE) DIANA AV ANH	Ross Publications

1253 DIANA AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCQUERRY WM (JOANN) DIANA AV ANH	Ross Publications

E CRESTBROOK PL

1209 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Buxton Jennifer	Pacific Bell
1966	Schelhorn Barbara	Pacific Telephone

1211 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	Goebel Paul W	The Pacific Telephone and Telegraph Co.

1212 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Class Anthony	Pacific Telephone
1975	Glass Anthony	Luskey Brothers & Co., Inc.

1218 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Schafer Chas	Luskey Brothers & Co., Inc.

1219 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Meister Waiter	Pacific Bell
1991	Meister Walter	Pacific Bell
1986	Meister Walter	Pacific Bell
1980	Meluder Walter	Pacific Telephone
1975	Meister Walter	Luskey Brothers & Co., Inc.
1970	Meister Walter	General Telephone Co., of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Meister Walter	Pacific Telephone

1222 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Ryan Everett	Pacific Bell
1980	Ryan Everett	Pacific Telephone
	RYAN FDOUGLAS DC	Pacific Telephone

1225 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Hanger John C	Pacific Bell
1991	Hanger John C	Pacific Bell
1986	Hanger John C	Pacific Bell
1980	Hanger John C	Pacific Telephone
1975	Hanger John C	Luskey Brothers & Co., Inc.
1970	Hanger John C	General Telephone Co., of California
1966	Hanger John C	Pacific Telephone
1955	Hanger John C	The Pacific Telephone and Telegraph Co.

1230 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Morris Raymond C	Pacific Bell
1986	Morris Raymond C	Pacific Bell
1980	Morris Raymond C	Pacific Telephone
1975	Truman Arlie V	Luskey Brothers & Co., Inc.
1970	Truman Arlie V	General Telephone Co., of California
1966	Truman Arlie V	Pacific Telephone

1231 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Stinson John L	Pacific Bell
1986	Stinson John L	Pacific Bell
1980	Stinson John IL	Pacific Telephone
1975	Stinson John L	Luskey Brothers & Co., Inc.

1236 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Kessler Ephraim	Luskey Brothers & Co., Inc.

FINDINGS

1237 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	BERNARD V GOTTLIEB	Cole Information Services
1995	Gottlieb Bernard V & Jo	Pacific Bell
1991	Gottlieb Bernard V & Jo	Pacific Bell
1986	Bernie Bernard Orchestras	Pacific Bell
	Gottlieb Bernie & Joann	Pacific Bell
	Gottlieb Bernard V & Jo	Pacific Bell
	Gottheb S	Pacific Bell
1980	Bernie Bernard Orchestras	Pacific Telephone
	Gottlieb S	Pacific Telephone
	Go llieb Bernard V & Jo	Pacific Telephone
1975	Bernie Bernard Orchestras	Luskey Brothers & Co., Inc.
	Gottlieb Bernard	Luskey Brothers & Co., Inc.
1970	Bernie Bernard Orchestras	General Telephone Co., of California
	Gottlieb Bernard	General Telephone Co., of California
1966	Gottlieb Bernard	Pacific Telephone
	Bernard Bernie Orchestras	Pacific Telephone
1955	Crawford Ben	The Pacific Telephone and Telegraph Co.

1240 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Hall Harold	Pacific Telephone
1970	Hall Agee	General Telephone Co., of California

1241 E CRESTBROOK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Gray Eugene	Pacific Bell
1991	Gray Eugene	Pacific Bell
1986	Grubba Anna M	Pacific Bell
1975	Eggert A I	Luskey Brothers & Co., Inc.
1970	Eggert A I	General Telephone Co., of California

E DIANA AVE

1206 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Venturelli G A	Pacific Bell
1991	Venturelli G A	Pacific Bell
1980	Venturelli GA	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Venturelli G A	Luskey Brothers & Co., Inc.

1212 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Crowley Jas R	Pacific Bell
1986	Partch E G	Pacific Bell
1980	Partch E G	Pacific Telephone
	Dial A Groom	Pacific Telephone
1975	Partch E G	Luskey Brothers & Co., Inc.

1218 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Underhill Antonella A	Pacific Bell
1975	El Hinn David	Luskey Brothers & Co., Inc.

1219 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Chambless Jas W Jr	Pacific Bell
1991	Chambless Jas W Jr	Pacific Bell
1986	Chambless Jas W Jr	Pacific Bell
1980	Chambless Jas W Jr	Pacific Telephone
	Chambless S	Pacific Telephone
1975	Chambless Jas W Jr	Luskey Brothers & Co., Inc.
	Nagel Carl	Luskey Brothers & Co., Inc.

1223 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Stills Louis E	Pacific Bell
1991	Stills Louis E	Pacific Bell
1986	Stills Lou Is E	Pacific Bell
1980	Stills Louis E	Pacific Telephone
	Stills Ken & Penny	Pacific Telephone
1975	Stills Louis E	Luskey Brothers & Co., Inc.

1224 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	ALLERSOFT	Cole Information Services
1995	Pham Huyen	Pacific Bell
1991	Ho Yen Thuy	Pacific Bell
1980	Ho Phat Tan	Pacific Telephone

FINDINGS

1227 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Nickler Rex	Pacific Bell
1991	Nickler Rex	Pacific Bell
1986	Nildder Rex	Pacific Bell
1980	Nickler Rex	Pacific Telephone
1975	Nickler Rex	Luskey Brothers & Co., Inc.

1230 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Ann & Howard Neldiger	Pacific Bell
	Carson Warren & Barbra	Pacific Bell
	Anthony & D J Romano	Pacific Bell
	Carson Warren & Barbara	Pacific Bell
1991	Carson Warren & Barbara	Pacific Bell
	Carson Warren & Barbara	Pacific Bell
	Eltiston Gary&Lon @Anaheim@	Pacific Bell
1986	Carson Warren & Barbara	Pacific Bell
	Carson Warren & Barbara	Pacific Bell
	Carson Warren J	Pacific Bell
1980	Carson Warren J	Pacific Telephone
1975	Carson Warren J	Luskey Brothers & Co., Inc.

1233 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	RDS CRATING & SERVICES	Cole Information Services

1237 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Kim Bo Kyun	Pacific Bell
1991	Gardner Leslie W Rev	Pacific Bell
1980	Buchanan Dorothy M	Pacific Telephone
	Buchanan Jaime Sue	Pacific Telephone

1240 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Pankow Elroy	Pacific Bell
1991	Pankow T A	Pacific Bell
	Pankow Elroy	Pacific Bell
1986	!ankow Elroy	Pacific Bell
1980	Pankow Elroy	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Cross Robt M	Luskey Brothers & Co., Inc.

1241 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	ROTEX	Cole Information Services
1995	Lowe J J & Mary	Pacific Bell
1986	Mc Daniel Louis B	Pacific Bell
1975	McDaniel Louis B	Luskey Brothers & Co., Inc.

1247 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Lange Gregory R	Luskey Brothers & Co., Inc.

1253 E DIANA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Allen Michael K	Pacific Telephone
1975	McQuerry Wm	Luskey Brothers & Co., Inc.

E DIANA PL

1206 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Venturelli G A	General Telephone Co., of California

1212 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Chase Robt L	General Telephone Co., of California
	Chase Mary Lou	General Telephone Co., of California

1218 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	El Hinn David	General Telephone Co., of California

1219 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Johnson Dave	General Telephone Co., of California

1230 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Anderson C H	General Telephone Co., of California

FINDINGS

1233 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Hudson John D	General Telephone Co., of California

1240 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Cross Robt M	General Telephone Co., of California

1241 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Mc Daniel Louis B	General Telephone Co., of California

1251 E DIANA PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Mc Query Wme	General Telephone Co., of California

E LIVE OAK CT

1218 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Rogers W	Pacific Bell
1991	Rogers W	Pacific Bell
1986	Rogers W	Pacific Bell
1980	Rodgers Chas & Susan	Pacific Telephone
1975	Adams Wm G Mrs	Luskey Brothers & Co., Inc.
1970	Adams Wm G Mrs	General Telephone Co., of California

1219 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Hutchinson Ned	Luskey Brothers & Co., Inc.
1970	Sutchinson Ned	General Telephone Co., of California
	Hutchinson Mina H	General Telephone Co., of California
1966	Hutchinson Ned	Pacific Telephone

1225 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Collins Joe W	Pacific Bell
1986	Collins Joe W	Pacific Bell
1980	Collins Joe W	Pacific Telephone
1975	Collins Joe W	Luskey Brothers & Co., Inc.
1970	Collins Joe W	General Telephone Co., of California

FINDINGS

1232 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Stundtner Alfred E	Pacific Bell
1975	Stundtner Alfred E	Luskey Brothers & Co., Inc.
1970	Stundtner Alfred E	General Telephone Co., of California

1233 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Beecroft Wm F	Pacific Bell
1991	Beecroft Wm F	Pacific Bell
1986	Beecroft Wm F	Pacific Bell
1980	Beecroft W Im F	Pacific Telephone
1975	Blackwell E Norman	Luskey Brothers & Co., Inc.
1970	Smith Wm F	General Telephone Co., of California

1238 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Varner Robt E	General Telephone Co., of California

1239 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Peterson David H	Pacific Bell
1986	Peterson David H	Pacific Bell
1980	Peterson David H	Pacific Telephone
1975	Peterson David H	Luskey Brothers & Co., Inc.

1242 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	DXN NETWORK	Cole Information Services
1991	Habegger H L Dr	Pacific Bell
	Sheehan Patrick F	Pacific Bell
1986	Sheehan Patrick F	Pacific Bell
1980	Sheehan Wendy	Pacific Telephone
1975	Sheehan Patrick F	Luskey Brothers & Co., Inc.
1970	Sheehan Patrick F	General Telephone Co., of California

1243 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Leon Robt R	Pacific Bell
1991	leon Ren DDS	Pacific Bell
	Leon Robt R	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Res	Pacific Telephone
1975	Res	Luskey Brothers & Co., Inc.
1970	Leon R O DOS	General Telephone Co., of California
	Res	General Telephone Co., of California

1265 E LIVE OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ast Raymond J	Pacific Bell

E OPAL AVE

1202 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Nandin Robt L	Pacific Bell
1966	Mc Carthy Paul A	Pacific Telephone

1203 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Franchuk Ed	Pacific Bell
1980	Franchuk Ed	Pacific Telephone
	Franchuk Christine	Pacific Telephone
1975	Franchuk Edwin G	Luskey Brothers & Co., Inc.
1970	Franchuk Edwin G	General Telephone Co., of California

1206 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Habermel Thomas B	Pacific Bell
1980	I Garcia Marvin A	Pacific Telephone
1975	Pridgen A A	Luskey Brothers & Co., Inc.
1970	Pridgen A A	General Telephone Co., of California
1966	Pridgen A A	Pacific Telephone

1210 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Bill Raymond	Pacific Bell

1212 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Hunter D	Pacific Bell
1991	Hunter D	Pacific Bell
1986	Hunter D	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Bedford Frank L	Luskey Brothers & Co., Inc.
1966	Bedford Frank L	Pacific Telephone

1213 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mc Graw WG @Huntington Beach@	Pacific Bell
	Me Graw Timothy & Judy	Pacific Bell
	Mc Graw Terry	Pacific Bell
	Mc Graw Sam & Bee Dee	Pacific Bell

1218 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Miles Robt	Luskey Brothers & Co., Inc.
1966	Berg Eugene H	Pacific Telephone

1219 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	GLENDAS HOUSE CLEANING MAIDS	Cole Information Services
	DORAS MAIDS	Cole Information Services
1995	Bill Raymond	Pacific Bell
1986	Bill Raymond	Pacific Bell
1980	Duhaime Steven A	Pacific Telephone
1975	Robertson Marleen	Luskey Brothers & Co., Inc.
1970	Hill Janet R	General Telephone Co., of California

1222 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Auman Clayton	General Telephone Co., of California

1223 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	CAROLYN MARIANO	Cole Information Services
1995	Mariano Felicia	Pacific Bell
1991	Mariano Felicia	Pacific Bell
1986	Manano Felicia	Pacific Bell
1970	Shields Harry L	General Telephone Co., of California

1227 E OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Arellano P Jose	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Arellano P Jose	Luskey Brothers & Co., Inc.
1970	Arellano P Jose	General Telephone Co., of California

E SOUTH ST

1000 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CONTINENTAL CHEMICAL & SANITARY SUPP	Cole Information Services
2008	REED EQUIPMENT RENTALS	Cole Information Services
	CONTINENTAL CHEMICAL & SANITARY	Cole Information Services
	DIAMOND FOUR CONSTRUCTION	Cole Information Services
	WEATHERTECH CONSULTING GROUP INC	Cole Information Services
1995	Pietrok Vincent	Pacific Bell
	Pietrok Vince Gymnastic Center	Pacific Bell
	Vince Pietrok Gymnastic Center	Pacific Bell
1986	Pietrok Vince Gymnastic Center	Pacific Bell
	Pietrok Vincent	Pacific Bell
1970	Pletrok Vincent	General Telephone Co., of California
	Pietrok T J Construction Co I T	General Telephone Co., of California

1010 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	T & D Model & Casting Co	General Telephone Co., of California
1966	T & M Model Casting Co	Pacific Telephone

1012 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Steffey C Rique	General Telephone Co., of California

1017 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	ORANGE COUNTY STRIPPING	Cole Information Services
1995	Western Iron Works	Pacific Bell

1019 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CALIFORNIA STONEWORKS	Cole Information Services
1995	FSharp	Pacific Bell
1986	ABC Printers	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CUSTOM CARBIDE PRODUCTS	General Telephone Co., of California

1021 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Life Grains	Pacific Bell
1966	C A W METAL FABRICATORS	Pacific Telephone

1027 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Welchs Uniform Rental	Pacific Bell
1970	Inst Awn	General Telephone Co., of California
1966	DAVIES TOOL ENGINEERING	Pacific Telephone

1029 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	ACRA BALL MANUFACTURING COMPANY	Cole Information Services
2003	ANAHEIM COMPOUND INC	Cole Information Services
1986	Richard Industries	Pacific Bell
1970	Sun Coast Equip Ihnc	General Telephone Co., of California
	Sun Coast Equip Inc	General Telephone Co., of California

1210 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	de I Cruz Bonnie	Pacific Bell
	De La Cruz Atanaclo	Pacific Bell

1218 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Bostick Bryan	Pacific Bell
1970	Bostick Bryan	General Telephone Co., of California

1219 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	LUCEROS TRUCKING	Cole Information Services

1222 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	HANK Y WANG CPA	Cole Information Services
1995	Miller A	Pacific Bell
1986	Miller A	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	El Hinn Abraham	General Telephone Co., of California
1966	Mc Michael J W	Pacific Telephone

1233 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Bowser Buz	Pacific Bell
1970	Briggs L P	General Telephone Co., of California
1966	Briggs L P	Pacific Telephone

1238 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	MISS DONUTS & BAKERY	Cole Information Services
1995	Beatle Richard H & Shirley	Pacific Bell
1986	Beatie Harold W	Pacific Bell
1970	Beatie Harold W	General Telephone Co., of California

1239 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Daleke Clarence G	Pacific Bell
1986	Daleke Clarence G	Pacific Bell
	Daleke Clarence G atty	Pacific Bell
1970	Daleke Clarence G	General Telephone Co., of California
1966	Huggins Fred C Jr	Pacific Telephone

1242 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Sayre K J	Pacific Bell
1970	Sayre Wm E	General Telephone Co., of California

1243 E SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Tu Sean	Pacific Bell
1986	Hammond S T	Pacific Bell
1970	Akina Donald A	General Telephone Co., of California
	Akina Lydia C	General Telephone Co., of California
1966	Akina Donald A	Pacific Telephone
	Akina Lydia C	Pacific Telephone

FINDINGS

LIVE OAK CT E

1218 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ADAMS WILLIAM G LIVE OAK CT ANH	Ross Publications

1219 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HUTCHINSON NED (PAT) E LIVE OAK CT ANH	Ross Publications

1225 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	COLLINS JOE W (MAUREEN) E LIVE OAK CT ANH	Ross Publications

1232 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STUNDTNER ALFRED E (EDITH) E LIVE OAK CT ANH	Ross Publications

1233 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SMITH WM F (KATHERINE) E LIVE OAK CT ANH	Ross Publications

1238 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	VARNER ROBT E (BETTY) E LIVE OAK CT ANH	Ross Publications

1242 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SHEEHAN PATRICK F (MARLYNN) LIVE OAK CT ANH	Ross Publications

1243 LIVE OAK CT E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEON RENAUD O (MAXINE) E LIVE OAK CT ANH	Ross Publications

FINDINGS

OPAL

1241 OPAL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Mc Alister H Yale Jr	General Telephone Co., of California

OPAL AVE

1202 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	PA MCCARTHY a KE 3 aa	Luskey Brothers & Co.,

1206 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	NMF GOODMAN	Luskey Brothers & Co.,

1212 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	FL BEDFORD a a a KE 3 aa	Luskey Brothers & Co.,

1218 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	EH BERG a KE 5 aa	Luskey Brothers & Co.,

1222 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	LO OSEN PR 4 aa	Luskey Brothers & Co.,
	27 aa	Luskey Brothers & Co.,

1266 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Mc Call John	Pacific Bell

1271 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Merriman Robin	Pacific Telephone

1272 OPAL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Smith Paul & Signe	Pacific Bell

FINDINGS

OPAL AVE E

1202 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCCARTHY PAUL A (MARY) E OPAL AV ANH	Ross Publications

1203 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FRANCHUK EDWIN G E OPAL AV ANH	Ross Publications

1206 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PRIDGEN ALLEN A (RUTH) E OPAL AV ANH	Ross Publications

1212 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BEDFORD FRANK L E OPAL AV ANH	Ross Publications

1213 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	EISENBERG WILLIAM E OPAL AV ANH	Ross Publications

1219 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HILL JANET R E OPAL AV ANH	Ross Publications

1222 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	AUMAN CLAYTON (JANE) OPAL ANH	Ross Publications

1223 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SHIELDS HARRY L E OPAL AV ANH	Ross Publications

1227 OPAL AVE E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ARELLANO P JOSE (ALICIA) E OPAL AV ANH	Ross Publications

FINDINGS

S DAWN ST

711 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Banderas Insurance & Realty	Pacific Bell
1986	Banderas Insurance & Realty	Pacific Bell
1975	Sambrano Mike	Luskey Brothers & Co., Inc.
1970	Stone Laurence M	General Telephone Co., of California
1966	Stone Laurence M	Pacific Telephone

717 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Harris David & Jennifer	Pacific Bell
1970	Moore Dee	General Telephone Co., of California

721 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Concho Dora	Pacific Bell
1975	Heileson O R	Luskey Brothers & Co., Inc.

727 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Blood Hal	Luskey Brothers & Co., Inc.
1970	Blood Harold	General Telephone Co., of California

777 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hales Langston	Pacific Bell

801 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Shoener Herbert G	Pacific Bell
1991	Shoener Herbert G	Pacific Bell
1975	Shoener Herbert G	Luskey Brothers & Co., Inc.

807 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Maxcy Jas R	Pacific Telephone
1975	Maxcy Jas R	Luskey Brothers & Co., Inc.

FINDINGS

813 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Pressel Dorothy	Pacific Bell
	Pressel E A	Pacific Bell
1991	Pressel Dorothy	Pacific Bell
	Pressel E A	Pacific Bell
1986	Pressel Dorothy	Pacific Bell
	Pressel E A	Pacific Bell
1980	Pressel Dorothy	Pacific Telephone
	Pressfl E A	Pacific Telephone
1975	Pressel Dorothy	Luskey Brothers & Co., Inc.
	Pressel E A	Luskey Brothers & Co., Inc.
1970	Pressel Dorothy	General Telephone Co., of California
	Pressel E A	General Telephone Co., of California

819 S DAWN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Plescica Philip F	Pacific Bell
	Plescica R&M @Huntington Beach@	Pacific Bell
	Plescica Tony	Pacific Bell
	Pleseck RE @Westminster@	Pacific Bell
1986	Plescica Philip F	Pacific Bell
1980	Plescica Philip F	Pacific Telephone
1975	Plescica Philip F	Luskey Brothers & Co., Inc.
1970	Plescica Philip F	General Telephone Co., of California

S EAST

800 S EAST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1941	Rasmussen N P Mrs r	Southern California Telephone Co.

S EAST ST

610 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Jimenez Alexander	Pacific Bell
1986	Jimener Alexander	Pacific Bell
1970	Jimenez Alex	General Telephone Co., of California
1966	Jimenez Alex	Pacific Telephone

FINDINGS

616 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Wolf Thos J	General Telephone Co., of California

628 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	WESTERN COOLING	Cole Information Services
2003	WESTERN COOLING	Cole Information Services
1995	Puchniar P & K	Pacific Bell
1986	Puchnarz P & K	Pacific Bell
1970	Powell Mike	General Telephone Co., of California
1966	Welch David	Pacific Telephone

653 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Caudil Weiman	Pacific Bell

700 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Helm Harold W	Pacific Bell
1986	Helm Harold W	Pacific Bell
1970	Mal G J	General Telephone Co., of California
1966	Mai G J	Pacific Telephone

711 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	MCLOGAN SUPPLY CO INC	Cole Information Services
2008	MCLOGAN SUPPLY CO INC	Cole Information Services
2003	MCLOGAN SUPPLY CO	Cole Information Services
1995	MCLOGAN SUPPLY CO INC	Pacific Bell
1966	Anaheim	Pacific Telephone
	E S D Electric Supplies Distributing Co	Pacific Telephone
	Anaheim	Pacific Telephone
	Electric Supplies Distributing Co	Pacific Telephone

727 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	PCF	Cole Information Services
1970	Gulf Oil Service Stns	General Telephone Co., of California
	Anaheim	General Telephone Co., of California
1966	Anaheim	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	GULF OIL SERV STNS Genl Ofc	Pacific Telephone

801 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Cash Robert W	General Telephone Co., of California
	Teltronic Protection Systems	General Telephone Co., of California

807 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Nungary Jose	Pacific Bell
1966	Carrick Janet M	Pacific Telephone

815 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Sauceda Jesus	Pacific Bell
1986	Sauceda Jesus	Pacific Bell
1970	Dorr Chas W	General Telephone Co., of California
1966	Buhbe John Mrs	Pacific Telephone

817 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Majera Jose	Pacific Bell
1966	Sloan Carroll	Pacific Telephone

821 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Rubin Herman	General Telephone Co., of California
1966	Rubin Herman	Pacific Telephone
	Simpson Loretta B	Pacific Telephone

825 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Simmons Richard & Debbie	Pacific Bell
	Sanchez Mario	Pacific Bell
1986	Metcalfe Inna M	Pacific Bell
	Fernandez Honorata	Pacific Bell
1970	Lange Chas E	General Telephone Co., of California
	Mc Duffe Paul Jr S	General Telephone Co., of California
	Wolfe Donald V	General Telephone Co., of California
	Mo Duffie A K	General Telephone Co., of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	Lne Clyde N	General Telephone Co., of California
1966	Mc Conathy O B	Pacific Telephone
	Ferraro Lelia	Pacific Telephone
	Lange Clyde N	Pacific Telephone
	Wright Riepen Mrs	Pacific Telephone

829 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Goodwin Elvia	Pacific Bell
1986	Batson Tim L	Pacific Bell
	Boulanger Bruce	Pacific Bell
	Simmons Tim	Pacific Bell
1970	Moore Cecil W	General Telephone Co., of California
	Mulligan ThomasS Levy & Van Bourg attys	General Telephone Co., of California
	Gaza Richard M	General Telephone Co., of California
	Miulligan W D	General Telephone Co., of California
1966	Cunningham Robt F	Pacific Telephone
	Erickson Kenneth M	Pacific Telephone
	Gaza Richard M	Pacific Telephone
	Wilson Bill F	Pacific Telephone
	Moore Cecil W	Pacific Telephone

835 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	BEGABUNG STUDIO	Cole Information Services

837 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	HI CYCLE CONCRETE CUTTING	Cole Information Services
	XS EQUIPMENT CO	Cole Information Services
	GD HEIL INC	Cole Information Services
1995	Shelton Construction Co	Pacific Bell
1986	Flat & Vertical Inc	Pacific Bell
1970	Thompson Robt E MD	General Telephone Co., of California
	Ledet Douglas L	General Telephone Co., of California

847 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	LA CHEMICAL	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	DIXCO DIVERSIFIED CHMCL SALES	Cole Information Services
1995	DIXCO DIVERSIFIED CHEMICAL SALES	Pacific Bell
1986	Gen I Ofc	Pacific Bell
	Los Angeles Drug Co	Pacific Bell
1970	Los Angeles Drug Co Anaheim Division Genl Ofc	General Telephone Co., of California
1966	LOS ANGELES DRUG CO ANAHEIM DIV Genl Ofc	Pacific Telephone

865 S EAST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	YELLOW CAB	Cole Information Services
	YELLOW	Cole Information Services
	PLATINUM CONSTRUCTION INC	Cole Information Services
	YELLO CAB	Cole Information Services
	LAGUNA COAST A&A SILVER CAB	Cole Information Services
2008	GIANNELLI ELECTRIC INC	Cole Information Services
2003	KEYSVILLE MINI STORAGE	Cole Information Services
1995	Industrial Contracting Engineers Inc	Pacific Bell
1986	Bryant Roofing Company	Pacific Bell
	Bryant Organization Inc The roofng contrs	Pacific Bell
1970	SCREEN GRAPHICS	General Telephone Co., of California
1966	MILLS PHARMACEUTICALS INC	Pacific Telephone

S ROSE ST

701 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Le Grand Harry	Pacific Telephone

703 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Kirby Mildred F	Pacific Telephone

704 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Haney Eugene W	Pacific Telephone

709 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Beatty T L	Pacific Telephone

FINDINGS

710 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Harmon Austin Mrs F	Pacific Telephone
1966	Harmon F Austin Mrs	Pacific Telephone
	Harmon Judy	Pacific Telephone

711 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Hildebrand F A Mrs	Pacific Telephone

714 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Bullock Harold T	Pacific Telephone

715 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Werner Ida B Mrs	Pacific Telephone

719 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Webster R M	Pacific Telephone

721 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Carden L L	Pacific Telephone
	Carden Ruth F	Pacific Telephone

722 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Putnam Geo F	Pacific Telephone

725 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Cozad M Eleanor	Pacific Telephone

726 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Crowley Robt E	Pacific Telephone

729 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Mc Kay John F	Pacific Telephone

FINDINGS

730 S ROSE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Ferris Walter J	Pacific Telephone

SOUTH

1232 SOUTH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	AAAA Yellow Cab	Pacific Bell
	AAAA Yellow Cab	Pacific Bell

SOUTH ST

1184 SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Sentenn Geraldine	Pacific Telephone

1234 SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Long Beach	Pacific Telephone

W SOUTH ST

1232 W SOUTH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	AAAA Yellow Cab	Pacific Bell
	Santa ANAHEIM	Pacific Bell

FINDINGS

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

East South Street / South East Street

Address Not Identified in Research Source

2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

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

1000 E SOUTH ST

Address Not Identified in Research Source

2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1000 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1010 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1012 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1017 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1017 E SOUTH ST

2013, 2008, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1019 E SOUTH ST

2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1019 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1021 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1027 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

1029 E SOUTH ST

2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

1029 E SOUTH ST	2008, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1184 SOUTH ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1202 E OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1202 OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1202 OPAL AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1203 E OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1203 OPAL AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1206 DIANA AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1206 E DIANA AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1986, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1206 E DIANA PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1206 E OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1986, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1206 OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1206 OPAL AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1209 CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1209 CRESTBROOK PL E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1209 E CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1210 E OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

1225 E CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1225 E LIVE OAK CT	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1225 LIVE OAK CT E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1227 DIANA AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1227 E DIANA AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1227 E OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1227 OPAL AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 CRESTBROOK PL E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 DIANA	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 DIANA AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 E CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 E DIANA AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1230 E DIANA PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1231 CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1231 CRESTBROOK PL E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1231 E CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1232 E LIVE OAK CT	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

1237 E DIANA AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1238 E LIVE OAK CT	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1238 E SOUTH ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1238 E SOUTH ST	2013, 2008, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1238 LIVE OAK CT E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1239 E LIVE OAK CT	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1239 E SOUTH ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1240 CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1240 CRESTBROOK PL E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1240 DIANA AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1240 E CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1240 E DIANA AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1240 E DIANA PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1241 CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1241 CRESTBROOK PL E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1241 DIANA AVE E	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1241 E CRESTBROOK PL	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1980, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

1265 E LIVE OAK CT	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1266 OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1271 OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
1272 OPAL AVE	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
610 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
616 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
628 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
628 S EAST ST	2013, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
653 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
700 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
701 S ROSE ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
703 S ROSE ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
704 S ROSE ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
709 S ROSE ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
710 S ROSE ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
711 DAWN ST S	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
711 S DAWN ST	2013, 2008, 2003, 2002, 2001, 1997, 1995, 1992, 1980, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

825 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
829 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
835 S EAST ST	2013, 2008, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
837 S EAST ST	2013, 2008, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
837 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
847 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
847 S EAST ST	2013, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
865 S EAST ST	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
865 S EAST ST	2013, 2008, 2003, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

**PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET,
ANAHEIM, CALIFORNIA**

Appendix G – Interview Forms
August 5, 2016

Appendix F AGENCY RECORDS



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

**PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH**

**MARK A. REFOWITZ
DIRECTOR**

**DAVID M. SOULELES, MPH
DEPUTY AGENCY DIRECTOR**

**DENISE FENNESSY, REHS
DIRECTOR
ENVIRONMENTAL HEALTH**

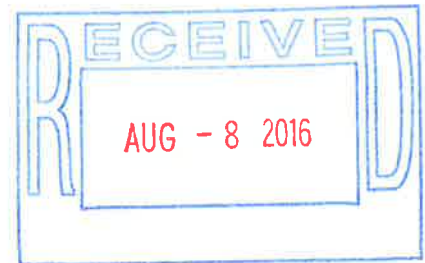
MAILING ADDRESS:
1241 E. DYER RD., #120
SANTA ANA, CA 92705-5611

TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

8/3/2016

NO RECORDS

STANTEC CONSULTING
ALICIA JANSEN
25864-F BUSINESS CENTER DR
REDLANDS CA 92374-



RE: EHD REQ #: 26577

711 SOUTH EAST STREET, ANAHEIM, CA 92805

This office is in receipt of your request for copies of records. We were unable to locate any records on the above location..

It is understood that such records could exist under another spelling, name or classification, but with the information furnished to our office and to the best of our knowledge, no such records exist in our files.

NOTE: The cities of Anaheim, Fullerton, Orange and Santa Ana monitor their own Underground Storage

The Health Care Agency may not be the only source of records. Please check with the Fire Department, the Water Quality Control Board and/or the State Department of Health Services.

If you have any question, please call this office at (714) 433-6022.

Environmental Health Records Unit

Orange County TAX ID: 95-6000-928W

Jansen, Alicia

From: Edwards, Mary@Waterboards <Mary.Edwards@waterboards.ca.gov> on behalf of WB-RB8-FileReview8 <FileReview8@waterboards.ca.gov>
Sent: Tuesday, July 12, 2016 4:07 PM
To: Jansen, Alicia
Subject: RE: File Review Request

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Hi Alicia,

I show no records for the address listed below. If you have any questions you can call me at 951 782 4499.

Thanks,
Mary

From: Jansen, Alicia [<mailto:Alicia.Jansen@stantec.com>]
Sent: Tuesday, July 12, 2016 1:20 PM
To: WB-RB8-FileReview8
Subject: File Review Request

Good Morning,

I would like to review any available records for the following address:

[711 South East Street, Anaheim, CA 92805.](#)

The information will be used in an environmental site assessment.

Thank you for your time,

Alicia Jansen

Associate Scientist
Stantec
25864-F Business Center Drive Redlands CA 92374-4515
Phone: (909) 255-8213
Cell: (909) 654-8342
Fax: (909) 335-6120
Alicia.Jansen@stantec.com



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Please consider the environment before printing this email.

**PHASE I AND II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET,
ANAHEIM, CALIFORNIA**

Appendix G – Interview Forms
August 5, 2016

Appendix G LABORATORY REPORT

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> cinnaslab@EMSL.com

EMSL Order: 041620273
 CustomerID: STTC26
 CustomerPO:
 ProjectID:

Attn: **Alicia Jansen**
Stantec Consulting Services Inc
25864 Business Center Drive, Suite F
Redlands, CA 92374

Phone: (909) 335-6116
 Fax:
 Received: 07/25/16 9:10 AM
 Analysis Date: 7/28/2016
 Collected: 7/21/2016

Project: **185803745 / Anaheim Petromat Assessment / 711 & 633 South East Street, Anaheim CA / Task 201**

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
01A 041620273-0001	NE Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					
01B-Tar Felt 041620273-0002	N Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					
01B-Tar 041620273-0002A	N Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					
01C-Tar Felt 041620273-0003	NW Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					
01C-Tar 041620273-0003A	NW Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					
01D-Tar Felt 041620273-0004	SW Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					
01D-Tar 041620273-0004A	SW Corner of Parking Lot - Petromat/ Black/ b/w Asphalt & Soil	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
HA: 01					

Analyst(s)
 Sandy Burany, Ph.D (8)


 Benjamin Ellis, Laboratory Manager
 or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
 Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NYS ELAP 10872, PA ID# 68-00367

Initial report from 07/28/2016 14:52:38

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> cinnaslab@EMSL.com

EMSL Order: 041620273
 CustomerID: STTC26
 CustomerPO:
 ProjectID:

Attn: **Alicia Jansen**
Stantec Consulting Services Inc
25864 Business Center Drive, Suite F
Redlands, CA 92374

Phone: (909) 335-6116
 Fax:
 Received: 07/25/16 9:10 AM
 Analysis Date: 7/28/2016
 Collected: 7/21/2016

Project: **185803745 / Anaheim Petromat Assessment / 711 & 633 South East Street, Anaheim CA / Task 201**

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
01E 041620273-0005	NE Corner of Parking Lot (lower layer) - Petromat/ Black/ b/w Asphalt & Soil	Black Fibrous Homogeneous	100	None	<0.1% Chrysotile
HA: 01					

Analyst(s)

 Sandy Burany, Ph.D (8)



 Benjamin Ellis, Laboratory Manager
 or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
 Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NYS ELAP 10872, PA ID# 68-00367

Initial report from 07/28/2016 14:52:38

EMSL Analytical, Inc.
200 Route 130 North



EMSL ANALYTICAL, INC.
LABORATORY / PRODUCTS / TRAINING

Asbestos Chain of Custody
EMSL Order Number (Lab Use Only):

041620273

Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

Company Name : Stantec Consulting Services, Inc		EMSL Customer ID:	
Street: 25864-F Business Center Drive		City: Redlands	State/Province: CA
Zip/Postal Code: 92374	Country: United States	Telephone #: 909-255-8213	Fax #: 909-255-8200
Report To (Name): Alicia Jansen		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: alicia.jansen@stantec.com		Purchase Order:	
Project Name/Number: 185803745		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: CA		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to: Same Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<p>PCM - Air <input type="checkbox"/> Check if samples are from NY</p> <p><input type="checkbox"/> NIOSH 7400</p> <p><input type="checkbox"/> w/ OSHA 8hr. TWA</p> <p>PLM - Bulk (reporting limit)</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 (<1%)</p> <p><input type="checkbox"/> PLM EPA NOB (<1%)</p> <p>Point Count</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p>Point Count w/ Gravimetric</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p><input type="checkbox"/> NYS 198.1 (friable in NY)</p> <p><input type="checkbox"/> NYS 198.6 NOB (non-friable-NY)</p> <p><input type="checkbox"/> NYS 198.8 SOF-V</p> <p><input type="checkbox"/> NIOSH 9002 (<1%)</p>	<p>TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only)</p> <p><input type="checkbox"/> AHERA 40 CFR, Part 763</p> <p><input type="checkbox"/> NIOSH 7402</p> <p><input type="checkbox"/> EPA Level II</p> <p><input type="checkbox"/> ISO 10312</p> <p>TEM - Bulk</p> <p><input checked="" type="checkbox"/> TEM EPA NOB</p> <p><input type="checkbox"/> NYS NOB 198.4 (non-friable-NY)</p> <p><input type="checkbox"/> Chatfield SOP</p> <p><input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5</p> <p>TEM - Water: EPA 100.2</p> <p>Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p> <p>All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p>	<p>TEM - Dust</p> <p><input type="checkbox"/> Microvac - ASTM D 5755</p> <p><input type="checkbox"/> Wipe - ASTM D6480</p> <p><input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)</p> <p>Soil/Rock/Vermiculite*</p> <p><input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity)</p> <p><input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity)</p> <p><input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity)</p> <p><input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity)</p> <p><input type="checkbox"/> TEM Qual. via Filtration Technique</p> <p><input type="checkbox"/> TEM Qual. via Drop-Mount Technique</p> <p><small>*Can not accept New York State Loose Fill Vermiculite Samples</small></p> <p>Other:</p> <p><input type="checkbox"/></p>
---	---	--

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Alicia Jansen Samplers Signature: *Alicia Jansen*

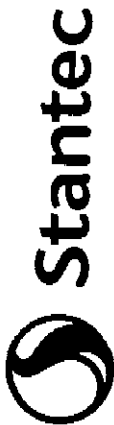
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	see attached logs		JUL 25 AM 9:19 EMSL CINNAMINSON, NJ

Client Sample # (s): 4A01A - OJD Total # of Samples: 4

Relinquished (Client): Cidena Date: 7-21-16 Time: 1:30

Received (Lab): RD fx Date: 7-25-2016 Time: 9:10 AM

Comments/Special Instructions:
Bill To: Stantec Consulting Services, Inc., 25864-F Business Center Drive, Redlands, CA, 92374, United States
 Attention: Alicia Jansen Phone 909-255-8213 Email: alicia.jansen@stantec.com Purchase Order.



Asbestos Bulk Sample Log

25864-F Business Center Drive
Redlands, CA 92374
Tel: (909) 335-6116
Fax: (909) 335-6120

Project Name: Anaheim Petromat Assessment Site Name: _____
Project #: 185803745 Task #: 201 Site Address: 711 and 633 South East Street
Inspector: AJ Anaheim, CA
Date: 7/21/2016

MATERIAL	
HA#	<u>01</u>
Material Type:	<u>Petromat</u>
Color:	<u>Black</u>
Description:	<u>Between Asphalt + Native Soil</u>
Estimated Total Qty.:	

MATERIAL LOCATIONS			
Floor #	Location	Quantity Estimate	Cond.
-	<u>Asphalt</u>	<u>52,000 S.F.</u>	<u>G</u>
	<u>Parking lot</u>		

SAMPLES	
Sample #	Sample Location
<u>01 A</u>	<u>NE Corner of Parking Lot</u>
<u>01 B</u>	<u>N Center of Parking Lot</u>
<u>01 C</u>	<u>SW Corner of Parking Lot</u>
<u>01 D</u>	<u>SW Corner of Parking Lot</u>
<u>01 E</u>	<u>NE Corner of Parking Lot (Lower)</u>
<u>F</u>	
<u>G</u>	

Notes:

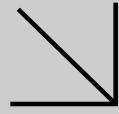
HAZARD ASSESSMENT		
	Yes	No
Friable:		<u>No</u>
Contact by Maintenance:	<u>Low</u>	High
Vibration:	<u>Low</u>	High
Air Movement:	<u>Low</u>	High

RECEIVED
EMSL
CINNAMINSON, NJ
16 JUL 25 AM 9:19

Relinquished By: [Signature] Date: 7/21/16 Received By: _____ Date: _____



Calscience



WORK ORDER NUMBER: 16-07-1557

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Stantec

Client Project Name: Olson - 711 S. East St, Anaheim /
185803745.201.0001

Attention: Alicia Jansen
25864-F Business Center Drive
Redlands, CA 92374-4515

Carla Hollowell FOL

Approved for release on 07/29/2016 by:
Carla Hollowell
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: Olson - 711 S. East St, Anaheim / 185803745.201.0001
Work Order Number: 16-07-1557

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	4.2 EPA 8015B (M) TPH Diesel (Solid).	8
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7	Chain-of-Custody/Sample Receipt Form.	61

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/22/16. They were assigned to Work Order 16-07-1557.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client: Stantec	Work Order:	16-07-1557
25864-F Business Center Drive	Project Name:	Olson - 711 S. East St, Anaheim / 185803745.201.0001
Redlands, CA 92374-4515	PO Number:	
	Date/Time Received:	07/22/16 13:43
	Number of Containers:	8

Attn: Alicia Jansen

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-1-1	16-07-1557-1	07/21/16 07:53	1	Solid
B-2-1	16-07-1557-2	07/21/16 08:20	1	Solid
B-3-1	16-07-1557-3	07/21/16 08:40	1	Solid
B-4-1	16-07-1557-4	07/21/16 09:07	1	Solid
B-5-1	16-07-1557-5	07/21/16 09:40	1	Solid
B-6-1	16-07-1557-6	07/21/16 10:12	1	Solid
B-7-1	16-07-1557-7	07/21/16 10:41	1	Solid
B-8-1	16-07-1557-8	07/21/16 11:08	1	Solid

Detections Summary

Client: Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Work Order: 16-07-1557
Project Name: Olson - 711 S. East St, Anaheim /
185803745.201.0001
Received: 07/22/16

Attn: Alicia Jansen

Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-1 (16-07-1557-1)						
Arsenic	1.89		0.773	mg/kg	EPA 6010B	EPA 3050B
Lead	6.46		0.515	mg/kg	EPA 6010B	EPA 3050B
B-2-1 (16-07-1557-2)						
Arsenic	3.33		0.769	mg/kg	EPA 6010B	EPA 3050B
Lead	16.8		0.513	mg/kg	EPA 6010B	EPA 3050B
TPH as Motor Oil	81	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	6.5	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
4,4'-DDE	11		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.5		5.0	ug/kg	EPA 8081A	EPA 3545
Dieldrin	22		5.0	ug/kg	EPA 8081A	EPA 3545
B-3-1 (16-07-1557-3)						
TPH as Motor Oil	86	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	8.7	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
B-5-1 (16-07-1557-5)						
Arsenic	1.61		0.777	mg/kg	EPA 6010B	EPA 3050B
Lead	5.64		0.518	mg/kg	EPA 6010B	EPA 3050B
B-7-1 (16-07-1557-7)						
Arsenic	3.25		0.732	mg/kg	EPA 6010B	EPA 3050B
Lead	14.6		0.488	mg/kg	EPA 6010B	EPA 3050B
TPH as Motor Oil	53	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	29	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
B-8-1 (16-07-1557-8)						
Arsenic	3.95		0.769	mg/kg	EPA 6010B	EPA 3050B
Lead	8.00		0.513	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 45	07/25/16	07/25/16 23:53	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		101		61-145			
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 45	07/25/16	07/26/16 00:10	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		81		25		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		61-145			
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC 45	07/25/16	07/26/16 00:26	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		86		25		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC 45	07/25/16	07/26/16 00:43	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		105		61-145			
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 45	07/25/16	07/26/16 01:01	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		102		61-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-1	16-07-1557-6-A	07/21/16 10:12	Solid	GC 45	07/25/16	07/26/16 01:18	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		102		61-145			
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	GC 45	07/25/16	07/26/16 01:34	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		53		25		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		97		61-145			
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	GC 45	07/25/16	07/26/16 01:52	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		103		61-145			
Method Blank	099-15-420-1910	N/A	Solid	GC 45	07/25/16	07/25/16 21:57	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		100		61-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 45	07/25/16	07/25/16 23:53	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		101		61-145			
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 45	07/25/16	07/26/16 00:10	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		6.5		5.0		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		61-145			
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC 45	07/25/16	07/26/16 00:26	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		8.7		5.0		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC 45	07/25/16	07/26/16 00:43	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		105		61-145			
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 45	07/25/16	07/26/16 01:01	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		102		61-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-1	16-07-1557-6-A	07/21/16 10:12	Solid	GC 45	07/25/16	07/26/16 01:18	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		102		61-145			
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	GC 45	07/25/16	07/26/16 01:34	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		29		5.0		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		97		61-145			
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	GC 45	07/25/16	07/26/16 01:52	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		103		61-145			
Method Blank	099-15-422-2568	N/A	Solid	GC 45	07/25/16	07/25/16 21:57	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		100		61-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 42	07/23/16	07/26/16 15:49	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		67		42-126			
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 42	07/23/16	07/26/16 17:34	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		67		42-126			
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC 42	07/23/16	07/26/16 18:08	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		62		42-126			
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC 42	07/23/16	07/26/16 18:43	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		64		42-126			
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 42	07/23/16	07/26/16 19:18	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		58		42-126			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-1	16-07-1557-6-A	07/21/16 10:12	Solid	GC 42	07/23/16	07/26/16 19:53	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		61		42-126			
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	GC 42	07/23/16	07/26/16 20:28	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.49		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		57		42-126			
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	GC 42	07/23/16	07/26/16 21:03	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		59		42-126			
Method Blank	099-14-571-3163	N/A	Solid	GC 42	07/26/16	07/26/16 14:31	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		65		42-126			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	ICP 7300	07/27/16	07/28/16 10:21	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		1.89		RL		DF	
Lead		6.46		0.773		1.03	
				0.515		1.03	
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	ICP 7300	07/27/16	07/28/16 10:22	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		3.33		RL		DF	
Lead		16.8		0.769		1.03	
				0.513		1.03	
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	ICP 7300	07/27/16	07/28/16 10:23	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		1.61		RL		DF	
Lead		5.64		0.777		1.04	
				0.518		1.04	
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	ICP 7300	07/27/16	07/28/16 10:26	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		3.25		RL		DF	
Lead		14.6		0.732		0.976	
				0.488		0.976	
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	ICP 7300	07/27/16	07/28/16 10:28	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		3.95		RL		DF	
Lead		8.00		0.769		1.03	
				0.513		1.03	
Method Blank	097-01-002-23001	N/A	Solid	ICP 7300	07/27/16	07/27/16 13:54	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		ND		RL		DF	
Lead		ND		0.758		1.01	
				0.505		1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 41	07/26/16	07/27/16 14:42	160726L11
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	
Aldrin		ND		5.0	1.00		
Alpha-BHC		ND		10	1.00		
Beta-BHC		ND		5.0	1.00		
Chlordane		ND		50	1.00		
4,4'-DDD		ND		5.0	1.00		
4,4'-DDE		ND		5.0	1.00		
4,4'-DDT		ND		5.0	1.00		
Delta-BHC		ND		10	1.00		
Dieldrin		ND		5.0	1.00		
Endosulfan I		ND		5.0	1.00		
Endosulfan II		ND		5.0	1.00		
Endosulfan Sulfate		ND		5.0	1.00		
Endrin		ND		5.0	1.00		
Endrin Aldehyde		ND		5.0	1.00		
Endrin Ketone		ND		5.0	1.00		
Gamma-BHC		ND		5.0	1.00		
Heptachlor		ND		5.0	1.00		
Heptachlor Epoxide		ND		10	1.00		
Methoxychlor		ND		5.0	1.00		
Toxaphene		ND		100	1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>	<u>Qualifiers</u>		
Decachlorobiphenyl		97		24-168			
2,4,5,6-Tetrachloro-m-Xylene		64		25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3545
 Method: EPA 8081A
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 41	07/26/16	07/27/16 14:57	160726L11
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Aldrin		ND		5.0	1.00		
Alpha-BHC		ND		10	1.00		
Beta-BHC		ND		5.0	1.00		
Chlordane		ND		50	1.00		
4,4'-DDD		ND		5.0	1.00		
4,4'-DDE		11		5.0	1.00		
4,4'-DDT		5.5		5.0	1.00		
Delta-BHC		ND		10	1.00		
Dieldrin		22		5.0	1.00		
Endosulfan I		ND		5.0	1.00		
Endosulfan II		ND		5.0	1.00		
Endosulfan Sulfate		ND		5.0	1.00		
Endrin		ND		5.0	1.00		
Endrin Aldehyde		ND		5.0	1.00		
Endrin Ketone		ND		5.0	1.00		
Gamma-BHC		ND		5.0	1.00		
Heptachlor		ND		5.0	1.00		
Heptachlor Epoxide		ND		10	1.00		
Methoxychlor		ND		5.0	1.00		
Toxaphene		ND		100	1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
Decachlorobiphenyl		92		24-168			
2,4,5,6-Tetrachloro-m-Xylene		67		25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3545
 Method: EPA 8081A
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 41	07/26/16	07/27/16 15:12	160726L11

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	80	24-168	
2,4,5,6-Tetrachloro-m-Xylene	53	25-145	



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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3545
 Method: EPA 8081A
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	GC 41	07/26/16	07/27/16 15:27	160726L11

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3545
 Method: EPA 8081A
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	GC 41	07/26/16	07/27/16 15:42	160726L11
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Aldrin		ND		5.0	1.00		
Alpha-BHC		ND		10	1.00		
Beta-BHC		ND		5.0	1.00		
Chlordane		ND		50	1.00		
4,4'-DDD		ND		5.0	1.00		
4,4'-DDE		ND		5.0	1.00		
4,4'-DDT		ND		5.0	1.00		
Delta-BHC		ND		10	1.00		
Dieldrin		ND		5.0	1.00		
Endosulfan I		ND		5.0	1.00		
Endosulfan II		ND		5.0	1.00		
Endosulfan Sulfate		ND		5.0	1.00		
Endrin		ND		5.0	1.00		
Endrin Aldehyde		ND		5.0	1.00		
Endrin Ketone		ND		5.0	1.00		
Gamma-BHC		ND		5.0	1.00		
Heptachlor		ND		5.0	1.00		
Heptachlor Epoxide		ND		10	1.00		
Methoxychlor		ND		5.0	1.00		
Toxaphene		ND		100	1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
Decachlorobiphenyl		86		24-168			
2,4,5,6-Tetrachloro-m-Xylene		56		25-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3545
 Method: EPA 8081A
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-537-2482	N/A	Solid	GC 41	07/26/16	07/27/16 12:26	160726L11

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC/MS W	07/23/16	07/24/16 05:57	160723L025
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Acetone		ND		120	1.00		
Benzene		ND		5.0	1.00		
Bromobenzene		ND		5.0	1.00		
Bromochloromethane		ND		5.0	1.00		
Bromodichloromethane		ND		5.0	1.00		
Bromoform		ND		5.0	1.00		
Bromomethane		ND		25	1.00		
2-Butanone		ND		50	1.00		
n-Butylbenzene		ND		5.0	1.00		
sec-Butylbenzene		ND		5.0	1.00		
tert-Butylbenzene		ND		5.0	1.00		
Carbon Disulfide		ND		50	1.00		
Carbon Tetrachloride		ND		5.0	1.00		
Chlorobenzene		ND		5.0	1.00		
Chloroethane		ND		5.0	1.00		
Chloroform		ND		5.0	1.00		
Chloromethane		ND		25	1.00		
2-Chlorotoluene		ND		5.0	1.00		
4-Chlorotoluene		ND		5.0	1.00		
Dibromochloromethane		ND		5.0	1.00		
1,2-Dibromo-3-Chloropropane		ND		10	1.00		
1,2-Dibromoethane		ND		5.0	1.00		
Dibromomethane		ND		5.0	1.00		
1,2-Dichlorobenzene		ND		5.0	1.00		
1,3-Dichlorobenzene		ND		5.0	1.00		
1,4-Dichlorobenzene		ND		5.0	1.00		
Dichlorodifluoromethane		ND		5.0	1.00		
1,1-Dichloroethane		ND		5.0	1.00		
1,2-Dichloroethane		ND		5.0	1.00		
1,1-Dichloroethene		ND		5.0	1.00		
c-1,2-Dichloroethene		ND		5.0	1.00		
t-1,2-Dichloroethene		ND		5.0	1.00		
1,2-Dichloropropane		ND		5.0	1.00		
1,3-Dichloropropane		ND		5.0	1.00		
2,2-Dichloropropane		ND		5.0	1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	50	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	250	1.00	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 3 of 27

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	82	60-132	
Dibromofluoromethane	110	63-141	
1,2-Dichloroethane-d4	109	62-146	
Toluene-d8	99	80-120	

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC/MS W	07/23/16	07/24/16 06:24	160723L025

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	130	1.00	
Benzene	ND	5.2	1.00	
Bromobenzene	ND	5.2	1.00	
Bromochloromethane	ND	5.2	1.00	
Bromodichloromethane	ND	5.2	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	26	1.00	
2-Butanone	ND	52	1.00	
n-Butylbenzene	ND	5.2	1.00	
sec-Butylbenzene	ND	5.2	1.00	
tert-Butylbenzene	ND	5.2	1.00	
Carbon Disulfide	ND	52	1.00	
Carbon Tetrachloride	ND	5.2	1.00	
Chlorobenzene	ND	5.2	1.00	
Chloroethane	ND	5.2	1.00	
Chloroform	ND	5.2	1.00	
Chloromethane	ND	26	1.00	
2-Chlorotoluene	ND	5.2	1.00	
4-Chlorotoluene	ND	5.2	1.00	
Dibromochloromethane	ND	5.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.2	1.00	
Dibromomethane	ND	5.2	1.00	
1,2-Dichlorobenzene	ND	5.2	1.00	
1,3-Dichlorobenzene	ND	5.2	1.00	
1,4-Dichlorobenzene	ND	5.2	1.00	
Dichlorodifluoromethane	ND	5.2	1.00	
1,1-Dichloroethane	ND	5.2	1.00	
1,2-Dichloroethane	ND	5.2	1.00	
1,1-Dichloroethene	ND	5.2	1.00	
c-1,2-Dichloroethene	ND	5.2	1.00	
t-1,2-Dichloroethene	ND	5.2	1.00	
1,2-Dichloropropane	ND	5.2	1.00	
1,3-Dichloropropane	ND	5.2	1.00	
2,2-Dichloropropane	ND	5.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.2	1.00	
c-1,3-Dichloropropene	ND	5.2	1.00	
t-1,3-Dichloropropene	ND	5.2	1.00	
Ethylbenzene	ND	5.2	1.00	
2-Hexanone	ND	52	1.00	
Isopropylbenzene	ND	5.2	1.00	
p-Isopropyltoluene	ND	5.2	1.00	
Methylene Chloride	ND	52	1.00	
4-Methyl-2-Pentanone	ND	52	1.00	
Naphthalene	ND	52	1.00	
n-Propylbenzene	ND	5.2	1.00	
Styrene	ND	5.2	1.00	
1,1,1,2-Tetrachloroethane	ND	5.2	1.00	
1,1,2,2-Tetrachloroethane	ND	5.2	1.00	
Tetrachloroethene	ND	5.2	1.00	
Toluene	ND	5.2	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.2	1.00	
1,1,1-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	1.00	
Trichloroethene	ND	5.2	1.00	
1,2,3-Trichloropropane	ND	5.2	1.00	
1,2,4-Trimethylbenzene	ND	5.2	1.00	
Trichlorofluoromethane	ND	52	1.00	
1,3,5-Trimethylbenzene	ND	5.2	1.00	
Vinyl Acetate	ND	52	1.00	
Vinyl Chloride	ND	5.2	1.00	
p/m-Xylene	ND	5.2	1.00	
o-Xylene	ND	5.2	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.2	1.00	
Tert-Butyl Alcohol (TBA)	ND	52	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	260	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	81	60-132	
Dibromofluoromethane	111	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC/MS W	07/23/16	07/24/16 06:51	160723L025
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Acetone		ND	130		1.00		
Benzene		ND	5.1		1.00		
Bromobenzene		ND	5.1		1.00		
Bromochloromethane		ND	5.1		1.00		
Bromodichloromethane		ND	5.1		1.00		
Bromoform		ND	5.1		1.00		
Bromomethane		ND	26		1.00		
2-Butanone		ND	51		1.00		
n-Butylbenzene		ND	5.1		1.00		
sec-Butylbenzene		ND	5.1		1.00		
tert-Butylbenzene		ND	5.1		1.00		
Carbon Disulfide		ND	51		1.00		
Carbon Tetrachloride		ND	5.1		1.00		
Chlorobenzene		ND	5.1		1.00		
Chloroethane		ND	5.1		1.00		
Chloroform		ND	5.1		1.00		
Chloromethane		ND	26		1.00		
2-Chlorotoluene		ND	5.1		1.00		
4-Chlorotoluene		ND	5.1		1.00		
Dibromochloromethane		ND	5.1		1.00		
1,2-Dibromo-3-Chloropropane		ND	10		1.00		
1,2-Dibromoethane		ND	5.1		1.00		
Dibromomethane		ND	5.1		1.00		
1,2-Dichlorobenzene		ND	5.1		1.00		
1,3-Dichlorobenzene		ND	5.1		1.00		
1,4-Dichlorobenzene		ND	5.1		1.00		
Dichlorodifluoromethane		ND	5.1		1.00		
1,1-Dichloroethane		ND	5.1		1.00		
1,2-Dichloroethane		ND	5.1		1.00		
1,1-Dichloroethene		ND	5.1		1.00		
c-1,2-Dichloroethene		ND	5.1		1.00		
t-1,2-Dichloroethene		ND	5.1		1.00		
1,2-Dichloropropane		ND	5.1		1.00		
1,3-Dichloropropane		ND	5.1		1.00		
2,2-Dichloropropane		ND	5.1		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	51	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	260	1.00	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg

Project: Olson - 711 S. East St, Anaheim /
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	80	60-132	
Dibromofluoromethane	114	63-141	
1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	99	80-120	

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC/MS W	07/23/16	07/24/16 07:17	160723L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	130	1.00	
Benzene	ND	5.1	1.00	
Bromobenzene	ND	5.1	1.00	
Bromochloromethane	ND	5.1	1.00	
Bromodichloromethane	ND	5.1	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	51	1.00	
n-Butylbenzene	ND	5.1	1.00	
sec-Butylbenzene	ND	5.1	1.00	
tert-Butylbenzene	ND	5.1	1.00	
Carbon Disulfide	ND	51	1.00	
Carbon Tetrachloride	ND	5.1	1.00	
Chlorobenzene	ND	5.1	1.00	
Chloroethane	ND	5.1	1.00	
Chloroform	ND	5.1	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.1	1.00	
4-Chlorotoluene	ND	5.1	1.00	
Dibromochloromethane	ND	5.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.1	1.00	
Dibromomethane	ND	5.1	1.00	
1,2-Dichlorobenzene	ND	5.1	1.00	
1,3-Dichlorobenzene	ND	5.1	1.00	
1,4-Dichlorobenzene	ND	5.1	1.00	
Dichlorodifluoromethane	ND	5.1	1.00	
1,1-Dichloroethane	ND	5.1	1.00	
1,2-Dichloroethane	ND	5.1	1.00	
1,1-Dichloroethene	ND	5.1	1.00	
c-1,2-Dichloroethene	ND	5.1	1.00	
t-1,2-Dichloroethene	ND	5.1	1.00	
1,2-Dichloropropane	ND	5.1	1.00	
1,3-Dichloropropane	ND	5.1	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 11 of 27

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	51	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	250	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 12 of 27

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	81	60-132	
Dibromofluoromethane	115	63-141	
1,2-Dichloroethane-d4	114	62-146	
Toluene-d8	100	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC/MS W	07/23/16	07/24/16 07:44	160723L025
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Acetone		ND	120		1.00		
Benzene		ND	4.9		1.00		
Bromobenzene		ND	4.9		1.00		
Bromochloromethane		ND	4.9		1.00		
Bromodichloromethane		ND	4.9		1.00		
Bromoform		ND	4.9		1.00		
Bromomethane		ND	24		1.00		
2-Butanone		ND	49		1.00		
n-Butylbenzene		ND	4.9		1.00		
sec-Butylbenzene		ND	4.9		1.00		
tert-Butylbenzene		ND	4.9		1.00		
Carbon Disulfide		ND	49		1.00		
Carbon Tetrachloride		ND	4.9		1.00		
Chlorobenzene		ND	4.9		1.00		
Chloroethane		ND	4.9		1.00		
Chloroform		ND	4.9		1.00		
Chloromethane		ND	24		1.00		
2-Chlorotoluene		ND	4.9		1.00		
4-Chlorotoluene		ND	4.9		1.00		
Dibromochloromethane		ND	4.9		1.00		
1,2-Dibromo-3-Chloropropane		ND	9.8		1.00		
1,2-Dibromoethane		ND	4.9		1.00		
Dibromomethane		ND	4.9		1.00		
1,2-Dichlorobenzene		ND	4.9		1.00		
1,3-Dichlorobenzene		ND	4.9		1.00		
1,4-Dichlorobenzene		ND	4.9		1.00		
Dichlorodifluoromethane		ND	4.9		1.00		
1,1-Dichloroethane		ND	4.9		1.00		
1,2-Dichloroethane		ND	4.9		1.00		
1,1-Dichloroethene		ND	4.9		1.00		
c-1,2-Dichloroethene		ND	4.9		1.00		
t-1,2-Dichloroethene		ND	4.9		1.00		
1,2-Dichloropropane		ND	4.9		1.00		
1,3-Dichloropropane		ND	4.9		1.00		
2,2-Dichloropropane		ND	4.9		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 14 of 27

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	4.9	1.00	
c-1,3-Dichloropropene	ND	4.9	1.00	
t-1,3-Dichloropropene	ND	4.9	1.00	
Ethylbenzene	ND	4.9	1.00	
2-Hexanone	ND	49	1.00	
Isopropylbenzene	ND	4.9	1.00	
p-Isopropyltoluene	ND	4.9	1.00	
Methylene Chloride	ND	49	1.00	
4-Methyl-2-Pentanone	ND	49	1.00	
Naphthalene	ND	49	1.00	
n-Propylbenzene	ND	4.9	1.00	
Styrene	ND	4.9	1.00	
1,1,1,2-Tetrachloroethane	ND	4.9	1.00	
1,1,2,2-Tetrachloroethane	ND	4.9	1.00	
Tetrachloroethene	ND	4.9	1.00	
Toluene	ND	4.9	1.00	
1,2,3-Trichlorobenzene	ND	9.8	1.00	
1,2,4-Trichlorobenzene	ND	4.9	1.00	
1,1,1-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	49	1.00	
Trichloroethene	ND	4.9	1.00	
1,2,3-Trichloropropane	ND	4.9	1.00	
1,2,4-Trimethylbenzene	ND	4.9	1.00	
Trichlorofluoromethane	ND	49	1.00	
1,3,5-Trimethylbenzene	ND	4.9	1.00	
Vinyl Acetate	ND	49	1.00	
Vinyl Chloride	ND	4.9	1.00	
p/m-Xylene	ND	4.9	1.00	
o-Xylene	ND	4.9	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	4.9	1.00	
Tert-Butyl Alcohol (TBA)	ND	49	1.00	
Diisopropyl Ether (DIPE)	ND	9.8	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	9.8	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	9.8	1.00	
Ethanol	ND	240	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	81	60-132	
Dibromofluoromethane	114	63-141	
1,2-Dichloroethane-d4	113	62-146	
Toluene-d8	100	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-1	16-07-1557-6-A	07/21/16 10:12	Solid	GC/MS W	07/23/16	07/24/16 08:11	160723L025

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	130	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 17 of 27

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	50	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	250	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 18 of 27

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	81	60-132	
Dibromofluoromethane	114	63-141	
1,2-Dichloroethane-d4	112	62-146	
Toluene-d8	101	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	GC/MS W	07/23/16	07/24/16 08:37	160723L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	50	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	250	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	80	60-132	
Dibromofluoromethane	114	63-141	
1,2-Dichloroethane-d4	113	62-146	
Toluene-d8	100	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	GC/MS W	07/23/16	07/24/16 09:04	160723L025
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Acetone		ND		130	1.00		
Benzene		ND		5.1	1.00		
Bromobenzene		ND		5.1	1.00		
Bromochloromethane		ND		5.1	1.00		
Bromodichloromethane		ND		5.1	1.00		
Bromoform		ND		5.1	1.00		
Bromomethane		ND		25	1.00		
2-Butanone		ND		51	1.00		
n-Butylbenzene		ND		5.1	1.00		
sec-Butylbenzene		ND		5.1	1.00		
tert-Butylbenzene		ND		5.1	1.00		
Carbon Disulfide		ND		51	1.00		
Carbon Tetrachloride		ND		5.1	1.00		
Chlorobenzene		ND		5.1	1.00		
Chloroethane		ND		5.1	1.00		
Chloroform		ND		5.1	1.00		
Chloromethane		ND		25	1.00		
2-Chlorotoluene		ND		5.1	1.00		
4-Chlorotoluene		ND		5.1	1.00		
Dibromochloromethane		ND		5.1	1.00		
1,2-Dibromo-3-Chloropropane		ND		10	1.00		
1,2-Dibromoethane		ND		5.1	1.00		
Dibromomethane		ND		5.1	1.00		
1,2-Dichlorobenzene		ND		5.1	1.00		
1,3-Dichlorobenzene		ND		5.1	1.00		
1,4-Dichlorobenzene		ND		5.1	1.00		
Dichlorodifluoromethane		ND		5.1	1.00		
1,1-Dichloroethane		ND		5.1	1.00		
1,2-Dichloroethane		ND		5.1	1.00		
1,1-Dichloroethene		ND		5.1	1.00		
c-1,2-Dichloroethene		ND		5.1	1.00		
t-1,2-Dichloroethene		ND		5.1	1.00		
1,2-Dichloropropane		ND		5.1	1.00		
1,3-Dichloropropane		ND		5.1	1.00		
2,2-Dichloropropane		ND		5.1	1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 23 of 27

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	51	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	250	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	80	60-132	
Dibromofluoromethane	117	63-141	
1,2-Dichloroethane-d4	116	62-146	
Toluene-d8	101	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-796-11503	N/A	Solid	GC/MS W	07/23/16	07/24/16 01:57	160723L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 26 of 27

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	50	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	250	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 27 of 27

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	84	60-132	
Dibromofluoromethane	112	63-141	
1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	99	80-120	



Calscience

Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-4-1	Sample	Solid	GC 45	07/25/16	07/26/16 00:43	160725S02
B-4-1	Matrix Spike	Solid	GC 45	07/25/16	07/25/16 23:20	160725S02
B-4-1	Matrix Spike Duplicate	Solid	GC 45	07/25/16	07/25/16 23:37	160725S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	396.8	99	423.1	106	64-130	6	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
B-4-1	Sample	Solid	GC 45	07/25/16	07/26/16 00:43	160725S01				
B-4-1	Matrix Spike	Solid	GC 45	07/25/16	07/25/16 22:47	160725S01				
B-4-1	Matrix Spike Duplicate	Solid	GC 45	07/25/16	07/25/16 23:04	160725S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	430.4	108	495.7	124	64-130	14	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-1	Sample	Solid	GC 42	07/23/16	07/26/16 15:49	160726S017
B-1-1	Matrix Spike	Solid	GC 42	07/23/16	07/26/16 16:24	160726S017
B-1-1	Matrix Spike Duplicate	Solid	GC 42	07/23/16	07/26/16 16:59	160726S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	10.29	103	10.04	100	48-114	2	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3050B
Method: EPA 6010B

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-07-1768-1	Sample	Solid	ICP 7300	07/27/16	07/27/16 14:02	160727S01
16-07-1768-1	Matrix Spike	Solid	ICP 7300	07/27/16	07/27/16 14:03	160727S01
16-07-1768-1	Matrix Spike Duplicate	Solid	ICP 7300	07/27/16	07/27/16 14:04	160727S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	13.88	25.00	43.13	117	40.65	107	75-125	6	0-20	
Lead	ND	25.00	24.49	98	22.94	92	75-125	7	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3545
Method: EPA 8081A

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
B-1-1	Sample	Solid	GC 41	07/26/16	07/27/16 14:42	160726S11				
B-1-1	Matrix Spike	Solid	GC 41	07/26/16	07/27/16 12:41	160726S11				
B-1-1	Matrix Spike Duplicate	Solid	GC 41	07/26/16	07/27/16 12:56	160726S11				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	16.00	64	16.81	67	50-135	5	0-25	
Alpha-BHC	ND	25.00	15.87	63	16.85	67	50-135	6	0-25	
Beta-BHC	ND	25.00	18.22	73	18.94	76	50-135	4	0-25	
4,4'-DDD	ND	25.00	20.52	82	21.46	86	50-135	5	0-25	
4,4'-DDE	ND	25.00	21.29	85	22.54	90	50-135	6	0-25	
4,4'-DDT	ND	25.00	22.90	92	23.87	95	50-135	4	0-25	
Delta-BHC	ND	25.00	19.64	79	20.53	82	50-135	4	0-25	
Dieldrin	ND	25.00	19.24	77	20.28	81	50-135	5	0-25	
Endosulfan I	ND	25.00	17.51	70	18.26	73	50-135	4	0-25	
Endosulfan II	ND	25.00	21.73	87	22.78	91	50-135	5	0-25	
Endosulfan Sulfate	ND	25.00	20.68	83	21.57	86	50-135	4	0-25	
Endrin	ND	25.00	22.05	88	23.55	94	50-135	7	0-25	
Endrin Aldehyde	ND	25.00	20.28	81	21.24	85	50-135	5	0-25	
Gamma-BHC	ND	25.00	16.77	67	17.71	71	50-135	5	0-25	
Heptachlor	ND	25.00	16.82	67	17.88	72	50-135	6	0-25	
Heptachlor Epoxide	ND	25.00	17.63	71	19.44	78	50-135	10	0-25	
Methoxychlor	ND	25.00	23.34	93	23.90	96	50-135	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-07-1591-17	Sample	Solid	GC/MS W	07/23/16	07/24/16 03:17	160723S008
16-07-1591-17	Matrix Spike	Solid	GC/MS W	07/23/16	07/24/16 04:37	160723S008
16-07-1591-17	Matrix Spike Duplicate	Solid	GC/MS W	07/23/16	07/24/16 05:04	160723S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	38.23	76	37.43	75	70-130	2	0-20	
Benzene	ND	50.00	43.55	87	41.73	83	61-127	4	0-20	
Bromobenzene	ND	50.00	43.99	88	41.54	83	70-130	6	0-20	
Bromochloromethane	ND	50.00	41.94	84	39.02	78	70-130	7	0-20	
Bromodichloromethane	ND	50.00	42.57	85	40.10	80	70-130	6	0-20	
Bromoform	ND	50.00	39.10	78	38.12	76	70-130	3	0-20	
Bromomethane	ND	50.00	53.87	108	52.34	105	70-130	3	0-20	
2-Butanone	ND	50.00	38.77	78	36.87	74	70-130	5	0-20	
n-Butylbenzene	ND	50.00	43.73	87	43.54	87	77-123	0	0-25	
sec-Butylbenzene	ND	50.00	45.88	92	44.99	90	70-130	2	0-20	
tert-Butylbenzene	ND	50.00	45.40	91	44.62	89	70-130	2	0-20	
Carbon Disulfide	ND	50.00	38.06	76	37.47	75	70-130	2	0-20	
Carbon Tetrachloride	ND	50.00	43.57	87	41.29	83	51-135	5	0-29	
Chlorobenzene	ND	50.00	43.36	87	41.80	84	57-123	4	0-20	
Chloroethane	ND	50.00	44.06	88	42.62	85	70-130	3	0-20	
Chloroform	ND	50.00	41.91	84	39.15	78	70-130	7	0-20	
Chloromethane	ND	50.00	33.57	67	32.48	65	70-130	3	0-20	3
2-Chlorotoluene	ND	50.00	46.43	93	44.28	89	70-130	5	0-20	
4-Chlorotoluene	ND	50.00	41.64	83	40.84	82	70-130	2	0-20	
Dibromochloromethane	ND	50.00	43.69	87	41.32	83	70-130	6	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	37.97	76	38.00	76	70-130	0	0-20	
1,2-Dibromoethane	ND	50.00	43.62	87	41.02	82	64-124	6	0-20	
Dibromomethane	ND	50.00	41.88	84	39.92	80	70-130	5	0-20	
1,2-Dichlorobenzene	ND	50.00	40.24	80	39.04	78	35-131	3	0-25	
1,3-Dichlorobenzene	ND	50.00	40.25	81	39.54	79	70-130	2	0-20	
1,4-Dichlorobenzene	ND	50.00	38.74	77	37.71	75	70-130	3	0-20	
Dichlorodifluoromethane	ND	50.00	30.60	61	28.68	57	70-130	6	0-20	3
1,1-Dichloroethane	ND	50.00	41.24	82	39.40	79	70-130	5	0-20	
1,2-Dichloroethane	ND	50.00	36.45	73	35.27	71	70-130	3	0-20	
1,1-Dichloroethene	ND	50.00	41.12	82	39.61	79	47-143	4	0-25	
c-1,2-Dichloroethene	ND	50.00	44.01	88	41.57	83	70-130	6	0-20	
t-1,2-Dichloroethene	ND	50.00	40.31	81	39.36	79	70-130	2	0-20	
1,2-Dichloropropane	ND	50.00	42.26	85	39.92	80	79-115	6	0-25	
1,3-Dichloropropane	ND	50.00	43.43	87	41.54	83	70-130	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,2-Dichloropropane	ND	50.00	36.52	73	34.91	70	70-130	5	0-20	
1,1-Dichloropropene	ND	50.00	42.59	85	41.11	82	70-130	4	0-20	
c-1,3-Dichloropropene	ND	50.00	40.88	82	40.29	81	70-130	1	0-20	
t-1,3-Dichloropropene	ND	50.00	41.97	84	41.02	82	70-130	2	0-20	
Ethylbenzene	ND	50.00	47.26	95	45.49	91	57-129	4	0-22	
2-Hexanone	ND	50.00	38.09	76	38.10	76	70-130	0	0-20	
Isopropylbenzene	ND	50.00	49.56	99	47.77	96	70-130	4	0-20	
p-Isopropyltoluene	ND	50.00	43.72	87	43.51	87	70-130	0	0-20	
Methylene Chloride	ND	50.00	43.71	87	41.28	83	70-130	6	0-20	
4-Methyl-2-Pentanone	ND	50.00	39.73	79	39.08	78	70-130	2	0-20	
Naphthalene	ND	50.00	37.00	74	37.32	75	70-130	1	0-20	
n-Propylbenzene	ND	50.00	48.48	97	46.80	94	70-130	4	0-20	
Styrene	ND	50.00	50.26	101	47.87	96	70-130	5	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	46.65	93	43.99	88	70-130	6	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	39.37	79	37.92	76	70-130	4	0-20	
Tetrachloroethene	ND	50.00	50.18	100	47.34	95	70-130	6	0-20	
Toluene	ND	50.00	44.59	89	42.43	85	63-123	5	0-20	
1,2,3-Trichlorobenzene	ND	50.00	36.35	73	36.23	72	70-130	0	0-20	
1,2,4-Trichlorobenzene	ND	50.00	32.50	65	33.58	67	70-130	3	0-20	3
1,1,1-Trichloroethane	ND	50.00	42.35	85	40.71	81	70-130	4	0-20	
1,1,2-Trichloroethane	ND	50.00	44.32	89	41.64	83	70-130	6	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	42.45	85	40.37	81	70-130	5	0-20	
Trichloroethene	ND	50.00	43.05	86	42.07	84	44-158	2	0-20	
1,2,3-Trichloropropane	ND	50.00	40.97	82	39.15	78	70-130	5	0-20	
1,2,4-Trimethylbenzene	ND	50.00	44.41	89	43.96	88	70-130	1	0-20	
Trichlorofluoromethane	ND	50.00	47.10	94	44.61	89	70-130	5	0-20	
1,3,5-Trimethylbenzene	ND	50.00	49.16	98	47.14	94	70-130	4	0-20	
Vinyl Acetate	ND	50.00	34.41	69	35.85	72	70-130	4	0-20	3
Vinyl Chloride	ND	50.00	42.79	86	40.72	81	49-139	5	0-47	
p/m-Xylene	ND	100.0	101.0	101	96.47	96	70-130	5	0-20	
o-Xylene	ND	50.00	50.46	101	48.53	97	70-130	4	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	36.24	72	35.10	70	57-123	3	0-21	
Tert-Butyl Alcohol (TBA)	ND	250.0	200.6	80	188.4	75	30-168	6	0-34	
Diisopropyl Ether (DIPE)	ND	50.00	42.28	85	40.52	81	57-129	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	38.52	77	37.86	76	55-127	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	41.43	83	40.38	81	58-124	3	0-20	
Ethanol	ND	500.0	474.2	95	435.1	87	17-167	9	0-47	

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - PDS/PDSD

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3050B
Method: EPA 6010B

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number				
16-07-1768-1	Sample	Solid	ICP 7300	07/27/16 00:00	07/27/16 14:02	160727S01				
16-07-1768-1	PDS	Solid	ICP 7300	07/27/16 00:00	07/28/16 14:59	160727S01				
16-07-1768-1	PDSD	Solid	ICP 7300	07/27/16 00:00	07/28/16 15:00	160727S01				
Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	13.88	25.00	40.81	108	39.38	102	75-125	4	0-20	
Lead	ND	25.00	21.39	86	21.73	87	75-125	2	0-20	

Quality Control - LCS

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-420-1910	LCS	Solid	GC 45	07/25/16	07/25/16 22:30	160725B02
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Motor Oil		400.0	413.0	103	75-123	

Quality Control - LCS

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-422-2568	LCS	Solid	GC 45	07/25/16	07/25/16 22:14	160725B01
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	412.9	103	75-123	

Quality Control - LCS

Stantec	Date Received:	07/22/16
25864-F Business Center Drive	Work Order:	16-07-1557
Redlands, CA 92374-4515	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Olson - 711 S. East St, Anaheim / 185803745.201.0001		Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-3163	LCS	Solid	GC 42	07/26/16	07/26/16 13:32	160726L042
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		10.00	11.60	116	70-124	

Quality Control - LCS

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3050B
Method: EPA 6010B

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23001	LCS	Solid	ICP 7300	07/27/16	07/27/16 16:30	160727L01
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Arsenic		25.00	24.81	99	80-120	
Lead		25.00	26.82	107	80-120	

Quality Control - LCS

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3545
Method: EPA 8081A

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-12-537-2482	LCS	Solid	GC 41	07/26/16	07/27/16 16:13	160726L11	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	19.32	77	50-135	36-149	
Alpha-BHC		25.00	19.42	78	50-135	36-149	
Beta-BHC		25.00	18.61	74	50-135	36-149	
4,4'-DDD		25.00	21.86	87	50-135	36-149	
4,4'-DDE		25.00	22.45	90	50-135	36-149	
4,4'-DDT		25.00	24.86	99	50-135	36-149	
Delta-BHC		25.00	21.32	85	50-135	36-149	
Dieldrin		25.00	20.99	84	50-135	36-149	
Endosulfan I		25.00	19.56	78	50-135	36-149	
Endosulfan II		25.00	23.58	94	50-135	36-149	
Endosulfan Sulfate		25.00	22.83	91	50-135	36-149	
Endrin		25.00	15.32	61	50-135	36-149	
Endrin Aldehyde		25.00	21.72	87	50-135	36-149	
Gamma-BHC		25.00	20.06	80	50-135	36-149	
Heptachlor		25.00	20.36	81	50-135	36-149	
Heptachlor Epoxide		25.00	20.02	80	50-135	36-149	
Methoxychlor		25.00	23.79	95	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS/LCSD

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-796-11503	LCS	Solid	GC/MS W	07/23/16	07/24/16 00:37	160723L025				
099-12-796-11503	LCSD	Solid	GC/MS W	07/23/16	07/24/16 01:04	160723L025				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	46.86	94	47.98	96	78-120	71-127	2	0-20	
Carbon Tetrachloride	50.00	44.30	89	44.93	90	49-139	34-154	1	0-20	
Chlorobenzene	50.00	48.04	96	49.29	99	79-120	72-127	3	0-20	
1,2-Dibromoethane	50.00	51.42	103	51.38	103	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	50.00	47.81	96	49.60	99	75-120	68-128	4	0-20	
1,2-Dichloroethane	50.00	42.24	84	42.50	85	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	41.41	83	43.35	87	74-122	66-130	5	0-20	
Ethylbenzene	50.00	51.16	102	51.86	104	76-120	69-127	1	0-20	
Toluene	50.00	47.71	95	48.32	97	77-120	70-127	1	0-20	
Trichloroethene	50.00	45.66	91	47.10	94	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	43.11	86	44.43	89	68-122	59-131	3	0-20	
p/m-Xylene	100.0	108.4	108	110.3	110	75-125	67-133	2	0-25	
o-Xylene	50.00	56.43	113	57.68	115	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	43.23	86	45.04	90	77-120	70-127	4	0-20	
Tert-Butyl Alcohol (TBA)	250.0	239.8	96	253.3	101	68-122	59-131	5	0-20	
Diisopropyl Ether (DIPE)	50.00	46.66	93	49.16	98	78-120	71-127	5	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	45.10	90	47.61	95	78-120	71-127	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.06	98	50.05	100	75-120	68-128	2	0-20	
Ethanol	500.0	563.6	113	561.9	112	56-140	42-154	0	0-20	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Glossary of Terms and Qualifiers

Work Order: 16-07-1557

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: STANTEC

DATE: 07/22/2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)
 Thermometer ID: SC1B (CF: 0.0°C); Temperature (w/o CF): 3.8 °C (w/ CF): 3.8 °C; Blank Sample
 Sample(s) outside temperature criteria (PM/APM contacted by: _____)
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
 Sample(s) received at ambient temperature; placed on ice for transport by courier
 Ambient Temperature: Air Filter Checked by: 678

CUSTODY SEAL:
 Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 678
 Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB
 125PB_z_{na} 250AGB 250CGB 250CGB_s 250PB 250PB_n 500AGB 500AGJ 500AGJ_s
 500PB 1AGB 1AGB_{na2} 1AGB_s 1PB 1PB_{na} _____ _____ _____
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (_____) EnCores® (_____) TerraCores® (_____) _____
Air: Tedlar™ Canister Sorbent Tube PUF _____ **Other Matrix** (_____) : _____ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag
 Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO₃, **na** = NaOH, **na₂** = Na₂S₂O₃, **p** = H₃PO₄, Labeled/Checked by: 1017
s = H₂SO₄, **u** = ultra-pure, **z**_{na} = Zn(CH₃CO₂)₂ + NaOH Reviewed by: 679



27 July 2016



Ms. Alicia Jansen
Stantec - Redlands
25864-F Business Center Drive
Redlands, CA 92374

H&P Project: ST072116-SB1
Client Project: 185803745 / 711 S East St

Dear Ms. Alicia Jansen:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 21-Jul-16 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

A handwritten signature in cursive script that reads "Janis Villarreal".

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP, the National Environmental Laboratory Accreditation Conference (NELAC) and the Department of Defense Accreditation Programs.

Stantec - Redlands
25864-F Business Center Drive
Redlands, CA 92374

Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV1	E607110-01	Vapor	21-Jul-16	21-Jul-16
SV2	E607110-02	Vapor	21-Jul-16	21-Jul-16
SV3	E607110-03	Vapor	21-Jul-16	21-Jul-16
SV4	E607110-04	Vapor	21-Jul-16	21-Jul-16
SV4 Rep	E607110-05	Vapor	21-Jul-16	21-Jul-16
SV5	E607110-06	Vapor	21-Jul-16	21-Jul-16
SV6	E607110-07	Vapor	21-Jul-16	21-Jul-16
SV7	E607110-08	Vapor	21-Jul-16	21-Jul-16
SV8	E607110-09	Vapor	21-Jul-16	21-Jul-16

Stantec - Redlands
25864-F Business Center Drive
Redlands, CA 92374

Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

DETECTIONS SUMMARY

Sample ID: **SV1**

Laboratory ID: **E607110-01**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Benzene	0.03	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.40	0.02	ug/l	H&P 8260SV	

Sample ID: **SV2**

Laboratory ID: **E607110-02**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.09	0.02	ug/l	H&P 8260SV	

Sample ID: **SV3**

Laboratory ID: **E607110-03**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
1,1,2 Trichlorotrifluoroethane (F113)	0.16	0.10	ug/l	H&P 8260SV	
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.73	0.02	ug/l	H&P 8260SV	
Naphthalene	0.03	0.02	ug/l	H&P 8260SV	

Sample ID: **SV4**

Laboratory ID: **E607110-04**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
1,1,2 Trichlorotrifluoroethane (F113)	0.17	0.10	ug/l	H&P 8260SV	
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.69	0.02	ug/l	H&P 8260SV	

Sample ID: **SV4 Rep**

Laboratory ID: **E607110-05**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
1,1,2 Trichlorotrifluoroethane (F113)	0.17	0.10	ug/l	H&P 8260SV	
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.65	0.02	ug/l	H&P 8260SV	

Sample ID: **SV5**

Laboratory ID: **E607110-06**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.67	0.02	ug/l	H&P 8260SV	

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Sample ID: **SV6**

Laboratory ID: **E607110-07**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Benzene	0.02	0.02		ug/l	H&P 8260SV	
Tetrachloroethene	0.46	0.02		ug/l	H&P 8260SV	

Sample ID: **SV7**

Laboratory ID: **E607110-08**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Benzene	0.02	0.02		ug/l	H&P 8260SV	
Tetrachloroethene	1.2	0.02		ug/l	H&P 8260SV	

Sample ID: **SV8**

Laboratory ID: **E607110-09**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Benzene	0.02	0.02		ug/l	H&P 8260SV	
Tetrachloroethene	0.98	0.02		ug/l	H&P 8260SV	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1 (E607110-01) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.03	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.40	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1 (E607110-01) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	111 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	104 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	99.9 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	98.3 %	75-125	"	"	"	"	"	"

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV2 (E607110-02) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.09	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV2 (E607110-02) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	104 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	113 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	100 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	99.4 %	75-125	"	"	"	"	"	"

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV3 (E607110-03) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	0.16	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.73	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV3 (E607110-03) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	0.03	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	105 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	110 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	101 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	75-125	"	"	"	"	"	"

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H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV4 (E607110-04) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	0.17	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.69	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Project Manager: Ms. Alicia Jansen

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV4 (E607110-04) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	108 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	117 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	100 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	98.8 %	75-125	"	"	"	"	"	"

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV4 Rep (E607110-05) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	0.17	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.65	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV4 Rep (E607110-05) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	111 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	115 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	102 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	92.2 %	75-125	"	"	"	"	"	"

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV5 (E607110-06) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.67	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV5 (E607110-06) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	106 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	114 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	99.1 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	75-125	"	"	"	"	"	"

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV6 (E607110-07) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.46	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV6 (E607110-07) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	104 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	109 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	99.4 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	75-125	"	"	"	"	"	"

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Project Manager: Ms. Alicia Jansen

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV7 (E607110-08) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	1.2	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV7 (E607110-08) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	97.3 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	116 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	98.3 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	106 %	75-125	"	"	"	"	"	"

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV8 (E607110-09) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.98	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV8 (E607110-09) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	105 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	119 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	99.8 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	75-125	"	"	"	"	"	"

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Petroleum Hydrocarbon Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1 (E607110-01) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV2 (E607110-02) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV3 (E607110-03) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV4 (E607110-04) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV4 Rep (E607110-05) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV5 (E607110-06) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV6 (E607110-07) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV7 (E607110-08) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV8 (E607110-09) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	

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Volatile Organic Compounds by H&P 8260SV - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62103 - EPA 5030

Blank (EG62103-BLK1)

Prepared & Analyzed: 21-Jul-16

1,1-Difluoroethane (LCC)	ND	0.10	ug/l							
Dichlorodifluoromethane (F12)	ND	0.10	"							
Chloromethane	ND	0.10	"							
Vinyl chloride	ND	0.01	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.10	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2,2-Dichloropropane	ND	0.10	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.02	"							
Bromochloromethane	ND	0.10	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,1-Dichloropropene	ND	0.10	"							
Carbon tetrachloride	ND	0.02	"							
1,2-Dichloroethane (EDC)	ND	0.02	"							
Benzene	ND	0.02	"							
Trichloroethene	ND	0.02	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
Dibromomethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
1,1,2-Trichloroethane	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							
1,3-Dichloropropane	ND	0.10	"							
Tetrachloroethene	ND	0.02	"							
Dibromochloromethane	ND	0.10	"							

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Volatile Organic Compounds by H&P 8260SV - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62103 - EPA 5030

Blank (EG62103-BLK1)

Prepared & Analyzed: 21-Jul-16

Chlorobenzene	ND	0.02	ug/l							
Ethylbenzene	ND	0.10	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
Bromoform	ND	0.10	"							
Isopropylbenzene (Cumene)	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
1,2,3-Trichloropropane	ND	0.10	"							
n-Propylbenzene	ND	0.10	"							
Bromobenzene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
2-Chlorotoluene	ND	0.10	"							
4-Chlorotoluene	ND	0.10	"							
tert-Butylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
sec-Butylbenzene	ND	0.10	"							
p-Isopropyltoluene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
n-Butylbenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.10	"							
Naphthalene	ND	0.02	"							
1,2,3-Trichlorobenzene	ND	0.10	"							

Surrogate: Dibromofluoromethane	0.566		"	0.500		113	75-125			
Surrogate: 1,2-Dichloroethane-d4	0.578		"	0.500		116	75-125			
Surrogate: Toluene-d8	0.519		"	0.500		104	75-125			
Surrogate: 4-Bromofluorobenzene	0.509		"	0.500		102	75-125			

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Volatile Organic Compounds by H&P 8260SV - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62103 - EPA 5030

LCS (EG62103-BS1)

Prepared & Analyzed: 21-Jul-16

Dichlorodifluoromethane (F12)	3.7	0.50	ug/l	5.00		74.2	70-130			
Vinyl chloride	5.0	0.05	"	5.00		99.9	70-130			
Chloroethane	5.6	0.50	"	5.00		111	70-130			
Trichlorofluoromethane (F11)	5.3	0.50	"	5.00		105	70-130			
1,1-Dichloroethene	5.8	0.50	"	5.00		116	70-130			
1,1,2-Trichlorotrifluoroethane (F113)	6.4	0.50	"	5.00		128	70-130			
Methylene chloride (Dichloromethane)	5.8	0.50	"	5.00		116	70-130			
trans-1,2-Dichloroethene	5.7	0.50	"	5.00		115	70-130			
1,1-Dichloroethane	5.5	0.50	"	5.00		110	70-130			
cis-1,2-Dichloroethene	5.6	0.50	"	5.00		112	70-130			
Chloroform	5.8	0.10	"	5.00		116	70-130			
1,1,1-Trichloroethane	5.1	0.50	"	5.00		102	70-130			
Carbon tetrachloride	5.3	0.10	"	5.00		106	70-130			
1,2-Dichloroethane (EDC)	6.5	0.10	"	5.00		130	70-130			
Benzene	5.5	0.10	"	5.00		110	70-130			
Trichloroethene	5.6	0.10	"	5.00		112	70-130			
Toluene	5.4	1.0	"	5.00		107	70-130			
1,1,2-Trichloroethane	5.7	0.50	"	5.00		114	70-130			
Tetrachloroethene	4.7	0.10	"	5.00		93.9	70-130			
Ethylbenzene	4.9	0.50	"	5.00		97.8	70-130			
1,1,1,2-Tetrachloroethane	4.9	0.50	"	5.00		97.4	70-130			
m,p-Xylene	9.9	0.50	"	10.0		99.5	70-130			
o-Xylene	4.9	0.50	"	5.00		98.5	70-130			
1,1,2,2-Tetrachloroethane	5.8	0.50	"	5.00		116	70-130			

Surrogate: Dibromofluoromethane	2.77		"	2.50		111	75-125			
Surrogate: 1,2-Dichloroethane-d4	3.12		"	2.50		125	75-125			
Surrogate: Toluene-d8	2.53		"	2.50		101	75-125			
Surrogate: 4-Bromofluorobenzene	2.49		"	2.50		99.7	75-125			

Stantec - Redlands
25864-F Business Center Drive
Redlands, CA 92374

Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

Petroleum Hydrocarbon Analysis - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EG62103 - EPA 5030

Blank (EG62103-BLK1)

Prepared & Analyzed: 21-Jul-16

TPHv (C5 - C12)	ND	40	ug/l							
-----------------	----	----	------	--	--	--	--	--	--	--

Stantec - Redlands
25864-F Business Center Drive
Redlands, CA 92374

Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

Notes and Definitions

LCC	Leak Check Compound
ND	Analyte NOT DETECTED at or above the reporting limit
MDL	Method Detection Limit
%REC	Percent Recovery
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP and the ISO 17025 programs, certification number L11-175.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmg.com/about/certifications.

Lab Client and Project Information		
Lab Client/Consultant: <u>Stantec</u>	Project Name / #: <u>185803745</u>	
Lab Client Project Manager: <u>Alicia Jansen</u>	Project Location: <u>711 South East St, Anaheim</u>	
Lab Client Address: <u>25864 F Business Center Dr.</u>	Report E-Mail(s): <u>alicia.jansene@stantec.com</u> <u>matthew.sappe@stantec.com</u>	
Lab Client City, State, Zip: <u>Redlands, CA. 92374</u>		
Phone Number: <u>909-255-8213</u>		
Reporting Requirements	Turnaround Time	Sampler Information
<input checked="" type="checkbox"/> Standard Report <input type="checkbox"/> Level III <input type="checkbox"/> Level IV	<input type="checkbox"/> 5-7 day Std <input type="checkbox"/> 24-Hr Rush	Sampler(s): <u>C. Smith</u>
<input type="checkbox"/> Excel EDD <input type="checkbox"/> Other EDD: _____	<input type="checkbox"/> 3-day Rush <input checked="" type="checkbox"/> Mobile Lab	Signature: <u>Chendo Jr</u>
<input type="checkbox"/> CA Geotracker Global ID: _____	<input type="checkbox"/> 48-Hr Rush <input type="checkbox"/> Other: _____	Date: <u>7-21-16</u>

Sample Receipt (Lab Use Only)	
Date Rec'd: <u>7-21-16</u>	Control #: <u>160660.01</u>
H&P Project #: <u>ST072114-SB1</u>	
Lab Work Order #: <u>E607110 / EG62103</u>	
Sample Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Notes Below	
Receipt Gauge ID: _____	Temp: _____
Outside Lab: _____	
Receipt Notes/Tracking #: _____	
Lab PM Initials: _____	

Additional Instructions to Laboratory:

Check if Project Analyte List is Attached

* Preferred VOC units (please choose one):

µg/L µg/m³ ppbv ppmv

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	SAMPLE TYPE Indoor Air (IA), Ambient Air (AA), Subslab (SS), Soil Vapor (SV)	CONTAINER SIZE & TYPE 400mL/1L/6L Summa or Tedlar or Tube	CONTAINER ID (###)	Lab use only: Receipt Vac	VOCs Standard Full List	VOCs Short List / Project List	Oxygenates	Naphthalene	TPHv as Gas	TPHv as Diesel (sorbet tube)	Aromatic/Aliphatic Fractions	Leak Check Compound	Methane by EPA 8015m	Fixed Gases by ASTM D1945
								<input checked="" type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> TO-15m	<input type="checkbox"/> TO-15m	<input type="checkbox"/> TO-17m	<input type="checkbox"/> TO-15m	<input checked="" type="checkbox"/> DFA <input type="checkbox"/> IPA <input type="checkbox"/> He	☐ CO2 ☐ O2 ☐ N2
1 SV1		07/21/16	10 12	SV	Glass Syringe			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
2 SV2			10 35					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3 SV3			10 55					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4 SV4			11 15					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5 SV4 Rep			11 33					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6 SV5			12 00					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
7 SV6			12 27					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
8 SV7			12 56					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
9 SV8			13 25					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Approved/Relinquished by: <u>[Signature]</u>	Company: <u>Stantec</u>	Date: <u>7/21/16</u>	Time: <u>1358</u>	Received by: <u>[Signature]</u>	Company: <u>H&P Mobile</u>	Date: <u>7-21-16</u>	Time: <u>1400</u>
Approved/Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____
Approved/Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____

H&P 8260SV (Modified EPA 8260B)

<i>Analyte</i>	<i>CAS No.</i>	<i>Ultra Low RL** Vapor (µg/L)</i>
Dichlorodifluoromethane (F12)	75-71-8	0.1
Chloromethane	74-87-3	0.1
Vinyl chloride	75-01-4	0.01
Bromomethane	74-83-9	0.1
Chloroethane	75-00-3	0.1
Trichlorofluoromethane (F11)	75-69-4	0.1
1,1-Dichloroethene	75-35-4	0.1
1,1,2-Trichlorotrifluoroethane (F113)	76-13-1	0.1
Methylene chloride (Dichloromethane)	75-09-2	0.1
Methyl tertiary-butyl ether (MTBE)	1634-04-4	0.1
trans-1,2-Dichloroethene	156-60-5	0.1
1,1-Dichloroethane	75-34-3	0.1
2,2-Dichloropropane	594-20-7	0.1
cis-1,2-Dichloroethene	156-59-2	0.1
Bromochloromethane	74-97-5	0.1
Chloroform	67-66-3	0.02
1,1,1-Trichloroethane	71-55-6	0.1
1,1-Dichloropropene	563-58-6	0.1
Carbon tetrachloride	56-23-5	0.02
1,2-Dichloroethane (EDC)	107-06-2	0.02
Benzene	71-43-2	0.02
Trichloroethene	79-01-6	0.02
1,2-Dichloropropane	78-87-5	0.1
Dibromomethane	74-95-3	0.1
Bromodichloromethane	75-27-4	0.1
cis-1,3-Dichloropropene	10061-01-5	0.1
Toluene	108-88-3	0.2
trans-1,3-Dichloropropene	10061-02-6	0.1
1,1,2-Trichloroethane	79-00-5	0.1
1,3-Dichloropropane	142-28-9	0.1
Tetrachloroethene	127-18-4	0.02
Dibromochloromethane	124-48-1	0.1
1,2-Dibromoethane (EDB)	106-93-4	0.1
Chlorobenzene	108-90-7	0.02
1,1,1,2-Tetrachloroethane	630-20-6	0.1
Ethylbenzene	100-41-4	0.1
m,p-Xylene	179601-23-1	0.1
o-Xylene	95-47-6	0.1
Styrene	100-42-5	0.1
Bromoform	75-25-2	0.1
Isopropylbenzene (Cumene)	98-82-8	0.1
1,1,2,2-Tetrachloroethane	79-34-5	0.1
n-Propylbenzene	103-65-1	0.1
1,2,3-Trichloropropane	96-18-4	0.1
Bromobenzene	108-86-1	0.1
2-Chlorotoluene	95-49-8	0.1
1,3,5-Trimethylbenzene	108-67-8	0.1
4-Chlorotoluene	106-43-4	0.1

H&P 8260SV (Modified EPA 8260B)

<i>Analyte</i>	<i>CAS No.</i>	<i>Ultra Low RL** Vapor (µg/L)</i>
tert-Butylbenzene	98-06-6	0.1
1,2,4-Trimethylbenzene	95-63-6	0.1
sec-Butylbenzene	135-98-8	0.1
p-Isopropyltoluene	99-87-6	0.1
1,3-Dichlorobenzene	541-73-1	0.1
1,4-Dichlorobenzene	106-46-7	0.1
n-Butylbenzene	104-51-8	0.1
1,2-Dichlorobenzene	95-50-1	0.1
1,2-Dibromo-3-chloropropane	96-12-8	1.0
1,2,4-Trichlorobenzene	120-82-1	0.1
Hexachlorobutadiene	87-68-3	0.1
Naphthalene	91-20-3	0.02
1,2,3-Trichlorobenzene	87-61-6	0.1
 <u>TPH gas</u>		
TPH gas (C5-C12)		40
 <u>Leak Check Compound</u>		
1,1-Difluoroethane	75-37-6	0.1

****NOTE:** 100cc sample for Ultra Low RL. For clean samples only.

Log Sheet: Soil Vapor Sampling with Syringe

H&P Project #: ST072116-SB1

Date: 7-21-16

Site Address: 711 South East St, Anaheim

Page: 1 of 1

Consultant: Stantec

H&P Rep(s): C. Smith, A. Wagner,

Reviewed: DB

Consultant Rep(s): Matt

T. Taylor

Scanned: DB

Equipment Info
Inline Gauge ID#: _____
Pump ID#: 006

Purge Volume Information
PV Amount: _____ PV Includes: Tubing
 Sand 40%
 Dry Bent 50%

Leak Check Compound 1,1-DFA
A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted. 1,1,1,2-TFA
 IPA
 Other:

Sample Information				Probe Specs							Purge & Collection Information						
Point ID	Syringe ID	Sample Volume (cc)	Sample Time	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	ProbeVac <input type="checkbox"/> Hg <input checked="" type="checkbox"/> H ₂ O
1 SV1	205, 217	100	1012	7	9	1/8	12	1.5	12.6	1.5	✓	✓	703	2200	3:31	2200	⊕
2 SV2	164	100	1035	7	9	↓	↓	↓	↓	↓	✓	✓	703	↓	3:31	↓	⊕
3 SV3	243, 242	100	1055	7	9	↓	↓	↓	↓	↓	✓	✓	703	↓	3:31	↓	⊕
4 SV4	185, 207	100	1115	7	9	↓	↓	↓	↓	↓	✓	✓	703	↓	3:31	↓	⊕
5 SV4 Rep	160	100	1133	7	9	↓	↓	↓	↓	↓	✓	✓	803	—	—	—	⊕
6 SV5	164	100	1200	7	9	↓	↓	↓	↓	↓	✓	✓	703	↓	3:31	↓	⊕
7 SV6	219, 207	100	1227	7	9	↓	↓	↓	↓	↓	✓	✓	703	↓	3:31	↓	⊕
8 SV7	242, 205	100	1256	7	9	↓	↓	↓	↓	↓	✓	✓	903	↓	3:31	↓	⊕
9 SV8	160	100	1325	7	9	↓	↓	↓	↓	↓	✓	✓	703	↓	3:31	↓	⊕
10																	
11																	
12																	

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):
* Dry bent ht = 6", Dry Bent dia. = 1.5" (DB) 7/25/16

Appendix

Appendix D Preliminary Water Quality Management Plan

Appendix

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**City of Anaheim
County of Orange/Santa Ana Region
Priority Project
Water Quality Management Plan
(WQMP)**

Project Name:

**EAST STREET CONDOMINIUMS
711 S. EAST STREET, ANAHEIM, CA 92805
TTM 18088, LOT 1**

Prepared for:

**The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740
Sandi Gottlieb, Director of Development
(562) 596-4770**

Prepared by:

**C&V Consulting, Inc./ Ryan Bittner, P.E.
27156 Burbank, Foothill Ranch, CA 92610
(949) 916-3800/ rbittner@cvc-inc.net**



FEBRUARY 2017

Project Owner's Certification			
Planning Application No. (If applicable)	TBD	Grading Permit No.	TBD
Tract/Parcel Map and Lot(s) No.	TTM 18088, Lot 1	Building Permit No.	TBD
Address of Project Site and APN (If no address, specify Tract/Parcel Map and Lot Numbers)			711 S. East Street Anaheim, CA 92805 APN: 037-130-21

This Water Quality Management Plan (WQMP) has been prepared for The Olson Company by C&V Consulting, Inc. The WQMP is intended to comply with the requirements of the City of Anaheim and County of Orange NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan, including the ongoing operation and maintenance of all best management practices (BMPs), and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Owner: Sandi Gottlieb			
Title	Director of Development		
Company	The Olson Company		
Address	3010 Old Ranch Parkway, Suite 100, Seal Beach, CA 90740		
Email	Sgottlieb@theolsonco.com		
Telephone #	(562) 596-4770		
I understand my responsibility to implement the provisions of this WQMP including the ongoing operation and maintenance of the best management practices (BMPs) described herein.			
Owner Signature		Date	

**Water Quality Management Plan (WQMP)
EAST STREET CONDOMINIUMS**

Preparer (Engineer): Ryan J. Bittner, P.E.			
Title	Principal	PE Registration #	68167
Company	C&V Consulting, Inc.		
Address	27156 Burbank, Foothill Ranch, CA 92610		
Email	rbittner@cvc-inc.net		
Telephone #	(949) 916-3800		
I hereby certify that this Water Quality Management Plan is in compliance with, and meets the requirements set forth in, Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board.			
Preparer Signature		Date	
Place Stamp Here			

Contents

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Section III	Site Description	8
Section IV	Best Management Practices (BMPs).....	10
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Section VI	BMP Exhibit (Site Plan)	25
Section VII	Educational Materials	26

Attachments

Attachment A .	.....	Educational Materials
Attachment B .	.....	TGD Worksheets & Figures
Attachment C .	.....	Site BMPs
Attachment D .	.....	WQMP Exhibit
Attachment E .	.....	Geotechnical Reports
Attachment F .	.....	Hydrology Calculations
Attachment G .	.....	Operation & Maintenance Plan
Attachment H .	.....	Notice of Transfer
Attachment I ..	.....	EPA Well Registration

Section I Permit(s) and Water Quality Conditions of Approval or Issuance

Project Information			
Permit/ Application No. (If applicable)	TBD	Grading or Building Permit No. (If applicable)	TBD
Address of Project Site (or Tract Map and Lot Number if no address) and APN	711 S. East Street, Anaheim, CA 92805 TTM 18088, Lot 1		
Water Quality Conditions of Approval or Issuance			
Water Quality Conditions of Approval or Issuance applied to this project. (Please list verbatim.)	Water Quality conditions of approval have not been issuance at this time.		
Conceptual WQMP			
Was a Conceptual Water Quality Management Plan previously approved for this project?	n/a		
Watershed-Based Plan Conditions			
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLS.	n/a		

Section II Project Description

II.1 Project Description

Description of Proposed Project				
Development Category (From Model WQMP, Table 7.11-2; or -3):	<p>All significant redevelopment projects, where significant redevelopment is defined as projects that include the addition or replacement of 5,000 square feet or more of impervious surface on a developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety.</p> <p>If the redevelopment results in the addition or replacement of less than 50 percent of the impervious area on-site and the existing development was not subject to WQMP requirement, the numeric sizing criteria discussed in Section 7.II-2.0 only applies to the addition or the replacement area. If the addition or replacement accounts for 50 percent or more of the impervious area, the Project WQMP requirements apply to the entire development.</p>			
Project Area (ft ²): 241,935	Number of Dwelling Units: 42		SIC Code: n/a	
Project Area	Pervious		Impervious	
	Area (acres or sq ft)	Percentage	Area (acres or sq ft)	Percentage
Pre-Project Conditions	0.01 ac	0.6%	1.75 ac	99.4%
Post-Project Conditions	0.26 ac	15.0%	1.50 ac	85.0%
Drainage Patterns/Connections	<p>The existing site is relatively flat in nature and sheet flows over existing pavement in the westerly direction to an existing alley. Drainage continues north in the alley to a concrete gutter that drains to the property to the west and an existing public storm drain that goes south to existing an existing storm drain in South Street.</p> <p>The proposed project will design the site to match existing drainage conditions via surface flow and along with an on-site drainage system. The drainage system will be designed to collect and convey stormwater runoff to the proposed treatment system. Treated stormwater runoff will percolate into the subsurface soils through infiltration. During larger storm events when the drainage and treatment systems are at capacity, runoff will be conveyed offsite through proposed overflow bubbler catch basin and wall openings at west side</p>			

	<p>of site adjacent to the alley.</p>
<p>Narrative Project Description: (Use as much space as necessary.)</p>	<p>The existing site currently is utilized as a Vehicle parking/ storage and sales lot and is occupied two (2) permanent existing buildings with associated parking and minimal landscape. The existing building coverage is approximately 11,413 square feet. Majority of the site is impervious consisting of asphalt pavement and Portland concrete cement areas. The existing site has approximately 64,015 square feet of asphalt pavement, 1,077 of miscellaneous hardscape and only 100 square feet of landscaping. All the existing site improvements will be demolished as part of this development by The Olson Company.</p> <p>The proposed development will consist of 42 attached multi-family residential units consisting of eight (8) buildings over approximately 1.76 acres. The site has been designed into one (1) Drainage Management Area (DMA) based on the site's Grading and Drainage design.</p> <p>The proposed buildings will consist of 4 and 6-plexes. The roof downspouts roof located along the outer walls will outlet onto pervious landscaping where possible. Runoff will be collected by surface flow and an onsite area drain system and be routed to the proposed treatment/infiltration device. The project will consist of 2 to 3 bedroom units, ranging from 1,337 to 1,768 square feet in size.</p> <p>The development will provide a total 111 parking spaces to serve the residential units and guests. Guest/ Visitor parking is located at grade surrounding the site. The site has one (1) main entrance/ exit.</p> <p>Each unit will have a private open space/ patio associated with individual water and sewer services. At this time, it has not been decided if separate trash enclosures or if individual trash removal service will be provided to each unit. This will be determined during final engineering. The proposed development will have community open space areas, BBQ/ park-like green areas.</p> <p>The drive aisles and parking areas will consist of asphalt concrete pavement and sidewalks comprised of portland concrete cement (PCC). Decorative hardscape is proposed within the walkways and drive aisles will consist of pavers and stone work. Landscaping will be incorporated in open space areas including vegetation and trees. Refer to WQMP Exhibit for proposed pervious areas in Attachment D of this report.</p> <p>Long-term maintenance is planned to be handled by a Homeowner's Association created by The Olson Company.</p> <p>The following proposed areas have been calculated based on the current site design:</p> <p>Sidewalk & Miscellaneous Hardscape – 12,099 square feet</p> <p>Asphalt Street Pavement, Curb/ Gutter, Miscellaneous Site Work (includes onsite parking areas) – 22,388 square feet</p>

Landscaped Areas – 11,491 square feet

Building Coverage – 30,627 square feet

BMP selection for storm water runoff treatment has been described in Section IV of this report. Implementation of BMPs will be consisted of addressing the pollutants of concerns generated by residential use. No car washing, outdoor storage or food processing areas will be incorporated on this project.

The project will be serviced by on-site private water system that will be publicly maintained by means of a proposed easement and on-site private sanitary sewer system that will be privately maintained. The proposed public water system will be master-metered off of S. East Street. The proposed private sewer system will be gravity feed to one (1) of point connection to an existing sewer main located near center of the site.

Along the project frontage, a portion of South East Street will be a proposed 5' roadway dedication to the City of Anaheim to meet the ultimate right-of-way width conditions. This portion of the site has been excluded from the WQMP as this area will be public right-of-way.

Refer to Attachment D of this report for a copy of the WQMP Exhibit.

II.2 Potential Stormwater Pollutants

Pollutants of Concern			
Pollutant	Check One for each: E=Expected to be of concern N=Not Expected to be of concern		Additional Information and Comments
	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Suspended-Solid/ Sediment	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected by proposed landscaped areas.
Nutrients	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected by proposed landscaped areas.
Heavy Metals	E <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Per TGD, Table 2.1 this pollutant is not expected for attached residential developments.
Pathogens (Bacteria/Virus)	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected by proposed residence and pets.
Pesticides	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected by proposed landscaped areas.
Oil and Grease	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected by uncovered parking areas.
Toxic Organic Compounds	E <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Per TGD, Table 2.1 this pollutant is not expected for attached residential developments.
Trash and Debris	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected by proposed residence.

II.3 Hydrologic Conditions of Concern

No - Show map

Yes - Describe applicable hydrologic conditions of concern below.

Per Section 5.3.1 of the Technical Guidance, the following calculations were developed:

1. $(V_{2\text{-year, post}} / V_{2\text{-year, pre}}) \leq 1.05$
The $(11,482 \text{ cf} / 12,458 \text{ cf}) = 0.92 \leq 1.05 \checkmark *$
2. $(Tc_{2\text{-year, pre}} / Tc_{2\text{-year, post}}) \leq 0.95$
 $(9.4 \text{ min} / 10.1 \text{ min}) = 0.93 \leq 0.95 \checkmark *$

* The 2-year Volume calculations and the Time of Concentration was determined using the County of Orange Hydrology Manual. Refer to Attachment F of this report for time of concentration information.

Infiltration BMPs will be incorporated onsite treat and retain the stormwater.

Refer to Attachment B of this report for a copy of the TGD Figure 2, Susceptibility Analysis of Anaheim Bay-Huntington Harbor, HCOC Map dated February 2013. The proposed drainage path of travel has been indicated by arrows on the map.

Per Section 2.2.3 of the Technical Guidance, HCOC's are considered to exist if any streams located downstream from the project are determined to be potentially susceptible to hydromodification impacts and either the post-development runoff volume exceeds the pre-development condition or time of concentration of the post-development runoff is less than the pre-development condition for the 2-yr, 24-hr storm event.

Since the post-development 2-year storm event volume increases is less than 5% and the post-development time of concentration increased compared to the existing condition, no HCOC's are required for this site. Essentially the proposed development is increasing pervious coverage, ultimately improving the susceptibility of the downstream systems.

II.4 Post Development Drainage Characteristics

Post-development drainage will be consistent with a proposed attached Multi-Family Residential project. The tributary areas and direction of run-off flows for the proposed site are delineated on the attached WQMP Exhibit based on the grading and drainage design. Refer to the WQMP Exhibit in Attachment D of this report.

Currently, the site drains via sheet flow to the southeast corner of the site. The historic drainage patterns will be preserved in order to control onsite grading. The proposed drainage runoff will be collected by a drainage system has been design to convey storm water runoff to the proposed BMP treatment system. Collected runoff will be pre-treated and retain onsite by utilizing underground Infiltration BMPs.

The main drive aisle will be utilized as the primary emergency overflow system during larger storm events. Stormwater runoff greater than the required water quality volume will discharge overland through proposed bubbler catch basin and wall openings. Runoff from this area historically flows in the northwesterly direction in the alley and then to the west to public storm drain that drains to South Street. Runoff continues west in South Street to Walnut Street, then to Ball Road to the Anaheim Barber City Channel, then to the Bolsa Chica Channel and finally into Huntington Harbor. Huntington harbor continues to Anaheim Bay and then into the Pacific Ocean.

II.5 Property Ownership/Management

The property is currently owned by The Olson Company. The Owner will be responsible for the long term maintenance of the project's storm water facilities and conformance to this WQMP after construction is complete.

A Notice of Transfer of Responsibility is located in Attachment H of this report and should be executed as part of any ownership transfer after construction is complete.

The Olson Company will appoint a Homeowner's Associated (HOA) to provide long term BMP maintenance for the proposed development. Refer to Section V of this report for additional information.

Section III Site Description

III.1 Physical Setting

Name of Planned Community/Planning Area (if applicable)	City of Anaheim
Location/Address	711 S. East Street
	Anaheim, CA 92805
General Plan Land Use Designation	Residential Low-Medium (R-LM)
Existing Zoning	Industrial (I) Zone
	Residential Opportunity (RO) Planning Overlay Zone
Acreage of Project Site	1.76 acres
Predominant Soil Type	Per TGD, Figure XVI-2a, NRCS Hydrologic Soils Groups the site is located with Soil Type A. Refer to Attachment B of this report for a copy of the map.
	For site specific soil information, refer to Section III.2 and Attachment E of this report page.

III.2 Site Characteristics

Site Characteristics	
Precipitation Zone	The site falls under the 0.85" per the TGD, Figure XVI-1, Rainfall Zones map. Refer to Attachment B of this report for a copy of the map.
Topography	The site topography is fairly flat and sheet flows to the southwest corner of the site. The site ranges in elevations from approximately 169 to 166 feet above mean sea level.
Drainage Patterns/Connections	The existing site is flat in nature and sheet flows over pavement to the southwest corner of the site. The existing site condition is mostly impervious and is occupied as an existing parking lot and sales buildings. There is an existing storm drain system located within East Street and it flows in the southeasterly direction, however this storm drain system will not be utilized due to site grading constraints.
Soil Type, Geology, and Infiltration Properties	<p>Per the Geotechnical Due-Diligence Investigation prepared by Albus-Keefe & Associates, Inc. dated August 11, 2016, the site's geotechnical properties are described as the following:</p> <p>"Soil materials encountered at the site consisted of mainly Quaternary alluvium mantled by a thin layer of undocumented artificial fill. The artificial fill was detected in each of our exploratory borings with a total thickness of approximately 2 feet. The artificial fill encountered consists of gray-brown silty sand that is loose and moist to damp. In many areas, the fill materials are overlain by 3 to 3.5 inches of asphalt concrete with 0 to 2.5 inches of aggregate base materials beneath the asphalt.</p> <p>The alluvial soils were predominantly composed of granular soils consisting of sand, sand with silt and silty sand. These coarse grained earth materials were typically moist to damp, and loose to medium dense and very dense.</p> <p>Cohesive soils were encountered at approximately depth 25 feet in the form of a 3 foot thick interlayer of medium dense/very stiff silty sand, clayey sand, sandy silt, and clayey silt that were typically moist to wet."</p> <p>Refer to Attachment E of this report for a copy of the Geotechnical report.</p>

<p>Hydrogeologic (Groundwater) Conditions</p>	<p>Per the Geotechnical Due-Diligence Investigation prepared by Albus-Keefe & Associates, Inc. dated August 11, 2016, the site’s groundwater conditions are described as the following:</p> <p>“Groundwater was not encountered during this firm’s subsurface exploration to the maximum depth explored, 36.5 feet below the existing ground surface. . A review of the CDMG Seismic Hazard Zone Report 03 indicates that historical high groundwater levels for the general site have been reported at depths greater than 50 feet below the existing ground surface.”</p> <p>Refer to Attachment E of this report for a copy of the Geotechnical report.</p>
<p>Geotechnical Conditions (relevant to infiltration)</p>	<p>Per the Geotechnical Investigation for Proposed Water Quality Improvements prepared by Albus-Keefe & Associates, Inc. dated September 28, 2016, the site’s geotechnical infiltration properties are described as the following:</p> <p>“Based on the results of our testing, infiltration of storm water at the site is feasible using a shallow basin system such as Stormtech chambers or other similar systems infiltrating at 5 to 10 feet below current grade. Based on our testing, a field measured infiltration rate of 30 inches/hr. may be used to design. The city of Anaheim follows the Santa Ana Regional Water Quality Board requirements of a minimum infiltration rate of 0.3 in/hr. From our testing, this minimum value is met. An appropriate factor of safety should be applied to this value as required by the appropriate governmental authority to obtain an infiltration rate. The shallow basins should be located at least 10 feet horizontally from any habitable structure or property line. ”</p> <p>Refer to Attachment E of this report for a copy of the Percolation Test report.</p>
<p>Off-Site Drainage</p>	<p>No off-site drainage enters the property.</p>
<p>Utility and Infrastructure Information</p>	<p>Utilities are proposed to be underground. No special setbacks are needed or proposed.</p>

III.3 Watershed Description

<p>Receiving Waters</p>	<p>The site drains via sheet flow to the southeast corner of the site. The historic drainage patterns will be preserved in order to control onsite grading. The proposed drainage runoff will be collected by a drainage system has been design to convey storm water runoff to the proposed BMP treatment system. Collected runoff will be pre-treated and retain onsite by utilizing underground Infiltration BMPs.</p> <p>The main drive aisle will be utilized as the primary emergency overflow system during larger storm events. Stormwater runoff greater than the required water quality volume will discharge overland through proposed bubbler catch basin and wall openings. Runoff from this area historically flows in the northwesterly direction in the alley and then to the west to public storm drain that drains to South Street. Runoff continues west in South Street to Walnut Street, then to Ball Road to the Anaheim Barber City Channel, then to the Bolsa Chica Channel and finally into Huntington Harbor. Huntington harbor continues to Anaheim Bay and then into the Pacific Ocean.</p> <p>The site is located within the Los Alamitos/ East Garden Grove/ Bolsa Chica Watershed.</p>
<p>303(d) Listed Impairments</p>	<p>Bolsa Chica Channel for Ammonia, Indicator Bacteria, and PH.</p> <p>Huntington Harbor for Chlordane, Copper, Lead, Nickel, PCBs, Pathogens and Sediment Toxicity.</p> <p>Anaheim Bay for Dieldrin, PCBs, Nickel and Sediment Toxicity.</p>
<p>Applicable TMDLs</p>	<p>There are no applicable TMDLs for the above referenced water bodies.</p>
<p>Pollutants of Concern for the Project</p>	<p>Anticipated and Potential Pollutants of Concern for Attached Residential Development is Suspended Solid/Sediments, Pathogens (Bacteria/Virus), Nutrients (Oxygen Demanding Substances), Pesticides, Oil & Grease and Trash & Debris.</p>
<p>Environmentally Sensitive and Special Biological Significant Areas</p>	<p>The project is not located within any known Environmentally Sensitive Areas (ESA) or Areas of Special Biological Significance (ASBS).</p>

Section IV Best Management Practices (BMPs)

IV. 1 Project Performance Criteria

(NOC Permit Area only) Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?		YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	There are currently no approved WIHMPs for the Los Alamitos/ East Garden Grove/ Bolsa Chica Watershed.		

Project Performance Criteria	
If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)	<p>Per 7.II-2.4.2.2 of the MWQMP, the volumes and time of concentration of stormwater runoff for the post development condition do not significantly exceed those of the predevelopment condition for a two-year frequency storm event (a difference of five percent or less is considered insignificant).</p> <p>If the excess volume cannot feasibly be retained, then retain the excess volume from the two-year runoff event to the maximum extent possible and implement on-site hydromodification controls such that post development runoff two-year peak flow rate is not greater than 110 percent of the predevelopment runoff two-year peak flow rate.</p>

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<p>List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)</p>	<p>According to Section 7.II-2.4.3 of the MWQMP Priority Projects must biotreat/biofilter the 85th percentile, 24-hour storm event (Design Capture Volume).</p> <p>A properly designed biotreatment system may only be considered if infiltration, harvest and use, and evapotranspiration (ET) cannot be feasibly implemented for the full design capture volume. In this case, infiltration, harvest and use, and ET practices must be implemented to the greatest extent feasible and biotreatment be provided for the remaining design capture.</p> <p>This project proposes to infiltrate the entire design capture volume.</p>
<p>List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)</p>	<p>If it is not feasible to meet LID performance criteria through retention and/or biotreatment provided on-site or at a sub-regional/regional scale, then treatment control BMPs shall be provided on-site or off-site prior to discharge to waters of the US. Since the project proposes to satisfy LID performance criteria, therefore treatment control performance criteria is also fully satisfied. Sizing of treatment control BMPs (Biofiltration Systems) shall be based flow-based for the area being redeveloped to medium and high effectiveness for reducing the primary pollutants of concern, which will be considered in compliance. This project proposes to infiltrate the entire design capture volume.</p>
<p>Calculate LID design storm capture volume for Project.</p>	<p>See Attachment B of this report for DCV calculations.</p> <p>Infiltration BMPs will be utilized to treat and retain the required DCV. Refer to section IV.3.2 of this report for additional BMP information.</p>

IV.2. Site Design and Drainage

The site proposed one (1) Drainage Management Area as indicated on the WQMP Exhibit. This area is based on the Grading and Drainage design per the separately prepared Preliminary Grading plan. This DMA will have an area drain system to collect and convey runoff from landscape, surface and roof drainage to the proposed Stormwater Infiltration Chambers.

Driveway and parking areas will drain into a pre-treatment bio-filtration catch basin and then discharged into underground infiltration chambers. The remainder of site stormwater runoff will be routed directly to the underground Infiltration Chamber System that is equipped to infiltrate captured runoff. Infiltration will occur below the Chambers. Runoff will enter the chambers through the area drain storm drains where percolation occurs in the subsurface soils, recharging the groundwater.

The Infiltration Chamber System will be design to meet geotechnical recommendations regarding setback and depth requirements. Additional storage will be collected in the chambers in order to capture the required water quality volume. The chambers will be sized adequately to treat the required design capture volume within the allotted drawdown timeframe. Refer to Attachment C of this report for infiltration chamber manufacturer's specifications.

Refer Attachment D for the location of the proposed BMPs. Refer to portions of the Hydrology Study in Attachment F for runoff calculations for the project.

The proposed infiltration system will be sized to retain the required design capture volume within a 48 hour timeframe. Detention pipes will be utilized on site to store stormwater runoff that is initially captured and as the drywell is filling. During larger storm events, greater than the water quality requirements stormwater will overflow through a bubbler catch basin into the adjacent alley to the west, following the historic drainage path of travel. No off-site drainage flows into the site.

In summary, all site stormwater will be collected via an area drain system or catch basins and routed into the Infiltration Chambers. The chamber system will continue feeding runoff to the ground to promote maximum infiltration. During larger storm events, once maximum capacity of the detention/infiltration system has been reached, runoff will overflow. Refer to the separate Preliminary Grading Plan for additional information.

Drainage Management Areas (DMA)s:

Refer to the WQMP Exhibit in Attachment D of this report for referenced area designations.

Drainage Management Area (DMA)	Area (ac)	Design Capture Volume (cf)	Proposed BMPs
A	1.76	4,279	HSC-2: Impervious Area Dispersion INF-5: Storm Water Chambers

IV.3 LID BMP Selection and Project Conformance Analysis

IV.3.1 Hydrologic Source Controls (HSCs)

Name	Included?
Localized on-lot infiltration	<input type="checkbox"/>
Impervious area dispersion (e.g. roof top disconnection)	<input checked="" type="checkbox"/>
Street trees (canopy interception)	<input type="checkbox"/>
Residential rain barrels (not actively managed)	<input type="checkbox"/>
Green roofs/Brown roofs	<input type="checkbox"/>
Blue roofs	<input type="checkbox"/>
Impervious area reduction (e.g. permeable pavers, site design)	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Roof Downspouts with slash blocks will be constructed for areas discharging on to landscaped and/ or pervious surfaces, thus providing Impervious Area Dispersion throughout the site. These downspout locations are shown on the WQMP Exhibit in Attachment D of this report. The downspouts will be collecting roof runoff along the edge of the building.

IV.3.2 Infiltration BMPs

Name	Included?
Bioretention without underdrains	<input type="checkbox"/>
Rain gardens	<input type="checkbox"/>
Porous landscaping	<input type="checkbox"/>
Infiltration planters	<input type="checkbox"/>
Retention swales	<input type="checkbox"/>
Infiltration trenches	<input type="checkbox"/>
Infiltration basins	<input checked="" type="checkbox"/>
Drywells	<input type="checkbox"/>
Subsurface infiltration galleries	<input type="checkbox"/>
French drains	<input type="checkbox"/>
Permeable asphalt	<input type="checkbox"/>
Permeable concrete	<input type="checkbox"/>
Permeable concrete pavers	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Infiltration Basins:

The proposed development will utilize Cultec Stormwater Infiltration Chambers to treat and retain the required design capture volume. The Infiltration Chamber System is an underground shallow chamber system that collects, stores and directs stormwater runoff underground to promote infiltration soil percolation in order to re-charge the groundwater. The catch basins in the drive aisles will be supplied with 'Fossil Filter' inserts that will pre-treat the site runoff and will collect pollutants such as sediment/ silt to settle, oil/ grease, and collects larger trash/ debris. Filtered runoff is then routed to the underground storm chamber system. For purposes of water quality calculations, infiltration is calculated for the bottom footprint of the system. The underground chambers will store runoff and infiltrate simultaneously. Larger storm events and volumes in excess of the DCV will overflow the system to the Alley and follow historic drainage patterns..

In the event the system is clogged, an emergency overflow, stormwater runoff will back up and flow overland offsite to the alley through openings in the wall.

Refer to Attachment C of this report for additional Infiltration Chamber System information.

Infiltration Chamber Calculations:

$$DCV = 4,279 \text{ cf}$$

Infiltration Rate = 30 in/hr → Percolation data provided by Albus-Keefe & Associates, Inc. dated 9/28/16. Note, Albus-Keefe made percolation adjustment calculations. In addition, a factor of safety has been applied to the percolation rate based on Worksheet D in Attachment B of this report.

$$FS = 2.81 \text{ (Refer to Worksheet H in Attachment B)}$$

$$\text{Infiltration Rate Adjusted} = 30 \text{ in/hr} / 2.81 = 10.67 \text{ in/hr}$$

$$\text{Chamber Footprint} = 1,960 \text{ sf}$$

$$Q_{\text{DESIGN}} = (10.67 \text{ in/hr}) (1 \text{ hr}/3600 \text{ sec})(1,960 \text{ sf}) = 0.48 \text{ cfs}$$

Storm chamber Infiltration System:

$$\Sigma \text{ Storage Volume of Chamber System} = 4,395 \text{ cf}$$

$$V_{\text{INFILTRATION}} = (Q_{\text{DESIGN}})(3600 \text{ s} / 1 \text{ hr})(T)$$

Where T = 48 hour Drawdown Timeframe

$$V_{\text{INFILTRATION @ 48 hrs}} = (0.48 \text{ cfs})(3600 \text{ s} / 1 \text{ hr})(48 \text{ hrs}) = 82,944 \text{ cf} > DCV = 4,279 \text{ cf} \checkmark$$

Storage Calculations:

Required Amount of Storage in Storm Chambers = DCV

$$V_{\text{STORAGE}} = 4,395 \text{ cf}$$

$$\text{Footprint} = 122.50 \text{ feet by } 16.00 \text{ feet} = 1,960 \text{ sf}$$

$$\Sigma \text{ Storage Volume} = 4,395 \text{ cf} > 4,279 \text{ cf} \checkmark$$

Conclusion:

The Underground Stormwater Chambers are sized to capture, retain and infiltrate the required design capture volume to support this development.

Chamber Location – Under proposed parking spaces along the main drive aisle.

IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs

Name	Included?
All HSCs; <i>See Section IV.3.1</i>	<input type="checkbox"/>
Surface-based infiltration BMPs	<input type="checkbox"/>
Biotreatment BMPs	<input type="checkbox"/>
Above-ground cisterns and basins	<input type="checkbox"/>
Underground detention	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Evapotranspiration, Rainwater Harvesting BMPs are not required for this project. Required treatment flow is met by utilizing other BMPs. See Worksheet J.

IV.3.4 Biotreatment BMPs

Name	Included?
Bioretention with underdrains	<input type="checkbox"/>
Stormwater planter boxes with underdrains	<input type="checkbox"/>
Rain gardens with underdrains	<input type="checkbox"/>
Constructed wetlands	<input type="checkbox"/>
Vegetated swales	<input type="checkbox"/>
Vegetated filter strips	<input type="checkbox"/>
Proprietary vegetated biotreatment systems	<input type="checkbox"/>
Wet extended detention basin	<input type="checkbox"/>
Dry extended detention basins	<input type="checkbox"/>
Other: Katchall Purestream Biofiltration Pretreatment Catch Basin	<input checked="" type="checkbox"/>
Other:	<input type="checkbox"/>

Biotreatment BMP is used for pre-treatment of runoff from the drive aisles and parking areas prior to discharge into the infiltration chambers. The Katchall Purestream System is used for this purpose. The Katchall Purestream system is a proprietary vegetated biotreatment system. The system uses linear wetlands technology which employs mixed planting media that filters storm water runoff through a natural process. The Katchall Purestream system is a pre-cast concrete vault that can be sized to accommodate runoff flows of a 25 year storm event, meanwhile treating at a minimum, required design flow rates. Each vault includes a pre-plumbed drip irrigation to keep the plant life sustained during dry seasons. The project proposes to utilize this BMP for pre-treatment purposes only of the driveway and parking areas.

The proposed Katchall Purestream system for the DMA utilize a side discharge location. Media flow capacity is 1.04 cfs. High-flow bypass also is 4.8 cfs. The system has a footprint of 5'x4'x4'. All systems are designed to capture low flows through the planting media while allowing medium to high flows to bypass the planting media to a weir which is equipped with a media filter. Flows enter these systems primarily via curb inlet opening but additional nuisance water can also pipe directly into the Purestream if needed. A trash rack is located within the system to prevent unnecessary media clogging.

The Katchall Purestream system was selected as the pretreatment BMP only due to the pollutant removal rates, relatively low footprint, and overall maintenance schedule. A smaller footprint and

compact design yields more space to incorporate more landscape design such as room for larger species trees or generally more planting of various types of vegetation. Other Biotreatment BMPs (BIO-1 to BIO-6) require vast amounts of space to treat projects of this size, reducing the opportunity for landscape design and in some cases, create drowning hazards due to the depths required to detain or treat design capture volume. In addition, these smaller systems also enhance the ease and speed of maintenance in to comparison to the larger Biotreatment BMPs. Bioretention BMPs such as BIO-2 (Vegetated Swale) and BIO-3 (Vegetated Filter Strip) have a relatively low performance rating per Table 4.2 of the TGD in comparison to the third party pollutant removal testing provided by Katchall Purestream Systems. Even in the case of BIO-1 which per Table 4.2 has the most medium to high treatment performance ratings, the Katchall Purestream system and Biogreen Biofiltration Chamber pollutant removal tests show that these systems still outperform BIO-1 (High removal ratings for Nitrogen, Phosphorus, and Pathogens versus BIO-1 Medium removal rating). The use of this system for pre-treatment adds an element in the treatment train to eliminate pollutants entering the infiltration chambers.

Refer to Attachment C of this report for information regarding BMP specification and the third party pollutant removal testing.

Refer to Section V of this report for additional information related to long term maintenance.

See Worksheet D located within Attachment B of this report for calculations of the total required treatment flow for the DMA area.

Drainage Management Area (DMA)	Area (ac)	Design Flow Rate (cfs)	BMP Size/Model	Treatment Capacity (cfs)
Parking & Driveway Areas	0.91	0.18	(1) Purestream Bio-Filtration System Model 5-4-4 (Side Discharge)	1.04 (Media) 4.8 (Filtered Bypass)

IV.3.5 Hydromodification Control BMPs

Hydromodification Control BMPs	
BMP Name	BMP Description
n/a	n/a

Hydromodification Control BMPs are not required for this project as the post-development 2-year volume will decrease and the time of concentration will increase, thus improving the downstream water bodies. Refer to Section II.3 of this report for additional information.

IV.3.6 Regional/Sub-Regional LID BMPs

Regional/Sub-Regional LID BMPs
Not Applicable for this project.

IV.3.7 Treatment Control BMPs

Treatment Control BMPs

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BMP Name	BMP Description
n/a	n/a

IV.3.8 Non-structural Source Control BMPs

Non-Structural Source Control BMPs				
Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N2	Activity Restrictions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N3	Common Area Landscape Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N4	BMP Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N5	Title 22 CCR Compliance (How development will comply)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N6	Local Industrial Permit Compliance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed residential project.
N7	Spill Contingency Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed residential project.
N8	Underground Storage Tank Compliance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed residential project.
N9	Hazardous Materials Disclosure Compliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N10	Uniform Fire Code Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N11	Common Area Litter Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N12	Employee Training	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N13	Housekeeping of Loading Docks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed residential project.
N14	Common Area Catch Basin Inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N15	Street Sweeping Private Streets and Parking Lots	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N16	Retail Gasoline Outlets	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed residential project.

N1: Education for Property Owners, Tenants & Occupants

Project conditions of approval will require that the Property Management Company (HOA) periodically provide environmental awareness education materials, made available by the municipalities, to all of its members. Among other things, these materials will describe the use of chemicals (including household type) that should be limited to the property, with no discharge of wastes via hosing or other direct discharge to gutters, catch basins and storm drains. Educational materials available from the County of Orange can be downloaded here:

<http://www.ocwatersheds.com/PublicEd/resources/default.aspx>

N2: Activity Restrictions

Conditions, covenants and restrictions (CC&Rs) must be prepared by the developer for the appointed HOA for the purpose of surface water quality protection. The CC&Rs shall incorporate the restrictions based on the Project WQMP.

N3: Common Area Landscape Management

All common landscaping and/ or open space areas shall have on-going landscape maintenance by an appointed professional landscaping maintenance company as selected by the HOA. Maintenance shall incorporate all current County Water Conservation Resolution usage and follow the Management Guidelines for Use of Fertilizers per the DAMP Section 5.5. Refer to Section 5 of this report for additional landscape maintenance requirements.

N4: BMP Maintenance

Refer to Section 5 and Attachment C of this report for additional non-structural BMP maintenance requirements, responsibility and frequency.

N5: Title 22 CCR Compliance

HOA is responsible for compliance with Title 22 of the California Code of Regulations (CCR) and relevant sections of the California Health & Safety Code regarding hazardous waste management is enforced by the County Environmental Health and on behalf of the State. Information regarding hazardous waste management must be provided to all employees, homeowners, tenants and occupants.

N9: Hazardous Materials Disclosure Compliance

HOA is responsible for compliance with the local agencies' ordinances enforced by City Fire Department for the management of hazardous materials including enforcement, waste handling, disposal regulations and documentation.

N10: Uniform Fire Code Implementation

HOA is responsible for compliance with Article 80 of the Uniform Fire Code enforced by the local fire protection agency.

N11: Common Area Litter Control

HOA to implement trash management and litter control procedures in the common areas aimed at reducing pollution of drainage water. HOA to contract with landscape maintenance company to provide this service during regularly scheduled maintenance, which will consist of litter patrol, emptying of trash receptacles in common areas, and noting trash disposals violations by homeowners, tenants or occupants and reporting the violations to the HOA for investigation.

N12: Employee Training

HOA to provide Educational Materials and Property Management manuals to all employees upon initial hiring. Any updated information shall be provided to employees within a timely manner along with information on implementation.

N14: Common Area Catch Basin Inspections

HOA to inspect, clean and repair common area catch basins within the development to verify that the private drainage system is working properly. All trash/ debris and sediment build up is removed and any repairs/ replacements are conducted. Cleaning should take place in late summer/ early fall prior to the start of the raining season. Drainage facilities include catch basins (storm drain inlets), detention basins, retention basins, sediment basins, open drainage channels, area drains, and lift stations. Records shall be kept onsite to document the annual maintenance.

N15: Street Sweeping of Private Streets & Parking Lots

HOA to schedule at a minimum street sweeping of private streets and parking areas prior to the start of the rainy seasons, in late summer or early fall. Additional sweeping may be required to remove landscaping foliage and/ or pollution.

IV.3.9 Structural Source Control BMPs

Structural Source Control BMPs				
Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
S1	Provide storm drain system stenciling and signage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S2	Design and construct outdoor material storage areas to reduce pollution introduction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed outdoor storage areas.
S3	Design and construct trash and waste storage areas to reduce pollution introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S5	Protect slopes and channels and provide energy dissipation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed slopes or channels.
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable.
S6	Dock areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed dock areas.
S7	Maintenance bays	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed maintenance bay areas.
S8	Vehicle wash areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed vehicle wash areas.
S9	Outdoor processing areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed outdoor processing areas.
S10	Equipment wash areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed equipment wash areas.
S11	Fueling areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed fueling areas.
S12	Hillside landscaping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed hillside landscaping areas.
S13	Wash water control for food preparation areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No wash water control for food preparation areas.
S14	Community car wash racks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No proposed community car washing racks.

S1 (SD-13): Storm Drain Stenciling & Signage

HOA to inspect, repair and/ or replace storm drain stenciling and signage immediately. Inspection of stenciling and signage shall occur at least once per month and prior to the start of the raining season. Storm Drain stenciling and signage with a reference that indicates “Drains to Ocean” per CASQA BMP SD-13 Fact Sheet is required.

S4 (SD-12): Use Efficient Irrigation Systems & Landscape Design

HOA shall implement the timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm drain systems. HOA to implement the following methods to reduce excessive irrigation water runoff, where applicable:

- Employ rain shutoff devices to prevent irrigation after precipitation
- Utilizing landscape specific irrigation water requirements
- Utilize flow reducers or shutoff valves triggered by pressure drop to control water loss due to broken sprinkler heads
- Implement landscaping practices per the County Water Conservation Resolution or City agency equivalent
- Group plants or landscaping with similar water consumption in order to promote surface infiltration

Refer to CASQA BMP Fact Sheet SD-12 for additional information.

IV.4 Alternative Compliance Plan (If Applicable)

IV.4.1 Water Quality Credits

Description of Proposed Project				
Project Types that Qualify for Water Quality Credits (Select all that apply):				
<input type="checkbox"/> Redevelopment projects that reduce the overall impervious footprint of the project site.	<input type="checkbox"/> Brownfield redevelopment, meaning redevelopment, expansion, or reuse of real property which may be complicated by the presence or potential presence of hazardous substances, pollutants or contaminants, and which have the potential to contribute to adverse ground or surface WQ if not redeveloped.	<input type="checkbox"/> Higher density development projects which include two distinct categories (credits can only be taken for one category): those with more than seven units per acre of development (lower credit allowance); vertical density developments, for example, those with a Floor to Area Ratio (FAR) of 2 or those having more than 18 units per acre (greater credit allowance).		
<input type="checkbox"/> Mixed use development, such as a combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that can demonstrate environmental benefits that would not be realized through single use projects (e.g. reduced vehicle trip traffic with the potential to reduce sources of water or air pollution).	<input type="checkbox"/> Transit-oriented developments, such as a mixed use residential or commercial area designed to maximize access to public transportation; similar to above criterion, but where the development center is within one half mile of a mass transit center (e.g. bus, rail, light rail or commuter train station). Such projects would not be able to take credit for both categories, but may have greater credit assigned	<input type="checkbox"/> Redevelopment projects in an established historic district, historic preservation area, or similar significant city area including core City Center areas (to be defined through mapping).		
<input type="checkbox"/> Developments with dedication of undeveloped portions to parks, preservation areas and other pervious uses.	<input type="checkbox"/> Developments in a city center area.	<input type="checkbox"/> Developments in historic districts or historic preservation areas.	<input type="checkbox"/> Live-work developments, a variety of developments designed to support residential and vocational needs together – similar to criteria to mixed use development; would not be able to take credit for both categories.	<input type="checkbox"/> In-fill projects, the conversion of empty lots and other underused spaces into more beneficially used spaces, such as residential or commercial areas.
Calculation of Water Quality Credits (if applicable)	Water Quality credits will not be utilized on this development site.			

IV.4.2 Alternative Compliance Plan Information

Not applicable for this project.

Section V Inspection/Maintenance Responsibility for BMPs

The property is currently owned by The Olson Company. The Owner will be responsible for the long term maintenance of the project's storm water facilities and conformance to this WQMP after construction is complete.

A Notice of Transfer of Responsibility is located in Attachment H of this report and should be executed as part of any ownership transfer after construction is complete.

The owner will appoint a Homeowner's Association (HOA) to provide long term BMP maintenance for the proposed development upon completion of construction.

Owner/ Developer:

The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740
(562) 596-4770
Tom Moore, Senior Director of Operations

Homeowner's Association

To be determined

The owner is aware of the maintenance responsibilities of the proposed BMPs. A funding mechanism is in place to maintain the BMPs at the frequency stated in the WQMP.

The following BMP Inspection/ Maintenance table will be completed as part of the final engineering. This table will include BMP description, responsible party(ies), required inspection/ maintenance routine and frequency.

BMP Inspection/Maintenance			
BMP	Reponsible Party(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
Education for Property Owners, Tenants, Occupants & Employees	Homeowner's Association (HOA)	HOA to provide education material, a copy of the approved WQMP and Operation & Maintenance Plan (O&M) to new property owners, tenants, occupants & employees.	As needed.
Activity Restrictions	HOA	HOA employees notified of activities that are prohibited by homeowners.	Restrictions identified in Employee Manual and reviewed yearly by employees.
Common Area Landscape Management	HOA	HOA to hire professional landscape company to conduct maintenance of landscaping to meet current water efficiency and keep plants healthy and bio areas maintained with proper soil amendments.	Regular maintenance once a week and monthly inspection to determine deficiencies.
Uniform Fire Code Implementation	HOA	HOA to comply with fire regulations and keep informed of the latest rules and requirements.	Comply with annual fire inspections and maintain building and access per the latest fire codes.

Priority Project Water Quality Management Plan (WQMP)
EAST STREET CONDOMINIUMS

Common Area Litter Control/ Trash Enclosures	HOA	HOA to provide litter removal of site parking lot and landscape areas and to empty common area trash bins.	Once per week.
Private Street & Parking Lot Sweeping	HOA	HOA to provide maintenance of Parking Lot.	Regular Parking Lot sweeping once a week.
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	HOA	HOA to provide maintenance of landscaping to meet current water efficiency standards, and keep plants healthily.	Regular maintenance once a week and monthly inspection to determine deficiencies.
Storm Drain System Stencilling & Signage	HOA	HOA to inspect and repair as needed all onsite storm drain stencilling & signage.	Inspection should occur at minimum twice per year.
Cultec Stormwater Infiltration Chambers	HOA	HOA will be required to hire a professional maintenance company to provide regular inspection, repairs and cleaning per manufacturer's specifications.	Inspections/ Cleanings should occur at least two times per year and before the start of the rainy season (October 1 st). Refer to Attachment C for additional information and manufacturer's specifications.
Katchall Purestream Systems	HOA	HOA will be required to hire a professional maintenance company to provide regular inspection, repairs and cleaning per manufacturer's specifications.	Inspections/ Cleanings should occur at least two times per year and before the start of the rainy season (October 1 st). Refer to Attachment C for

Priority Project Water Quality Management Plan (WQMP)
EAST STREET CONDOMINIUMS

			additional information and manufacturer's specifications.
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Section VI BMP Exhibit (Site Plan)

VI.1 BMP Exhibit (Site Plan)

Refer to Attachment D of this report for the WQMP Exhibit which provides the location of all proposed BMPs and a site plan of the project.

Refer to separately prepared Precise Grading plans for BMP cross sectional information and details.

VI.2 Submittal and Recordation of Water Quality Management Plan

Following approval of the Final Project-Specific WQMP, three copies of the approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be submitted. In addition, these documents shall be submitted in a PDF format.

Each approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be recorded in the Orange County Clerk-Recorder's Office, prior to close-out of grading and/or building permit. Educational Materials are not required to be included.

Section VII Educational Materials

Refer to the Orange County Stormwater Program (www.ocwatersheds.com) for a library of materials available.

Education Materials			
Residential Material (http://www.ocwatersheds.com)	Check If Applicable	Business Material (http://www.ocwatersheds.com)	Check If Applicable
The Ocean Begins at Your Front Door	<input checked="" type="checkbox"/>	Tips for the Automotive Industry	<input type="checkbox"/>
Tips for Car Wash Fund-raisers	<input type="checkbox"/>	Tips for Using Concrete and Mortar	<input type="checkbox"/>
Tips for the Home Mechanic	<input checked="" type="checkbox"/>	Tips for the Food Service Industry	<input type="checkbox"/>
Homeowners Guide for Sustainable Water Use	<input checked="" type="checkbox"/>	Proper Maintenance Practices for Your Business	<input type="checkbox"/>
Household Tips	<input checked="" type="checkbox"/>	Other Material	Check If Attached
Proper Disposal of Household Hazardous Waste	<input checked="" type="checkbox"/>		
Recycle at Your Local Used Oil Collection Center (North County)	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Recycle at Your Local Used Oil Collection Center (Central County)	<input type="checkbox"/>		<input type="checkbox"/>
Recycle at Your Local Used Oil Collection Center (South County)	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Maintaining a Septic Tank System	<input type="checkbox"/>		<input type="checkbox"/>
Responsible Pest Control	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Sewer Spill	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for the Home Improvement Projects	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for Horse Care	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Landscaping and Gardening	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for Pet Care	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Tips for Pool Maintenance	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Residential Pool, Landscape and Hardscape Drains	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Projects Using Paint	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Attachment A

Educational Materials

To be provided during final engineering

Attachment B

TGD Worksheets &

Figures

Table 2.7: Infiltration BMP Feasibility Worksheet

	Infeasibility Criteria	Yes	No
1	Would Infiltration BMPs pose significant risk for groundwater related concerns? Refer to Appendix VII (Worksheet I) for guidance on groundwater-related infiltration feasibility criteria.		X
<p>Provide basis:</p> <p>Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.</p>			
2	<p>Would Infiltration BMPs pose significant risk of increasing risk of geotechnical hazards that cannot be mitigated to an acceptable level? (Yes if the answer to any of the following questions is yes, as established by a geotechnical expert):</p> <ul style="list-style-type: none"> • The BMP can only be located less than 50 feet away from slopes steeper than 15 percent • The BMP can only be located less than eight feet from building foundations or an alternative setback. • A study prepared by a geotechnical professional or an available watershed study substantiates that stormwater infiltration would potentially result in significantly increased risks of geotechnical hazards that cannot be mitigated to an acceptable level. 		X
<p>Provide basis:</p> <p>Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.</p>			
3	Would infiltration of the DCV from drainage area violate downstream water rights?		X
<p>Provide basis:</p> <p>Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.</p>			

Table 2.7: Infiltration BMP Feasibility Worksheet (continued)

	Partial Infeasibility Criteria	Yes	No
4	Is proposed infiltration facility located on HSG D soils or the site geotechnical investigation identifies presence of soil characteristics which support categorization as D soils?		X
Provide basis: Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
5	Is measured infiltration rate below proposed facility less than 0.3 inches per hour ? This calculation shall be based on the methods described in Appendix VII.		X
Provide basis: Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
6	Would reduction of over predeveloped conditions cause impairments to downstream beneficial uses, such as change of seasonality of ephemeral washes or increased discharge of contaminated groundwater to surface waters ?		X
Provide citation to applicable study and summarize findings relative to the amount of infiltration that is permissible: Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
7	Would an increase in infiltration over predeveloped conditions cause impairments to downstream beneficial uses, such as change of seasonality of ephemeral washes or increased discharge of contaminated groundwater to surface waters ?		X
Provide citation to applicable study and summarize findings relative to the amount of infiltration that is permissible: Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			

Table 2.7: Infiltration BMP Feasibility Worksheet (continued)

Infiltration Screening Results (check box corresponding to result):		
8	<p>Is there substantial evidence that infiltration from the project would result in a significant increase in I&I to the sanitary sewer that cannot be sufficiently mitigated? (See Appendix XVII)</p> <p>Provide narrative discussion and supporting evidence:</p> <p>Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.</p>	No
9	<p>If any answer from row 1-3 is yes: infiltration of any volume is not feasible within the DMA or equivalent.</p> <p>Provide basis:</p> <p>Summarize findings of infeasibility screening</p>	No
10	<p>If any answer from row 4-7 is yes, infiltration is permissible but is not presumed to be feasible for the entire DCV. Criteria for designing biotreatment BMPs to achieve the maximum feasible infiltration and ET shall apply.</p> <p>Provide basis:</p> <p>Summarize findings of infeasibility screening</p>	No
11	<p>If all answers to rows 1 through 11 are no, infiltration of the full DCV is potentially feasible, BMPs must be designed to infiltrate the full DCV to the maximum extent practicable.</p>	Infiltration is Feasible

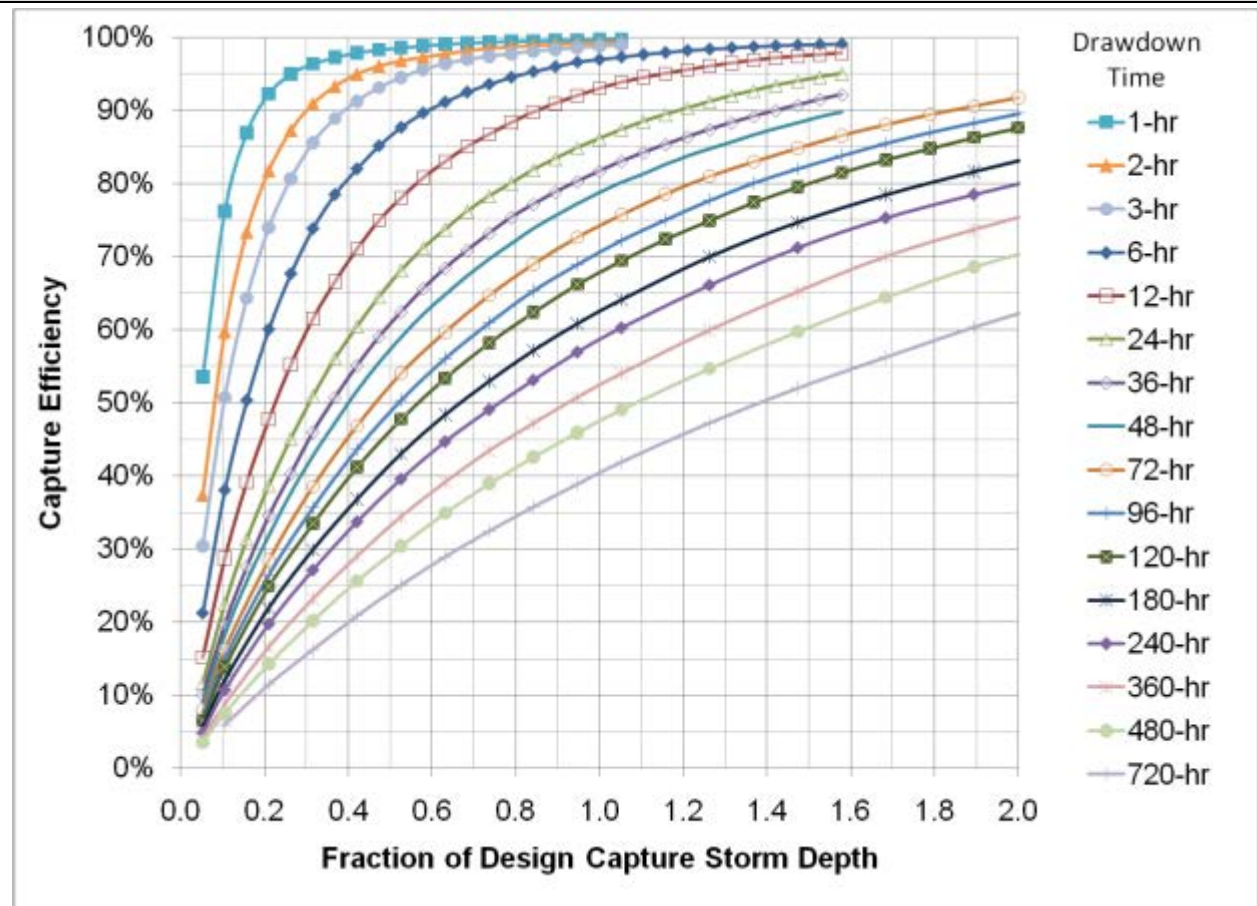
Worksheet B: Simple Design Capture Volume Sizing Method

Step 1: Determine the design capture storm depth used for calculating volume				
1	Enter design capture storm depth from Figure III.1, d (inches)	$d=$	0.85	inches
2	Enter the effect of provided HSCs, d_{HSC} (inches) (Worksheet A)	$d_{HSC}=$	0.00	inches
3	Calculate the remainder of the design capture storm depth, $d_{remainder}$ (inches) (Line 1 – Line 2)	$d_{remainder}=$	0.85	inches
Step 2: Calculate the DCV				
1	Enter Project area tributary to BMP (s), A (acres)	$A=$	1.76	acres
2	Enter Project Imperviousness, imp (unitless)	$imp=$	0.85	
3	Calculate runoff coefficient, $C= (0.75 \times imp) + 0.15$	$C=$	0.788	
4	Calculate runoff volume, $V_{design}= (C \times d_{remainder} \times A \times 43560 \times (1/12))$	$V_{design}=$	4,279	cu-ft
Step 3: Design BMPs to ensure full retention of the DCV				
Step 3a: Determine design infiltration rate				
1	Enter measured infiltration rate, $K_{measured}$ (in/hr) (Appendix VII)	$K_{measured}=$	30.00	In/hr
2	Enter combined safety factor from Worksheet H, S_{final} (unitless)	$S_{final}=$	2.81	
3	Calculate design infiltration rate, $K_{design} = K_{measured} / S_{final}$	$K_{design}=$	10.67	In/hr
Step 3b: Determine minimum BMP footprint				
4	Enter drawdown time, T (max 48 hours)	$T=$	48	Hours
5	Calculate max retention depth that can be drawn down within the drawdown time (feet), $D_{max} = K_{design} \times T \times (1/12)$	$D_{max}=$	42.68	feet
6	Calculate minimum area required for BMP (sq-ft), $A_{min} = V_{design} / d_{max}$	$A_{min}=$	100.3	sq-ft

Worksheet C: Capture Efficiency Method for Volume-Based, Constant Drawdown BMPs

Provide drawdown time calculations per applicable BMP Fact Sheet:

Graphical Operations



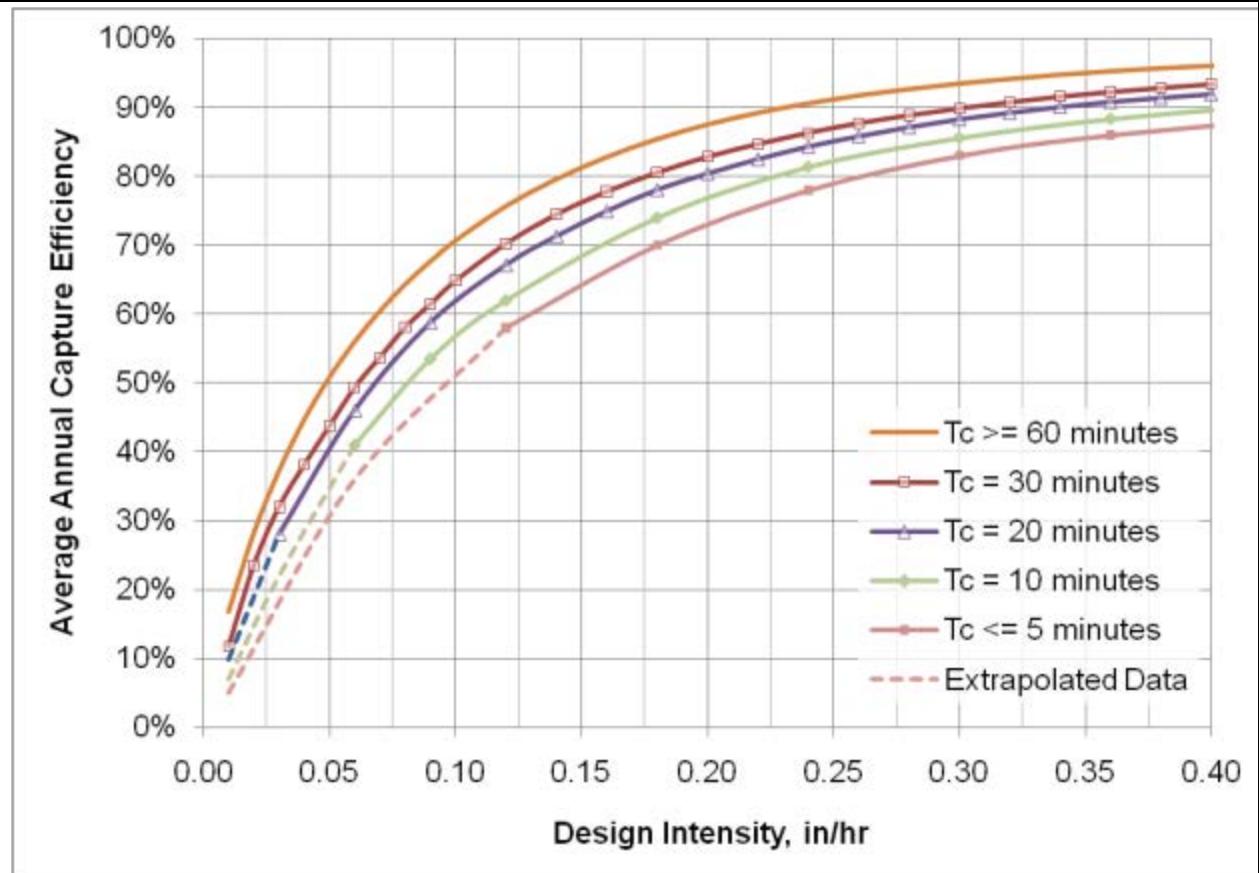
Provide supporting graphical operations. See Example III.6.

Worksheet D: Capture Efficiency Method for Flow-Based BMPs

Step 1: Determine the design capture storm depth used for calculating volume				
1	Enter the time of concentration, T_c (min) (See Appendix IV.2)	$T_c=$	10.1	
2	Using Figure III.4, determine the design intensity at which the estimated time of concentration (T_c) achieves 80% capture efficiency, I_1	$I_1=$	0.23	in/hr
3	Enter the effect depth of provided HSCs upstream, d_{HSC} (inches) (Worksheet A)	$d_{HSC}=$	0.0	inches
4	Enter capture efficiency corresponding to d_{HSC} , Y_2 (Worksheet A)	$Y_2=$	0	%
5	Using Figure III.4, determine the design intensity at which the time of concentration (T_c) achieves the upstream capture efficiency (Y_2), I_2	$I_2=$	0	
6	Determine the design intensity that must be provided by BMP, $I_{design} = I_1 - I_2$	$I_{design}=$	0.23	
Step 2: Calculate the design flowrate				
1	Enter Project area tributary to BMP (s), A (acres)	$A=$	0.91	acres
2	Enter Project Imperviousness, imp (unitless)	$imp=$	0.95	
3	Calculate runoff coefficient, $C = (0.75 \times imp) + 0.15$	$C=$	0.86	
4	Calculate design flowrate, $Q_{design} = (C \times I_{design} \times A)$	$Q_{design}=$	0.18	cfs
Supporting Calculations				
Describe system: Katchall Purestream Biofiltration Catch Basin for Pretreatment of Driveway and Parking run-off.				
Provide time of concentration assumptions:				

Worksheet D: Capture Efficiency Method for Flow-Based BMPs

Graphical Operations



Provide supporting graphical operations. See Example III.7.

Worksheet H: Factor of Safety and Design Infiltration Rate Worksheet

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) $p = w \times v$
A	Suitability Assessment	Soil assessment methods	0.25	1	0.25
		Predominant soil texture	0.25	1	0.25
		Site soil variability	0.25	2	0.50
		Depth to groundwater / impervious layer	0.25	1	0.25
		Suitability Assessment Safety Factor, $S_A = \Sigma p$				1.25
B	Design	Tributary area size	0.25	2	0.50
		Level of pretreatment/ expected sediment loads	0.25	3	0.75
		Redundancy	0.25	2	0.50
		Compaction during construction	0.25	2	0.50
		Design Safety Factor, $S_B = \Sigma p$				2.25
Combined Safety Factor, $S_{TOT} = S_A \times S_B$				2.81	
Measured Infiltration Rate, inch/hr, K_M (corrected for test-specific bias)				30.0	
Design Infiltration Rate, in/hr, $K_{DESIGN} = S_{TOT} / K_M$				10.67	

Supporting Data

Briefly describe infiltration test and provide reference to test forms:

Refer to Geotechnical Investigation for Proposed Water Quality Improvements prepared by Albus-Keefe & Associates, Inc. dated September 28, 2016 in Attachment E.

Note: The minimum combined adjustment factor shall not be less than 2.0 and the maximum combined adjustment factor shall not exceed 9.0.

Worksheet I: Summary of Groundwater-related Feasibility Criteria

1	Is project large or small? (as defined by Table VIII.2) circle one	Large	Small	
2	What is the tributary area to the BMP?	A	1.76	acres
3	What type of BMP is proposed?	Underground Infiltration (Cultec Chambers)		
4	What is the infiltrating surface area of the proposed BMP?	A _{BMP}	1,960	sq-ft
5	<p>What land use activities are present in the tributary area (list all)</p> <p>Existing land uses consists of commercial.</p> <p>The proposed land use will consist of 42-unit residential condominiums.</p>			
6	What land use-based risk category is applicable?	L	M	H
7	<p>If M or H, what pretreatment and source isolation BMPs have been considered and are proposed (describe all):</p>			
8	What minimum separation to mounded seasonally high groundwater applies to the proposed BMP? See Section VIII.2 (circle one)	5 ft	10 ft	
9	<p>Provide rationale for selection of applicable minimum separation to seasonally high mounded groundwater: See Geotechnical Analysis of infiltration flow patterns in Attachment E.</p> <p>Underground infiltration BMPs require a minimum 10' separation between the bottom of the infiltration basin to the seasonally high mounded groundwater elevation.</p>			
10	What is separation from the infiltrating surface to seasonally high groundwater?	SHGWT	50	ft
11	What is separation from the infiltrating surface to mounded seasonally high groundwater?	Mounded SHGWT	50	ft
12	<p>Describe assumptions and methods used for mounding analysis:</p> <p>Refer to separately prepared Geotechnical Investigation and Percolation Test Results prepared by Albus-Keefe and Associates, Inc. located in Attachment E of this report.</p>			

Worksheet I: Summary of Groundwater-related Feasibility Criteria

13	Is the site within a plume protection boundary (See Figure VIII.2)?	Y	<input type="checkbox"/> N	N/A
14	Is the site within a selenium source area or other natural plume area (See Figure VIII.2)?	Y	<input type="checkbox"/> N	N/A
15	Is the site within 250 feet of a contaminated site?	<input checked="" type="checkbox"/> Y	N	N/A
16	<p>If site-specific study has been prepared, provide citation and briefly summarize relevant findings:</p> <p>The State Website “Geotracker” indicates that a site with past contamination exists adjacent to the site to the south. The site is a gas station and an underground spill was previously cleaned up and a NFA letter was issued in 2003.</p> <p>The migration of potential remaining pollutants from the same site is a consideration for this development. Stantec performed a Phase I and Phase II Environmental Site Assessment and determined that the site indicated no migrating pollutants from the site at the southerly boundary in excess of allowed limits for the type of development proposed. See Finding 4 page 8.3 from the report in Attachment E.</p>			
17	Is the site within 100 feet of a water supply well, spring, septic system?	Y	<input type="checkbox"/> N	N/A
18	Is infiltration feasible on the site relative to groundwater-related criteria?	<input checked="" type="checkbox"/> Y	N	
<p>Provide rationale for feasibility determination:</p> <p>Based on the high groundwater elevations, high percolation rates, soil type and location of the site, infiltration type BMPs are considered feasible. The flow pattern of the infiltration as presented in the Geotechnical report located in Attachment E and the findings from the Stantec Phase I and Phase II Environmental Site Assessment. Refer to the WQMP report for additional information.</p>				

Note: if a single criterion or group of criteria would render infiltration infeasible, it is not necessary to evaluate every question in this worksheet.

Worksheet J: Summary of Harvested Water Demand and Feasibility

1	What demands for harvested water exist in the tributary area (check all that apply):			
2	Toilet and urinal flushing		<input type="checkbox"/>	
3	Landscape irrigation		<input checked="" type="checkbox"/>	
4	Other: _____		<input type="checkbox"/>	
5	What is the design capture storm depth? (Figure III.1)	d	0.85	inches
6	What is the project size?	A	1.76	ac
7	What is the acreage of impervious area?	IA	1.50	ac
For projects with multiple types of demand (toilet flushing, irrigation demand, and/or other demand)				
8	What is the minimum use required for partial capture? (Table X.6)			gpd
9	What is the project estimated wet season total daily use (Section X.2)?			gpd
10	Is partial capture potentially feasible? (Line 9 > Line 8?)			
For projects with only toilet flushing demand				
11	What is the minimum TUTIA for partial capture? (Table X.7)			
12	What is the project estimated TUTIA?			
13	Is partial capture potentially feasible? (Line 12 > Line 11?)			
For projects with only irrigation demand				
14	What is the minimum irrigation area required based on conservation landscape design? (Table X.8)		0.26	ac
15	What is the proposed project irrigated area? (multiply conservation landscaping by 1; multiply active turf by 2)		0.26	ac
16	Is partial capture potentially feasible? (Line 15 > Line 14?)		NO	
Provide supporting assumptions and citations for controlling demand calculation:				

Susceptibility

Potential Areas of Erosion, Habitat, & Physical Structure Susceptibility

Channel Type

Earth (Unstable)

Earth (Stabilized)

Stabilized

Tidel Influence

<= Mean High Water Line (4.28')

Water Body

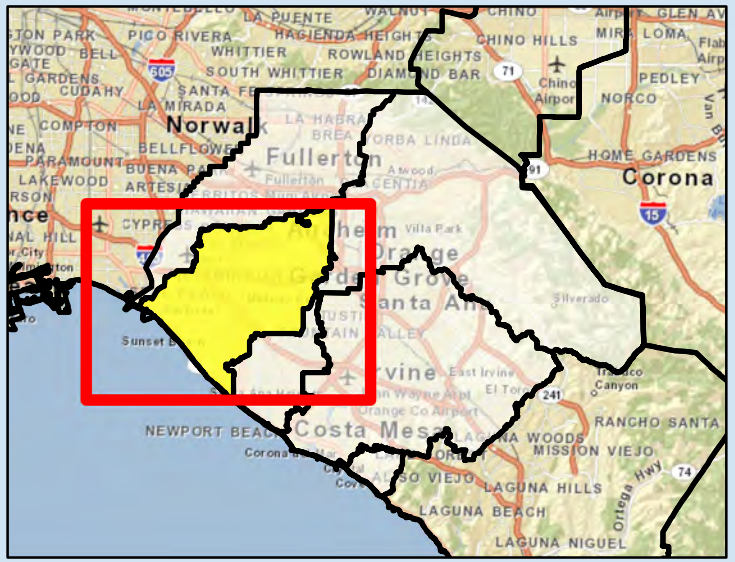
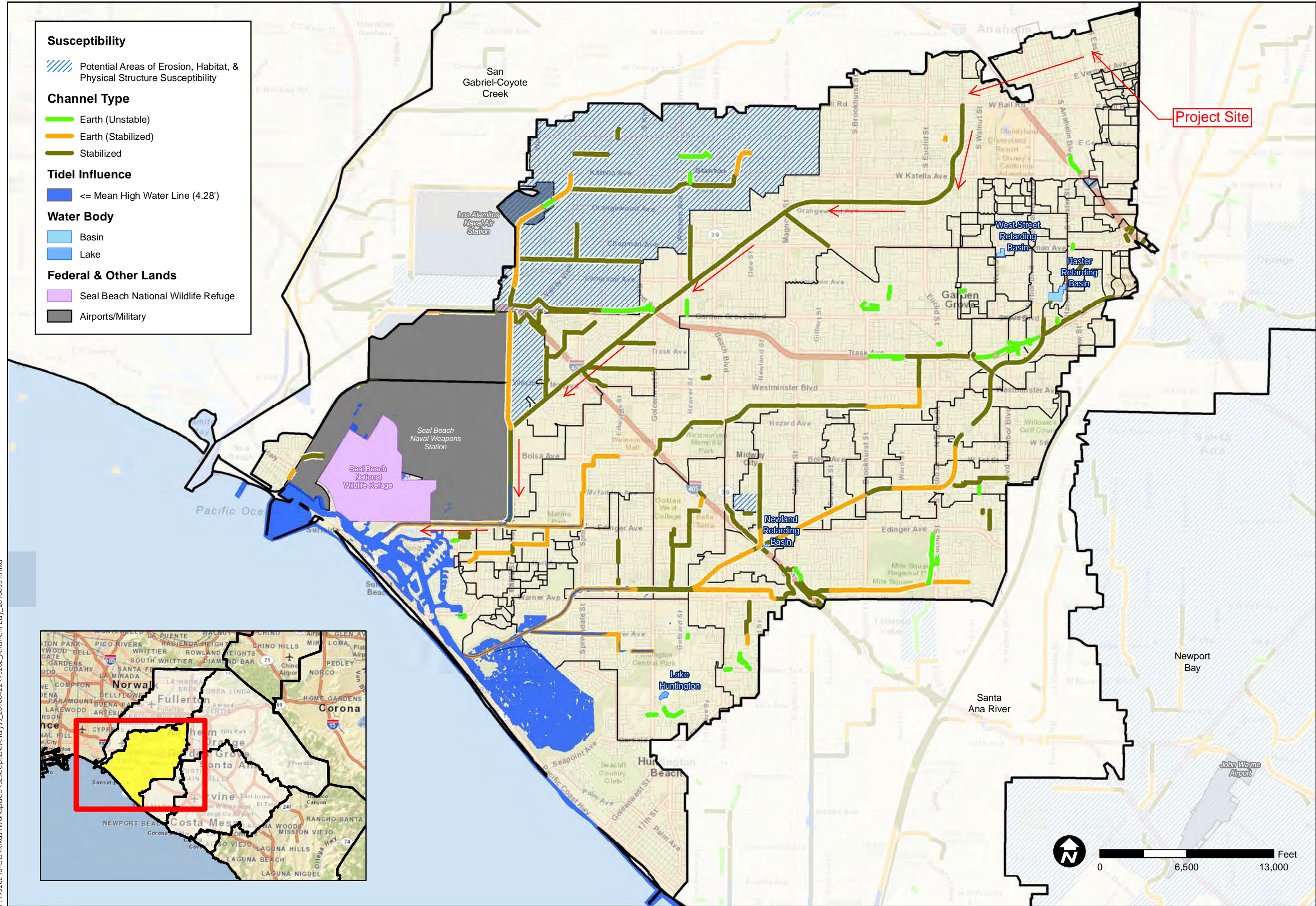
Basin

Lake

Federal & Other Lands

Seal Beach National Wildlife Refuge

Airports/Military



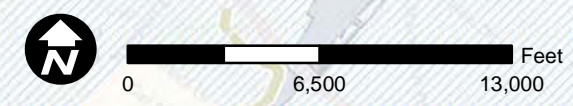
TITLE
**SUSCEPTIBILITY ANALYSIS
 ANAHEIM BAY-
 HUNTINGTON HARBOR**

JOB
**ORANGE COUNTY
 WATERSHED
 MASTER PLANNING**

SCALE	1" = 6500'
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9826 E

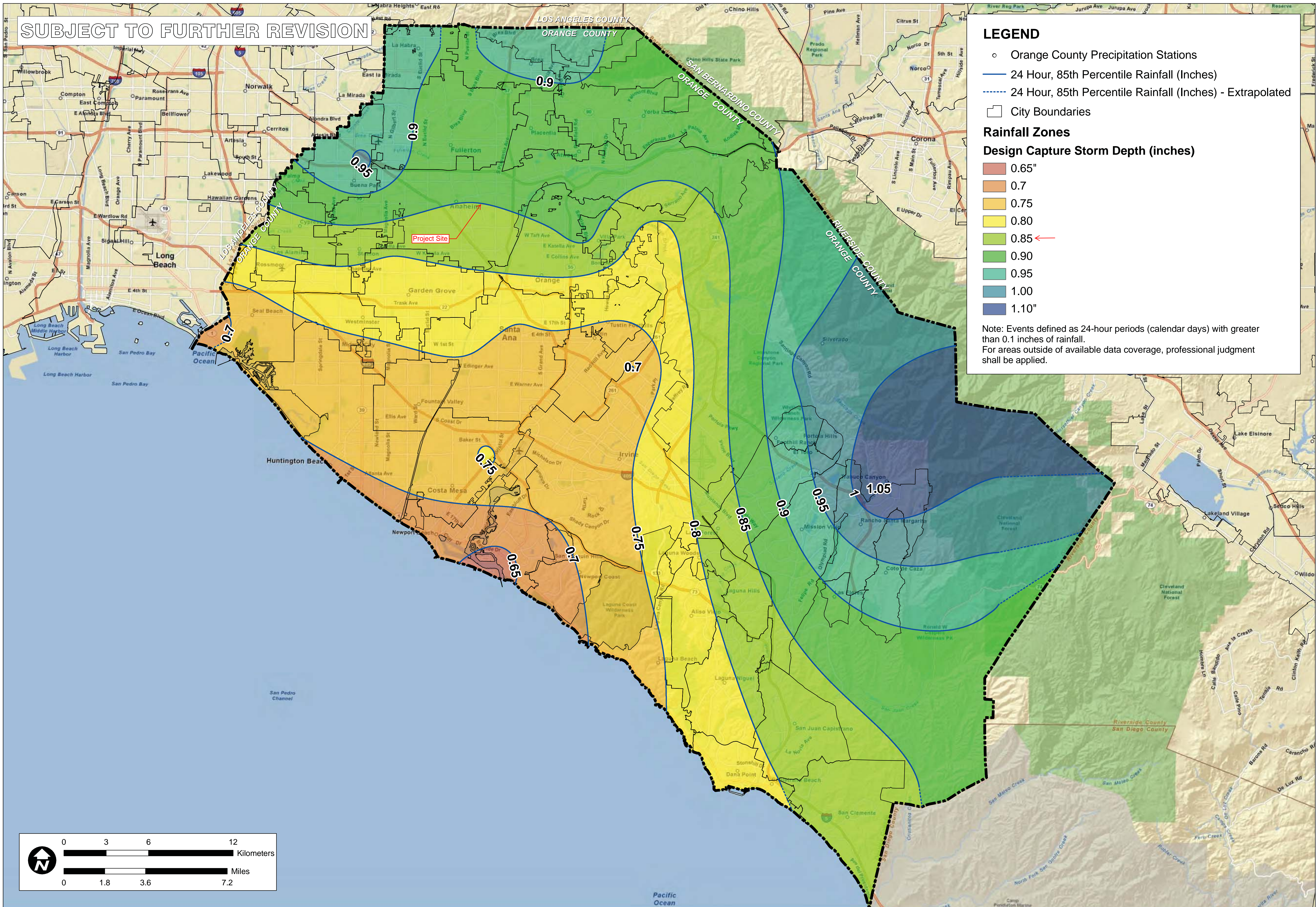


FIGURE
2



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SUBJECT TO FURTHER REVISION



LEGEND

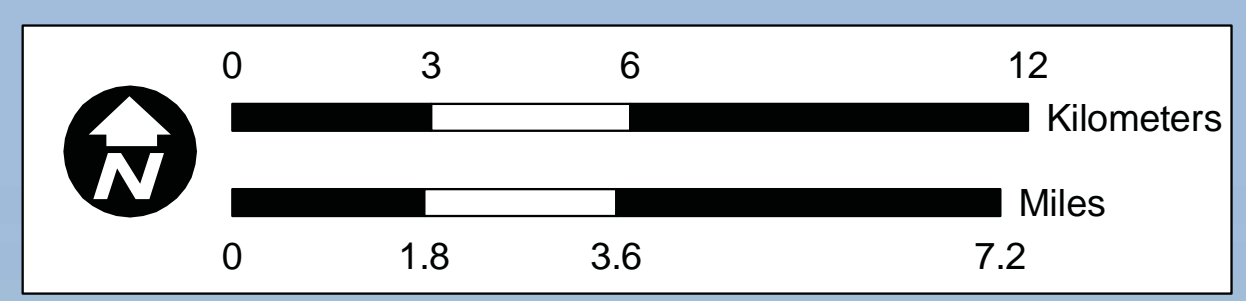
- Orange County Precipitation Stations
- 24 Hour, 85th Percentile Rainfall (Inches)
- - - 24 Hour, 85th Percentile Rainfall (Inches) - Extrapolated
- City Boundaries

Rainfall Zones

Design Capture Storm Depth (inches)

- 0.65"
- 0.7
- 0.75
- 0.80
- 0.85 ←
- 0.90
- 0.95
- 1.00
- 1.10"

Note: Events defined as 24-hour periods (calendar days) with greater than 0.1 inches of rainfall.
For areas outside of available data coverage, professional judgment shall be applied.



RAINFALL ZONES

ORANGE COUNTY
TECHNICAL GUIDANCE
DOCUMENT

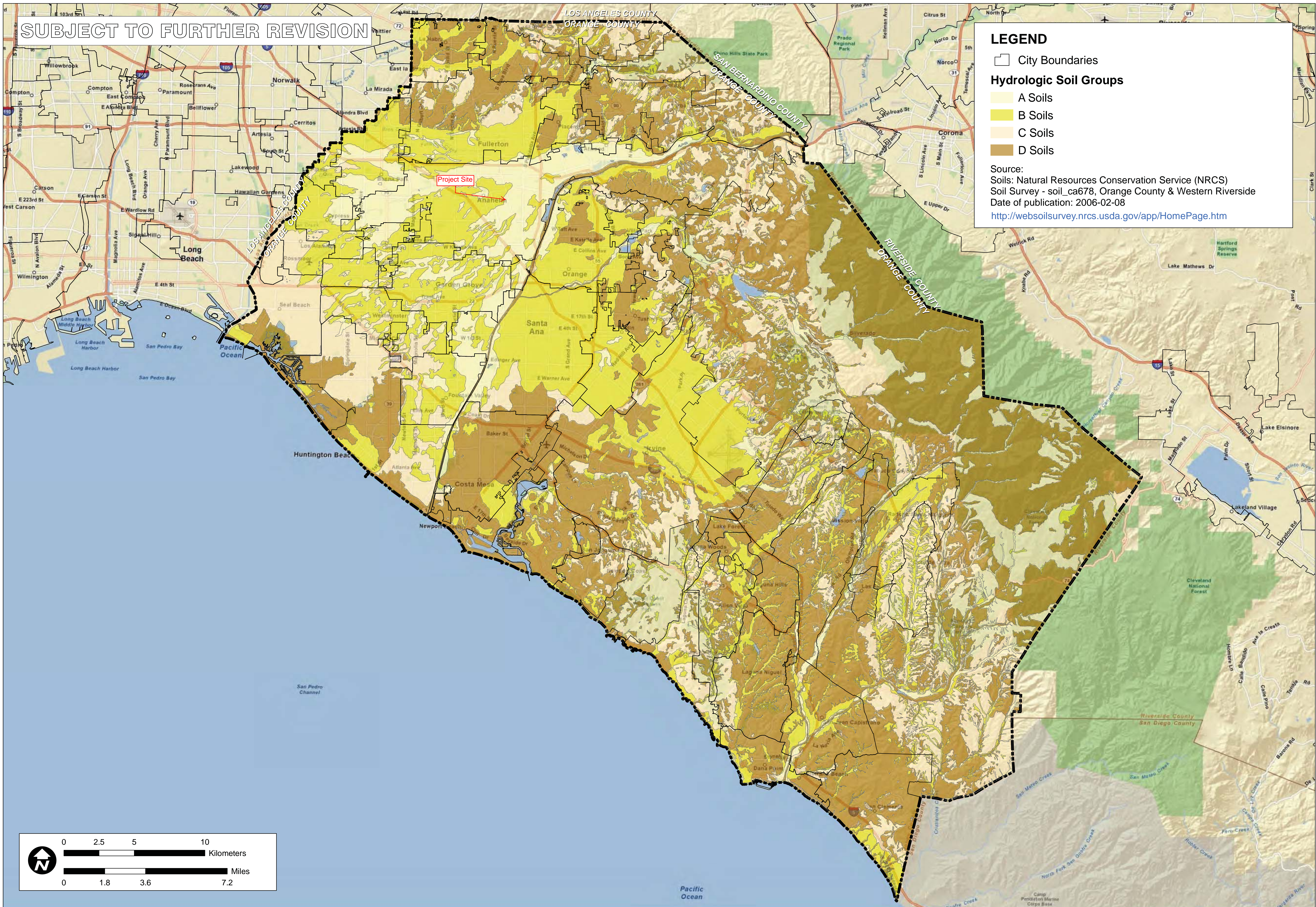
ORANGE CO. CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9526-E

FIGURE
XVI-1

P:\9526E\6-GIS\Mxd\Reports\InfiltrationFeasibility_20110215\9526E_FigureXVI-1_RainfallZones_20110215.mxd

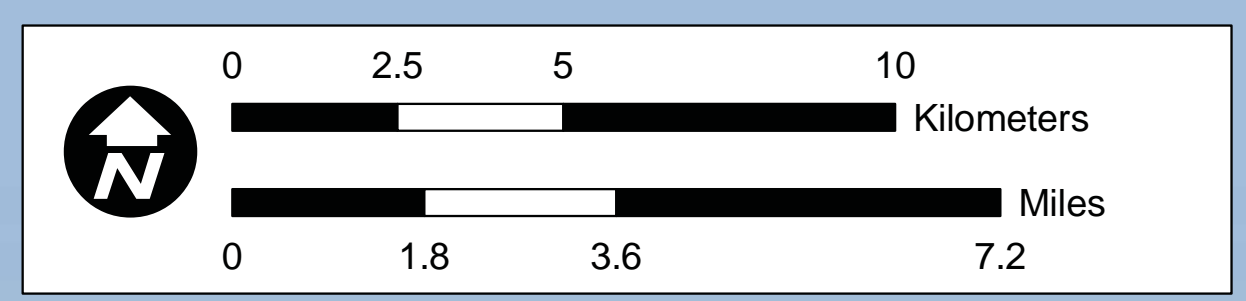
SUBJECT TO FURTHER REVISION



LEGEND

- City Boundaries
- Hydrologic Soil Groups**
- A Soils
- B Soils
- C Soils
- D Soils

Source:
 Soils: Natural Resources Conservation Service (NRCS)
 Soil Survey - soil_ca678, Orange County & Western Riverside
 Date of publication: 2006-02-08
<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>



TITLE: NRCS HYDROLOGIC SOILS GROUPS
 JOB: ORANGE COUNTY INFILTRATION STUDY
 SCALE: 1" = 1.8 miles
 DESIGNED: TH
 DRAWING: TH
 CHECKED: BMP
 DATE: 02/09/11
 JOB NO.: 9526-E
 ORANGE CO. CA



FIGURE XVI-2a

P:\9526E\6-GIS\Mxd\Reports\InfiltrationFeasibility_20110215\9526E_FigureXVI-2a_HydroSoils_20110215.mxd

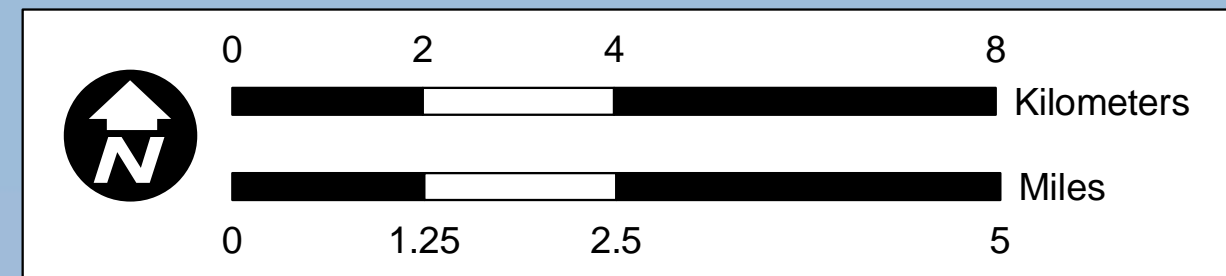
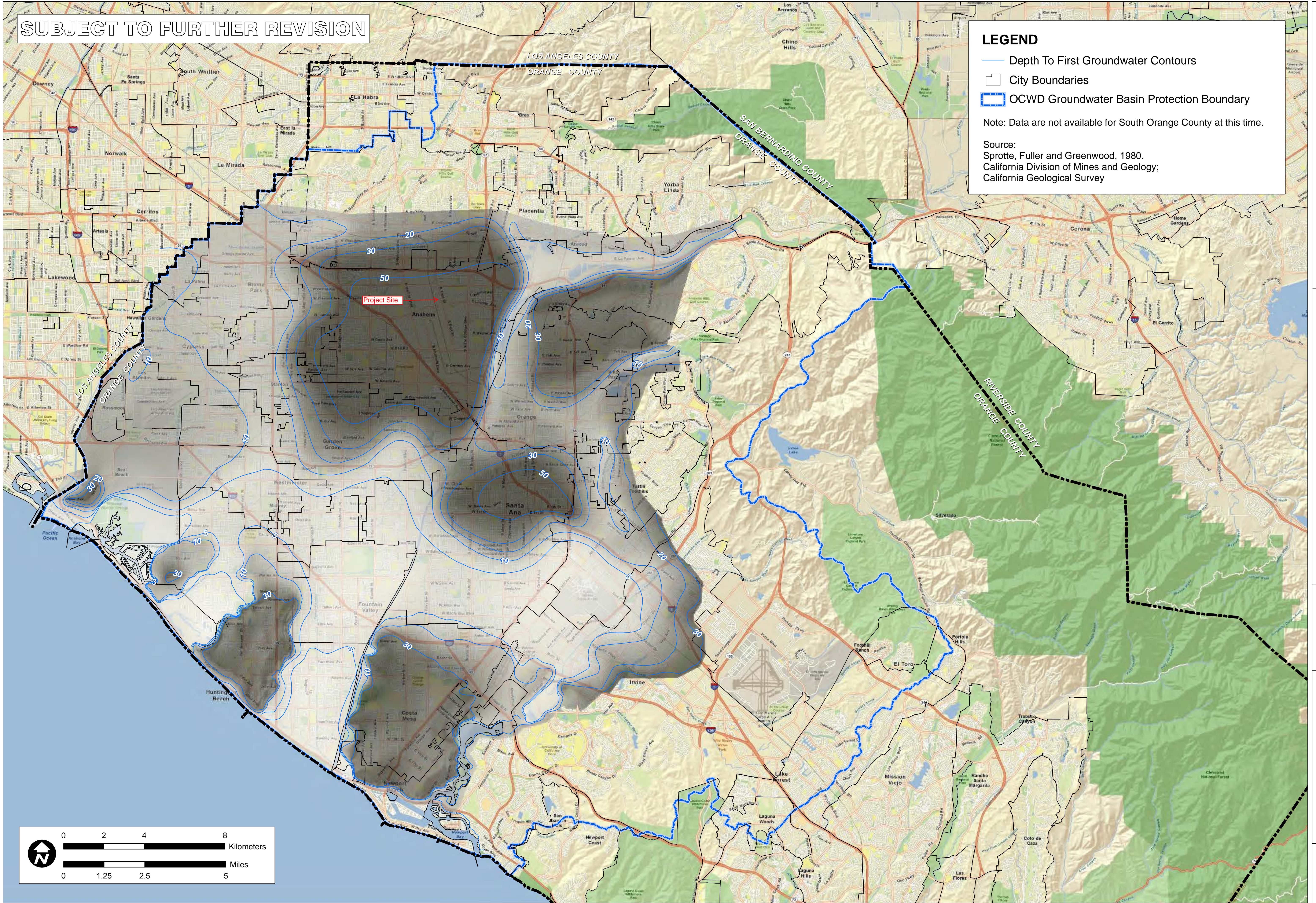
SUBJECT TO FURTHER REVISION

LEGEND

- Depth To First Groundwater Contours
- City Boundaries
- ▭ OCWD Groundwater Basin Protection Boundary

Note: Data are not available for South Orange County at this time.

Source:
 Sprotte, Fuller and Greenwood, 1980.
 California Division of Mines and Geology;
 California Geological Survey



TITLE

NORTH ORANGE COUNTY
 MAPPED DEPTH TO FIRST
 GROUNDWATER

JOB

ORANGE COUNTY
 INFILTRATION STUDY

CA

ORANGE CO.

SCALE 1" = 1.25 miles

DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

FIGURE

XVI-2d

P:\9526E\6-GIS\Mxd\Reports\Infiltration\Feasibility_20110215\9526E_FigureXVI-2d_DepthToGroundwaterOverview_20110215.mxd

Attachment C

Site BMPs

Contactor® & Recharger® Stormwater Chambers



Stormwater Management Design Guide

- Retention
- Detention
- Water Conveyance
- Water Quality

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www.cultec.com

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CULTEC is not responsible for typographical errors.

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U.S. Patents 6,129,482; 6,322,288; 6,854,925; 7,226,241; 7,806,627; 8,366,346; 8,425,148; and others; U.S. Designs D613819; D638,095; D668,318 and others; Canadian Patent 2,591,255 and others; Community Designs 1092191; 1745209; and others.

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Contact Information:

For general information on our other products and services, please contact our offices within the United States at (800)428-5832, (203)775-4416 ext. 202, or e-mail us at custservice@cultec.com.

For technical support, please call (203)775-4416 ext. 203 or e-mail tech@cultec.com.

Visit www.cultec.com/downloads.html for Product Downloads and CAD details

Doc ID: CULG002 02-15
February 2015

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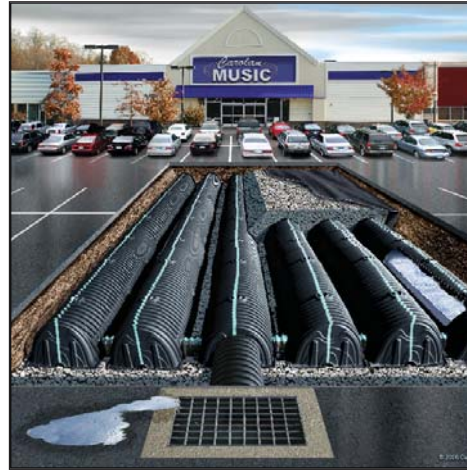
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CULTEC has the solutions!



Residential Drainage



Commercial Drainage



Drywell Applications



Rainwater Harvesting

Product Information

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CULTEC Stormwater Systems 101 - The Basics

The CULTEC Contactor® and Recharger® chambers replace conventional stormwater retention/detention systems such as ponds, swales, pipe and stone trenches or beds, or concrete structures. The chambers may be used for drywells. Infiltration contact area is maximized by the fully open bottoms and perforated sidewalls.

Water is collected in a catch basin or other collective device followed by a CULTEC StormFilter® to be treated. The water is then directed into the Contactor® or Recharger® chambers and distributed via the side portal internal manifold and crushed stone embedment. Depending on the system application, the water infiltrates into the ground, or it is detained and released.

Typical CULTEC stormwater systems are designed by using the largest chamber that meets the site's depth constraint and system requirements. By choosing the largest available chamber that meets the system's parameters, you reduce the number of chambers and land area required. The client is able to maximize storage volume at the given workable elevations.

Applications

- Retention Systems
- Detention Systems
- Reclamation
- Drywells
- Conveyance
- Manage residential roofdrain run-off
- Contain swimming pool or water conditioner backwash

Features

- Patented overlapping rib connection
- Unique in-line manifold available on most models
- Repeating support panel adds to strength of installation
- High infiltrative capability
- Lightweight
- Variety of sizes
- Chemically resistant
- Manufactured in ISO certified facilities

System Benefits

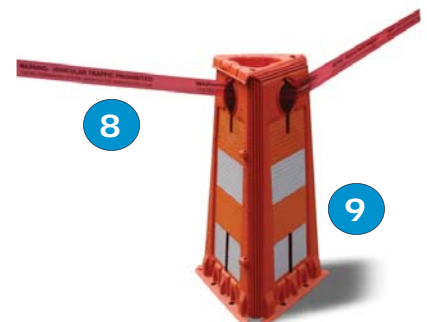
- Maximum use of land area
- Store larger volumes in a lower profile than comparably sized pipe
- Ability to recharge water on-site
- Single or multi-level systems
- Less heavy equipment required
- The units nest on pallets for convenient shipping and stockpiling of material
- Allows for greater infiltration into the ground
- Permits further development
- Reduces insurance liabilities and potential breeding grounds for infectious mosquitoes associated with open ponds
- Free design assistance available





Typical CULTEC Stormwater System Components

1. **CULTEC Stormwater Chamber** - used for retention, detention, reclamation
2. **CULTEC PAC® 150** - chamber with closed bottom used for water conveyance
3. **CULTEC HVLV™ Feed Connector** - internal manifold component
4. **CULTEC StormFilter® 330** - Water Quality Unit
5. **CULTEC No. 410™ Filter Fabric** - prevents soil intrusion into system
6. **CULTEC No. 20L™ Polyethylene Liner** - placed under CULTEC manifold components, prevents scouring of stone base
7. **Stone** - used for stone base, embedment stone and stone above chambers
8. **CULTEC Warning Tape** - marks off location of underground CULTEC Stormwater System during construction to prevent vehicular traffic
9. **Multicade™ Pylon** - marks location of underground CULTEC Stormwater System during construction phase



Stormwater Chambers

Contactor® Series

The Contactor® series consists of lower profile chambers and are typically used for installations with depth restrictions or when a larger infiltrative area is required. The 12.5-inch high Contactor® 100HD is the most popular model within this series for stormwater design.

Other models available within the Contactor® series are: Contactor® EZ-24, and Contactor® Field Drain C-4. Design information for these models is available upon request.

Shown: Contactor 100HD



Recharger® Series

CULTEC's Recharger® series includes higher profile, larger capacity chambers.

Sizes range from 18.5" - 32" (470 - 813 mm) high. Chamber capacities vary from 2.65 - 8.68 cu. ft./ft. (0.246 - 1.13 cu. m/m).

The most popular models within this series are the Recharger® 150XLHD, 280HD, 330XLHD, and V8HD.

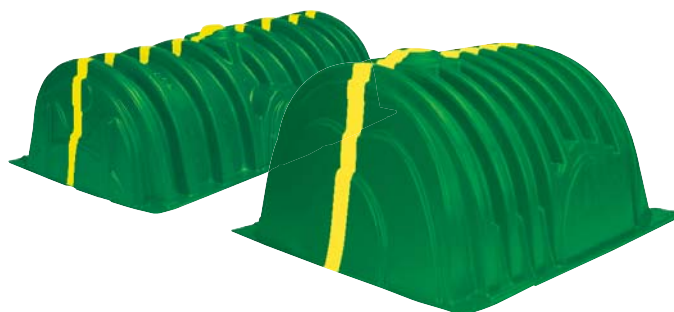
Shown left to right: Recharger Model 150XLHD, 280HD, 330XLHD, and V8HD.



Landscaper Series®

The CULTEC Landscaper Series® are standard duty chambers with fully formed end walls. They are intended to be used as single unit installations (not interlocked together) to control stormwater or grey water for non-traffic applications.

Shown left to right: Model HVLV™ 180BT LS and Recharger V8R LS.



Water Conveyance

PAC® 150™ Series

The PAC® 150™ is a non-perforated chamber with a solid bottom plate that is used as a substitute for pipe for water conveyance. Side portals located on the unit allow for easy entry points for distribution along the system.



Internal Manifold Components

HVLV™ Feed Connectors

Feed connectors are inserted into the side portals of the CULTEC Chambers or used with HVLV™ Header sections to act as feed lines within the bed of stormwater detention/retention chambers.



Shown left to right: Model HVLV™ SFCx2 Feed Connector, HVLV™ FC-24 Feed Connector and HVLV™ F-110x4 Feed Connector.

See page 47 for more information on Manifold Options.

CULTEC No. 20L™ Polyethylene Liner

CULTEC No. 20L™ Polyethylene Liner is designed as an impervious underlayment to prevent scouring caused by water movement within the CULTEC chambers and feed connectors utilizing the CULTEC manifold feature.



Water Quality

CULTEC STORMFILTER® 330™

The CULTEC StormFilter® 330™ is designed to be a secondary in-line filter system that effectively removes many of the smaller particles not eliminated by conventional structures during the pretreatment process.

CULTEC StormFilter® 330™ is a pass-through filter system used in stormwater applications to filter rainwater run-off prior to entering the CULTEC Stormwater Management System. It has a solid bottom and sidewalls.



CULTEC STORMFILTER® T-80®

CULTEC StormFilter® T-80® is a cost-effective filtration unit used to remove leaves and debris from rainwater collected by catchbasins or gutters. StormFilter T-80 prevents leaves and debris from clogging outflow systems and piping. This compact unit is easy to install and simple for the homeowner or maintenance personnel to maintain. It is perfect for treating roof and driveway runoff for light commercial or residential applications.



System Accessories

CULTEC No. 410™ Filter Fabric

CULTEC No. 410™ Filter Fabric is a non-woven polypropylene filter fabric that may be used with CULTEC Contactor® and Recharger® stormwater installations. CULTEC Stormwater Systems are typically enveloped top, sides and bottom with filter fabric in order to provide a barrier that prevents soil intrusion into the stone.



Warning Tape

CULTEC recommends taping off the installation location during construction to prevent any equipment or vehicles from traversing over the chambers until the system has been completely installed, backfilled and paved (where applicable) according to the CULTEC's requirements.



Multicade™ Barricade

Multicade™ Barricade is available from CULTEC to assist in advising of restricted areas during the construction phase.

Collapsible Multicade™ pylons tri-fold to 3" thick or lay flat for easy storage and shipping. Unique triangular shape prevents rolling if knocked over. Join multiple units together to create larger Megacade. M.U.T.C.D. accepted. N.C.H.R.P. 350 approved. Multicade™ is manufactured by Advanced Construction Products, LLC.





Prepared For:

SANDRA GOTTLIEB
OLSON COMPANY
CA

Project Information:

ANAHEIM EAST STREET
711 S. EAST STREET
ANAHEIM EAST STREET
CA

Date: DECEMBER 10, 2016

Engineer:

THOMAS PETERSEN
C & V CONSULTING
6 ORCHARD
LAKE FOREST
CA
92610
949-387-7035

Calculations Performed By:

Name
Company Name
Street Address
City
State
Zip
Phone
Fax
Email

Input Given Parameters

Unit of Measure	English
Select Model	Recharger 330XLHD
Stone Porosity	40.0%
Number of Header Systems	1 Header
Stone Depth Above Chamber	6 inches
Stone Depth Below Chamber	6 inches
Workable Bed Depth	8.00 feet
Max. Bed Width	16.00 feet
Storage Volume Required	4300.00 cu. feet



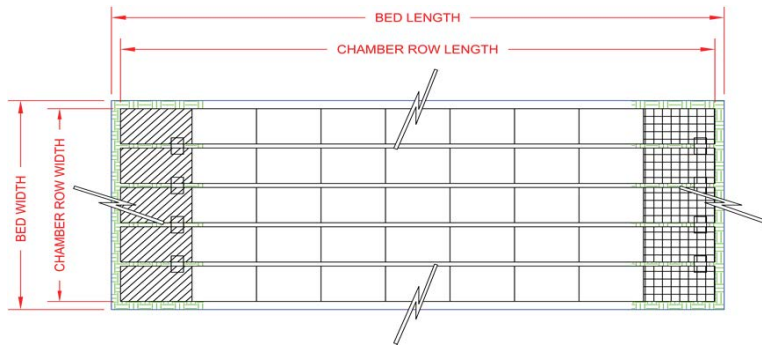
Chamber Specifications

Height	30.5 inches
Width	52.00 inches
Length	8.50 feet
Installed Length	7.00 feet
Bare Chamber Volume	52.21 cu. feet
Installed Chamber Volume	79.26 cu. feet
<i>Image for visual reference only. May not reflect selected model.</i>	
Bed Depth	4.63 feet
Bed Width	16.00 feet
Storage Volume Provided	4395.07 cu. feet

Materials List

Recharger 330XLHD Stormwater System by CULTEC, Inc.			
Approx. Unit Count - not for construction	54	pieces	
Actual Number of Chambers Required	51	pieces	
Starter Chambers	3	pieces	
Intermediate Chambers	45	pieces	
End Chambers	3	pieces	
			HVLV FC-24
			2 pieces
			CULTEC No. 410™ Filter Fabric
			599.02 sq. yards
			CULTEC No. 20L Polyethylene Liner
			16.00 feet
			Stone
			157.20 cu. yards
			Volume of Excavation
			335.74 cu. yards

Bed Detail



Number of Rows Wide	3	pieces
Number of Chambers Long	17	pieces
Chamber Row Width	14.00	feet
Chamber Row Length	120.50	feet
Bed Width	16.00	feet
Bed Length	122.50	feet
Bed Area Required	1960.00	sq. feet

Bed detail for reference only. Not project specific. Not to scale. Use CULTEC StormGenie to output project specific detail.

Project Name: ANAHEIM EAST STREET

Date: DECEMBER 10, 2016

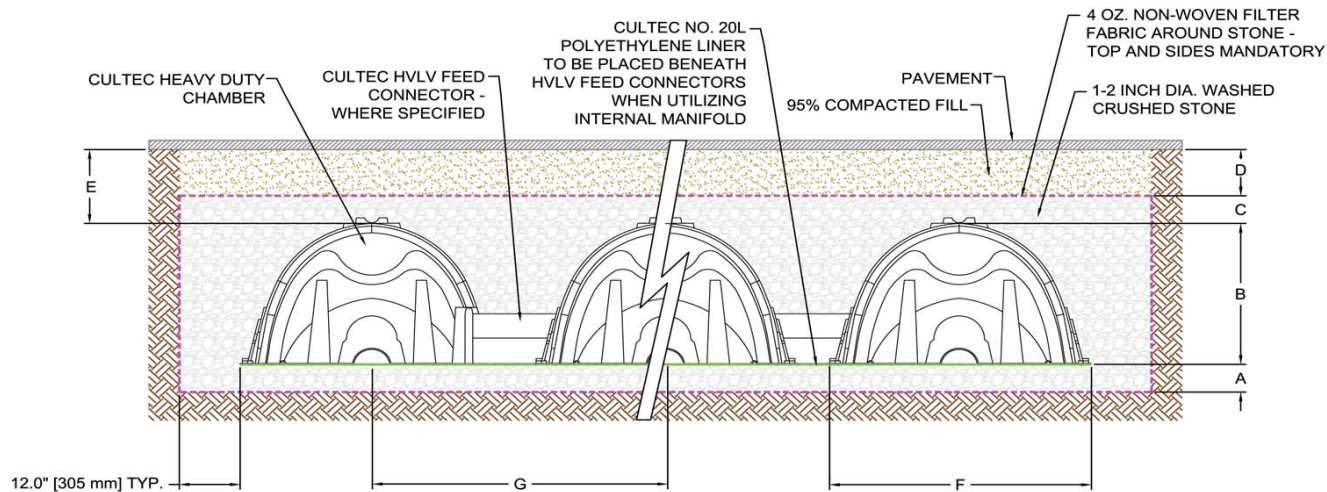
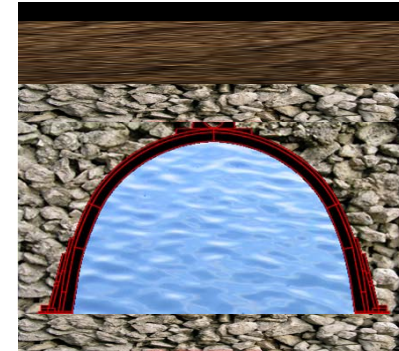
Cross Section Detail



Conceptual graphic only. Not job specific.

Recharger 330XLHD

Pavement	3	inches
95% Compacted Fill	10	inches
Stone Above	6	inches
Chamber Height	30.5	inches
Stone Below	6	inches
Effective Depth	42.5	inches
Bed Depth	55.5	inches



A	Depth of Stone Base	6.0	inches
B	Chamber Height	30.5	inches
C	Depth of Stone Above Units	6.0	inches
D	Depth of 95% Compacted Fill	10.0	inches
E	Max. Depth of Cover Allowed Above Crown of Chamber	12.0	feet
F	Chamber Width	52.0	inches
G	Center to Center Spacing	4.83	feet

Breakdown of Storage Provided by Recharger 330XLHD Stormwater System	
Chambers	2696.43 cu. feet
Feed Connectors	0.91 cu. feet
Stone	1697.73 cu. feet
Total Storage Provided	4395.07 cu. feet

KATCHALL PURESTREAM™ – STANDARD PLAN NOTES

(CONSTRUCTION & INSTALLATION GUIDELINES)

A. Cast-in Place Reinforced Concrete Structures

1. Each Katchall PURESTREAM Biofiltration Vault™ shall be constructed at the location(s) and elevation(s) identified on the approved drawings. Any modifications to the elevation(s), or location(s), shall be at the direction of, and approved by the Engineer of Record prior to their construction.
2. The Vault shall be placed on a compacted sub-grade, with a minimum of 6-inches of ¾" decomposed granite, which shall match the final grade of the curb line in the area of the Vault. *Undisturbed* sub-grade compaction shall be to a minimum of 95% of maximum density at + 1% to 2% of optimum moisture content, prior to commencing construction of the Vault structure(s).
3. The Vault shall be constructed in such a manner so that the top cover of the Vault will match the uppermost elevation(s) of the corresponding curb – gutter set in the area immediately adjacent to the Vault and the adjoining sidewalk area(s) if applicable.
4. Outlet connections shall be aligned so that they meet the approved drawings and sealed. Field modifications may become necessary to meet site conditions, local ordinances or any regulations that manufacturer was not previously made aware of prior to commencing construction activities. Any such changes shall be fully documented and included in all "As-Built" Drawings supplied to Property Owner, City, Etc.
5. Once the base unit has been poured, all supporting structures (frames) shall remain in-place for a period of not less than two (2) days. Only the manufacturer or their assigned agents shall be allowed to remove these devices.
6. Once the concrete structure(s) have cured sufficiently, the supporting frames shall be removed and the manufacturer will commence the installation of all internal components.
7. Upon completion of the installation of all internal components, the top cover's supporting frames shall be constructed, and include all access covers, frames and grates as specified in the manufacturer's design.
8. The Vault's top cover shall be constructed in such a manner so as to form a tight bond with the base unit, leaving no gaps or areas that would require the use of non-shrinking grout or butyl rubber.
9. Once the top cover has had sufficient time to cure, (usually 2-3 days), all supporting framework shall be removed by the manufacturer, or their assigned agents. No other party shall remove, alter, or in any other manner attempt to adjust these structures.

10. Backfilling may commence after the removal of all supporting structures and shall be completed in a careful manner by a qualified equipment operator, placing the appropriate fill materials with a maximum of 6-inch lifts on all sides. Backfill compaction shall be equal to, or not less than 85% of the surrounding (*undisturbed*) native soils.
11. Curb and gutter construction (if applicable) shall be completed ensuring that the flow line of the PURESTREAM™ Vault is at a greater elevation than the flow line of any additional inlet structures located within 25-feet of the Vault. Failure to comply with this practice may cause failure of the Vault and / or cause irreparable damage to the structural integrity of the Vault.
12. The manufacturer has supplied each Vault with an adequate drip irrigation system and made a ½-inch connection available, generally extending past the exterior walls some 6-12 inches.

B. Internal Components

1. Mixed Media Bedding Area

- i. A layer of antimicrobial treated (Katchall™) fabric shall be laid on base of vault extending the full width of the bedding area and extending some 12-inches above the top of the “weep window” cast into separating (reinforced concrete) baffle wall.
- ii. A layer of not less than 12-inches of ¾” decomposed granite shall be placed on top of the treated fabric, extend to a level some 2-3 inches above the top of the “weep window”.
- iii. An additional layer of antimicrobial treated (Katchall™) fabric shall then be placed on top of the decomposed granite.
- iv. Katchall Mixed Media™ shall be placed on top of the second layer of fabric, covering the entire open area, and be installed to a depth approximately 6-inches lower than the height of the concrete baffle wall.
- v. A single layer of 1-inch thick “horse-hair” matting shall be placed in such a manner to cover the entire area of the Katchall Mixed Media™ and secured in-place using the provided tie-hooks cast into the vault’s exterior wall surfaces. (Matting is used to prevent scouring of the mixed media bed during heavy rain events).

2. Pre-Entry Trash Net

- i. A pre-entry trash net shall extend across the entire width of the throat opening to prevent any object larger than 3/8-inch from entering into the vault and potentially fouling the mixed media bed.

3. Removable Weir Wall

- i. A removable weir wall shall be placed in the cast-in-place “grooves” located in the exterior walls of the vaults, (high-flow bypass area). The weir shall be constructed of reinforced fiberglass grating not less than 1-inch thick and having open “squares” not less than 2” x 2”.
- ii. Weir wall shall slide down into the pre-cast “grooves” and lock into place resting on the bottom base of the vault.
- iii. Katchall Antimicrobial Treated Fabric shall be “pillow-cased” around this supporting structure and fully cover both sides of the supporting weir.

4. Pre-Plumbed Irrigation System

- i. The manufacturer shall include a pre-plumbed irrigation system for each vault. The system shall consist of the following components:
 1. A 12-inch stub of ½-inch PVC shall extend from the vault’s interior through an exterior wall for final connection to irrigation system, (connection and water supply / controller is “by others”).
 2. A conversion piece shall be supplied to attach NetaFim™ soaker tubing to the 12-inch PVC stub.
 3. NetaFim™ soaker tubing shall be placed in such a manner so that tubing “surrounds” the vegetative material, (tree / shrub) not less than three (3) times.
 4. Soaker tubing shall have discharge outlets placed not further than 12-inches apart and each outlet shall be capable of not less than ¼-gallon, per hour.

C. External Hardware

1. Tree / Shrub Frames & Grates

i. All tree / shrub frames and grates shall be composed of “raw steel” with the following finish, as per the specifications:

1. Owner / Client has elected to have the exterior metal surfaces, supplied as:

- a. Raw – Ductile Iron _____
- b. Hot-Dipped Galvanized _____
- c. Powder-Coated _____

i. Coloration _____

2. Weir Wall Access Frame & Cover

i. All access covers shall be not less than ¼-inch thick steel and finished as follows:

1. Owner / Client has elected to have the exterior metal supplied as:

- a. Raw Steel _____
- b. Hot-Dipped Galvanized _____
- c. Powder-Coated _____

i. Coloration _____

d. Weir access cover plate shall have a non-slip diamond finish regardless of the other options chosen, (as above).

D. Tree / Shrub

1. The manufacturer shall include a 15-Gallon Tree / Shrub for each vault, meeting the following parameters:

i. Class A nursery stock, free of all pests, fungi, rot or other blighted conditions.

1. Height

- a. Tree – not less than 7-feet from bottom of root ball to top “canopy”.
- b. Shrub – not less than 3-feet from bottom of root ball to top of “canopy”.

2. Caliper

- a. Tree – not less than 1 ½-inch at point of main trunk exiting root ball.
- b. Shrub – not less than a 4-inch diameter at point where upright growth exits the root ball structure.

2. Support

- i. The manufacturer shall include the following supports for new vegetative matter, as specified below:
 1. Tree
 - a. Two (2) 2-inch diameter x 8-foot tree stakes
 - b. Two (2) Tree Ties – metal with rubber inserts to prevent chafing of tree trunk
 2. Shrub
 - a. N/A

E. MAINTENANCE

1. Each PURESTREAM™ Vault is to be maintained by the manufacturer, or the manufacturer's assigned / approved contractor for a minimum of one (1) full year. There is no additional cost that will be assessed to any party, as it has been included in the original purchase price. Extended service contracts are available upon request.
2. The included maintenance schedule calls for not less than four (4) inspections / cleanouts per annum and shall include the following items;
 - i. Visual inspections of all exterior structures for any vehicular damages(s) that may have occurred since the original installation, or previous inspection.
 - ii. Visual inspection of trash – debris collection area and the removal and proper disposal of all obstructions that may have accumulated since the last inspection.
 - iii. An additional visual inspection will insure that proper watering of the vegetative matter is occurring without media being allowed to become either too wet or too dry. This shall encompass seasonal variations that occur and adjustment suggestions that may need to be made to the property owner / lessee.
 - iv. Additionally, all vegetative matter shall be carefully examined to determine the overall general health of the plants, including a determination of the sustainability of the plant material's systemic action.

- v. An inspection of the mixed media area(s) shall determine whether the media needs re-charging or other attention.
- vi. Visual inspection(s) of the antimicrobial high-flow bypass filtration weir shall occur with any accumulated foreign debris removed and properly disposed of.
 - 1. Inspection shall also include an analysis of the overall general condition of the filtration fabric(s) to determine if additional cleaning, repair or replacements need to occur.
- vii. Every inspection, maintenance task performed shall include all inspection covers being re-placed & secured, with any / all maintenance refuse items removed from the property.
- viii. All inspections shall be kept in a written format, accompanied by any photographic documentation of conditions, and shall be forwarded to the property owner, lessee or permitting agency not less than once per annum.
- ix. The dates for maintenance shall be as follows:
 - 1. Commencement
 - a. One month after completion of the installation / activation
 - 2. Completion
 - a. On the first year's anniversary of the commencement date.

F. Performance Characteristics

All Katchall PURESTREAM Biofiltration Vaults have consistently demonstrated the following performance characteristics:

1. Filtration / Flow Rates

i. Mixed Media Bed

- 1. 181-inches / hour, **per square foot** surface area
- 2. .0067 Cfs, per square foot mixed media surface area
 - a. i.e. a 6' x 12' vault with 60 s/f media = filtration @ 0.96 Cfs

ii. High-Flow Bypass Filtration

- 1. A 6' x 12' PURESTREAM Biofiltration Vault utilizes a antimicrobial weir wall measuring 48 square feet, (single side)
- 2. Filtration is @ .40 Cfs, per square foot surface area
 - a. i.e. a 6' x 12' vault with 48 s/f x .40 Cfs = 19.3 Cfs (**Filtered**)

iii. Combined Filtration Flow-Rates

1. i.e. A 6' x 12' Katchall PURESTREAM Biofiltration Vault
 - a. Low-flow / Mixed Media Bed @ 0.96 Cfs
 - b. High-flow / AM Weir Wall @ 19.3 Cfs
 - c. Total filtration (6'x 12' Vault) = 20.3 Cfs
 - i. $20.3 \times 7.48\text{-Gallons} = 151.84 \text{ Gallons / Second}$
 - ii. $151.84 \text{ G's / Second} \times 60 \text{ Seconds} = 9,110.64 \text{ Gallons / Minute}$
 - iii. $9,110 \text{ G's / Minute} \times 60 \text{ minutes} = 546,638 \text{ Gallons / Hour}$
(ALL FILTERED)

iv. High-Flow Bypass without Filtration

1. The concrete baffle wall (separating the mixed media bed from the AM Weir Wall) incorporates an open "window", allowing extreme high-flows to discharge through the vault without contacting any filtration media(s).
2. This "open window area" is equal to *not less than* 30% of the vault's curb inlet throat opening capacity.
 - a. I.e. a 6' x 12' PURESTREAM Biofiltration Vault (standard configuration) has a throat opening measuring 12-inches (H) x 10-feet (L) or 1,440 square inches, or 10 square feet.
 - b. Open window area (vault interior) measures as follows:
 - i. Rear Discharge Vault
 1. $10\text{-feet (L)} \times 6\text{-inches (H)} = 720 \text{ square inches, or } 5 \text{ s/f}$
 - ii. Side Discharge Vault
 1. $6\text{-feet (L)} \times 6\text{-inches (H)} = 432 \text{ square inches, or } 3 \text{ s/f}$
3. Area Comparisons
 - a. Curb Inlet Throat Opening = 10 square feet
 - b. Rear Discharge Vault = 5 square feet, or 50% of Throat
 - c. Side Discharge Vault = 3 square feet, or 33% of Throat

v. Vault's Total Flow-Through Capacity

1. Filtered Waters20.3 Cfs
2. Non-Filtered Waters
 - a. Rear Discharge with 24-inch pipe40.7 Cfs
 - b. Side Discharge with 24-inch pipe37.8 Cfs

G. Filtration Properties

1. Mixed Media Bed

i. Pollutant Removal Efficiencies

1. Total Suspended Solids	
a. 200+ micron size	97%
b. 100+ micron size	95%
c. 50+ micron size	93%
2. Oils & Greases	85%
3. Pathogens	87%
4. Phosphates & Phosphorus	75%
5. Nitrates & Nitrites	87%
6. Herbicides & Pesticides	65%
7. Heavy Metals	85%

2. Antimicrobial Weir Wall

i. Pollutant Removal Efficiencies

1. Total Suspended Solids (@ 50-microns)	97%
2. Oils & Greases	97%
3. Pathogens	99.99%
4. Phosphates & Phosphorus	45%
5. Nitrates & Nitrites	67%
6. Herbicides & Pesticides	45%
7. Heavy Metals	85%

3. Combined (Averaged) Pollutant Removal Capacities

i. TSS (to 50-microns)	97.0%
ii. Oils & Greases	91.0%
iii. Pathogens	93.5%
iv. Phosphates & Phosphorus	60.0%
v. Nitrates & Nitrites	77.0%
vi. Herbicides & Pesticides	55.0%
vii. Heavy Metals	85.0%

SUMMATION

KATCHALL does not believe that there exist any other stormwater filtration system that can duplicate the performance characteristics of the PURESTREAM Biofiltration Chambers™.

All performance documentation has been supplied EXCLUSIVELY by third-parties, Katchall does not engage in “co-authoring” data.

1. Highest flow-rates available
2. Fastest draw-down times
3. Highest filtration of any Biofiltration device
4. Highest pollutant removal efficiencies available
5. Highest sheet-flow collection / discharge capacities available

REFERRALS / RECOMMENDATIONS

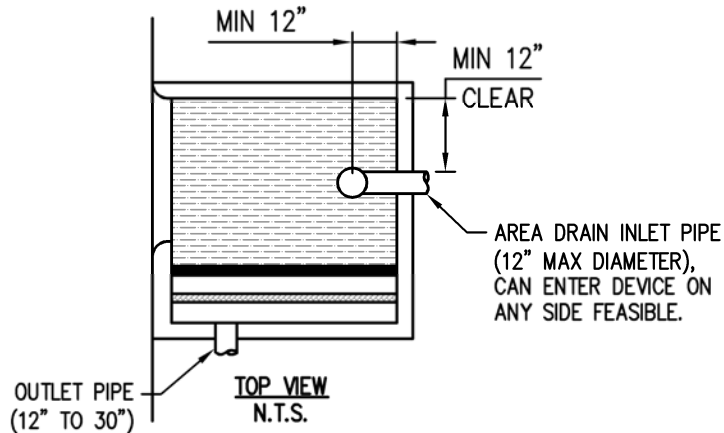
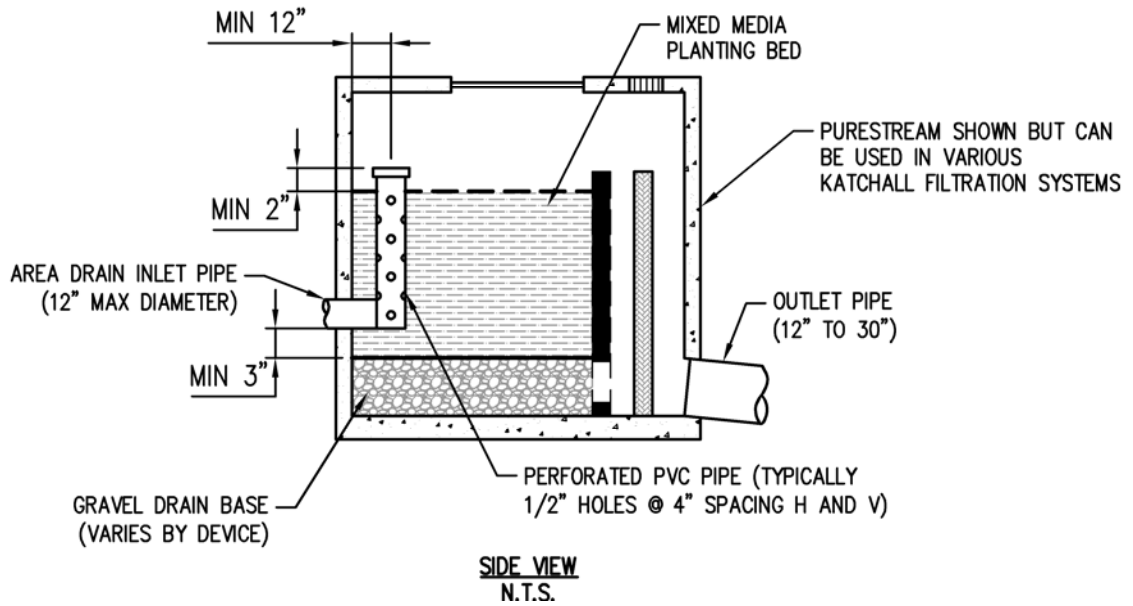
Multiple City & County Agencies throughout CA, NV, AZ, FL, WI, NY, OR, WA, Etc.

Multiple Educational Facilities (CA) have approved Katchall products, i.e. UCSD, UCSB, Cal-Poly, Riverside School District, Tustin School District, LA School District, Etc.

All (9) Regional Water Quality Control Board (CA) have approved the use of (various) Katchall Products

Multiple State Agencies (CA) have approved the use of Katchall products, i.e. Department of Fish & Game, Department of Motor Vehicles, Etc.

Multiple Federal Agencies have approved the use of Katchall products, i.e. The Army Corps of Engineers, (USACE), The Environmental Protection Agency, (EPA), Etc.



NOTES:

1. FOR USE WITH VARIOUS KATCHALL FILTRATION SYSTEMS. DIMENSIONS SHOWN ABOVE ARE TYPICAL. EXACT DIMENSIONS SHALL BE SHOWN ON THE ENGINEER'S WORKSHEET AND SUBMITTED TO KATCHALL PRIOR TO CONSTRUCTION.
2. AREA DRAIN PIPE / ROOF DRAIN PIPE TO BE SIZED BY ENGINEER. ENGINEER ALSO TO CHECK AND PROVIDE FLOW CALCULATIONS.

KATCHALL
FILTRATION SYSTEMS, LLC

1-866-KATCHALL
WWW.KATCHALL.NET

**PERFORATED PIPE ASSEMBLY FOR
KATCHALL FILTRATION SYSTEMS**

REVISION:
A

DWG NUM:
PERF-INLET

SHEET:
1 OF 1

NOTES:

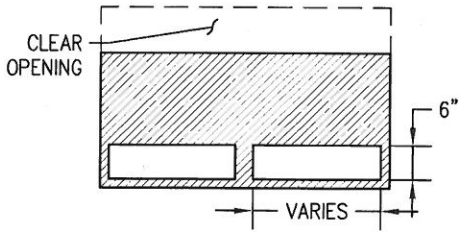
1. ALL KATCHALL VAULTS ARE CAST-IN-PLACE REINFORCED STRUCTURES, USING GRADE 60 #4 REBAR @ NOT MORE THAN 16"O/C (H/V), WIRE-TIED @ NOT MORE THAN 32"O/C (H/V).
2. MINIMUM THROAT OPENING 4" (UNLESS OTHERWISE SPECIFIED BY ENGINEER). TOP DECK WITH FACEPLATE IS 3-1/2", WITHOUT FACEPLATE IS 4". LOCAL DEPRESSION IS OPTIONAL.
3. CURB INLET TRASH / DEBRIS SCREENS ARE ALSO AVAILABLE FROM KATCHALL. EXTEND 6-INCHES BEYOND EACH SIDE OF THROAT OPENING, SECURED BY MULTIPLE 306 STAINLESS STEEL "LOK-TITE" ANTI-THEFT PINS, 1/4" THICK METAL, POWDER-COATED FOR EXTENDED LIFE-CYCLE. CAN BE MANUFACTURED FOR THROAT OPENING (HEIGHTS) FROM 4-INCHES TO 12-INCHES. REDUCES YEARLY MAINTENANCE COST BY UP TO 85% ANNUALLY.
4. ENGINEER IS REQUIRED TO ENSURE ADEQUATE CLEARANCE AROUND VAULTS / TREE GRATES, TO PROVIDE UNOBSTRUCTED PASSAGE OF PEDESTRIANS.
5. ALL EXPOSED METAL SURFACES ARE POWDER-COATED PROVIDING EXTENDED LIFE. SITE SPECIFIC, CUSTOM-DESIGNED TREE GRATES ARE AVAILABLE IN ANY SIZE - CONTACT KATCHALL FOR MORE DETAILS.
6. SIDE DISCHARGE VAULTS CAN BE CONFIGURED TO DISCHARGE FROM EITHER SIDE OF VAULT - SEE ENGINEERING WORKSHEET FOR MORE DETAILS.
7. IF UTILIZING PURESTREAM™ BIOFILTRATION VAULTS FOR FILTRATION OF AREA DRAINS/ROOF DRAINS, PIPE MUST ENTER VAULT IN ANTIMICROBIAL FILTER AREA, NOT IN MEDIA AREA.
8. ALL PURESTREAM™ VAULTS INCLUDE PRE-PLUMBED DRIP IRRIGATION SYSTEM.
9. HOGSHAIR MAT IS BIO-DEGRADABLE COCONUT MESH.

NOTE: STANDARD 3X3 TREE GRATES AVAILABLE ON ALL MODELS EXCEPT ON MODELS WHERE DIMENSION "B" IS 4-FT THEN ONLY 2X2 TREE GRATES ARE COMPATIBLE.

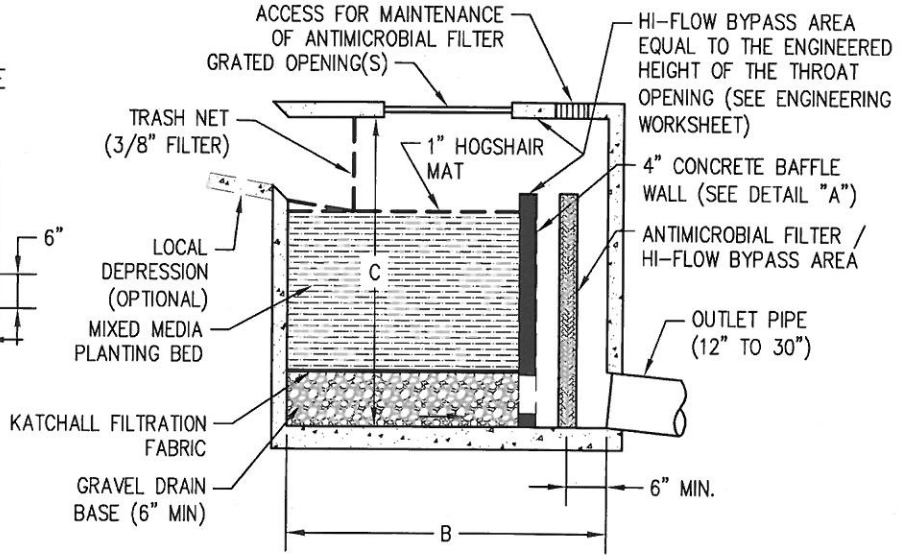
MODEL NUMBER	DIM A (FT)	DIM B (FT)	DIM C (FT)	DIM D (FT)	TRASH (CU FT)	DISCHARGE PIPES (IN)	MIXED MEDIA (SQ FT)	MIXED MEDIA (CFS)	FILTER WEIR (SF)	FILTERED FLOW (CFS) BYPASS	TOTAL
REAR DISCHARGE											
5-5-4	5	5	4	5	4.0	12-30	20	1.3	15	6.0	7.0
SIDE DISCHARGE (DIM "A" CAN BE 1~3 FEET LONGER DEPENDING ON OUTLET PIPE SIZE - SEE ENGINEERING WORKSHEET)											
5-4-4	5	4	4	3.5	2.0	12-30	16	1.04	12	4.8	5.8
5-5-4	5	5	4	3.5	4.0	12-30	20	1.3	15	6.0	7.3

KATCHALL FILTRATION SYSTEMS, LLC	PURESTREAM™ BIO-FILTRATION SYSTEM 500-SERIES	
1-866-KATCHALL WWW.KATCHALL.NET	REVISION: F	DWG NUM: PURE500
SHEET: 3 OF 3		

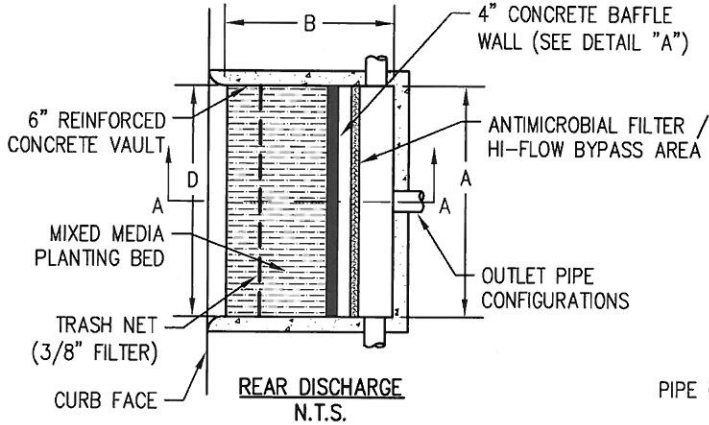
1200-2000 SERIES REQUIRE
ADDITIONAL BAFFLE WALLS.



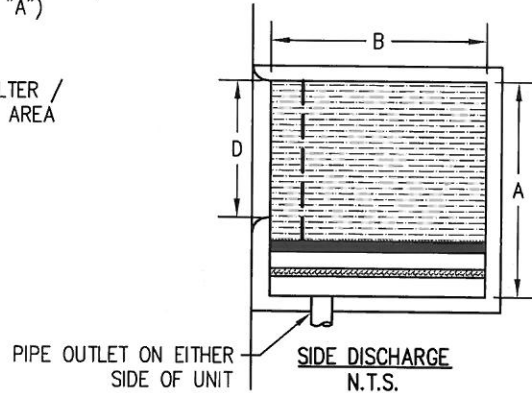
DETAIL "A"
N.T.S.



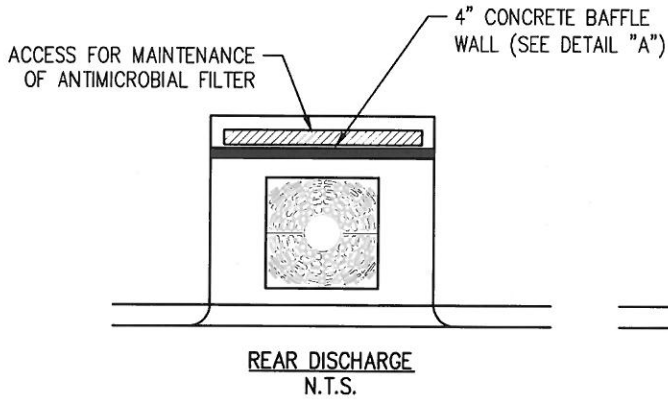
SECTION A-A
N.T.S.



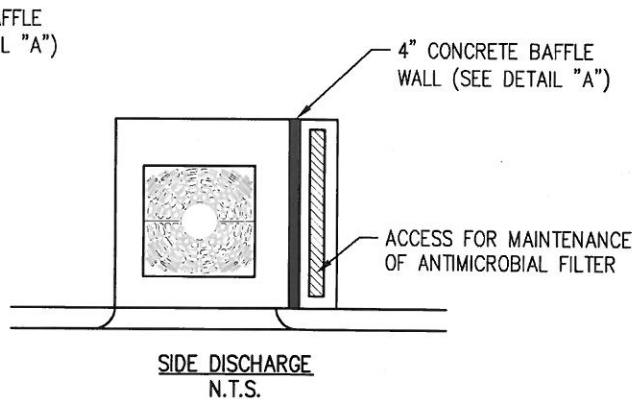
REAR DISCHARGE
N.T.S.



SIDE DISCHARGE
N.T.S.



REAR DISCHARGE
N.T.S.



SIDE DISCHARGE
N.T.S.

KATCHALL
FILTRATION SYSTEMS, LLC

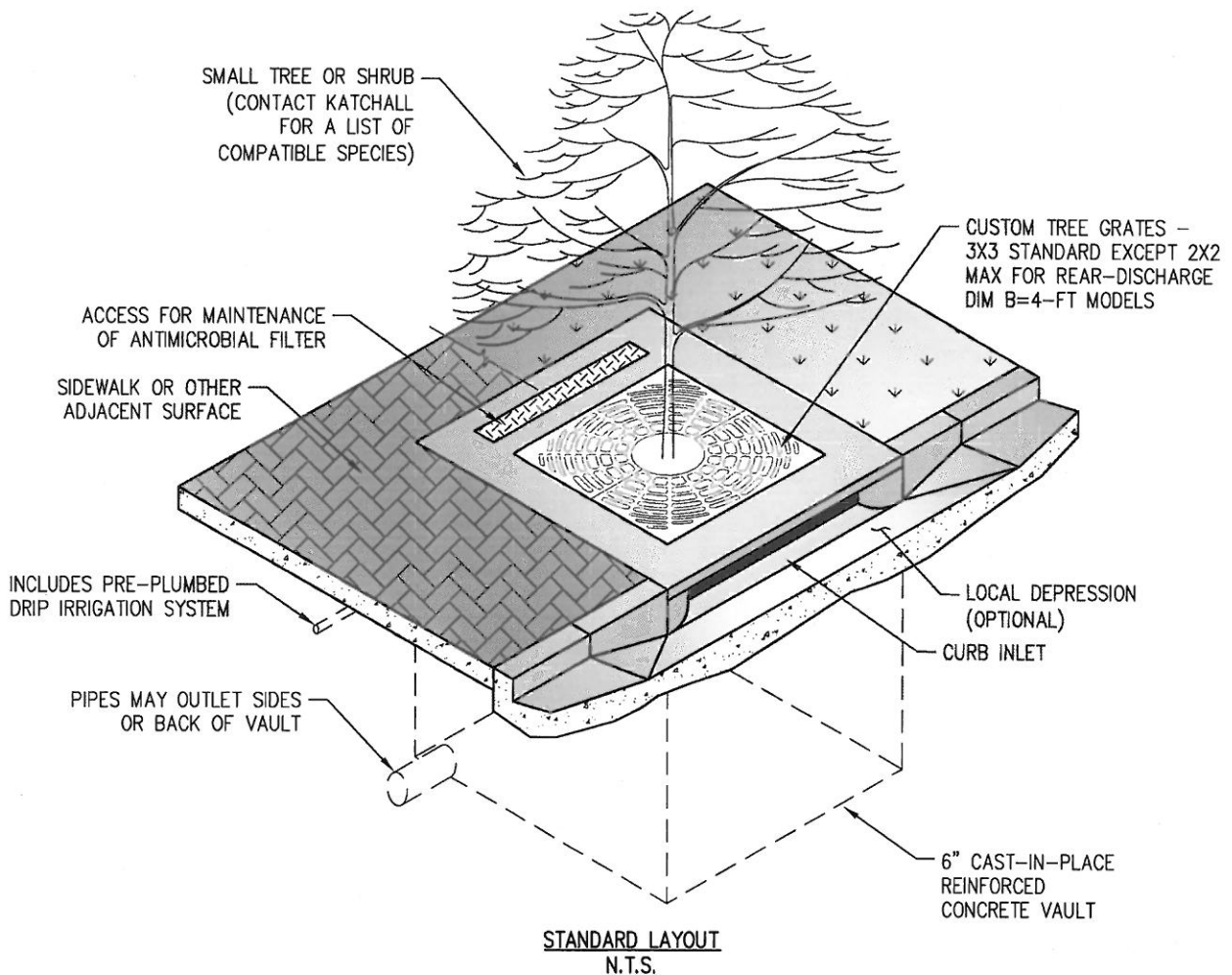
1-866-KATCHALL
WWW.KATCHALL.NET

PURESTREAM™ BIO-FILTRATION
SYSTEM 500-SERIES

REVISION:
F

DWG NUM:
PURE500

SHEET:
2 OF 3



ADVANTAGES OF THE KATCHALL PURESTREAM™ BIO-FILTRATION VAULTS

KATCHALL PURESTREAM™ BIOFILTRATION VAULTS COMBINE A PROPRIETARY MIXED MEDIA (PLANTING BED), WITH THE PROVEN KATCHALL ANTIMICROBIAL FILTER, ELIMINATING MOST COMMON POLLUTANTS & 99.99% OF ALL SINGLE-CELL MICROORGANISMS, I.E. BACTERIAS - VIRUSES - ETC. POLLUTANTS ARE CAPTURED IN THE MEDIA BED AND ARE NOT DISLODGED EVEN DURING HIGH-FLOW EVENTS. CAPTURE / FILTRATION FLOW RATES (UNOBSTRUCTED) @ 281.8-INCHES PER HOUR/ PER SQUARE FOOT OF MEDIA BED AREA. WIDE VARIETY OF TREES AND SHRUBS CAN BE USED TO ACCENT YOUR PROJECT, OR JUST BLEND IN.

KATCHALL
FILTRATION SYSTEMS, LLC

1-866-KATCHALL
WWW.KATCHALL.NET

PURESTREAM™ BIO-FILTRATION
SYSTEM 500-SERIES

REVISION:
F

DWG NUM:
PURE500

SHEET:
1 OF 3

Attachment D

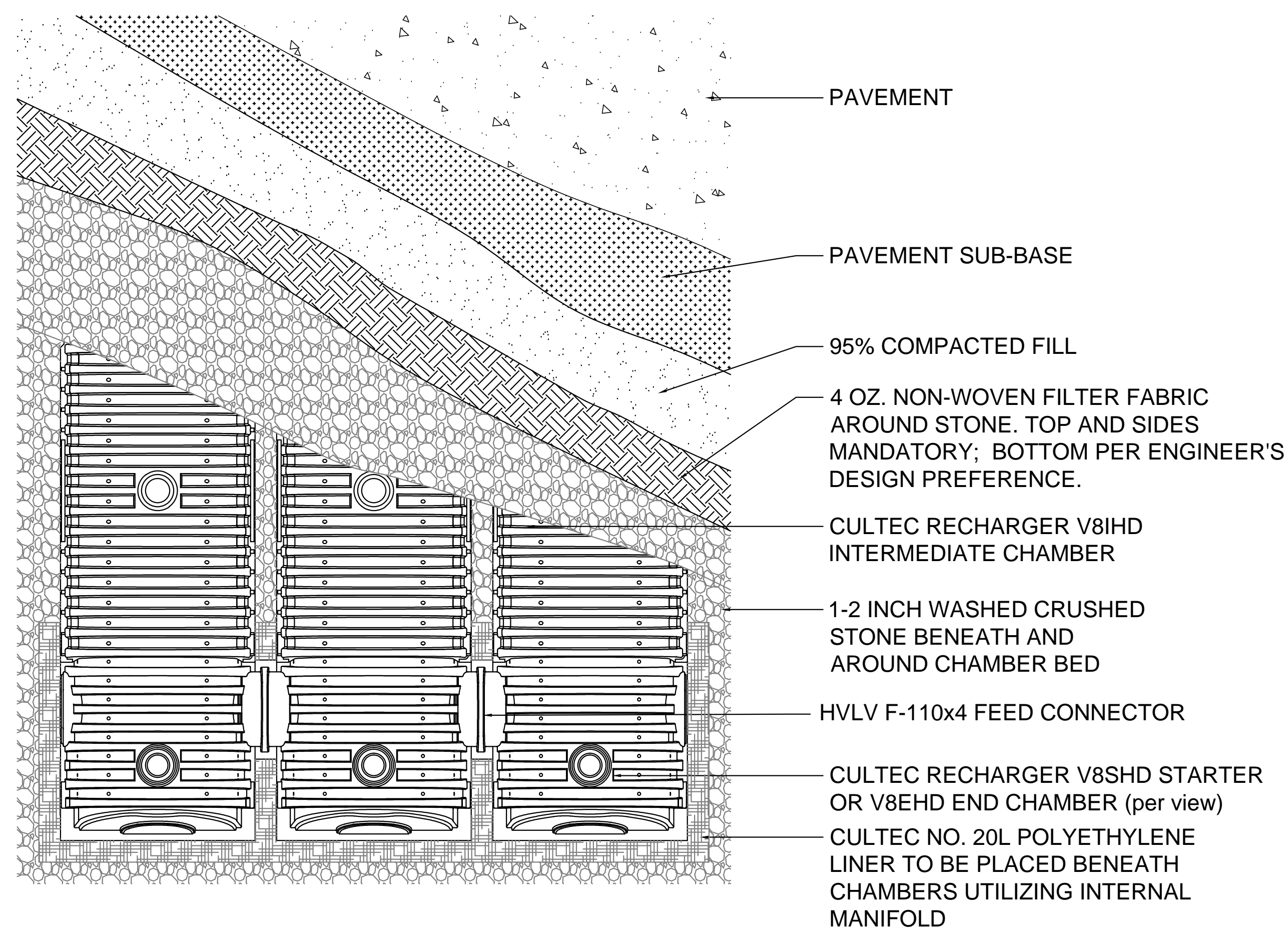
WQMP Exhibit

TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

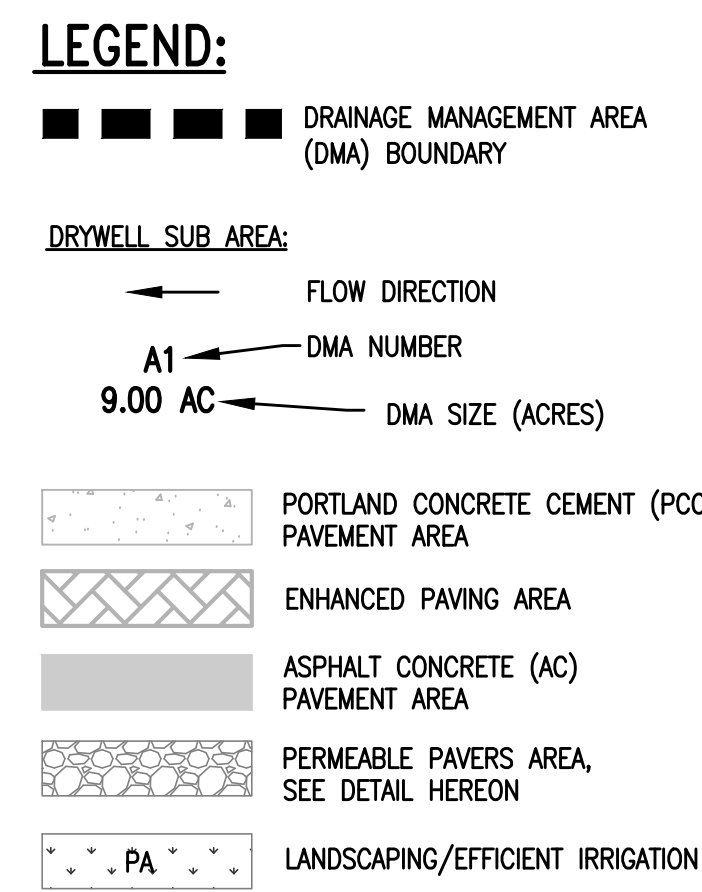
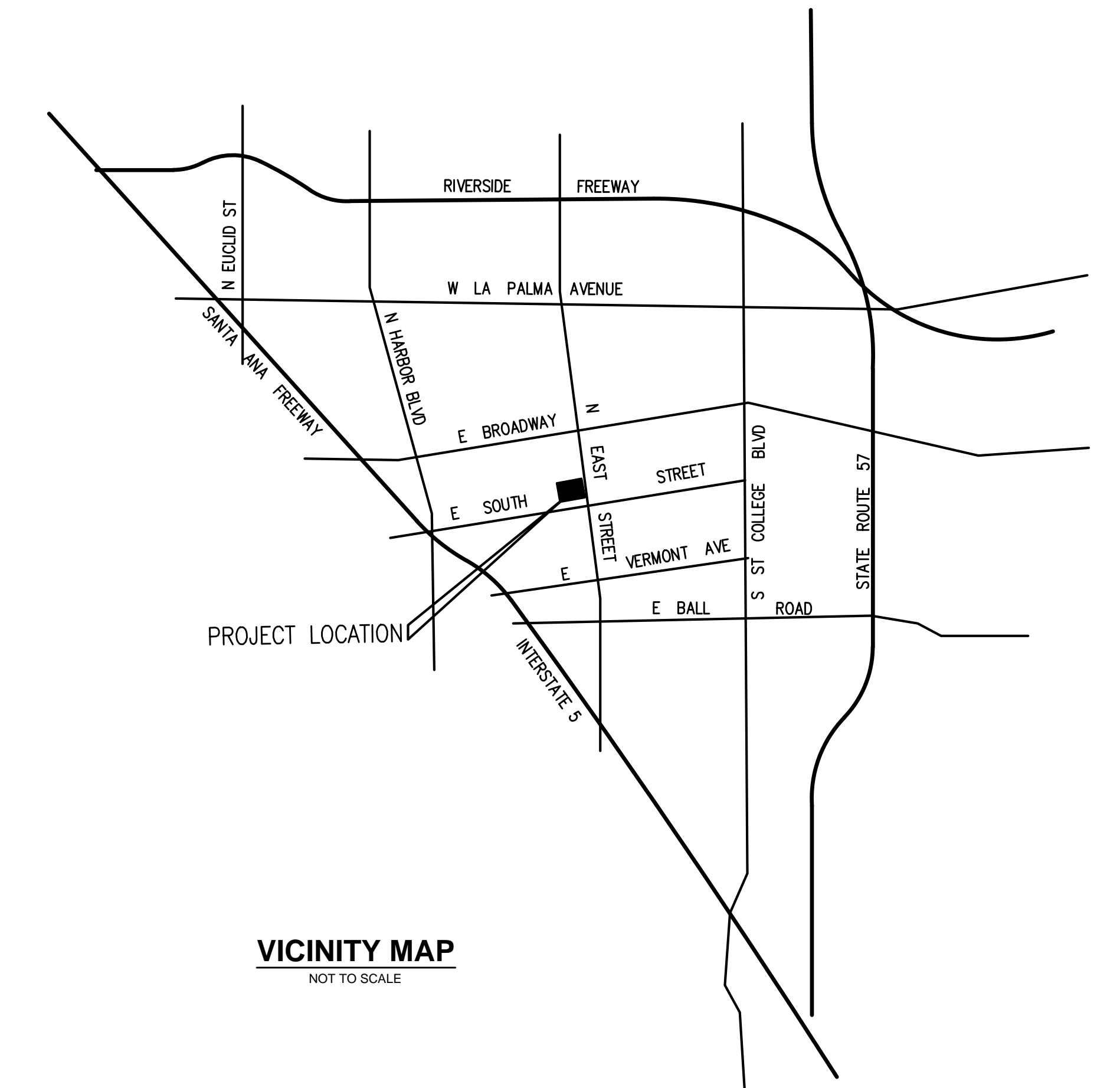
IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

WQMP BMP EXHIBIT



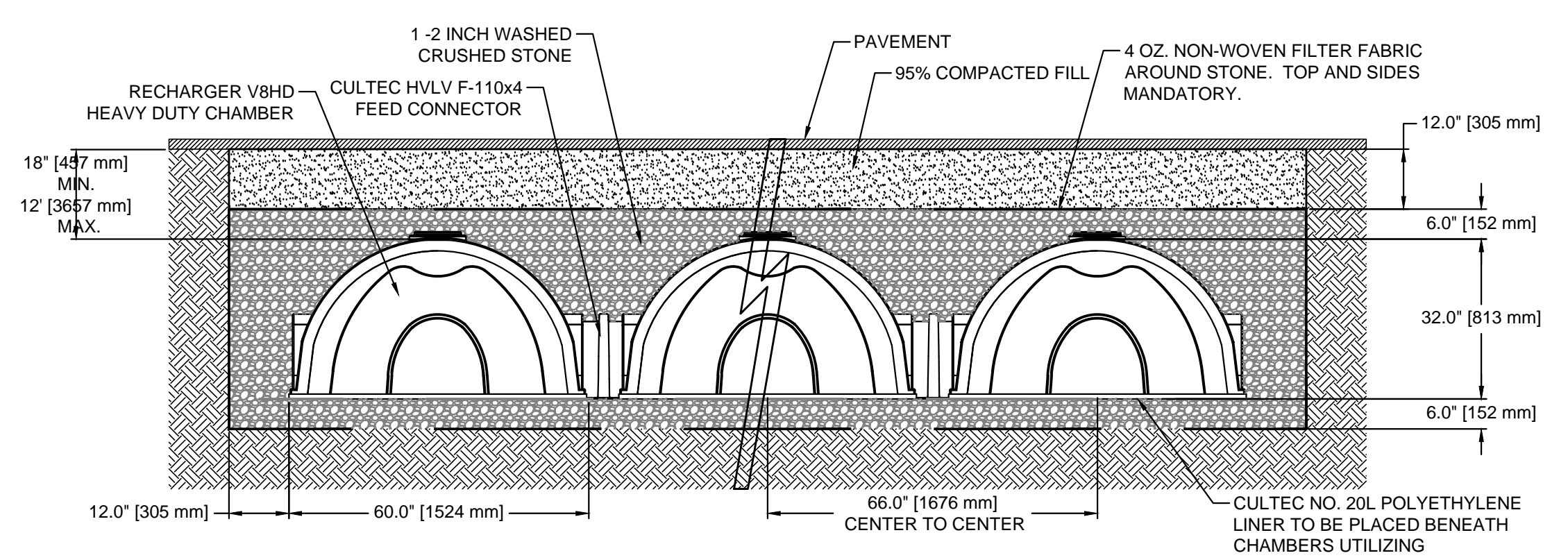
NOTE:
PRIOR TO CONSTRUCTION, CONTRACTOR SHALL POTHOLE AND VERIFY ALL POINTS OF CONNECTION AND CROSSINGS, AND PROVIDE PIPE LOCATION, ELEVATION, AND SIZE INFORMATION TO DESIGN ENGINEER FOR APPROVAL.

CULTEC STORMWATER CHAMBER NOTE:
CONTRACTOR TO VERIFY ALL ELEVATIONS OF MAXWELL DRYWELL UNITS AND REFERENCE MANUFACTURER PROJECT-SPECIFIC DETAILS. REFER TO SEPARATE PRIVATE STREET AND PRECISE GRADING PLANS FOR DETAILS.



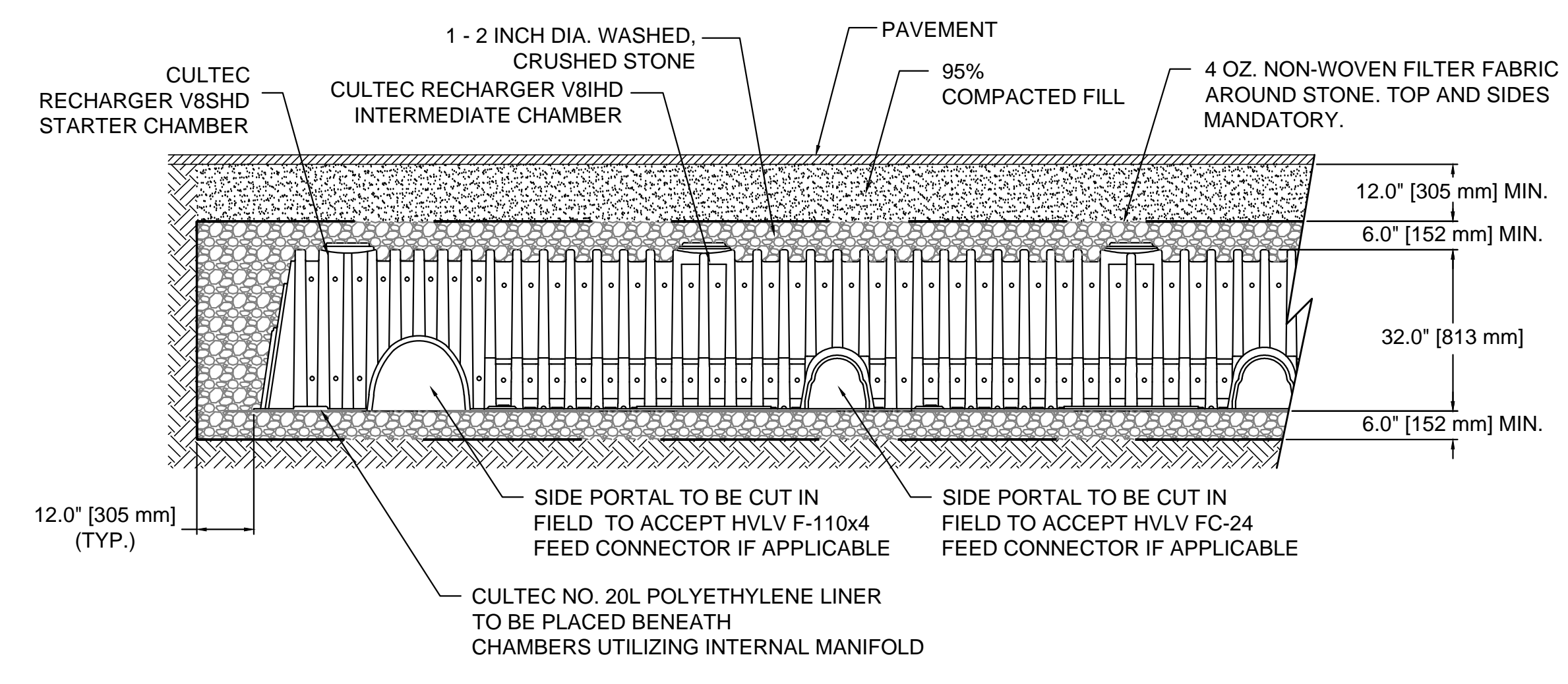
- BEST MANAGEMENT PRACTICES:**
- HSC-2 IMPERVIOUS AREA DISPERSION
 - HSC-3 STREET TREES
 - SE-7 PRIVATE STREET SWEEPING
 - SD-10 SITE DESIGN & LANDSCAPE PLANNING
 - SD-11 ROOF RUNOFF CONTROLS
 - SD-12 EFFICIENT IRRIGATION
 - SD-13 STORM DRAIN SIGNAGE
 - SD-32 TRASH STORAGE AREAS (W/HINGED LIDS ON BINS)
 - TC-11 CULTEC STORMWATER CHAMBERS (SEE SHEET 1 AND REPORT FOR DETAILS)
 - BIO-7 KATCHALL SYSTEM AS NOTED

CONTRACTOR TO VERIFY CONDITIONS AND INVERTS PRIOR TO CONSTRUCTION.
CONTRACTOR TO REFERENCE ONSITE STORM DRAIN PLANS FOR DETAILS.



GENERAL NOTES
RECHARGER V8HD BY CULTEC, INC. OF BROOKFIELD, CT. STORAGE PROVIDED = 13.274 CF/FT PER DESIGN UNIT. REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES. USE RECHARGER V8HD HEAVY DUTY FOR TRAFFIC AND/OR H-25 APPLICATIONS.

ALL RECHARGER V8HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL RECHARGER V8HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.



TC-11 INFILTRATION CHAMBER (TYPICAL) NOT TO SCALE



Sample Stencil 1



Sample Stencil 2

SD-13 STORM DRAIN SIGNAGE NOT TO SCALE

REVISIONS

NO.	DATE	DESCRIPTION	TAP BY
1	2/17/17	01/27/17 CITY COMMENTS	TAP

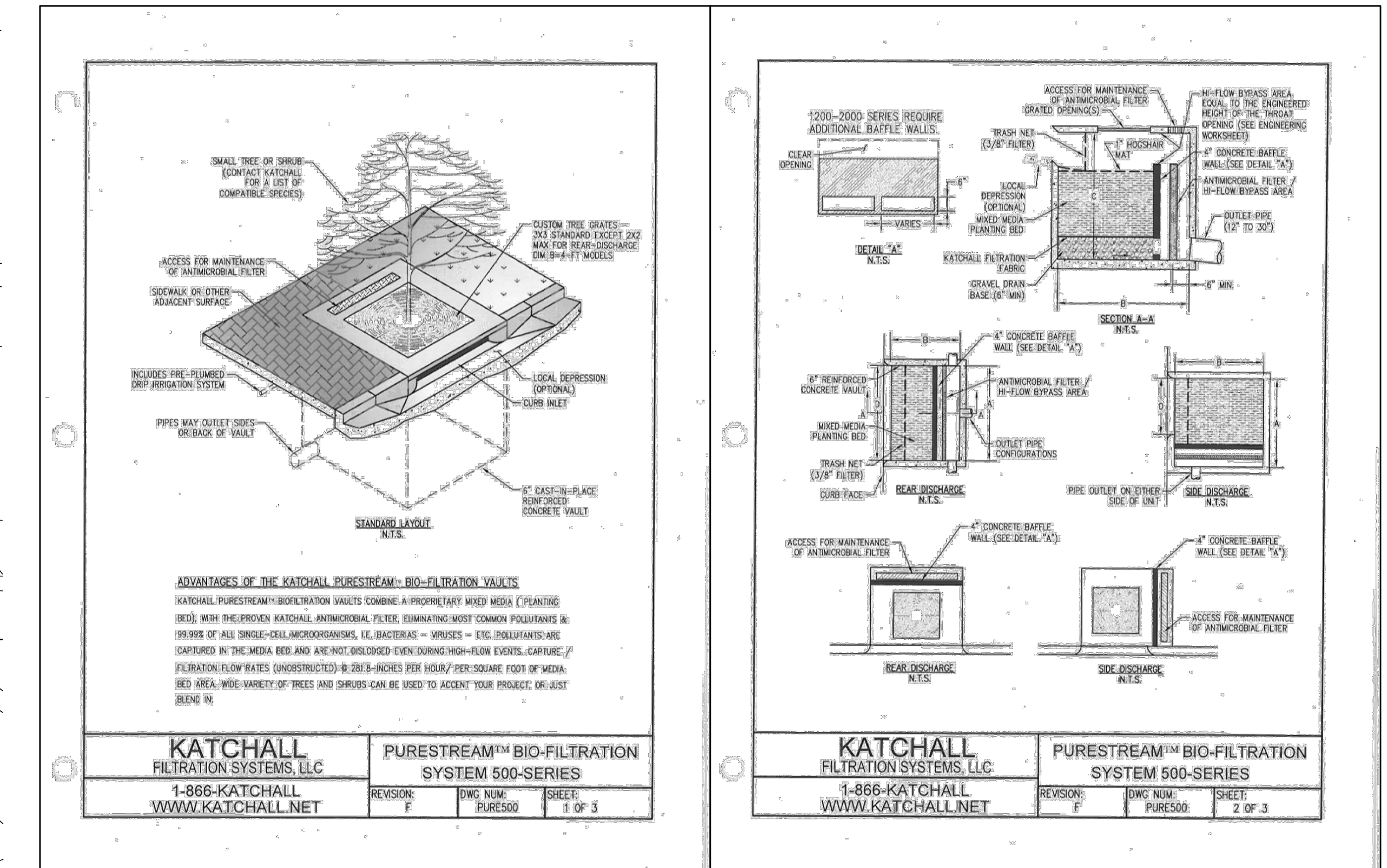
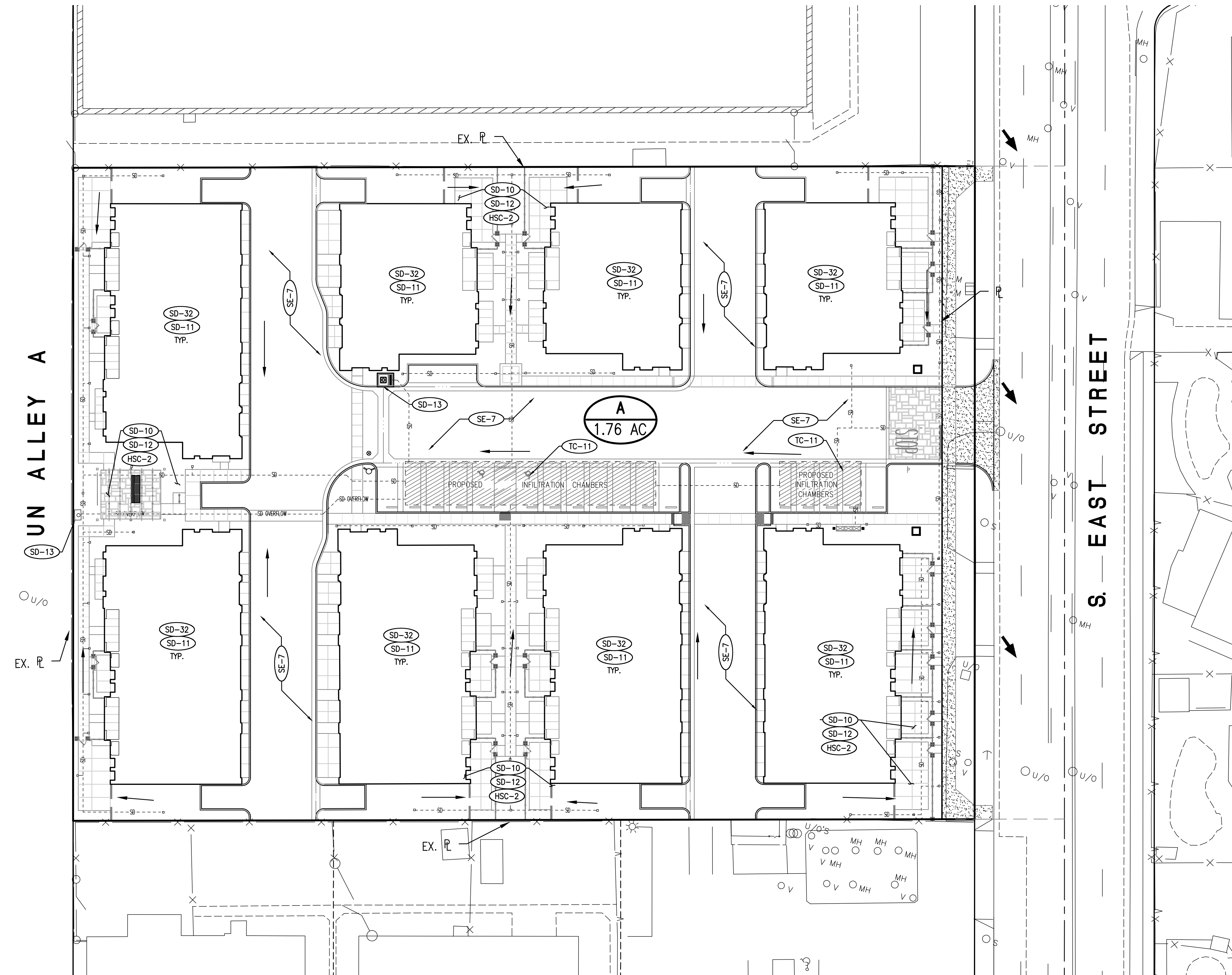
TENTATIVE TRACT MAP NO. 18088 "FOR CONDOMINIUM PURPOSES" 711 S. EAST STREET IN THE CITY OF ANAHEIM COUNTY OF ORANGE, CALIFORNIA DATE: DECEMBER 17, 2016

TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

WQMP BMP EXHIBIT



NOTES:

- ALL KATCHALL VALVES ARE CAST-IN-PLACE REINFORCED STRUCTURES USING GRADE OR 34 STEEL IN NOT MORE THAN 1/2" (1/2") SPACING IN NOT MORE THAN 1/2" (1/2") DIA.
- MINIMUM BRISTLE OPENING # (UNLESS OTHERWISE SPECIFIED BY ENGINEER) TOP DECK WITH FACILITY IS 3/4" (3/4") MINIMUM FACILITY IS 1/2" (1/2") LOCAL DISCREPANCY IS PERMITTED.
- CURE MESH TRAYS / CURB SIDING ARE ALSO AVAILABLE FROM KATCHALL. EXTENDING BEYOND THE AREA OF THE TRAY OR CURB IS NOT PERMITTED. THE TRAYED LIFE-CYCLE CAN BE MANUFACTURED FOR TRUCK DRIVING (HEIGHTS FROM 4" INCHES TO 18" INCHES) OR FOR TRUCK DRIVING (HEIGHTS FROM 4" INCHES TO 18" INCHES) TO PROVIDE UNOBSTRUCTED PASSAGE OF TRUCKS.
- ENGINEER IS REQUIRED TO ENSURE ADEQUATE CLEARANCE AROUND VALVES / TRAY GRATES TO PROVIDE UNOBSTRUCTED PASSAGE OF TRUCKS.
- ALL EXPOSED METAL SURFACES ARE POWER-COATED FROM THE EXTERIOR SIDE. THE SPECIAL COATING SHOULD BE AVAILABLE IN ANY SIZE - CONTACT KATCHALL FOR MORE DETAILS.
- TRAY GRATES / CURB SIDING ARE AVAILABLE IN ANY SIZE - CONTACT KATCHALL FOR MORE DETAILS.
- IF FILLING PURESTREAM BIO-FILTRATION VALVES FOR FILTRATION OF AREA DRAINAGE / TRAYS, THE MESH SHOULD BE ANTI-CORROSION AREA MESH IN THE AREA.
- ALL PURESTREAM VALVES WOULD BE PRE-INSTALLED WITH PERMANENT INFILTRATION SYSTEM.
- PROGRAM IS BIO-DEGRADABLE COINTEGRATED.

NOTE: STANDARD 3/4" TRAY GRATES AVAILABLE ON ALL MODELS EXCEPT ON MODELS WHERE DIMENSION "D" IS 4'-0" HIGH. ONLY 3/4" TRAY GRATES ARE COMPATIBLE.

MODEL NUMBER	TRAY A (1/2")	TRAY B (3/4")	TRAY C (1/2")	TRAY D (3/4")	DISCHARGE (INCHES)	MESH (INCHES)	MESH (INCHES)	FILTER MESH (INCHES)	BLINDS (ROW (INCHES))	SPACING (INCHES)
BEAR DISCHARGE	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34
BEAR DISCHARGE (INCHES)	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34
BEAR DISCHARGE (INCHES)	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34	12-34

BIO-7 KATCHALL PURESTREAM BIOFILTRATION SYSTEM NOT TO SCALE

- LEGEND:**
- DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
 - DRYWEELL SUB-AREA:
 - FLOW DIRECTION
 - DMA NUMBER
 - DMA SIZE (ACRES)
 - PORTLAND CONCRETE CEMENT (PCC) PAVEMENT AREA
 - ENHANCED PAVING AREA
 - ASPHALT CONCRETE (AC) PAVEMENT AREA
 - PERMEABLE PAVERS AREA. SEE DETAIL HEREON
 - LANDSCAPING/EFFICIENT IRRIGATION

- BEST MANAGEMENT PRACTICES:**
- HSC-2 IMPERVIOUS AREA DISPERSION
 - HSC-3 STREET TREES
 - SE-7 PRIVATE STREET SWEEPING
 - SD-10 SITE DESIGN & LANDSCAPE PLANNING
 - SD-11 ROOF RUNOFF CONTROLS
 - SD-12 EFFICIENT IRRIGATION
 - SD-13 STORM DRAIN SIGNAGE
 - SD-32 TRASH STORAGE AREAS (W/HINGED LIDS ON BINS)
 - TC-11 CULTICATED STORMWATER INFILTRATION SYSTEMS (SEE SHEET 1 AND REPORT FOR DETAILS)
 - BIO-7 KATCHALL SYSTEM AS NOTED

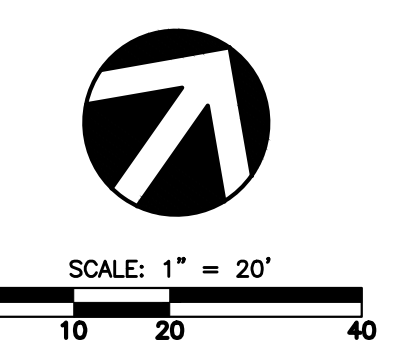
PROPOSED CONDITION HYDROLOGIC DESIGN DATA

STORM FREQUENCY	% IMPERVIOUS	SOIL TYPE	TOTAL Q
2-YR	85%	A	2.2 cfs
5-YR	85%	A	3.2 cfs
10-YR	85%	A	4.1 cfs
25-YR	85%	A	5.0 cfs
50-YR	85%	A	5.6 cfs
100-YR	85%	A	6.4 cfs

REVISIONS

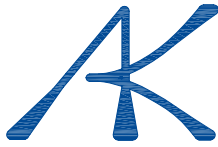
NO.	DATE	DESCRIPTION	BY
1	2/17/17	01/27/17 CITY COMMENTS	TAP

TENTATIVE TRACT MAP NO. 18088
 "FOR CONDOMINIUM PURPOSES"
 711 S. EAST STREET
 IN THE CITY OF ANAHEIM
 COUNTY OF ORANGE, CALIFORNIA
 DATE: DECEMBER 17, 2016



Attachment E

Geotechnical Reports



September 28, 2016

J.N.: 2523.00

Ms. Sandra Gottlieb
The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740

Subject: Geotechnical Investigation for Proposed Water Quality Improvements, Proposed Multi-Family Residential Development, 711 S. East Street, Anaheim, California.

Dear Ms. Gottlieb,

Pursuant to your request, *Albus-Keefe & Associates, Inc.* has completed a geotechnical investigation of the site for evaluation of the percolation characteristics of the site soils. The scope of this investigation consisted of the following:

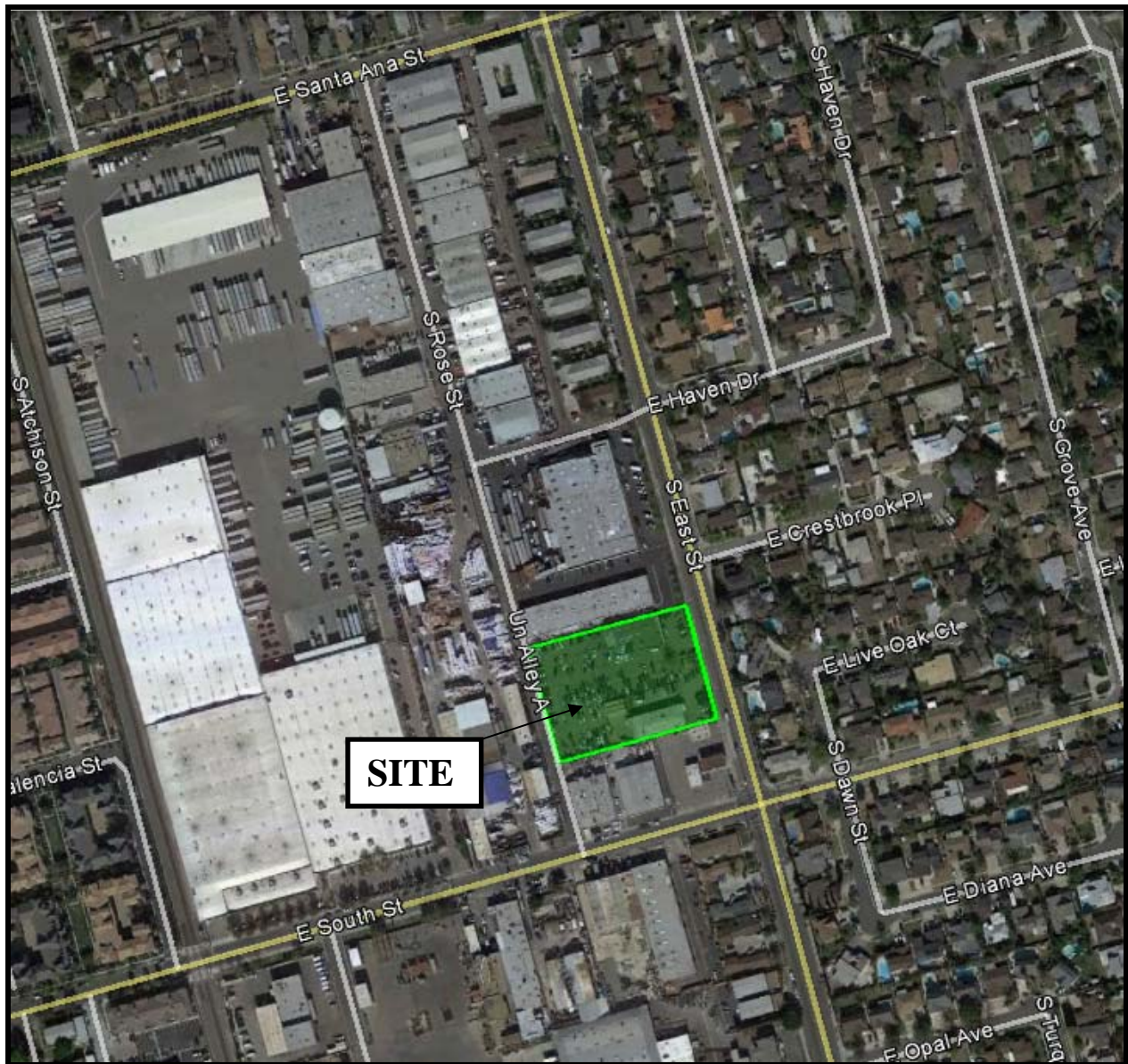
- Exploratory drilling, soil sampling and test well installation
- Field percolation testing
- Laboratory testing of selected soil samples
- Engineering analysis of the data
- Preparation of this report

SITE DESCRIPTION AND PROPOSED DEVELOPMENT

Site Location and Description

The site is located at 711 S. East Street within the city of Anaheim, California. The property is bordered by a commercial/warehouse building to the north, S. East Street to the east, a gas station to the southeast, two commercial/office buildings to the southwest, and an alleyway (Un Alley A) to the west. The location of the site and its relationship to the surrounding areas is shown on Figure 1, Site Location Map.

The rectangular-shaped site comprises approximately 1.8 acres of land. The northern and southwest portions of the site are currently occupied by a used auto auction, Quartz Dealer Direct. Improvements associated with the auto auction include a main office/sales building, asphalt paved parking areas and drive aisles, and various light poles. The rear portion of the main office/sales building is used as auto maintenance/repair workshop and has a concrete-paved driveway. The southeast portion of the site is currently occupied by a screen printing and sign making company, McLogan Supply Company. Improvements associated with McLogan Supply Company include a main sales building with an asphalt paved parking lot and storage area around the building. The perimeter of the site is bounded on the north and west property lines by chain-link fencing and by a concrete block wall along the southwest property line. Chain-link fencing also exists within the interior of the site, separating the two businesses.



© 2016 Google



SITE LOCATION MAP

**The Olson Company
Proposed Residential Development
711 S. East Street
Anaheim, California**

NOT TO SCALE

FIGURE 1

Topographically the site is relatively flat measuring approximately 166 feet above Mean Seal Level (MSL), based on Google Earth. Drainage is generally directed as sheet flow toward the east onto S. East Street. Vegetation at the site is scarce and consists of planter areas with minor shrubs and small trees adjacent S. East Street. A planter with a medium-sized tree is also present within the eastern portion of the property.

Proposed Development

Based on our review of the conceptual site plan, the proposed site development will consist of 42 units of 3-story residential structures with associated interior driveways, underground utilities, parking areas and landscaping. We anticipate the proposed residential dwellings will be wood-framed structures with concrete slabs on grade yielding relatively light foundation loads.

No grading or structural plans were available in preparing of this report. However, we anticipate that minor rough grading of the site will be required to achieve future surface configurations.

SUMMARY OF FIELD AND LABORATORY WORK

Subsurface Investigation

Subsurface exploration for this investigation was conducted on July 21, 2016. Our exploration consisted of drilling three (3) exploratory borings to depths of about 21.5 to 36.5 feet below the existing ground surface utilizing a truck-mounted, hollow-stem-auger drill rig. Representatives of *Albus-Keefe & Associates, Inc.* logged the exploratory excavation. Visual and tactile identifications were made of the materials encountered, and their descriptions are presented in the Exploration Logs in Appendix A. The approximate locations of the exploratory excavations completed by this firm are shown on the enclosed Geotechnical Map, Plate 1.

Bulk, standard penetration test (SPT) and relatively undisturbed samples were obtained at selected depths within the exploratory boring for subsequent laboratory testing. Relatively undisturbed samples were obtained using a 3-inch O.D., 2.5-inch I.D., California split-spoon soil sampler lined with brass rings. SPT samples were obtained using a standard SPT soil sampler. During each sampling interval, the sampler was driven 12 to 18 inches with successive drops of a 140-pound automatic hammer free falling approximately 30 inches. The number of blows required to advance the split-spoon and SPT samplers were recorded for each six inches of advancement. The total blow count for the lower 12 inches of advancement per sample is recorded on the boring logs. Samples were placed in sealed containers or plastic bags and transported to our laboratory for analyses. The borings were backfilled with auger cuttings and capped with AC cold patch upon completion of sampling.

Upon completion of drilling, two additional borings were drilled adjacent to Borings B-2 (P-1) and B-3 (P-2) to a depth of 15.5 feet each. After completion of drilling, 2-inch-diameter casing was installed in the new borings for subsequent percolation testing. The locations of the percolation wells P-1 and P-2 are depicted on the enclosed Geotechnical Map, Plate 1. Well screens were installed from near the bottom of the borings to ground surface. The annular space of the well screen sections were filled with sand for depths covering the extent of our testing. The remaining annular space was

then backfilled with native soils. Subsequent to completion of well installations, the casings were then filled with water until the minimum volume of water was achieved for presoaking the test wells as required by test method USBR 7300-89.

Percolation Testing

Percolation testing was performed on July 21, 2016, in general conformance with the constant-head test procedures outlined in the referenced Well Permeameter Method (USBR 7300-89). A water hose attached to a water source was connected to an inline flow meter to measure the water flow. The flow meter is capable of measuring flow rates up to 10 gallons per minute and as low as 0.1 gallons per minute. A valve was connected in line with the flow meter to control the flow rate. A filling hose was used to connect the flow meter and the test wells. Water was introduced by the filling hose near the bottom of the test wells. A water level meter with 1/100-foot divisions was used to measure the depths to water surface from the top of well casings.

Flow to each well was terminated upon either completion of testing of all the pre-determined water levels or the flow rate reached the maximum capacity of the flow meter. Measurements obtained during the percolation testing are provided on Plates C-1 and C-2.

Laboratory Testing

Selected soil samples of representative earth materials were tested to assist in the formulation of conclusions and recommendations presented in this report. Tests consisted of grain-size analysis. Laboratory testing relevant to percolation characteristics are presented in Appendix B.

ANALYSIS OF DATA

Subsurface Conditions

Descriptions of the earth materials encountered during our investigation are summarized below and are presented in detail on the Exploration Logs presented in Appendix A.

Soil materials encountered at the site consisted mainly of Quaternary alluvium mantled by a thin layer of undocumented artificial fill. The artificial fill was encountered in all three of our exploratory borings to a depth of approximately 2 feet. The artificial fill encountered consists of gray-brown silty sand that is loose and moist to damp. In many areas, the fill materials are overlain by 3 to 3.5 inches of asphalt concrete and up to 2.5 inches of aggregate base materials beneath the asphalt.

The alluvial soils were predominantly composed of granular soils consisting of sand, sand with silt, and silty sand. These coarse-grained earth materials were typically moist to damp and loose to medium dense. Starting from a depth of approximately 30 feet, the density of the granular alluvial soils increased to dense and very dense. A zone of interlayered sands, silty sands, clayey sands, sandy silts, and clayey silts was encountered at depths of 25 to 28 feet. These materials were generally moist to wet and medium dense/stiff.

Groundwater

Groundwater was not encountered during this firm's subsurface exploration to 36.5 feet below the existing ground surface (maximum depth explored). A review of the CDMG Seismic Hazard Zone Report 03 indicates that historical high groundwater levels for the general site area have been reported at depths greater than 50 feet below the existing ground surface.

Percolation Data

Analyses were performed to evaluate permeability using the flow rate obtained at the end of the constant-head stage of field percolation testing. These analyses were performed in accordance with the procedures provided in the referenced USBR 7300-89. The procedure essentially uses a closed-form solution to the percolation out of a small-diameter well.

Using the USBR method, we calculated a composite permeability value for various head conditions maintained in the wells. The results are summarized in Table 1 below and the supporting analyses are included in Appendix C, Plates C-3 and C-4.

TABLE 1
Summary of Back-Calculated Permeability Coefficient

Location	Total Depth of Well (ft)	Depth to Water in Well (ft)	Height of Water in Well (ft)	Static Flow Rate (gal./min.)	Estimated Permeability, k_s (in/hr.)
P-1	15.5	13.8	1.7	3.9	30.4
P-2	15.5	13.9	1.6	4.0	60.5

Using a combination of the method 'Estimating generalized soil-water characteristics from texture' by Saxton and the methods presented in NAVFAC DM-7.1, Chapter 3, Figure 1, we estimated permeability rates based on laboratory testing consisting of particle sieve analyses. The results of these test correlations are summarized in Table 2. Results of the laboratory correlation from B-2 at a depth of 15 feet provides similar results to the results of field percolation testing.

TABLE 2
Summary of Estimated Permeability Coefficient Based on Gradation

Location	USCS Classification	Depth (ft)	Percent finer than 0.05mm	Percent Passing #200 Sieve	Void Ratio, e	Grain Size, D10 (mm)	Estimated Permeability, k_s (in/hr.)
B-2	SP	6	4	>1	0.7	0.4	508
B-2	SP-SM	15	5	>1	0.7	0.16	40
B-2	ML	25	43	14	0.3	0.001	0.66

CONCLUSIONS AND RECOMMENDATIONS

Based on results of our testing, infiltration of storm water at the site is feasible using a shallow basin system such as Stormtech chambers or other similar systems infiltrating at 5 to 10 feet below current grade. Based on our testing, a field measured infiltration rate of 30 inches/hr. may be used to design. The city of Anaheim follows the Santa Ana County Regional Water Quality Board requirements of a minimum infiltration rate of 0.3 in/hr. From our testing, this minimum value is met. An appropriate factor of safety should be applied to this value as required by the appropriate governmental authority to obtain a design infiltration rate. The shallow basins should be located at least 10 feet horizontally from any habitable structure or property line. Once final plans are prepared, they should be reviewed by this office to confirm the assumptions herein and that our recommendations have been properly incorporated into the plans.

LIMITATIONS

This report is based on the geotechnical data as described herein. The materials encountered in our boring excavations and utilized in our laboratory testing for this investigation are believed representative of the project area, and the conclusions and recommendations contained in this report are presented on that basis. However, soil and bedrock materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions and recommendations contained herein. As such, observations by a geotechnical consultant during the construction phase of the storm water infiltration systems are essential to confirming the basis of this report.

This report has been prepared consistent with that level of care being provided by other professionals providing similar services at the same locale and time period. The contents of this report are professional opinions and as such, are not to be considered a guaranty or warranty.

This report should be reviewed and updated after a period of one year or if the site ownership or project concept changes from that described herein.

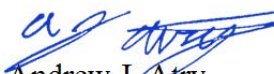
This report has been prepared for the exclusive use of **The Olson Company** to assist the project consultants in the design of the proposed development. This report has not been prepared for use by parties or projects other than those named or described herein. This report may not contain sufficient information for other parties or other purposes.


This report is subject to review by the controlling governmental agency.

We appreciate this opportunity to be of service to you. If you should have any questions regarding the contents of this report, please do not hesitate to call.


Sincerely,

ALBUS-KEEFE & ASSOCIATES, INC.


Andrew J. Atry
Project Engineer
P.E. C84728



Reviewed by:


David E. Albus
Principal Engineer
G.E. 2455



Enclosures: Plate 1- Geotechnical Map
Plate 2- Dry Well Design
Appendix A - Exploratory Logs
Appendix B - Laboratory Testing
Appendix C - Percolation Testing and Analyses

REFERENCES

Publications and Reports

California Department of Conservation, Division of Mines and Geology 1997, *Seismic Hazard Zone Report for the Anaheim and Newport Beach 7.5-Minute Quadrangles, Orange County, California*. Seismic Hazard Report 03,

Saxton, K.E., W.J. Rawls, J.S. Romberger, and R.I. Papendick. 1986. *Estimating generalized soil-water characteristics from texture*. Soil Sci. Soc. Am. J. 50(4):1031-103

United States Department of The Interior, Bureau of Reclamation (USBR 7300-89), *Procedure for Performing Field Permeability Testing by the Well Permeameter Method*

Plan

Conceptual Site Plan, East and South Street, Anaheim, California, dated August 3, 2016, prepared by KTG Architecture and Planning.



Project Summary

Gross Site Area:	1.8 Acres
Total Dwelling Units:	42 DU
Density:	23.3 DU/AC
Zoning:	RM-4

Residential Summary

Plan	Bdrm	Bath	SF	Count
2	2	2.5	1,337	8
2C	2	2.5	1,383	8
5	2 + Loft	2.5	1,582	4
5A	3	2.5	1,582	9
6	3	3.5	1,768	13
Total				42

Parking Requirement

2 bedroom:	20x 2.25/Unit	45 spaces
3 bedroom:	22 x 3/Unit	66 spaces
Total:		111spaces

Parking Provided

Garage:	84 spaces
Open Parking:	27 spaces
Total	111 spaces

Open Space Requirement

200 SF per DU x 42 Units	8400 SF
--------------------------	---------

Open Space Provided:

Plan	Decks*	Patios**	Count	Qualifying Total
2	65 SF	--	8	--
2C	65 SF	--	8	--
5/5A	77 SF	120 SF**	13	720 SF
6	96 SF*	120 SF**	13	2808 SF
Total				4368 SF

Common Open Space 7008 SF

Total Qualifying Open Space Provided: 11,376 SF

Total Open Space Provided: 14,418 SF

* Minimum Dimension of 70 SF and 7 ft to Qualify

** Minimum Dimension of 100 SF and 8 ft to Qualify

EXPLANATION

(Locations Approximate)

- B-3 - Exploratory Boring
- P-2 - Exploratory Percolation Well



GEOTECHNICAL MAP

Job No.: 2523.00 Date: 09/28/16 Plate: 1



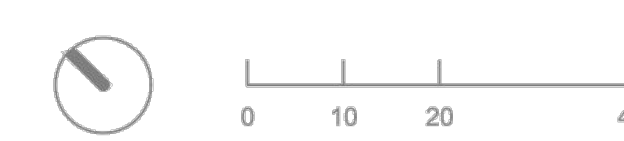
Architecture + Planning
888.456.5849
ktgy.com



The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740

EAST AND SOUTH STREET
ANAHEIM, CA # 2016-0515

CONCEPTUAL SITE PLAN
AUGUST 3, 2016



ALTERNATIVE - F

A1.6

APPENDIX A
EXPLORATORY LOGS

EXPLORATION LOG

Project:		Location:
Address:		Elevation:
Job Number:	Client:	Date:
Drill Method:	Driving Weight:	Logged By:

Depth (feet)	Lith- ology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<p><u>EXPLANATION</u></p> <p>Solid lines separate geologic units and/or material types.</p> <p>Dashed lines indicate unknown depth of geologic unit change or material type change.</p> <p>Solid black rectangle in Core column represents California Split Spoon sampler (2.5in ID, 3in OD).</p> <p>Double triangle in core column represents SPT sampler.</p> <p>Solid black rectangle in Bulk column represents large bag sample.</p> <p>Other Laboratory Tests: Max = Maximum Dry Density/Optimum Moisture Content EI = Expansion Index SO4 = Soluble Sulfate Content DSR = Direct Shear, Remolded DS = Direct Shear, Undisturbed SA = Sieve Analysis (1" through #200 sieve) Hydro = Particle Size Analysis (SA with Hydrometer) 200 = Percent Passing #200 Sieve Consol = Consolidation SE = Sand Equivalent Rval = R-Value ATT = Atterberg Limits</p>							
5					■				
10					▲▼				
15						■			
20									

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-1
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.4
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests			
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<u>Asphalt Concrete (AC)</u> : 3.0 inches AC / 2.5 inches crushed misc. base							Max SO4 DS
		ARTIFICIAL FILL (Af) <u>Silty Sand (SM)</u> : Gray-brown, damp to moist, loose, fine grained sand, micaceous		7			3.6	97.4	
5		ALLUVIUM (Qal) <u>Sand (SP)</u> : Light gray-brown, damp, loose, fine grained sand, trace medium grained sand, micaceous @ 4', becomes tan to white, dry to damp, fine to medium grained sand, occasional fine to coarse grained sand layers, trace gravel @ 6', same		7			2.3	95	
		@ 10', becomes tan to white, dry to damp, fine to medium grained sand, occasional fine to coarse grained sand layers, trace gravel		10			2.3	95.3	
10		@ 10', becomes damp, fine grained sand with some medium grained sand		10			3.6	92.9	
15		@ 15', becomes white, medium dense, trace silt		14			2.7	98.2	
20		@ 20', becomes fine to medium grained sand, occasional fine to coarse grained sand layers, trace gravel		16					
		Total depth: 21.5 feet No groundwater Backfilled with soil cuttings and capped with AC cold patch							

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-2
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.4
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples			Laboratory Tests		
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<u>Asphalt Concrete (AC)</u> : 3 inches AC / 2 inches crushed misc. base							
		ARTIFICIAL FILL (Af) <u>Silty Sand (SM)</u> : Gray-brown, moist, loose, fine grained sand, micaceous		7	█		2	95.7	
5		ALLUVIUM (Qal) <u>Sand with Silt (SP-SM)</u> : Light gray-brown, damp, loose, fine grained sand, micaceous		8	█		1.6	92.4	
		<u>Sand (SP)</u> : Tan to white, dry to damp, loose, fine and fine to medium grained sand @ 4', becomes white @ 6', becomes fine to medium grained sand, trace coarse grained sand		8	█				SA Dist.
10		<u>Sand with Silt (SP-SM)</u> : Light gray-brown, damp, loose, fine grained sand, occasional fine to medium grained sand layers		8	█		2.2	97.7	
15		@ 15', becomes medium dense		12	▼				SA
20		<u>Silty Sand (SM)</u> : Brown, moist, medium dense, fine grained sand, micaceous		12	▼				

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-2
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.4
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests		
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
30		<p><u>Interlayered Silty Sand, Sandy Silt, and Clayey Silt (SM/ML):</u> Gray-brown and brown, moist, medium dense/very stiff, fine grained sand, clayey silt layers very moist to wet</p> <hr style="border-top: 1px dashed black;"/> <p><u>Sand (SP):</u> White, damp, medium dense, fine grained sand, trace medium grained sand</p>	<p>14</p> <p>21</p>					SA Hydro
		<p>Total depth: 31.5 feet No groundwater Backfilled with cuttings and capped with AC cold patch Perc. well installed 10 feet offset (15.5 feet deep)</p>						

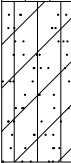







EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-3
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.0
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests			
				Blows Per Foot	Core	Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
		<u>Asphalt Concrete (AC):</u> 3.5 inches AC / No crushed misc. base							
		ARTIFICIAL FILL (Af) <u>Silty Sand (SM):</u> Gray-brown, moist, loose, fine grained sand, micaceous		16			1.8	99.8	
5		ALLUVIUM (Qal) <u>Sand (SP):</u> Light gray-brown to white, dry to damp, medium dense, fine and fine to medium grained sand @ 4', becomes loose, trace gravel up to 3 inches @ 6', same		6			1.7		
				8			2	95.3	
10		<u>Sand with Silt (SP-SM):</u> Light gray-brown, moist, loose, fine to medium grained sand, occasional fine to coarse grained sand layers		9			6.7	93.4	
15		<u>Sand (SP):</u> Light gray-brown, moist, loose, fine to medium grained sand, trace coarse grained sand and gravel, occasional thin silty sand/sandy silt layers		7					
20		<u>Sand with Silt (SP-SM):</u> Gray-brown, moist, medium dense, fine grained sand, slightly micaceous		18					

EXPLORATION LOG

Project: 1.8 Acre East Street Development - Anaheim		Location: B-3
Address: 711 S East St, Anaheim, CA 92805		Elevation: 167.0
Job Number: 2523.00	Client: The Olson Company	Date: 7/21/2016
Drill Method: Hollow-Stem Auger	Driving Weight: 140 lbs / 30 in	Logged By: BJP

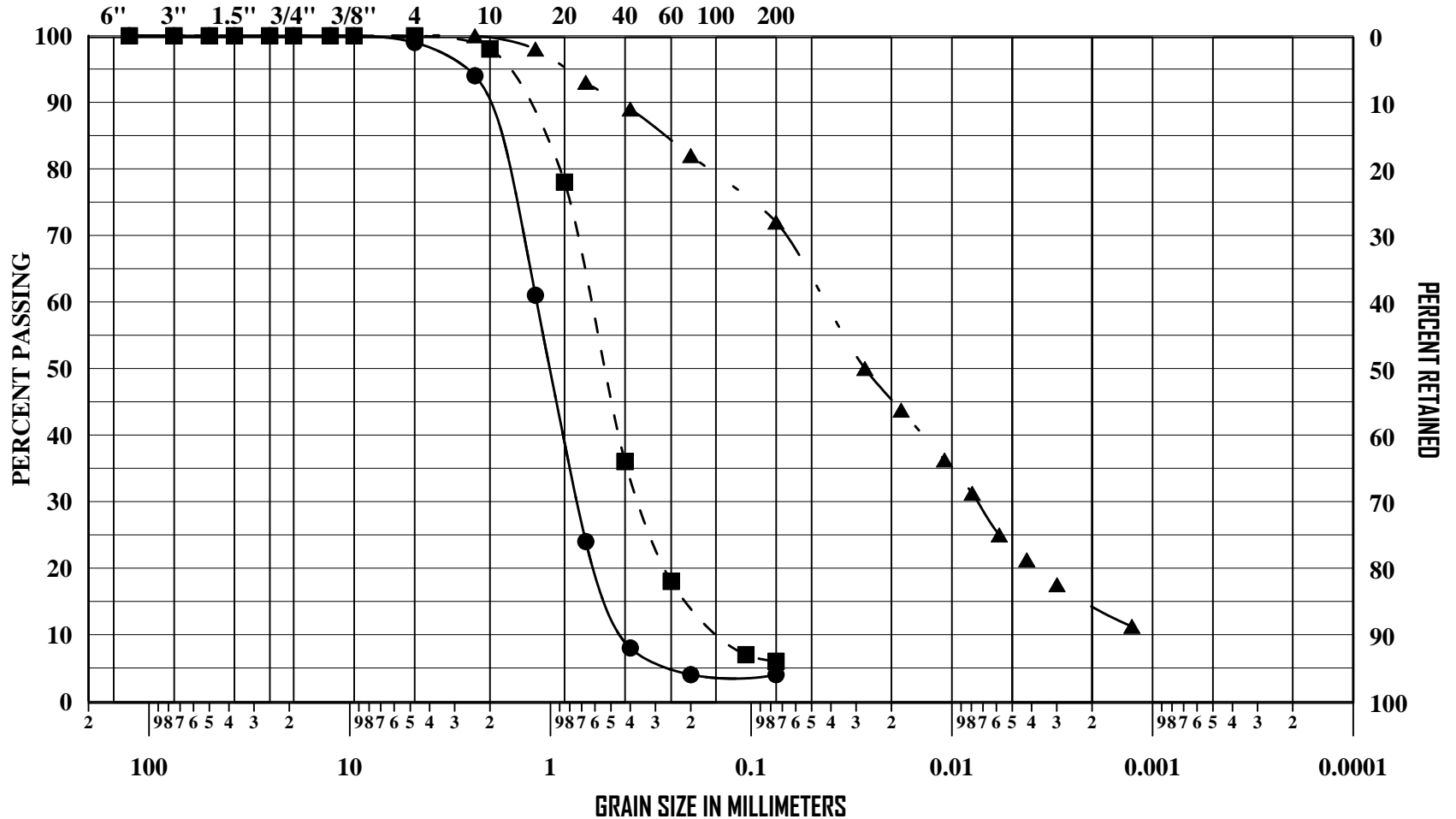
Depth (feet)	Lithology	Material Description	Water	Samples		Laboratory Tests		
				Blows Per Foot	Core Bulk	Moisture Content (%)	Dry Density (pcf)	Other Lab Tests
30		<u>Interlayered Silty Sand, Sand, and Clayey Sand (SM/SP/SC):</u> Gray-brown, moist, medium dense, fine grained sand, slightly micaceous		16	 			
35		<u>Sand (SP):</u> Light gray-brown, moist, very dense, fine grained sand, trace silt, slightly micaceous @ 35', trace medium grained sand		36	 			
		Total depth: 36.5 feet No groundwater Backfilled with cuttings and capped with AC cold patch Perc. well set 10 feet offset (15.5 feet deep)		68/ 11"	 			

APPENDIX B
LABORATORY TESTING

UNIFIED SOIL CLASSIFICATION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

U.S. STANDARD SIEVE SIZES



LOCATION	SAMPLE	SYMBOL	LL	PI	CLASSIFICATION
B-2	6 feet	● — — — ●			Sand (SP)
B-2	15 feet	■ - - - ■			Sand with Silt (SP-SM)
B-2	25 feet	▲ — - ▲			Silt with Sand (ML)

ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

GRAIN SIZE DISTRIBUTION

Plate No: B-1

Job No: 2523.00

APPENDIX C
PERCOLATION TESTING AND ANALYSES

Field Percolation Testing

Client: The Olson Company
Date Tested: 7/21/2016
Location: P-2

Job. No.: 2523.00
Test by: BJP

Top of Casing to Bottom of Well (ft): 15.5
Elev. of Ground Surface (ft): 166.2
Diam. of Test Hole (in): 8
Diam. of Casing (in): 2
Ht. to Top of Casing (ft): 0
Water Temperature (C°): 21

Constant Head

Falling Head

Elapsed Time (minutes)	Time	Depth to H2O (ft)	Flow Rate (gal./min.)
0.0	14:25	14.00	7.20
10.0	14:35	14.00	7.20
20.0	14:45	13.96	7.20
35.0	15:00	14.00	7.00
40.0	15:05	13.90	7.10
50.0	15:15	13.90	7.10
60.0	15:25	13.90	7.10

Elapsed Time (minutes)	Time	Depth to H2O (ft)

INFILTRATION WELL DESIGN

Constant Head
 USBR 7300-89 Method
 J.N.: 2523.00
 Client: The Olson Company
 Well No. P-1

Low Water Table	Condition 1	
High Water Table & Water Below Bottom of Well	Condition 2	
High water Table with Water Above the Well Bottom	Condition 3	
		Units:
Enter Condition (1, 2 or 3):	1	
Ground Surface to Bottom of Well (h_1):	15.5	feet
Depth to Water (h_2):	13.8	feet
Height of Water in the Well ($h_1-h_2=h$):	1.7	feet
Radius of Well (r):	4.0	Inches
Minimum Volume Required:	140.3	Gal.
Discharge Rate of Water Into Well for Steady-State Condition (q):	3.9	Gal/min.
Temperature (T):	21	Celsius
(Viscosity of Water @ Temp. T) / (Viscosity of water @ 20° C) (V):	0.9647	ft ³ /min.
Unsaturated Distance Between the Water Surface in the Well and the		
Water table (T_u):		Ignore T_u
Factor of Safety:	1	
Coefficient of Permeability @ 20° C (k_{20}):	4.22E-02	ft/min.
Design k_{20}:	30.41	in./hr.
Design k_{20}:	60.82	ft./day

The presence or absence of a water table or impervious soil layer within a distance of less than three times that of the water depth in the well (measured from the water surface) will enable the water table to be classified as **Condition I, Condition II, Condition III.**

Low Water Table-When the distance from the water surface in the test well to the ground water table, or to an impervious soil layer which is considered for test purposes to be equivalent to a water table, is greater than three times the depth of water in the well, classify as **Condition I.**

High Water Table-When the distance from the water surface in the test well to the ground water table or to an impervious layer is less than three times the depth of water in the well, a high water table condition exists. Use **Condition II** when the water table or impervious layer is below the well bottom. Use **Condition III** when the water table or impervious layer is above the well bottom.

INFILTRATION WELL DESIGN

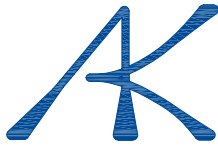
Constant Head
 USBR 7300-89 Method
 J.N.: 2523.00
 Client: The Olson Company
 Well No. P-2

Low Water Table	Condition 1	
High Water Table & Water Below Bottom of Well	Condition 2	
High water Table with Water Above the Well Bottom	Condition 3	
		Units:
Enter Condition (1, 2 or 3):	1	
Ground Surface to Bottom of Well (h_1):	15.5	feet
Depth to Water (h_2):	13.9	feet
Height of Water in the Well ($h_1-h_2=h$):	1.6	feet
Radius of Well (r):	4.0	Inches
Minimum Volume Required:	125.2	Gal.
Discharge Rate of Water Into Well for Steady-State Condition (q):	7.1	Gal/min.
Temperature (T):	21	Celsius
(Viscosity of Water @ Temp. T) / (Viscosity of water @ 20° C) (V):	0.9647	ft ³ /min.
Unsaturated Distance Between the Water Surface in the Well and the Water table (T_u):		Ignore T_u
Factor of Safety:	1	
Coefficient of Permeability @ 20° C (k_{20}):	8.40E-02	ft/min.
Design k_{20}:	60.45	in./hr.
Design k_{20}:	120.89	ft./day

The presence or absence of a water table or impervious soil layer within a distance of less than three times that of the water depth in the well (measured from the water surface) will enable the water table to be classified as **Condition I, Condition II, Condition III.**

Low Water Table-When the distance from the water surface in the test well to the ground water table, or to an impervious soil layer which is considered for test purposes to be equivalent to a water table, is greater than three times the depth of water in the well, classify as **Condition I.**

High Water Table-When the distance from the water surface in the test well to the ground water table or to an impervious layer is less than three times the depth of water in the well, a high water table condition exists. Use **Condition II** when the water table or impervious layer is below the well bottom. Use **Condition III** when the water table or impervious layer is above the well bottom.



ALBUS-KEEFE & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

February 13, 2017
J.N.: 2523.00

Ms. Doris Nguyen
The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740

Subject: Response to Concerns on Proposed Water Quality Improvements, Proposed Multi-Family Residential Development, 711 S. East Street, Anaheim, California.

Reference: “*Geotechnical Investigation for Proposed Water Quality Improvements, Proposed Multi-Family Residential Development, 711 S. East Street, Anaheim, California.*”, prepared by Albus-Keefe & Associates, Inc., dated September 28, 2016 (J.N.: 2523.00).

Vesting Tentative Tract Map No. 78088, For Condominium Purposes, WQMP BMP Exhibit, 711 S. East Street, Anaheim, California, by C&V Consulting, dated December 17, 2016

Dear Ms. Nguyen:

Pursuant to your request, *Albus-Keefe & Associates, Inc.* has evaluated the potential of the proposed storm water infiltration structures to cause lateral migration of contaminants that may be present on the adjacent property. As indicated by the city of Anaheim, the adjacent site to the south has been a gasoline station and was listed at one time to be a potential source of environmentally-impacted ground. The city has expressed concerns that infiltration of storm water at the subject site could cause migration of contaminants that may be present at the adjacent site. To address this concern, we have performed additional analyses to evaluate the movement of water into the ground during a storm event due to the proposed shallow chamber system.

Infiltration in a shallow chamber systems was modeled using the software Seep/W, version 2007, by Geo-Slope International. The program allows for modeling of both partially-saturated and saturated porous medium using a finite element approach to solve Darcy’s Law. The program can evaluate both steady-state and transient flow in planer and axisymmetric cases. Boundaries of the model can be identified with various conditions including fix total head, fix pressure head, fix flow rate, and head as a function of flow. Soil conductivity properties can be modeled with either Fredlund et al (1994), Green and Corey (1971), Van Genuchten (1980), or Saxton et al. (1986). The parameters suggested by Saxton et al. (1986) were selected for use in our models and were based on the test results of particle-size analyses and estimated in-place densities discussed in the referenced report.

The proposed chamber system was assumed to be on average about 18 feet wide and would infiltrate at a depth approximately 5.5 feet below the ground surface. The model is two dimensional and conservatively assumes the system extends infinitely in the long dimension.

The model consisted of three (3) material types within four (4) zones to represent the general soil profile indicated by our previous site exploration. The upper zone (Material No. 1) represents the proposed recompacted fill materials that will be located in the upper 2 feet due to the grading operations during construction. The saturated conductivity was taken as a relatively low value to limit infiltration. The second and bottom layer (Material No. 2) represents the highly permeable sands that were encountered in the upper and lower zones during our investigation. The saturated conductivities for this layer were taken as conservative values based on typical values obtained for percolation testing of these materials. The third layer (Material No. 3) represents the interbedded silts that were encountered in borings B-2 and B-3 at approximately 25 feet below the existing ground surface. The saturated conductivity was taken from the parameters suggested by Saxton et al. (1986) based on particle-size analyses from samples taking in this layer. A summary of the model is provided in Table 1.


TABLE 1
Summary of Characteristic Curve Parameters


Depth (ft)	Material No.	USCS	Ks (in/hr)	Van Genuchten Parameters				
				a (1/cm)	n	m	Sat. Water Content	Residual Water Content
0-2	1	Imperm.	0.001	0.026	1.13	0.11	0.48	0.01
2-25	2	SP	30.0	0.038	1.51	0.34	0.24	0.025
25-28	3	SM	0.66	0.033	1.24	0.19	0.42	0.01
>28	2	SP	30.0	0.038	1.51	0.34	0.24	0.025

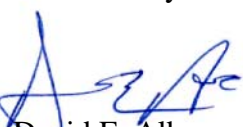
A steady state analysis was performed to estimate the lateral limits of water flow of infiltrating storm water. A plot depicting the resulting pressure head contours and flow vectors for the model are provided on the attached Plate 1. As indicated by the results, water flowing from the continuous infiltration of water from the chamber extends to a maximum distance of about 100 feet beyond the center of the chambers. Based on the current plans by C&V consulting, the center of the chambers will be located more than 100 feet from the property lines. As such, we conclude the potential for water that is infiltrated into the ground by the chambers to cause migration of contaminants that may be located offsite is negligible.

Sincerely,

ALBUS-KEEFE & ASSOCIATES, INC.


 Andrew J. Atry
 Project Engineer
 P.E. C84728

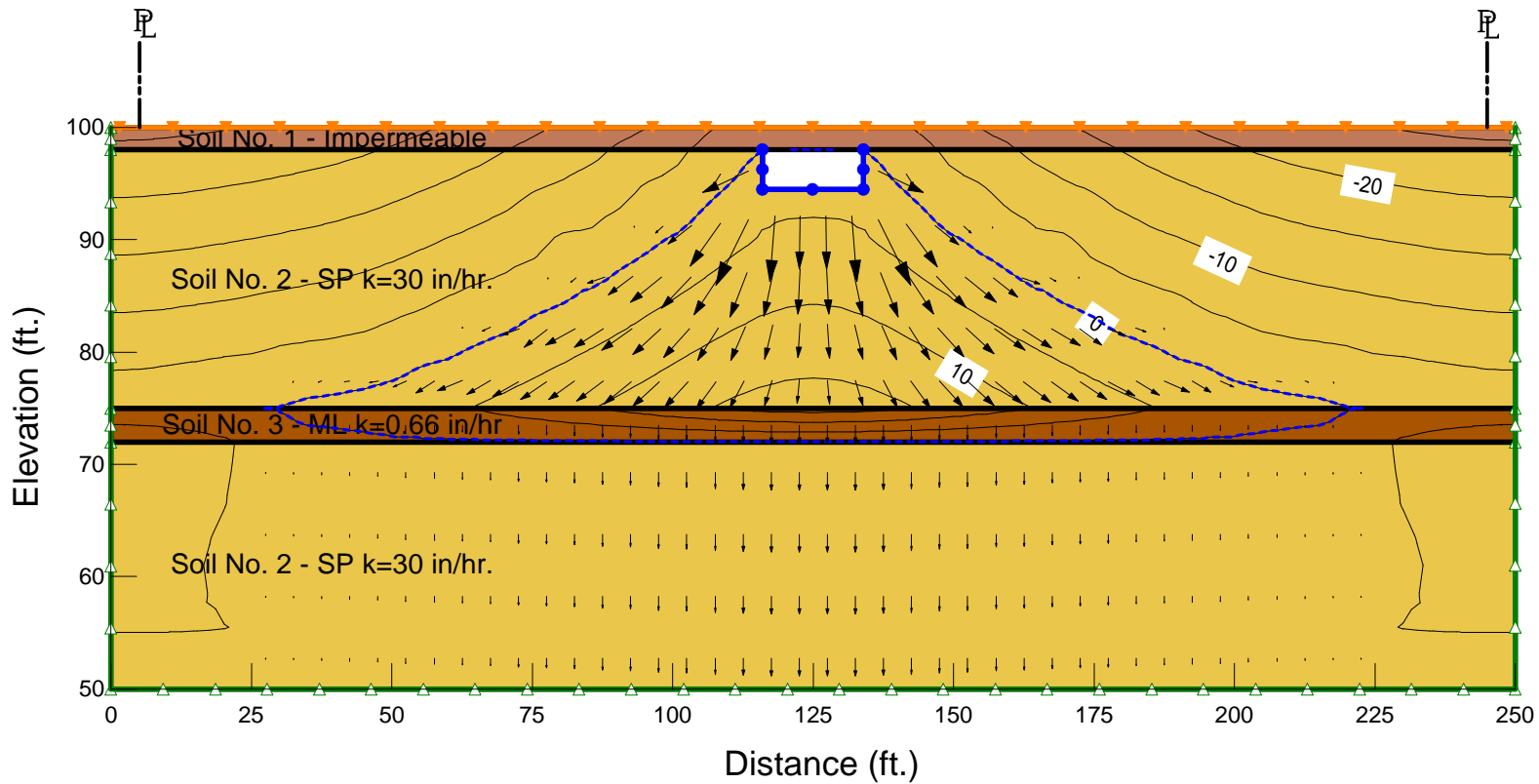


Reviewed by:

 David E. Albus
 Principal Engineer
 G.E. 2455



Enclosure: Plate 1- Steady State Analysis of Proposed Chamber System




STEADY STATE FLOW ANALYSIS OF BASIN



Contours are Pressure Head in Feet.

Arrows indicate direction of flow and relative magnitude of velocity.

LEGEND

-  Zero Flux
-  Potential Seepage Face
-  Fixed Total Head = 98 ft.

**Phase I and II Environmental
Site Assessment
633 and 711 South East Street
Anaheim, California**



Prepared for:
The Olson Company
3010 Old ranch Parkway,
Suite 100
Seal Beach, CA 90740

Prepared by:
Stantec Consulting Services Inc.
25864-F Business Center Drive
Redlands, California 92374

Project No.: 185803745

August 12, 2016

**PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENT
633 AND 711 SOUTH EAST STREET
ANAHEIM, CALIFORNIA**

EVALUATION

August 12, 2016

Finding 4: The adjacent Thrifty Oil #364 / Arco #9730 station (727 South East Street) had a gasoline release to soil. The station received regulatory case closure on December 12, 2003; however, the station remains active.

Opinion 4: Because of the potential for a vapor encroachment condition from fuel past releases, Stantec performed a Phase II subsurface investigation to sample and analyze soil and soil vapor samples along the southern boundary line for TPH and VOCs to evaluate whether a release has occurred at this location above regulatory thresholds or health risk criteria for residential use.

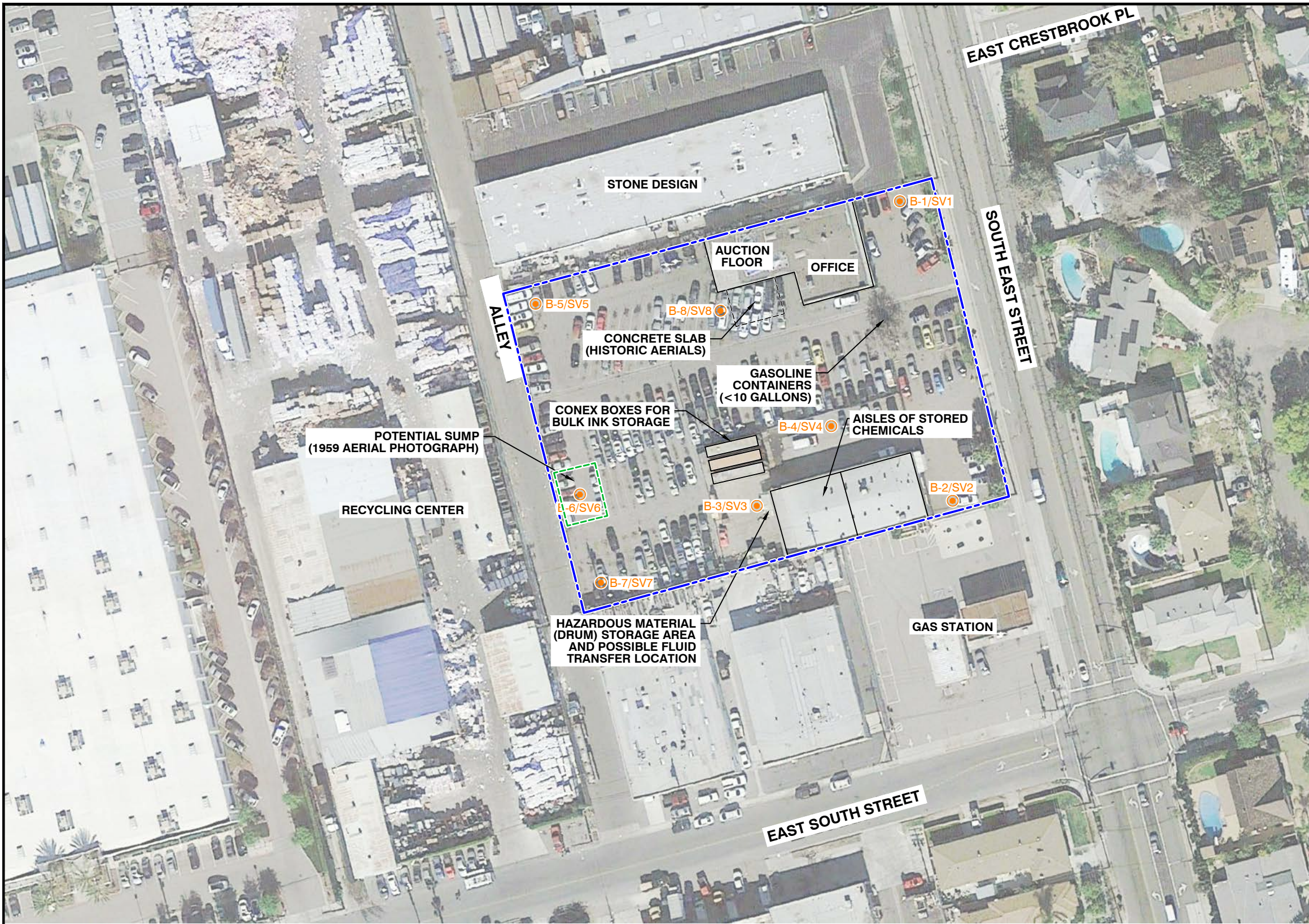
The Phase II ESA included the advancement of one boring for the purpose of collecting soil vapor samples along the Property line adjacent to the offsite UST pad at the service station. Concentrations of VOCs were detected above laboratory reporting limits but well below the DTSC health risk screening levels with regard to potential vapor intrusion. Stantec concludes that the gasoline service station does not represent a Recognized Environmental Condition, and recommends no further investigation regarding this issue.

Finding 5: According to historical documents including aerial photography, the Property was developed with the existing structures circa 1963.




Opinion 5: Based on the dates of construction of the Property, Stantec recommends performing a comprehensive, pre-demolition ACM and LBP survey in accordance with the sampling criteria of the Asbestos Hazard Emergency Response Act ("AHERA") prior to any activities with the potential to disturb building materials, and abated accordingly.

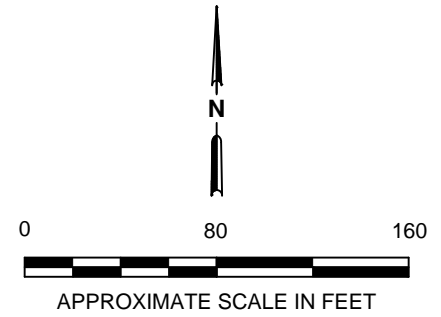
Additionally, the Property has an asphalt-paved driveway. A stress absorbing fabric marketed as Petromat® is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Therefore, Stantec analyzed the asphalt for the presence of Petromat.


Samples of the fabric were collected from five locations and analyzed for the presence of asbestos. The fabric was found to contain a trace amount of asbestos (<1%) and is considered an asbestos containing construction material ("ACCM"). In connection with the removal and disposal of the asphalt at the Site, the contractor must be properly licensed to handle ACCM pursuant to the California Health and Safety Code 25915. Therefore, Stantec recommends that all work affecting the asphalt at the Site (*i.e.*, removal and disposal of the asphalt) be performed in accordance with all applicable laws, including OSHA guidelines, as such requirements apply to ACCM.



LEGEND:

-  SOIL BORING LOCATION
-  APPROXIMATE PROPERTY BOUNDARY
-  POTENTIAL SUMP LOCATION



 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120	FOR: OLSON URBAN HOUSING PHASE I ENVIRONMENTAL SITE ASSESSMENT 633 AND 711 SOUTH EAST STREET ANAHEIM, CALIFORNIA		PROPERTY MAP WITH BORING LOCATIONS		FIGURE: 2
	JOB NUMBER: 185803745	DRAWN BY: STA	CHECKED BY: DM/AJ	APPROVED BY: KE	DATE: 07/20/16

Detections Summary

Client: Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Work Order: 16-07-1557
Project Name: Olson - 711 S. East St, Anaheim /
185803745.201.0001
Received: 07/22/16

Attn: Alicia Jansen

Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-1 (16-07-1557-1)						
Arsenic	1.89		0.773	mg/kg	EPA 6010B	EPA 3050B
Lead	6.46		0.515	mg/kg	EPA 6010B	EPA 3050B
B-2-1 (16-07-1557-2)						
Arsenic	3.33		0.769	mg/kg	EPA 6010B	EPA 3050B
Lead	16.8		0.513	mg/kg	EPA 6010B	EPA 3050B
TPH as Motor Oil	81	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	6.5	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
4,4'-DDE	11		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.5		5.0	ug/kg	EPA 8081A	EPA 3545
Dieldrin	22		5.0	ug/kg	EPA 8081A	EPA 3545
B-3-1 (16-07-1557-3)						
TPH as Motor Oil	86	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	8.7	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
B-5-1 (16-07-1557-5)						
Arsenic	1.61		0.777	mg/kg	EPA 6010B	EPA 3050B
Lead	5.64		0.518	mg/kg	EPA 6010B	EPA 3050B
B-7-1 (16-07-1557-7)						
Arsenic	3.25		0.732	mg/kg	EPA 6010B	EPA 3050B
Lead	14.6		0.488	mg/kg	EPA 6010B	EPA 3050B
TPH as Motor Oil	53	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	29	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
B-8-1 (16-07-1557-8)						
Arsenic	3.95		0.769	mg/kg	EPA 6010B	EPA 3050B
Lead	8.00		0.513	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 45	07/25/16	07/25/16 23:53	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		101		61-145			
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 45	07/25/16	07/26/16 00:10	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		81		25		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		61-145			
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC 45	07/25/16	07/26/16 00:26	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		86		25		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC 45	07/25/16	07/26/16 00:43	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		105		61-145			
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 45	07/25/16	07/26/16 01:01	160725B02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		102		61-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 45	07/25/16	07/25/16 23:53	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		101		61-145			
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 45	07/25/16	07/26/16 00:10	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		6.5		5.0		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		61-145			
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC 45	07/25/16	07/26/16 00:26	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		8.7		5.0		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC 45	07/25/16	07/26/16 00:43	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		105		61-145			
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 45	07/25/16	07/26/16 01:01	160725B01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		102		61-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	GC 42	07/23/16	07/26/16 15:49	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		67		42-126			
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 42	07/23/16	07/26/16 17:34	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		67		42-126			
B-3-1	16-07-1557-3-A	07/21/16 08:40	Solid	GC 42	07/23/16	07/26/16 18:08	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		62		42-126			
B-4-1	16-07-1557-4-A	07/21/16 09:07	Solid	GC 42	07/23/16	07/26/16 18:43	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		64		42-126			
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	GC 42	07/23/16	07/26/16 19:18	160726L042
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		58		42-126			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1	16-07-1557-1-A	07/21/16 07:53	Solid	ICP 7300	07/27/16	07/28/16 10:21	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		1.89		RL		DF	
Lead		6.46		0.773		1.03	
				0.515		1.03	
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	ICP 7300	07/27/16	07/28/16 10:22	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		3.33		RL		DF	
Lead		16.8		0.769		1.03	
				0.513		1.03	
B-5-1	16-07-1557-5-A	07/21/16 09:40	Solid	ICP 7300	07/27/16	07/28/16 10:23	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		1.61		RL		DF	
Lead		5.64		0.777		1.04	
				0.518		1.04	
B-7-1	16-07-1557-7-A	07/21/16 10:41	Solid	ICP 7300	07/27/16	07/28/16 10:26	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		3.25		RL		DF	
Lead		14.6		0.732		0.976	
				0.488		0.976	
B-8-1	16-07-1557-8-A	07/21/16 11:08	Solid	ICP 7300	07/27/16	07/28/16 10:28	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		3.95		RL		DF	
Lead		8.00		0.769		1.03	
				0.513		1.03	
Method Blank	097-01-002-23001	N/A	Solid	ICP 7300	07/27/16	07/27/16 13:54	160727L01
<u>Parameter</u>		<u>Result</u>					<u>Qualifiers</u>
Arsenic		ND		RL		DF	
Lead		ND		0.758		1.01	
				0.505		1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC/MS W	07/23/16	07/24/16 06:24	160723L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	130	1.00	
Benzene	ND	5.2	1.00	
Bromobenzene	ND	5.2	1.00	
Bromochloromethane	ND	5.2	1.00	
Bromodichloromethane	ND	5.2	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	26	1.00	
2-Butanone	ND	52	1.00	
n-Butylbenzene	ND	5.2	1.00	
sec-Butylbenzene	ND	5.2	1.00	
tert-Butylbenzene	ND	5.2	1.00	
Carbon Disulfide	ND	52	1.00	
Carbon Tetrachloride	ND	5.2	1.00	
Chlorobenzene	ND	5.2	1.00	
Chloroethane	ND	5.2	1.00	
Chloroform	ND	5.2	1.00	
Chloromethane	ND	26	1.00	
2-Chlorotoluene	ND	5.2	1.00	
4-Chlorotoluene	ND	5.2	1.00	
Dibromochloromethane	ND	5.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.2	1.00	
Dibromomethane	ND	5.2	1.00	
1,2-Dichlorobenzene	ND	5.2	1.00	
1,3-Dichlorobenzene	ND	5.2	1.00	
1,4-Dichlorobenzene	ND	5.2	1.00	
Dichlorodifluoromethane	ND	5.2	1.00	
1,1-Dichloroethane	ND	5.2	1.00	
1,2-Dichloroethane	ND	5.2	1.00	
1,1-Dichloroethene	ND	5.2	1.00	
c-1,2-Dichloroethene	ND	5.2	1.00	
t-1,2-Dichloroethene	ND	5.2	1.00	
1,2-Dichloropropane	ND	5.2	1.00	
1,3-Dichloropropane	ND	5.2	1.00	
2,2-Dichloropropane	ND	5.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
 25864-F Business Center Drive
 Redlands, CA 92374-4515

Date Received: 07/22/16
 Work Order: 16-07-1557
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
 185803745.201.0001

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.2	1.00	
c-1,3-Dichloropropene	ND	5.2	1.00	
t-1,3-Dichloropropene	ND	5.2	1.00	
Ethylbenzene	ND	5.2	1.00	
2-Hexanone	ND	52	1.00	
Isopropylbenzene	ND	5.2	1.00	
p-Isopropyltoluene	ND	5.2	1.00	
Methylene Chloride	ND	52	1.00	
4-Methyl-2-Pentanone	ND	52	1.00	
Naphthalene	ND	52	1.00	
n-Propylbenzene	ND	5.2	1.00	
Styrene	ND	5.2	1.00	
1,1,1,2-Tetrachloroethane	ND	5.2	1.00	
1,1,2,2-Tetrachloroethane	ND	5.2	1.00	
Tetrachloroethene	ND	5.2	1.00	
Toluene	ND	5.2	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.2	1.00	
1,1,1-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	1.00	
Trichloroethene	ND	5.2	1.00	
1,2,3-Trichloropropane	ND	5.2	1.00	
1,2,4-Trimethylbenzene	ND	5.2	1.00	
Trichlorofluoromethane	ND	52	1.00	
1,3,5-Trimethylbenzene	ND	5.2	1.00	
Vinyl Acetate	ND	52	1.00	
Vinyl Chloride	ND	5.2	1.00	
p/m-Xylene	ND	5.2	1.00	
o-Xylene	ND	5.2	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.2	1.00	
Tert-Butyl Alcohol (TBA)	ND	52	1.00	
Diisopropyl Ether (DIPE)	ND	10	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.00	
Ethanol	ND	260	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	81	60-132	
Dibromofluoromethane	111	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	

Analytical Report

Stantec
25864-F Business Center Drive
Redlands, CA 92374-4515

Date Received: 07/22/16
Work Order: 16-07-1557
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: Olson - 711 S. East St, Anaheim /
185803745.201.0001

Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-1	16-07-1557-2-A	07/21/16 08:20	Solid	GC 41	07/26/16	07/27/16 14:57	160726L11
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Aldrin		ND		5.0	1.00		
Alpha-BHC		ND		10	1.00		
Beta-BHC		ND		5.0	1.00		
Chlordane		ND		50	1.00		
4,4'-DDD		ND		5.0	1.00		
4,4'-DDE		11		5.0	1.00		
4,4'-DDT		5.5		5.0	1.00		
Delta-BHC		ND		10	1.00		
Dieldrin		22		5.0	1.00		
Endosulfan I		ND		5.0	1.00		
Endosulfan II		ND		5.0	1.00		
Endosulfan Sulfate		ND		5.0	1.00		
Endrin		ND		5.0	1.00		
Endrin Aldehyde		ND		5.0	1.00		
Endrin Ketone		ND		5.0	1.00		
Gamma-BHC		ND		5.0	1.00		
Heptachlor		ND		5.0	1.00		
Heptachlor Epoxide		ND		10	1.00		
Methoxychlor		ND		5.0	1.00		
Toxaphene		ND		100	1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
Decachlorobiphenyl		92		24-168			
2,4,5,6-Tetrachloro-m-Xylene		67		25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Glossary of Terms and Qualifiers

Work Order: 16-07-1557

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stantec - Redlands
25864-F Business Center Drive
Redlands, CA 92374

Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV1	E607110-01	Vapor	21-Jul-16	21-Jul-16
SV2	E607110-02	Vapor	21-Jul-16	21-Jul-16
SV3	E607110-03	Vapor	21-Jul-16	21-Jul-16
SV4	E607110-04	Vapor	21-Jul-16	21-Jul-16
SV4 Rep	E607110-05	Vapor	21-Jul-16	21-Jul-16
SV5	E607110-06	Vapor	21-Jul-16	21-Jul-16
SV6	E607110-07	Vapor	21-Jul-16	21-Jul-16
SV7	E607110-08	Vapor	21-Jul-16	21-Jul-16
SV8	E607110-09	Vapor	21-Jul-16	21-Jul-16

Stantec - Redlands
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Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

DETECTIONS SUMMARY

Sample ID: **SV1**

Laboratory ID: **E607110-01**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Benzene	0.03	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.40	0.02	ug/l	H&P 8260SV	

Sample ID: **SV2**

Laboratory ID: **E607110-02**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.09	0.02	ug/l	H&P 8260SV	

Sample ID: **SV3**

Laboratory ID: **E607110-03**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
1,1,2 Trichlorotrifluoroethane (F113)	0.16	0.10	ug/l	H&P 8260SV	
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.73	0.02	ug/l	H&P 8260SV	
Naphthalene	0.03	0.02	ug/l	H&P 8260SV	

Sample ID: **SV4**

Laboratory ID: **E607110-04**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
1,1,2 Trichlorotrifluoroethane (F113)	0.17	0.10	ug/l	H&P 8260SV	
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.69	0.02	ug/l	H&P 8260SV	

Sample ID: **SV4 Rep**

Laboratory ID: **E607110-05**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
1,1,2 Trichlorotrifluoroethane (F113)	0.17	0.10	ug/l	H&P 8260SV	
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.65	0.02	ug/l	H&P 8260SV	

Sample ID: **SV5**

Laboratory ID: **E607110-06**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Benzene	0.02	0.02	ug/l	H&P 8260SV	
Tetrachloroethene	0.67	0.02	ug/l	H&P 8260SV	

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Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV2 (E607110-02) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	0.02	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	0.09	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.02	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	

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Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV2 (E607110-02) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
o-Xylene	ND	0.10	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	104 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	113 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	100 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	99.4 %	75-125	"	"	"	"	"	"

Stantec - Redlands
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Redlands, CA 92374

Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

Petroleum Hydrocarbon Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1 (E607110-01) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV2 (E607110-02) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV3 (E607110-03) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV4 (E607110-04) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV4 Rep (E607110-05) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV5 (E607110-06) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV6 (E607110-07) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV7 (E607110-08) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	
SV8 (E607110-09) Vapor Sampled: 21-Jul-16 Received: 21-Jul-16									
TPHv (C5 - C12)	ND	40	ug/l	0.01	EG62103	21-Jul-16	21-Jul-16	H&P 8260SV	

Stantec - Redlands
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Project: ST072116-SB1
Project Number: 185803745 / 711 S East St
Project Manager: Ms. Alicia Jansen

Reported:
27-Jul-16 14:24

Notes and Definitions

LCC	Leak Check Compound
ND	Analyte NOT DETECTED at or above the reporting limit
MDL	Method Detection Limit
%REC	Percent Recovery
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP and the ISO 17025 programs, certification number L11-175.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmg.com/about/certifications.

Attachment F

Hydrology Calculations

**PRELIMINARY HYDROLOGY & HYDRAULIC STUDY
711 S. EAST STREET
IN THE CITY OF ANAHEIM
TENTATIVE TRACT NO. 18088**

**Project Address:
711 S. East Street
Anaheim, CA 92805**

Prepared For:

The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740-2751
(562) 596-4770

Prepared By:

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December 2016

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III.	Design Assumptions.....	3
IV.	Conclusion.....	4
V.	References.....	5

APPENDICIES

- A.** Vicinity Map
- B.** Soils Map
- C.** Pre-Development Hydrology Study
- D.** Post Development Hydrology Study
- E.** Hydraulic Calculations

List of Exhibits:

- 1.** Pre-Development Hydrology Map
- 2.** Post Development Hydrology Map

Conceptual Hydrology Study and Hydraulic Analysis
For
Tentative Tract No. 18088

ACKNOWLEDGEMENT AND SIGNATURE PAGE

This Hydrology Study prepared by C&V Consulting, Inc. under the supervision of Vincent Scarpati, P.E.

Vincent Scarpati, PE 33520
C&V Consulting, Inc.

Date

Purpose

The purpose of this conceptual report is to provide quantitative information to verify preliminary storm drain infrastructure and hydrologic methodology of the project site. The values and statements within confirm the subject site is designed and planned in accordance to the Orange County Hydrology Manual and the City of Anaheim Drainage Manual for Public and Private Drainage Facilities.

Introduction:

The proposed project's address is 711 S. East Street, in the City of Anaheim. The subject site is bordered to the west by an alley and industrial warehouses, to the north by Commercial development, the east by East Street and single family residential homes, and to the south by medium Commercial gas station and mini mart.

The subject project site proposes 42 units of residential condominiums, constructed on traditional slab on grade. The proposed 1.76 acre site will include open space amenities, vehicular drive aisles and sidewalks.

The project site currently serves as parking lot for car sales and contains two small buildings. The site will be subdivided per the Tentative Tract Map ~~1XXXX~~ into its Parcel called Parcel 1. The site exists as mostly impervious paving.

Post-development drainage will be consistent with a proposed attached Multi-Family Residential project. The tributary areas and direction of run-off flows for the proposed site are delineated on the attached WQMP Exhibit based on the grading and drainage design. Refer to the WQMP Exhibit in Attachment D of this report.

Currently, the site drains via sheet flow to the southeast corner of the site. The historic drainage patterns will be preserved in order to control onsite grading. The proposed drainage runoff will be collected by a drainage system has been design to convey storm water runoff to the proposed BMP treatment system. Collected runoff will be pre-treated and retain onsite by utilizing underground Infiltration BMPs.

The main drive aisle will be utilized as the primary emergency overflow system during larger storm events. Stormwater runoff greater than the required water quality volume will be discharged overland through a proposed bubbler catch basin at the alley through the wall. Runoff from this area historically flows in the northwesterly direction in the alley and then to the west to public storm drain that drains to South Street. Runoff continues west in South Street to Walnut Street, then to Ball Road to the Anaheim Barber City Channel, then to the Bolsa Chica Channel and finally into Huntington Harbor. Huntington harbor continues to Anaheim Bay and then into the Pacific Ocean.

Methodology / Rationale:

The proposed drainage area was analyzed by utilizing the Orange County Local Drainage Manual of Orange County. Each drainage area was divided as demonstrated on the hydrology map (Exhibit 1). Each area was analyzed for acreage, impervious cover, and time of concentration according to the Rational Method. The flows, expressed in cubic feet per second (cfs), were totaled at connections to main storm drain lines.

There are no existing subsurface storm drain pipes that convey flow through the existing project site. The proposed development will install catch basins, on site drainage piping to convey flow subsurface. The low flow, (Q_{bmp}) will be collected and conveyed through the storm drain system into a underground stormwater infiltration system. The storm water will be pre-treated with catch basin filters prior to entering the infiltration system (storm water chambers). A soils investigation and a percolation test has been prepared to support the approval of the infiltration system. Refer to the prepared Preliminary WQMP report.

Large storm events will also enter these inlets and subsurface piping and will exit the sub-surface network by use of a bubbler system located at the historic low point of the project at the west side of the project at the alley. Storm water will drain from this area in the northwesterly direction in the alley and then to the west to public storm drain that drains to South Street. Runoff continues west in South Street to Walnut Street, then to Ball Road to the Anaheim Barber City Channel, then to the Bolsa Chica Channel and finally into Huntington Harbor. Huntington harbor continues to Anaheim Bay and then into the Pacific Ocean.

Design Assumptions:

1. The onsite drainage area was analyzed for a 2, 10, 25 , 50 & 100-year storm event using Rational Method Analysis per the County of Orange Hydrology Manual.
2. The drainage area is located in Soil Groups A according to page 4-9 of the Hydrology Manual
3. AMC III was used for the 100-year flow calculations
4. The existing condition is primarily paved parking lot and was modeled as “commercial” in the Civilcad software.
5. The proposed condition was modeled as “condominiums” in Civilcad.
6. All flows are based on the complete future development of land and roads.
7. The Hydrology Map attached to the back of this study is made part of the study.

****Note: Additional Calculation Assumptions Have Been Noted Throughout Report****

Conclusions:

The results from this hydrology and hydraulic analysis demonstrate the following:

- The drainage design for the Project has been designed to meet the County of Orange Flood Control Standards.
- Building pads will be protected and will be above the theoretical 100 year flood elevation as determined in this study
- Per FEMA FIRM Map Number 06059C0142J Panel 142 of 539, revised December 3, 2009, the subject site is within Flood Zone “X-shaded” (Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood)
- The existing site conditions result in a total predevelopment 100-year flow of 6.8 cfs to the Alley on the west property line.
- The proposed condition directs all flows to the west boundary of the site and results in a 100-year flow of 6.4 cfs. Because the proposed flows to this outlet location are lower to that of the existing, no detention is required for flood control purposes.

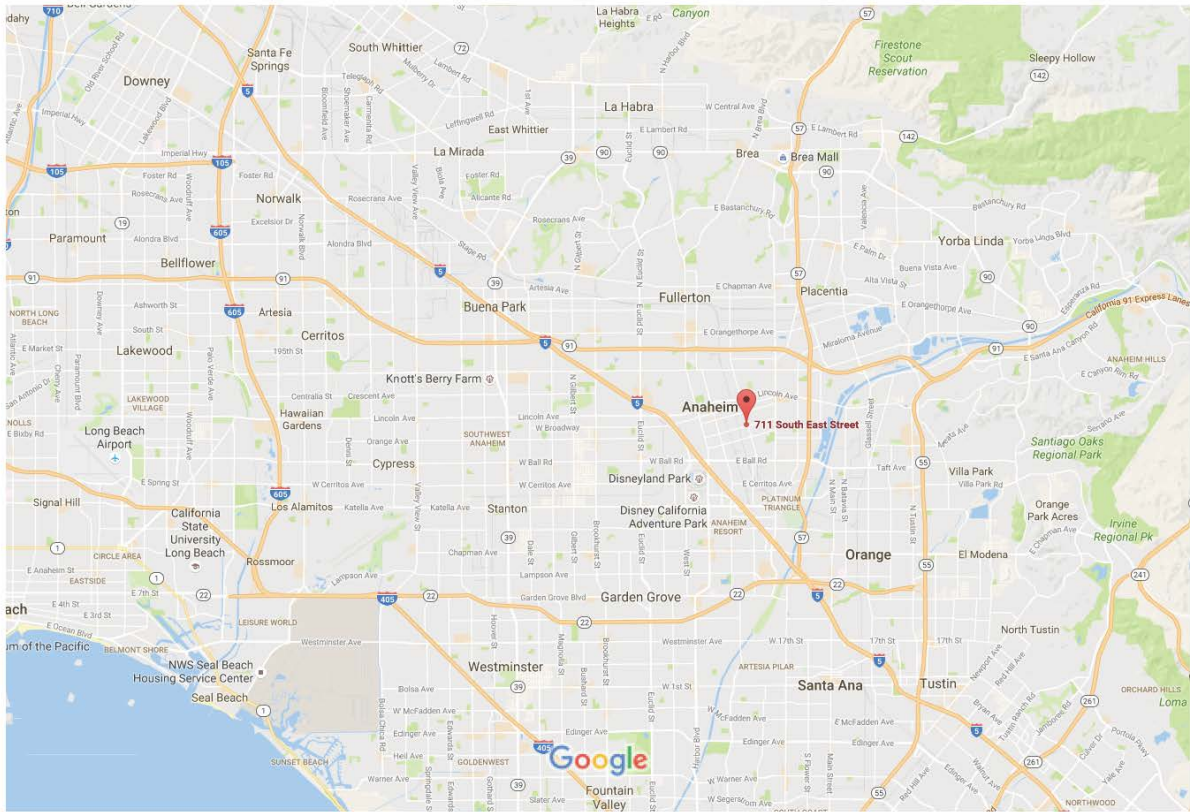
	Total Area (Acres)	100-Yr Storm Event (CFS)
Existing	1.76	6.8
Proposed	1.76	6.4

REFERENCES

1. County of Orange, "Hydrology Manual" dated January 1999.
2. Civilcadd/Civildesign Engineering Software, Orange County Hydrology, 2005 version.

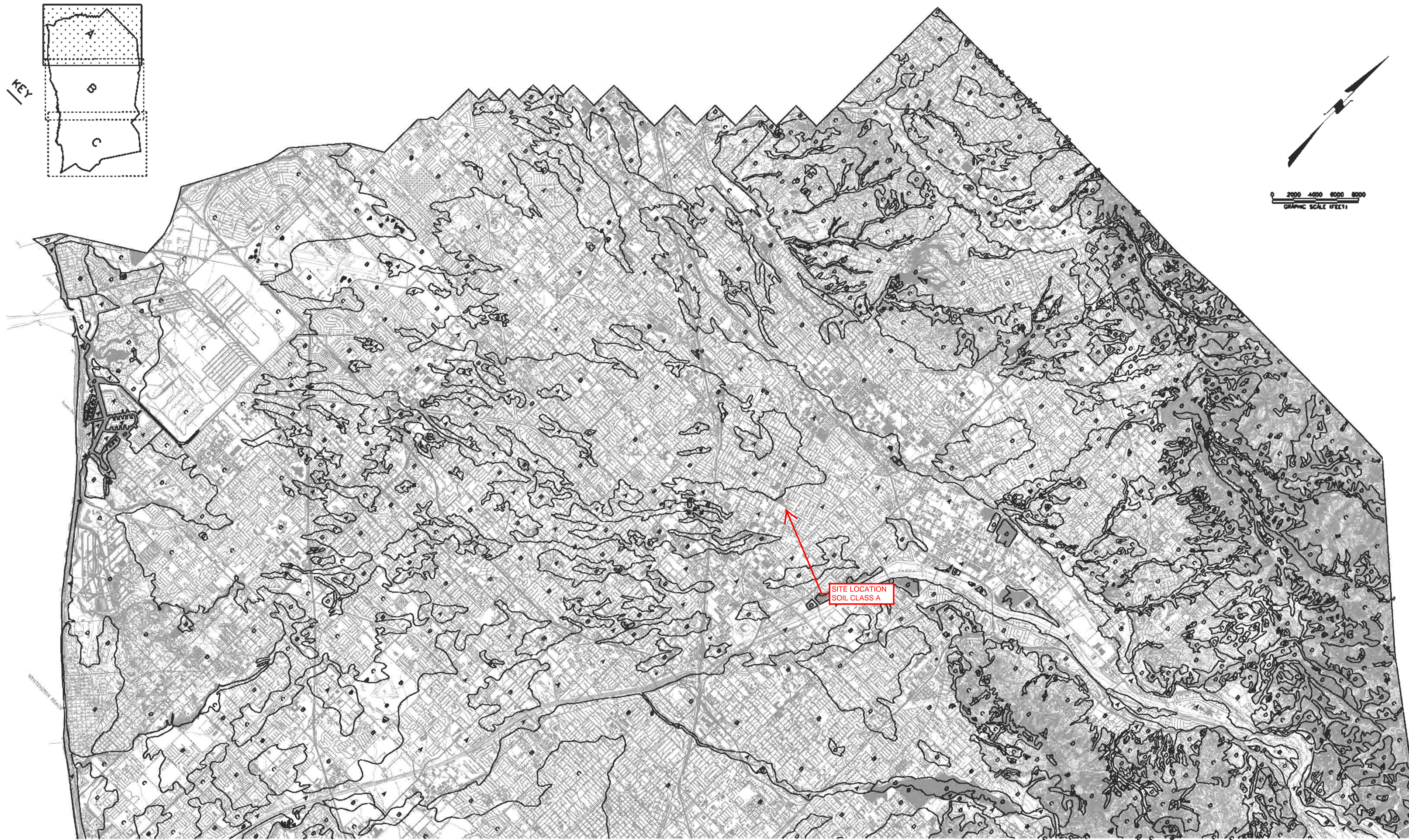
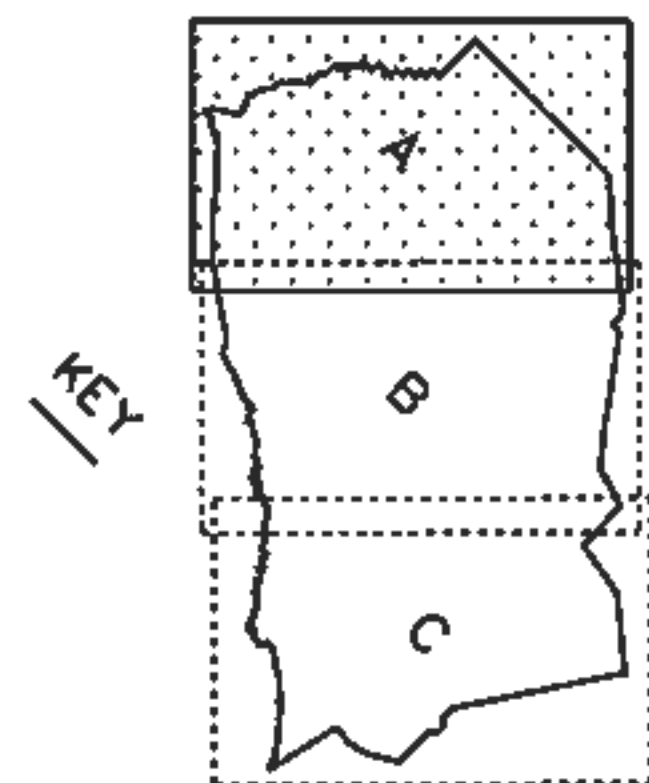
Vicinity Map

Google Maps 711 S East St



711 S East St
Anaheim, CA 92805

Soils Map



ORANGE COUNTY
HYDROLOGY MANUAL

LEGEND
A B C D HYDROLOGIC SOIL GROUPS
— HYDROLOGIC SOIL GROUP BOUNDARY

SOURCES:
BASE MAP - ORANGE COUNTY/RESOURCES & DEVELOPMENT MANAGEMENT DEPT
 GEOMATICS AND LAND INFORMATION SYSTEMS DIVISION
SOIL GROUPS - SOIL SURVEY OF ORANGE COUNTY AND
 WESTERN PART OF RIVERSIDE COUNTY, CALIFORNIA,
 USDA, SOIL CONSERVATION SERVICE, 1978.

HYDROLOGIC CLASSIFICATION OF SOILS
ORANGE COUNTY, CALIFORNIA
PLATE A

Pre-Developed Hydrology Study

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 11/25/16 File Name: 393PR01.roc

-
5-YEAR PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 5.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(A_p) = 0.1000 Max loss rate(F_p)= 0.400(In/Hr)
Max Catchment Loss (F_m) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = $k(0.304)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 2.235(In/Hr) for a 5.0 year storm
Effective runoff coefficient used for area ($Q=K CIA$) is $C = 0.884$
Subarea runoff = 3.477(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 11/25/16 File Name: 393PR01.roc

-
10-YEAR PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 10.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.1000 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = k(0.304)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 2.829(In/Hr) for a 10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.887
Subarea runoff = 4.417(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 11/25/16 File Name: 393PR01.roc

-
25-YEAR PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 25.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(A_p) = 0.1000 Max loss rate(F_p)= 0.400(In/Hr)
Max Catchment Loss (F_m) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = $k(0.304)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 3.376(In/Hr) for a 25.0 year storm
Effective runoff coefficient used for area ($Q=K CIA$) is $C = 0.889$
Subarea runoff = 5.285(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 11/25/16 File Name: 393PR01.roc

-
50-YEAR PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 50.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.1000 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = k(0.304)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 3.806(In/Hr) for a 50.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.891
Subarea runoff = 5.965(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393EX01.roc

-
100-YEAR
PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 100.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(A_p) = 0.1000 Max loss rate(F_p)= 0.400(In/Hr)
Max Catchment Loss (F_m) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = $k(0.304)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 4.312(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area ($Q=K CIA$) is $C = 0.892$
Subarea runoff = 6.766(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Post-Developed Hydrology Study

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393PR01.roc

5-YEAR
POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 5.0

Decimal fraction of study above 2000 ft., 600M = 0.0000

English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type

Decimal fraction soil group A = 1.000

Decimal fraction soil group B = 0.000

Decimal fraction soil group C = 0.000

Decimal fraction soil group D = 0.000

SCS curve number for soil(AMC 2) = 32.00

Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)

Max Catchment Loss (Fm) = 0.140(In/Hr)

Initial subarea data:

Initial area flow distance = 329.000(Ft.)

Top (of initial area) elevation = 169.200(Ft.)

Bottom (of initial area) elevation = 167.100(Ft.)

Difference in elevation = 2.100(Ft.)

Slope = 0.00638 s(%)= 0.64

TC = k(0.360)*[(length^3)/(elevation change)]^0.2

Initial area time of concentration = 10.050 min.

NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type

Rainfall intensity = 2.152(In/Hr) for a 5.0 year storm

Effective runoff coefficient used for area (Q=KCIA) is C = 0.841

Subarea runoff = 2.010(CFS)

Total initial stream area = 1.110(Ac.)

++++
Process from Point/Station 2.000 to Point/Station 2.000
**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 1
Stream flow area = 1.110(Ac.)
Runoff from this stream = 2.010(CFS)
Time of concentration = 10.05 min.
Rainfall intensity = 2.152(In/Hr)
Area averaged loss rate (Fm) = 0.1400(In/Hr)
Area averaged Pervious ratio (Ap) = 0.3500
Program is now starting with Main Stream No. 2

++++
Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type

Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 192.000(Ft.)
Top (of initial area) elevation = 168.700(Ft.)
Bottom (of initial area) elevation = 167.300(Ft.)
Difference in elevation = 1.400(Ft.)
Slope = 0.00729 s(%)= 0.73
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.890 min.
Rainfall intensity = 2.465(In/Hr) for a 5.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.849
Subarea runoff = 1.360(CFS)
Total initial stream area = 0.650(Ac.)

++++
Process from Point/Station 4.000 to Point/Station 2.000
**** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 164.300(Ft.)
Downstream point/station elevation = 164.100(Ft.)
Pipe length = 45.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 1.360(CFS)
Given pipe size = 12.00(In.)
Calculated individual pipe flow = 1.360(CFS)
Normal flow depth in pipe = 6.51(In.)
Flow top width inside pipe = 11.96(In.)
Critical Depth = 5.92(In.)

Pipe flow velocity = 3.13(Ft/s)
 Travel time through pipe = 0.24 min.
 Time of concentration (TC) = 8.13 min.

 Process from Point/Station 2.000 to Point/Station 2.000
 **** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 2
 Stream flow area = 0.650(Ac.)
 Runoff from this stream = 1.360(CFS)
 Time of concentration = 8.13 min.
 Rainfall intensity = 2.424(In/Hr)
 Area averaged loss rate (Fm) = 0.1400(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.3500
 Summary of stream data:

Stream No.	Area (Ac.)	Flow rate (CFS)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	1.11	2.010	10.05	0.140	2.152
2	0.65	1.360	8.13	0.140	2.424

Qmax(1) =
 1.000 * 1.000 * 2.010) +
 0.881 * 1.000 * 1.360) + = 3.207
 Qmax(2) =
 1.135 * 0.809 * 2.010) +
 1.000 * 1.000 * 1.360) + = 3.206

Total of 2 main streams to confluence:
 Flow rates before confluence point:
 3.010 2.360
 Maximum flow rates at confluence using above data:
 3.207 3.206
 Area of streams before confluence:
 1.110 0.650
 Effective area values after confluence:
 1.760 1.548

Results of confluence:
 Total flow rate = 3.207(CFS)
 Time of concentration = 10.050 min.
 Effective stream area after confluence = 1.760(Ac.)
 Study area average Pervious fraction(Ap) = 0.350
 Study area average soil loss rate(Fm) = 0.140(In/Hr)
 Study area total = 1.76(Ac.)
 End of computations, total study area = 1.76 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.350

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393PR01.roc

10-YEAR
POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 10.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 329.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.100(Ft.)
Difference in elevation = 2.100(Ft.)
Slope = 0.00638 s(%)= 0.64
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.050 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 2.721(In/Hr) for a 10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.854
Subarea runoff = 2.578(CFS)

Total initial stream area = 1.110(Ac.)

++++
Process from Point/Station 2.000 to Point/Station 2.000
**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 1
Stream flow area = 1.110(Ac.)
Runoff from this stream = 2.578(CFS)
Time of concentration = 10.05 min.
Rainfall intensity = 2.721(In/Hr)
Area averaged loss rate (Fm) = 0.1400(In/Hr)
Area averaged Pervious ratio (Ap) = 0.3500
Program is now starting with Main Stream No. 2

++++
Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 192.000(Ft.)
Top (of initial area) elevation = 168.700(Ft.)
Bottom (of initial area) elevation = 167.300(Ft.)
Difference in elevation = 1.400(Ft.)
Slope = 0.00729 s(%)= 0.73
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.890 min.
Rainfall intensity = 3.126(In/Hr) for a 10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.860
Subarea runoff = 1.747(CFS)
Total initial stream area = 0.650(Ac.)

++++
Process from Point/Station 4.000 to Point/Station 2.000
**** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 164.300(Ft.)
Downstream point/station elevation = 164.100(Ft.)
Pipe length = 45.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 1.747(CFS)
Given pipe size = 12.00(In.)
Calculated individual pipe flow = 1.747(CFS)
Normal flow depth in pipe = 7.65(In.)
Flow top width inside pipe = 11.54(In.)
Critical Depth = 6.74(In.)

Pipe flow velocity = 3.31(Ft/s)
 Travel time through pipe = 0.23 min.
 Time of concentration (TC) = 8.12 min.

 Process from Point/Station 2.000 to Point/Station 2.000
 **** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 2
 Stream flow area = 0.650(Ac.)
 Runoff from this stream = 1.747(CFS)
 Time of concentration = 8.12 min.
 Rainfall intensity = 3.075(In/Hr)
 Area averaged loss rate (Fm) = 0.1400(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.3500
 Summary of stream data:

Stream No.	Area (Ac.)	Flow rate (CFS)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	1.11	2.578	10.05	0.140	2.721
2	0.65	1.747	8.12	0.140	3.075

Qmax(1) =
 1.000 * 1.000 * 2.578) +
 0.879 * 1.000 * 1.747) + = 4.114
 Qmax(2) =
 1.137 * 0.808 * 2.578) +
 1.000 * 1.000 * 1.747) + = 4.115

Total of 2 main streams to confluence:
 Flow rates before confluence point:
 3.578 2.747
 Maximum flow rates at confluence using above data:
 4.114 4.115
 Area of streams before confluence:
 1.110 0.650
 Effective area values after confluence:
 1.760 1.546

Results of confluence:
 Total flow rate = 4.115(CFS)
 Time of concentration = 8.117 min.
 Effective stream area after confluence = 1.546(Ac.)
 Study area average Pervious fraction(Ap) = 0.350
 Study area average soil loss rate(Fm) = 0.140(In/Hr)
 Study area total = 1.76(Ac.)
 End of computations, total study area = 1.76 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.350

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393PR01.roc

-
25-YEAR
POST DEVELOPMENT
HYDROLOGY STUDY

-

-
Program License Serial Number 4096

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***** Hydrology Study Control Information *****

-

Rational hydrology study storm event year is 25.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+-----+
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 329.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.100(Ft.)
Difference in elevation = 2.100(Ft.)
Slope = 0.00638 s(%)= 0.64
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.050 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 3.249(In/Hr) for a 25.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.861
Subarea runoff = 3.106(CFS)

Total initial stream area = 1.110(Ac.)

++++
Process from Point/Station 2.000 to Point/Station 2.000
**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 1
Stream flow area = 1.110(Ac.)
Runoff from this stream = 3.106(CFS)
Time of concentration = 10.05 min.
Rainfall intensity = 3.249(In/Hr)
Area averaged loss rate (Fm) = 0.1400(In/Hr)
Area averaged Pervious ratio (Ap) = 0.3500
Program is now starting with Main Stream No. 2

++++
Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type

Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 192.000(Ft.)
Top (of initial area) elevation = 168.700(Ft.)
Bottom (of initial area) elevation = 167.300(Ft.)
Difference in elevation = 1.400(Ft.)
Slope = 0.00729 s(%)= 0.73
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.890 min.
Rainfall intensity = 3.726(In/Hr) for a 25.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.866
Subarea runoff = 2.098(CFS)
Total initial stream area = 0.650(Ac.)

++++
Process from Point/Station 4.000 to Point/Station 2.000
**** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 164.300(Ft.)
Downstream point/station elevation = 164.100(Ft.)
Pipe length = 45.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 2.098(CFS)
Given pipe size = 12.00(In.)
Calculated individual pipe flow = 2.098(CFS)
Normal flow depth in pipe = 8.76(In.)
Flow top width inside pipe = 10.65(In.)
Critical Depth = 7.43(In.)

Pipe flow velocity = 3.41(Ft/s)
 Travel time through pipe = 0.22 min.
 Time of concentration (TC) = 8.11 min.

 Process from Point/Station 2.000 to Point/Station 2.000
 **** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 2
 Stream flow area = 0.650(Ac.)
 Runoff from this stream = 2.098(CFS)
 Time of concentration = 8.11 min.
 Rainfall intensity = 3.669(In/Hr)
 Area averaged loss rate (Fm) = 0.1400(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.3500
 Summary of stream data:

Stream No.	Area (Ac.)	Flow rate (CFS)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	1.11	3.106	10.05	0.140	3.249
2	0.65	2.098	8.11	0.140	3.669

Qmax(1) =
 1.000 * 1.000 * 3.106) +
 0.881 * 1.000 * 2.098) + = 4.955
 Qmax(2) =
 1.135 * 0.807 * 3.106) +
 1.000 * 1.000 * 2.098) + = 4.942

Total of 2 main streams to confluence:
 Flow rates before confluence point:
 4.106 3.098
 Maximum flow rates at confluence using above data:
 4.955 4.942
 Area of streams before confluence:
 1.110 0.650
 Effective area values after confluence:
 1.760 1.546

Results of confluence:
 Total flow rate = 4.955(CFS)
 Time of concentration = 10.050 min.
 Effective stream area after confluence = 1.760(Ac.)
 Study area average Pervious fraction(Ap) = 0.350
 Study area average soil loss rate(Fm) = 0.140(In/Hr)
 Study area total = 1.76(Ac.)
 End of computations, total study area = 1.76 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.350

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393PR01.roc

50-YEAR
POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 50.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type

Decimal fraction soil group A = 1.000

Decimal fraction soil group B = 0.000

Decimal fraction soil group C = 0.000

Decimal fraction soil group D = 0.000

SCS curve number for soil(AMC 2) = 32.00

Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)

Max Catchment Loss (Fm) = 0.140(In/Hr)

Initial subarea data:

Initial area flow distance = 329.000(Ft.)

Top (of initial area) elevation = 169.200(Ft.)

Bottom (of initial area) elevation = 167.100(Ft.)

Difference in elevation = 2.100(Ft.)

Slope = 0.00638 s(%)= 0.64

TC = k(0.360)*[(length^3)/(elevation change)]^0.2

Initial area time of concentration = 10.050 min.

NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type

Rainfall intensity = 3.662(In/Hr) for a 50.0 year storm

Effective runoff coefficient used for area (Q=KCIA) is C = 0.866

Subarea runoff = 3.519(CFS)

Total initial stream area = 1.110(Ac.)

++++
Process from Point/Station 2.000 to Point/Station 2.000
**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 1
Stream flow area = 1.110(Ac.)
Runoff from this stream = 3.519(CFS)
Time of concentration = 10.05 min.
Rainfall intensity = 3.662(In/Hr)
Area averaged loss rate (Fm) = 0.1400(In/Hr)
Area averaged Pervious ratio (Ap) = 0.3500
Program is now starting with Main Stream No. 2

++++
Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 192.000(Ft.)
Top (of initial area) elevation = 168.700(Ft.)
Bottom (of initial area) elevation = 167.300(Ft.)
Difference in elevation = 1.400(Ft.)
Slope = 0.00729 s(%)= 0.73
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.890 min.
Rainfall intensity = 4.200(In/Hr) for a 50.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.870
Subarea runoff = 2.375(CFS)
Total initial stream area = 0.650(Ac.)

++++
Process from Point/Station 4.000 to Point/Station 2.000
**** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 164.300(Ft.)
Downstream point/station elevation = 164.100(Ft.)
Pipe length = 45.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 2.375(CFS)
Given pipe size = 12.00(In.)
Calculated individual pipe flow = 2.375(CFS)
Normal flow depth in pipe = 12.00(In.)
Flow top width inside pipe = 0.00(In.)
Critical Depth = 7.92(In.)

Pipe flow velocity = 3.02(Ft/s)
 Travel time through pipe = 0.25 min.
 Time of concentration (TC) = 8.14 min.

 Process from Point/Station 2.000 to Point/Station 2.000
 **** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 2
 Stream flow area = 0.650(Ac.)
 Runoff from this stream = 2.375(CFS)
 Time of concentration = 8.14 min.
 Rainfall intensity = 4.127(In/Hr)
 Area averaged loss rate (Fm) = 0.1400(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.3500
 Summary of stream data:

Stream No.	Area (Ac.)	Flow rate (CFS)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	1.11	3.519	10.05	0.140	3.662
2	0.65	2.375	8.14	0.140	4.127

Qmax(1) =
 1.000 * 1.000 * 3.519) +
 0.883 * 1.000 * 2.375) + = 5.617
 Qmax(2) =
 1.132 * 0.810 * 3.519) +
 1.000 * 1.000 * 2.375) + = 5.601

Total of 2 main streams to confluence:
 Flow rates before confluence point:
 4.519 3.375
 Maximum flow rates at confluence using above data:
 5.617 5.601
 Area of streams before confluence:
 1.110 0.650
 Effective area values after confluence:
 1.760 1.549

Results of confluence:
 Total flow rate = 5.617(CFS)
 Time of concentration = 10.050 min.
 Effective stream area after confluence = 1.760(Ac.)
 Study area average Pervious fraction(Ap) = 0.350
 Study area average soil loss rate(Fm) = 0.140(In/Hr)
 Study area total = 1.76(Ac.)
 End of computations, total study area = 1.76 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.350

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393PR01.roc

100-YEAR POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 100.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 329.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.100(Ft.)
Difference in elevation = 2.100(Ft.)
Slope = 0.00638 s(%)= 0.64
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.050 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 4.147(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.870
Subarea runoff = 4.003(CFS)
Total initial stream area = 1.110(Ac.)

Process from Point/Station 2.000 to Point/Station 2.000

**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 1
Stream flow area = 1.110(Ac.)
Runoff from this stream = 4.003(CFS)
Time of concentration = 10.05 min.
Rainfall intensity = 4.147(In/Hr)
Area averaged loss rate (Fm) = 0.1400(In/Hr)
Area averaged Pervious ratio (Ap) = 0.3500
Program is now starting with Main Stream No. 2

+++++
Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 192.000(Ft.)
Top (of initial area) elevation = 168.700(Ft.)
Bottom (of initial area) elevation = 167.300(Ft.)
Difference in elevation = 1.400(Ft.)
Slope = 0.00729 s(%)= 0.73
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.890 min.
Rainfall intensity = 4.764(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.874
Subarea runoff = 2.705(CFS)
Total initial stream area = 0.650(Ac.)

+++++
Process from Point/Station 4.000 to Point/Station 2.000
**** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 164.300(Ft.)
Downstream point/station elevation = 164.100(Ft.)
Pipe length = 45.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 2.705(CFS)
Given pipe size = 12.00(In.)
NOTE: Normal flow is pressure flow in user selected pipe size.
The approximate hydraulic grade line above the pipe invert is
0.059(Ft.) at the headworks or inlet of the pipe(s)
Pipe friction loss = 0.059(Ft.)
Minor friction loss = 0.000(Ft.) K-factor = 0.00
Pipe flow velocity = 3.44(Ft/s)
Travel time through pipe = 0.22 min.
Time of concentration (TC) = 8.11 min.

Process from Point/Station 2.000 to Point/Station 2.000
 **** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 2
 Stream flow area = 0.650(Ac.)
 Runoff from this stream = 2.705(CFS)
 Time of concentration = 8.11 min.
 Rainfall intensity = 4.691(In/Hr)
 Area averaged loss rate (Fm) = 0.1400(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.3500
 Summary of stream data:

Stream No.	Area (Ac.)	Flow rate (CFS)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
------------	------------	-----------------	----------	------------	----------------------------

1	1.11	4.003	10.05	0.140	4.147
2	0.65	2.705	8.11	0.140	4.691

Qmax(1) =
 1.000 * 1.000 * 4.003) +
 0.881 * 1.000 * 2.705) + = 6.386
 Qmax(2) =
 1.136 * 0.807 * 4.003) +
 1.000 * 1.000 * 2.705) + = 6.372

Total of 2 main streams to confluence:

Flow rates before confluence point:
 5.003 3.705

Maximum flow rates at confluence using above data:
 6.386 6.372

Area of streams before confluence:
 1.110 0.650

Effective area values after confluence:
 1.760 1.545

Results of confluence:

Total flow rate = 6.386(CFS)
 Time of concentration = 10.050 min.
 Effective stream area after confluence = 1.760(Ac.)
 Study area average Pervious fraction(Ap) = 0.350
 Study area average soil loss rate(Fm) = 0.140(In/Hr)
 Study area total = 1.76(Ac.)
 End of computations, total study area = 1.76 (Ac.)

The following figures may be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.350
 Area averaged SCS curve number (AMC 2) = 32.0

**WQMP 2-year
Hydrology Calculations**

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 11/25/16 File Name: 393PR01.roc

-
2-YEAR PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 2.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.1000 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = k(0.304)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 1.576(In/Hr) for a 2.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.877
Subarea runoff = 2.434(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 12/15/16 File Name: 393PR01.roc

2-YEAR
POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 2.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 329.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.100(Ft.)
Difference in elevation = 2.100(Ft.)
Slope = 0.00638 s(%)= 0.64
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.050 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 1.516(In/Hr) for a 2.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.817
Subarea runoff = 1.375(CFS)

Total initial stream area = 1.110(Ac.)

Process from Point/Station 2.000 to Point/Station 2.000
**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 1
Stream flow area = 1.110(Ac.)
Runoff from this stream = 1.375(CFS)
Time of concentration = 10.05 min.
Rainfall intensity = 1.516(In/Hr)
Area averaged loss rate (Fm) = 0.1400(In/Hr)
Area averaged Pervious ratio (Ap) = 0.3500
Program is now starting with Main Stream No. 2

Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 192.000(Ft.)
Top (of initial area) elevation = 168.700(Ft.)
Bottom (of initial area) elevation = 167.300(Ft.)
Difference in elevation = 1.400(Ft.)
Slope = 0.00729 s(%)= 0.73
TC = $k(0.360)*[(length^3)/(elevation\ change)]^{0.2}$
Initial area time of concentration = 7.890 min.
Rainfall intensity = 1.742(In/Hr) for a 2.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.828
Subarea runoff = 0.937(CFS)
Total initial stream area = 0.650(Ac.)

Process from Point/Station 4.000 to Point/Station 2.000
**** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 164.300(Ft.)
Downstream point/station elevation = 164.100(Ft.)
Pipe length = 45.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 0.937(CFS)
Given pipe size = 12.00(In.)
Calculated individual pipe flow = 0.937(CFS)
Normal flow depth in pipe = 5.24(In.)
Flow top width inside pipe = 11.90(In.)
Critical Depth = 4.87(In.)

Pipe flow velocity = 2.85(Ft/s)
 Travel time through pipe = 0.26 min.
 Time of concentration (TC) = 8.15 min.

 Process from Point/Station 2.000 to Point/Station 2.000
 **** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:

In Main Stream number: 2
 Stream flow area = 0.650(Ac.)
 Runoff from this stream = 0.937(CFS)
 Time of concentration = 8.15 min.
 Rainfall intensity = 1.710(In/Hr)
 Area averaged loss rate (Fm) = 0.1400(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.3500
 Summary of stream data:

Stream No.	Area (Ac.)	Flow rate (CFS)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	1.11	1.375	10.05	0.140	1.516
2	0.65	0.937	8.15	0.140	1.710

Qmax(1) =
 1.000 * 1.000 * 1.375) +
 0.877 * 1.000 * 0.937) + = 2.197
 Qmax(2) =
 1.141 * 0.811 * 1.375) +
 1.000 * 1.000 * 0.937) + = 2.209

Total of 2 main streams to confluence:
 Flow rates before confluence point:
 2.375 1.937
 Maximum flow rates at confluence using above data:
 2.197 2.209
 Area of streams before confluence:
 1.110 0.650
 Effective area values after confluence:
 1.760 1.550

Results of confluence:
 Total flow rate = 2.209(CFS)
 Time of concentration = 8.153 min.
 Effective stream area after confluence = 1.550(Ac.)
 Study area average Pervious fraction(Ap) = 0.350
 Study area average soil loss rate(Fm) = 0.140(In/Hr)
 Study area total = 1.76(Ac.)
 End of computations, total study area = 1.76 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.350

Unit Hydrograph Analysis

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Study date 12/19/16 File Name 393EXUH.out

Orange County Unit Hydrograph Hydrology Method
Manual Date(s) - October 1986, November 1996

Program License Serial Number 4096

2-YEAR STORM
UNIT-HYDROGRAPH
PRE-DEVELOPMENT

Storm Event Year = 2

Antecedent Moisture Condition = 1

English (in-lb) Input Units Used

***** Area-averaged max loss rate, Fm *****

Table with 7 columns: SCS curve No.(AMCII), Area (Ac.), Area Fraction, Soil Group, Fp (In/Hr), Ap (dec.), Fm (In/Hr). Row 1: 32.0, 1.8, 1.00, A, 0.400, 0.010, 0.004

Area-averaged adjusted loss rate Fm (In/Hr) = 0.004

***** Area-Averaged low loss rate fraction, Yb *****

Table with 6 columns: Area (Ac.), Area Fract, SCS CN (AMC2), SCS CN (AMC1), S, Pervious Yield Fr. Row 1: 0.02, 0.010, 32.0, 16.6, 50.24, 0.739; Row 2: 1.74, 0.990, 98.0, 98.0, 0.20, 0.890

Area-averaged catchment yield fraction, Y = 0.888

Area-averaged low loss fraction, Yb = 0.112

User entry of time of concentration = 0.157 (hours)

Watershed area = 1.76(Ac.)

Catchment Lag time = 0.125 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 66.4752

Hydrograph baseflow = 0.00(CFS)
 Average maximum watershed loss rate(Fm) = 0.004(In/Hr)
 Average low loss rate fraction (Yb) = 0.112 (decimal)
 VALLEY DEVELOPED S-Graph Selected
 Computed peak 5-minute rainfall = 0.190(In)
 Computed peak 30-minute rainfall = 0.400(In)
 Specified peak 1-hour rainfall = 0.530(In)
 Computed peak 3-hour rainfall = 0.890(In)
 Specified peak 6-hour rainfall = 1.220(In)
 Specified peak 24-hour rainfall = 2.050(In)

Rainfall depth area reduction factors:
 Using a total area of 1.76(Ac.) (Ref: fig. E-4)

5-minute factor = 1.000 Adjusted rainfall = 0.190(In)
 30-minute factor = 1.000 Adjusted rainfall = 0.400(In)
 1-hour factor = 1.000 Adjusted rainfall = 0.530(In)
 3-hour factor = 1.000 Adjusted rainfall = 0.890(In)
 6-hour factor = 1.000 Adjusted rainfall = 1.220(In)
 24-hour factor = 1.000 Adjusted rainfall = 2.050(In)

U n i t H y d r o g r a p h

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Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
(K = 21.29 (CFS))		
1	7.947	1.692
2	49.494	8.843
3	86.988	7.981
4	97.336	2.202
5	99.184	0.394
6	100.000	0.174

Total soil rain loss = 0.10(In)
 Total effective rainfall = 1.95(In)
 Peak flow rate in flood hydrograph = 2.36(CFS)

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 24 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

 Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0000	0.00	Q	|	|	|	|
0+10	0.0002	0.02	Q	|	|	|	|
0+15	0.0005	0.04	Q	|	|	|	|
0+20	0.0008	0.05	Q	|	|	|	|
0+25	0.0012	0.05	Q	|	|	|	|

0+30	0.0015	0.05	Q
0+35	0.0019	0.05	Q
0+40	0.0022	0.05	Q
0+45	0.0026	0.05	Q
0+50	0.0030	0.05	Q
0+55	0.0033	0.05	Q
1+ 0	0.0037	0.05	Q
1+ 5	0.0040	0.05	Q
1+10	0.0044	0.05	Q
1+15	0.0048	0.05	Q
1+20	0.0051	0.05	Q
1+25	0.0055	0.05	Q
1+30	0.0058	0.05	Q
1+35	0.0062	0.05	Q
1+40	0.0066	0.05	Q
1+45	0.0070	0.05	Q
1+50	0.0073	0.05	QV
1+55	0.0077	0.05	QV
2+ 0	0.0081	0.05	QV
2+ 5	0.0084	0.05	QV
2+10	0.0088	0.05	QV
2+15	0.0092	0.05	QV
2+20	0.0096	0.06	QV
2+25	0.0100	0.06	QV
2+30	0.0103	0.06	QV
2+35	0.0107	0.06	QV
2+40	0.0111	0.06	QV
2+45	0.0115	0.06	QV
2+50	0.0119	0.06	QV
2+55	0.0123	0.06	QV
3+ 0	0.0127	0.06	QV
3+ 5	0.0131	0.06	QV
3+10	0.0135	0.06	QV
3+15	0.0139	0.06	QV
3+20	0.0143	0.06	QV
3+25	0.0147	0.06	Q V
3+30	0.0151	0.06	Q V
3+35	0.0155	0.06	Q V
3+40	0.0159	0.06	Q V
3+45	0.0163	0.06	Q V
3+50	0.0167	0.06	Q V
3+55	0.0171	0.06	Q V
4+ 0	0.0175	0.06	Q V
4+ 5	0.0179	0.06	Q V
4+10	0.0183	0.06	Q V
4+15	0.0188	0.06	Q V
4+20	0.0192	0.06	Q V
4+25	0.0196	0.06	Q V
4+30	0.0200	0.06	Q V
4+35	0.0205	0.06	Q V
4+40	0.0209	0.06	Q V
4+45	0.0213	0.06	Q V
4+50	0.0218	0.06	Q V
4+55	0.0222	0.06	Q V
5+ 0	0.0226	0.06	Q V
5+ 5	0.0231	0.06	Q V
5+10	0.0235	0.06	Q V

5+15	0.0240	0.06	Q	V
5+20	0.0244	0.07	Q	V
5+25	0.0249	0.07	Q	V
5+30	0.0253	0.07	Q	V
5+35	0.0258	0.07	Q	V
5+40	0.0262	0.07	Q	V
5+45	0.0267	0.07	Q	V
5+50	0.0272	0.07	Q	V
5+55	0.0276	0.07	Q	V
6+ 0	0.0281	0.07	Q	V
6+ 5	0.0286	0.07	Q	V
6+10	0.0290	0.07	Q	V
6+15	0.0295	0.07	Q	V
6+20	0.0300	0.07	Q	V
6+25	0.0305	0.07	Q	V
6+30	0.0310	0.07	Q	V
6+35	0.0315	0.07	Q	V
6+40	0.0319	0.07	Q	V
6+45	0.0324	0.07	Q	V
6+50	0.0329	0.07	Q	V
6+55	0.0334	0.07	Q	V
7+ 0	0.0339	0.07	Q	V
7+ 5	0.0345	0.07	Q	V
7+10	0.0350	0.07	Q	V
7+15	0.0355	0.07	Q	V
7+20	0.0360	0.07	Q	V
7+25	0.0365	0.08	Q	V
7+30	0.0370	0.08	Q	V
7+35	0.0376	0.08	Q	V
7+40	0.0381	0.08	Q	V
7+45	0.0386	0.08	Q	V
7+50	0.0392	0.08	Q	V
7+55	0.0397	0.08	Q	V
8+ 0	0.0402	0.08	Q	V
8+ 5	0.0408	0.08	Q	V
8+10	0.0413	0.08	Q	V
8+15	0.0419	0.08	Q	V
8+20	0.0425	0.08	Q	V
8+25	0.0430	0.08	Q	V
8+30	0.0436	0.08	Q	V
8+35	0.0442	0.08	Q	V
8+40	0.0447	0.08	Q	V
8+45	0.0453	0.08	Q	V
8+50	0.0459	0.09	Q	V
8+55	0.0465	0.09	Q	V
9+ 0	0.0471	0.09	Q	V
9+ 5	0.0477	0.09	Q	V
9+10	0.0483	0.09	Q	V
9+15	0.0489	0.09	Q	V
9+20	0.0495	0.09	Q	V
9+25	0.0501	0.09	Q	V
9+30	0.0508	0.09	Q	V
9+35	0.0514	0.09	Q	V
9+40	0.0520	0.09	Q	V
9+45	0.0527	0.09	Q	V
9+50	0.0533	0.09	Q	V
9+55	0.0540	0.09	Q	V

10+ 0	0.0546	0.10	Q	V			
10+ 5	0.0553	0.10	Q	V			
10+10	0.0560	0.10	Q	V			
10+15	0.0566	0.10	Q	V			
10+20	0.0573	0.10	Q	V			
10+25	0.0580	0.10	Q	V			
10+30	0.0587	0.10	Q	V			
10+35	0.0594	0.10	Q	V			
10+40	0.0601	0.10	Q	V			
10+45	0.0608	0.10	Q	V			
10+50	0.0616	0.11	Q	V			
10+55	0.0623	0.11	Q	V			
11+ 0	0.0630	0.11	Q	V			
11+ 5	0.0638	0.11	Q	V			
11+10	0.0645	0.11	Q	V			
11+15	0.0653	0.11	Q	V			
11+20	0.0661	0.11	Q	V			
11+25	0.0669	0.11	Q	V			
11+30	0.0677	0.11	Q	V			
11+35	0.0685	0.12	Q	V			
11+40	0.0693	0.12	Q	V			
11+45	0.0701	0.12	Q	V			
11+50	0.0709	0.12	Q	V			
11+55	0.0718	0.12	Q	V			
12+ 0	0.0726	0.12	Q	V			
12+ 5	0.0735	0.13	Q	V			
12+10	0.0745	0.14	Q	V			
12+15	0.0755	0.15	Q	V			
12+20	0.0766	0.16	Q	V			
12+25	0.0777	0.16	Q	V			
12+30	0.0789	0.16	Q	V			
12+35	0.0800	0.17	Q	V			
12+40	0.0812	0.17	Q	V			
12+45	0.0824	0.17	Q	V			
12+50	0.0835	0.17	Q	V			
12+55	0.0848	0.18	Q	V			
13+ 0	0.0860	0.18	Q	V			
13+ 5	0.0872	0.18	Q	V			
13+10	0.0885	0.18	Q	V			
13+15	0.0898	0.19	Q	V			
13+20	0.0911	0.19	Q	V			
13+25	0.0924	0.19	Q	V			
13+30	0.0938	0.20	Q	V			
13+35	0.0951	0.20	Q	V			
13+40	0.0965	0.20	Q	V			
13+45	0.0980	0.21	Q	V			
13+50	0.0994	0.21	Q	V			
13+55	0.1009	0.22	Q	V			
14+ 0	0.1024	0.22	Q	V			
14+ 5	0.1040	0.23	Q	V			
14+10	0.1056	0.23	Q	V			
14+15	0.1073	0.24	Q	V			
14+20	0.1090	0.25	Q	V			
14+25	0.1108	0.26	Q	V			
14+30	0.1126	0.26	Q	V			
14+35	0.1144	0.27	Q	V			
14+40	0.1164	0.28	Q	V			

14+45	0.1183	0.29	Q		V			
14+50	0.1204	0.30	Q		V			
14+55	0.1225	0.31	Q		V			
15+ 0	0.1247	0.32	Q		V			
15+ 5	0.1270	0.33	Q		V			
15+10	0.1293	0.35	Q		V			
15+15	0.1318	0.36	Q		V			
15+20	0.1345	0.38	Q		V			
15+25	0.1372	0.40	Q		V			
15+30	0.1399	0.40	Q		V			
15+35	0.1427	0.40	Q		V			
15+40	0.1457	0.43	Q		V			
15+45	0.1490	0.48	Q		V			
15+50	0.1528	0.56	Q		V			
15+55	0.1573	0.66	Q		V			
16+ 0	0.1632	0.85	Q	Q	V			
16+ 5	0.1724	1.33		Q	V			
16+10	0.1887	2.36			V			
16+15	0.2028	2.05		Q	V			
16+20	0.2098	1.01		Q	V			
16+25	0.2138	0.59	Q		V			
16+30	0.2171	0.47	Q		V			
16+35	0.2199	0.41	Q		V			
16+40	0.2224	0.37	Q		V			
16+45	0.2247	0.34	Q		V			
16+50	0.2269	0.31	Q		V			
16+55	0.2289	0.29	Q		V			
17+ 0	0.2308	0.27	Q			V		
17+ 5	0.2325	0.26	Q			V		
17+10	0.2342	0.24	Q			V		
17+15	0.2358	0.23	Q			V		
17+20	0.2373	0.22	Q			V		
17+25	0.2387	0.21	Q			V		
17+30	0.2401	0.20	Q			V		
17+35	0.2414	0.19	Q			V		
17+40	0.2427	0.19	Q			V		
17+45	0.2440	0.18	Q			V		
17+50	0.2452	0.18	Q			V		
17+55	0.2464	0.17	Q			V		
18+ 0	0.2475	0.17	Q			V		
18+ 5	0.2486	0.16	Q			V		
18+10	0.2496	0.14	Q			V		
18+15	0.2505	0.13	Q			V		
18+20	0.2514	0.12	Q			V		
18+25	0.2522	0.12	Q			V		
18+30	0.2530	0.12	Q			V		
18+35	0.2538	0.11	Q			V		
18+40	0.2546	0.11	Q			V		
18+45	0.2553	0.11	Q			V		
18+50	0.2560	0.11	Q			V		
18+55	0.2568	0.10	Q			V		
19+ 0	0.2575	0.10	Q			V		
19+ 5	0.2582	0.10	Q			V		
19+10	0.2588	0.10	Q			V		
19+15	0.2595	0.10	Q			V		
19+20	0.2602	0.09	Q			V		
19+25	0.2608	0.09	Q			V		

19+30	0.2614	0.09	Q	V
19+35	0.2620	0.09	Q	V
19+40	0.2627	0.09	Q	V
19+45	0.2633	0.09	Q	V
19+50	0.2639	0.09	Q	V
19+55	0.2644	0.08	Q	V
20+ 0	0.2650	0.08	Q	V
20+ 5	0.2656	0.08	Q	V
20+10	0.2661	0.08	Q	V
20+15	0.2667	0.08	Q	V
20+20	0.2672	0.08	Q	V
20+25	0.2678	0.08	Q	V
20+30	0.2683	0.08	Q	V
20+35	0.2688	0.08	Q	V
20+40	0.2693	0.07	Q	V
20+45	0.2698	0.07	Q	V
20+50	0.2703	0.07	Q	V
20+55	0.2708	0.07	Q	V
21+ 0	0.2713	0.07	Q	V
21+ 5	0.2718	0.07	Q	V
21+10	0.2723	0.07	Q	V
21+15	0.2727	0.07	Q	V
21+20	0.2732	0.07	Q	V
21+25	0.2737	0.07	Q	V
21+30	0.2741	0.07	Q	V
21+35	0.2746	0.07	Q	V
21+40	0.2750	0.06	Q	V
21+45	0.2755	0.06	Q	V
21+50	0.2759	0.06	Q	V
21+55	0.2763	0.06	Q	V
22+ 0	0.2768	0.06	Q	V
22+ 5	0.2772	0.06	Q	V
22+10	0.2776	0.06	Q	V
22+15	0.2780	0.06	Q	V
22+20	0.2784	0.06	Q	V
22+25	0.2789	0.06	Q	V
22+30	0.2793	0.06	Q	V
22+35	0.2797	0.06	Q	V
22+40	0.2801	0.06	Q	V
22+45	0.2805	0.06	Q	V
22+50	0.2808	0.06	Q	V
22+55	0.2812	0.06	Q	V
23+ 0	0.2816	0.06	Q	V
23+ 5	0.2820	0.06	Q	V
23+10	0.2824	0.05	Q	V
23+15	0.2827	0.05	Q	V
23+20	0.2831	0.05	Q	V
23+25	0.2835	0.05	Q	V
23+30	0.2839	0.05	Q	V
23+35	0.2842	0.05	Q	V
23+40	0.2846	0.05	Q	V
23+45	0.2849	0.05	Q	V
23+50	0.2853	0.05	Q	V
23+55	0.2857	0.05	Q	V
24+ 0	0.2860	0.05	Q	V

Unit Hydrograph Analysis

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Study date 12/19/16 File Name 393PRUH.out

Orange County Unit Hydrograph Hydrology Method
Manual Date(s) - October 1986, November 1996

Program License Serial Number 4096

2-YEAR STORM
UNIT HYDROGRAPH
POST DEVELOPMENT

Storm Event Year = 2

Antecedent Moisture Condition = 1

English (in-lb) Input Units Used

***** Area-averaged max loss rate, Fm *****

SCS curve No. (AMCII)	Area (Ac.)	Area Fraction	Soil Group	Fp (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.0	1.8	1.00	A	0.400	0.150	0.060

Area-averaged adjusted loss rate Fm (In/Hr) = 0.060

***** Area-Averaged low loss rate fraction, Yb *****

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC1)	S	Pervious Yield Fr
0.26	0.150	32.0	16.6	50.24	0.739
1.50	0.850	98.0	98.0	0.20	0.890

Area-averaged catchment yield fraction, Y = 0.867

Area-averaged low loss fraction, Yb = 0.133

User entry of time of concentration = 0.169 (hours)

Watershed area = 1.76(Ac.)

Catchment Lag time = 0.135 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 61.7101
 Hydrograph baseflow = 0.00(CFS)
 Average maximum watershed loss rate(Fm) = 0.060(In/Hr)
 Average low loss rate fraction (Yb) = 0.133 (decimal)
 VALLEY DEVELOPED S-Graph Selected
 Computed peak 5-minute rainfall = 0.190(In)
 Computed peak 30-minute rainfall = 0.400(In)
 Specified peak 1-hour rainfall = 0.530(In)
 Computed peak 3-hour rainfall = 0.890(In)
 Specified peak 6-hour rainfall = 1.220(In)
 Specified peak 24-hour rainfall = 2.050(In)

Rainfall depth area reduction factors:

Using a total area of 1.76(Ac.) (Ref: fig. E-4)

5-minute factor = 1.000	Adjusted rainfall = 0.190(In)
30-minute factor = 1.000	Adjusted rainfall = 0.400(In)
1-hour factor = 1.000	Adjusted rainfall = 0.530(In)
3-hour factor = 1.000	Adjusted rainfall = 0.890(In)
6-hour factor = 1.000	Adjusted rainfall = 1.220(In)
24-hour factor = 1.000	Adjusted rainfall = 2.050(In)

U n i t H y d r o g r a p h

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Interval	'S' Graph	Unit Hydrograph
Number	Mean values	((CFS))

(K = 21.29 (CFS))

1	6.883	1.465
2	43.746	7.846
3	83.278	8.414
4	96.130	2.736
5	98.799	0.568
6	100.000	0.256

Total soil rain loss = 0.25(In)
 Total effective rainfall = 1.80(In)
 Peak flow rate in flood hydrograph = 2.13(CFS)

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24 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume	Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0000		0.00	Q	|	|	|	|

0+10	0.0002	0.02	Q
0+15	0.0005	0.04	Q
0+20	0.0008	0.05	Q
0+25	0.0011	0.05	Q
0+30	0.0015	0.05	Q
0+35	0.0018	0.05	Q
0+40	0.0022	0.05	Q
0+45	0.0025	0.05	Q
0+50	0.0028	0.05	Q
0+55	0.0032	0.05	Q
1+ 0	0.0035	0.05	Q
1+ 5	0.0039	0.05	Q
1+10	0.0042	0.05	Q
1+15	0.0046	0.05	Q
1+20	0.0050	0.05	Q
1+25	0.0053	0.05	Q
1+30	0.0057	0.05	Q
1+35	0.0060	0.05	Q
1+40	0.0064	0.05	Q
1+45	0.0067	0.05	QV
1+50	0.0071	0.05	QV
1+55	0.0075	0.05	QV
2+ 0	0.0078	0.05	QV
2+ 5	0.0082	0.05	QV
2+10	0.0086	0.05	QV
2+15	0.0089	0.05	QV
2+20	0.0093	0.05	QV
2+25	0.0097	0.05	QV
2+30	0.0101	0.05	QV
2+35	0.0104	0.05	QV
2+40	0.0108	0.05	QV
2+45	0.0112	0.05	QV
2+50	0.0116	0.06	QV
2+55	0.0119	0.06	QV
3+ 0	0.0123	0.06	QV
3+ 5	0.0127	0.06	QV
3+10	0.0131	0.06	QV
3+15	0.0135	0.06	Q V
3+20	0.0139	0.06	Q V
3+25	0.0143	0.06	Q V
3+30	0.0146	0.06	Q V
3+35	0.0150	0.06	Q V
3+40	0.0154	0.06	Q V
3+45	0.0158	0.06	Q V
3+50	0.0162	0.06	Q V
3+55	0.0166	0.06	Q V
4+ 0	0.0170	0.06	Q V
4+ 5	0.0174	0.06	Q V
4+10	0.0178	0.06	Q V
4+15	0.0182	0.06	Q V
4+20	0.0186	0.06	Q V
4+25	0.0191	0.06	Q V
4+30	0.0195	0.06	Q V
4+35	0.0199	0.06	Q V

4+40	0.0203	0.06	Q	V
4+45	0.0207	0.06	Q	V
4+50	0.0211	0.06	Q	V
4+55	0.0216	0.06	Q	V
5+ 0	0.0220	0.06	Q	V
5+ 5	0.0224	0.06	Q	V
5+10	0.0228	0.06	Q	V
5+15	0.0233	0.06	Q	V
5+20	0.0237	0.06	Q	V
5+25	0.0241	0.06	Q	V
5+30	0.0246	0.06	Q	V
5+35	0.0250	0.06	Q	V
5+40	0.0254	0.06	Q	V
5+45	0.0259	0.06	Q	V
5+50	0.0263	0.06	Q	V
5+55	0.0268	0.06	Q	V
6+ 0	0.0272	0.07	Q	V
6+ 5	0.0277	0.07	Q	V
6+10	0.0281	0.07	Q	V
6+15	0.0286	0.07	Q	V
6+20	0.0290	0.07	Q	V
6+25	0.0295	0.07	Q	V
6+30	0.0300	0.07	Q	V
6+35	0.0304	0.07	Q	V
6+40	0.0309	0.07	Q	V
6+45	0.0314	0.07	Q	V
6+50	0.0318	0.07	Q	V
6+55	0.0323	0.07	Q	V
7+ 0	0.0328	0.07	Q	V
7+ 5	0.0333	0.07	Q	V
7+10	0.0338	0.07	Q	V
7+15	0.0342	0.07	Q	V
7+20	0.0347	0.07	Q	V
7+25	0.0352	0.07	Q	V
7+30	0.0357	0.07	Q	V
7+35	0.0362	0.07	Q	V
7+40	0.0367	0.07	Q	V
7+45	0.0372	0.07	Q	V
7+50	0.0377	0.07	Q	V
7+55	0.0382	0.07	Q	V
8+ 0	0.0388	0.07	Q	V
8+ 5	0.0393	0.08	Q	V
8+10	0.0398	0.08	Q	V
8+15	0.0403	0.08	Q	V
8+20	0.0408	0.08	Q	V
8+25	0.0414	0.08	Q	V
8+30	0.0419	0.08	Q	V
8+35	0.0424	0.08	Q	V
8+40	0.0430	0.08	Q	V
8+45	0.0435	0.08	Q	V
8+50	0.0441	0.08	Q	V
8+55	0.0446	0.08	Q	V
9+ 0	0.0452	0.08	Q	V
9+ 5	0.0458	0.08	Q	V

9+10	0.0463	0.08	Q	V			
9+15	0.0469	0.08	Q	V			
9+20	0.0475	0.08	Q	V			
9+25	0.0480	0.08	Q	V			
9+30	0.0486	0.08	Q	V			
9+35	0.0492	0.09	Q	V			
9+40	0.0498	0.09	Q	V			
9+45	0.0504	0.09	Q	V			
9+50	0.0510	0.09	Q	V			
9+55	0.0516	0.09	Q	V			
10+ 0	0.0522	0.09	Q	V			
10+ 5	0.0528	0.09	Q	V			
10+10	0.0535	0.09	Q	V			
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10+20	0.0547	0.09	Q	V			
10+25	0.0554	0.09	Q	V			
10+30	0.0560	0.09	Q	V			
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10+40	0.0573	0.10	Q	V			
10+45	0.0580	0.10	Q	V			
10+50	0.0587	0.10	Q	V			
10+55	0.0593	0.10	Q	V			
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11+55	0.0680	0.11	Q	V			
12+ 0	0.0688	0.11	Q	V			
12+ 5	0.0696	0.12	Q	V			
12+10	0.0705	0.13	Q	V			
12+15	0.0715	0.14	Q	V			
12+20	0.0724	0.14	Q	V			
12+25	0.0735	0.15	Q	V			
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13+ 0	0.0809	0.16	Q	V			
13+ 5	0.0820	0.16	Q	V			
13+10	0.0831	0.17	Q	V			
13+15	0.0843	0.17	Q	V			
13+20	0.0855	0.17	Q	V			
13+25	0.0867	0.17	Q	V			
13+30	0.0879	0.18	Q	V			
13+35	0.0891	0.18	Q	V			

13+40	0.0904	0.18	Q		V		
13+45	0.0916	0.19	Q		V		
13+50	0.0929	0.19	Q		V		
13+55	0.0943	0.19	Q		V		
14+ 0	0.0956	0.20	Q		V		
14+ 5	0.0970	0.20	Q		V		
14+10	0.0984	0.21	Q		V		
14+15	0.0999	0.22	Q		V		
14+20	0.1015	0.22	Q		V		
14+25	0.1030	0.23	Q		V		
14+30	0.1046	0.23	Q		V		
14+35	0.1063	0.24	Q		V		
14+40	0.1080	0.25	Q		V		
14+45	0.1098	0.25	Q		V		
14+50	0.1116	0.26	Q		V		
14+55	0.1134	0.27	Q		V		
15+ 0	0.1154	0.28	Q		V		
15+ 5	0.1174	0.29	Q		V		
15+10	0.1195	0.30	Q		V		
15+15	0.1217	0.32	Q		V		
15+20	0.1240	0.33	Q		V		
15+25	0.1263	0.35	Q		V		
15+30	0.1288	0.35	Q		V		
15+35	0.1312	0.35	Q		V		
15+40	0.1338	0.38	Q		V		
15+45	0.1367	0.42	Q		V		
15+50	0.1400	0.48	Q		V		
15+55	0.1439	0.57	Q		V		
16+ 0	0.1490	0.74	Q		V		
16+ 5	0.1571	1.18	Q	Q	V		
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16+15	0.1858	2.04		Q		V	
16+20	0.1929	1.03		Q		V	
16+25	0.1968	0.57	Q			V	
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16+35	0.2023	0.36	Q			V	
16+40	0.2046	0.33	Q			V	
16+45	0.2066	0.30	Q			V	
16+50	0.2086	0.28	Q			V	
16+55	0.2103	0.26	Q			V	
17+ 0	0.2120	0.25	Q			V	
17+ 5	0.2136	0.23	Q			V	
17+10	0.2151	0.22	Q			V	
17+15	0.2166	0.21	Q			V	
17+20	0.2179	0.20	Q			V	
17+25	0.2192	0.19	Q			V	
17+30	0.2204	0.18	Q			V	
17+35	0.2216	0.18	Q			V	
17+40	0.2228	0.17	Q			V	
17+45	0.2239	0.16	Q			V	
17+50	0.2250	0.16	Q			V	
17+55	0.2261	0.16	Q			V	
18+ 0	0.2272	0.15	Q			V	
18+ 5	0.2282	0.15	Q			V	

18+10	0.2291	0.13	Q			V
18+15	0.2299	0.12	Q			V
18+20	0.2307	0.11	Q			V
18+25	0.2315	0.11	Q			V
18+30	0.2322	0.11	Q			V
18+35	0.2329	0.11	Q			V
18+40	0.2336	0.10	Q			V
18+45	0.2343	0.10	Q			V
18+50	0.2350	0.10	Q			V
18+55	0.2357	0.10	Q			V
19+ 0	0.2363	0.10	Q			V
19+ 5	0.2370	0.09	Q			V
19+10	0.2376	0.09	Q			V
19+15	0.2382	0.09	Q			V
19+20	0.2388	0.09	Q			V
19+25	0.2394	0.09	Q			V
19+30	0.2400	0.09	Q			V
19+35	0.2406	0.08	Q			V
19+40	0.2412	0.08	Q			V
19+45	0.2417	0.08	Q			V
19+50	0.2423	0.08	Q			V
19+55	0.2429	0.08	Q			V
20+ 0	0.2434	0.08	Q			V
20+ 5	0.2439	0.08	Q			V
20+10	0.2445	0.08	Q			V
20+15	0.2450	0.08	Q			V
20+20	0.2455	0.07	Q			V
20+25	0.2460	0.07	Q			V
20+30	0.2465	0.07	Q			V
20+35	0.2470	0.07	Q			V
20+40	0.2475	0.07	Q			V
20+45	0.2480	0.07	Q			V
20+50	0.2484	0.07	Q			V
20+55	0.2489	0.07	Q			V
21+ 0	0.2494	0.07	Q			V
21+ 5	0.2498	0.07	Q			V
21+10	0.2503	0.07	Q			V
21+15	0.2507	0.07	Q			V
21+20	0.2512	0.07	Q			V
21+25	0.2516	0.06	Q			V
21+30	0.2521	0.06	Q			V
21+35	0.2525	0.06	Q			V
21+40	0.2529	0.06	Q			V
21+45	0.2534	0.06	Q			V
21+50	0.2538	0.06	Q			V
21+55	0.2542	0.06	Q			V
22+ 0	0.2546	0.06	Q			V
22+ 5	0.2550	0.06	Q			V
22+10	0.2554	0.06	Q			V
22+15	0.2558	0.06	Q			V
22+20	0.2562	0.06	Q			V
22+25	0.2566	0.06	Q			V
22+30	0.2570	0.06	Q			V
22+35	0.2574	0.06	Q			V

22+40	0.2578	0.06	Q				V
22+45	0.2582	0.06	Q				V
22+50	0.2586	0.06	Q				V
22+55	0.2590	0.05	Q				V
23+ 0	0.2593	0.05	Q				V
23+ 5	0.2597	0.05	Q				V
23+10	0.2601	0.05	Q				V
23+15	0.2604	0.05	Q				V
23+20	0.2608	0.05	Q				V
23+25	0.2612	0.05	Q				V
23+30	0.2615	0.05	Q				V
23+35	0.2619	0.05	Q				V
23+40	0.2622	0.05	Q				V
23+45	0.2626	0.05	Q				V
23+50	0.2629	0.05	Q				V
23+55	0.2633	0.05	Q				V
24+ 0	0.2636	0.05	Q				V

**Infiltration System Design Calculations
and
Overflow Calculations**

Prepared For:

SANDRA GOTTLIEB
OLSON COMPANY
CA

Project Information:

ANAHEIM EAST STREET
711 S. EAST STREET
ANAHEIM EAST STREET
CA

Date: DECEMBER 10, 2016

Engineer:

THOMAS PETERSEN
C & V CONSULTING
6 ORCHARD
LAKE FOREST
CA
92610
949-387-7035

Calculations Performed By:

Name
Company Name
Street Address
City
State
Zip
Phone
Fax
Email

Input Given Parameters

Unit of Measure	English
Select Model	Recharger 330XLHD
Stone Porosity	40.0%
Number of Header Systems	1 Header
Stone Depth Above Chamber	6 inches
Stone Depth Below Chamber	6 inches
Workable Bed Depth	8.00 feet
Max. Bed Width	16.00 feet
Storage Volume Required	4300.00 cu. feet



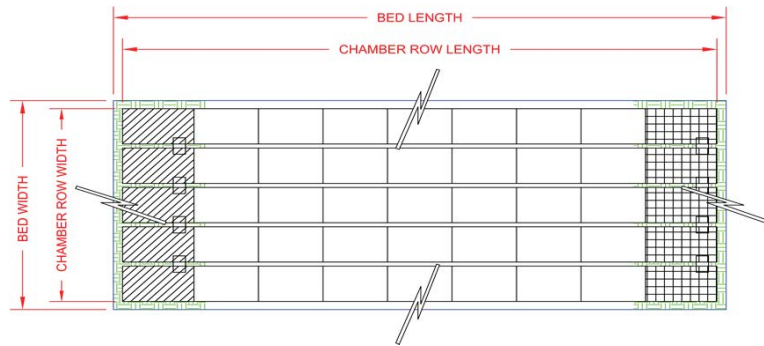
Chamber Specifications

Height	30.5 inches
Width	52.00 inches
Length	8.50 feet
Installed Length	7.00 feet
Bare Chamber Volume	52.21 cu. feet
Installed Chamber Volume	79.26 cu. feet
<i>Image for visual reference only. May not reflect selected model.</i>	
Bed Depth	4.63 feet
Bed Width	16.00 feet
Storage Volume Provided	4395.07 cu. feet

Materials List

Recharger 330XLHD Stormwater System by CULTEC, Inc.			
Approx. Unit Count - not for construction	54	pieces	
Actual Number of Chambers Required	51	pieces	
Starter Chambers	3	pieces	
Intermediate Chambers	45	pieces	
End Chambers	3	pieces	
			HVLV FC-24
			2 pieces
			CULTEC No. 410™ Filter Fabric
			599.02 sq. yards
			CULTEC No. 20L Polyethylene Liner
			16.00 feet
			Stone
			157.20 cu. yards
			Volume of Excavation
			335.74 cu. yards

Bed Detail



Number of Rows Wide	3	pieces
Number of Chambers Long	17	pieces
Chamber Row Width	14.00	feet
Chamber Row Length	120.50	feet
Bed Width	16.00	feet
Bed Length	122.50	feet
Bed Area Required	1960.00	sq. feet

Bed detail for reference only. Not project specific. Not to scale. Use CULTEC StormGenie to output project specific detail.

Project Name: ANAHEIM EAST STREET

Date: DECEMBER 10, 2016

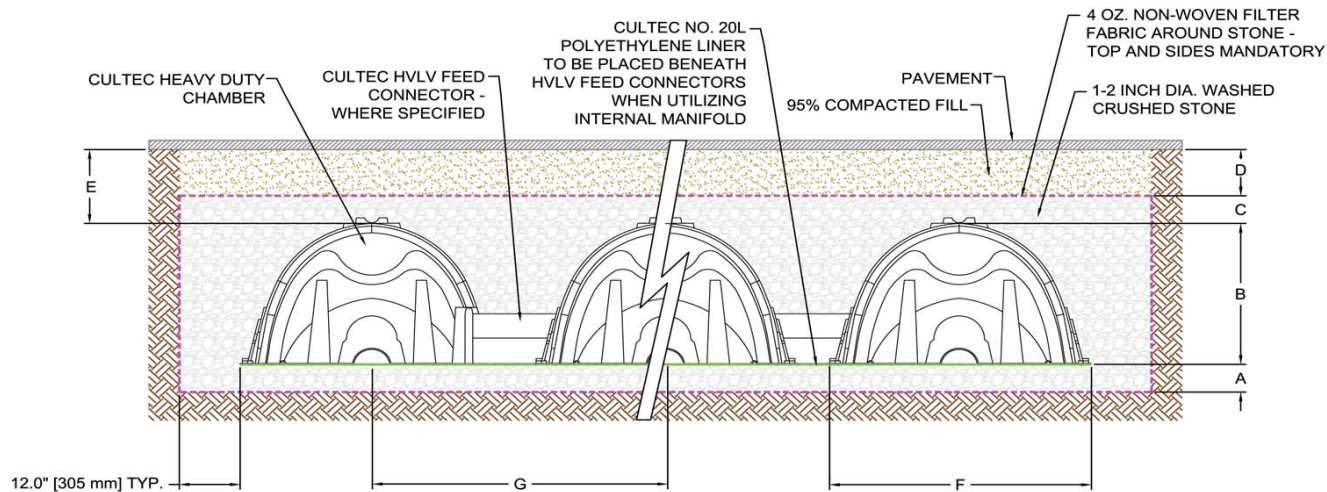
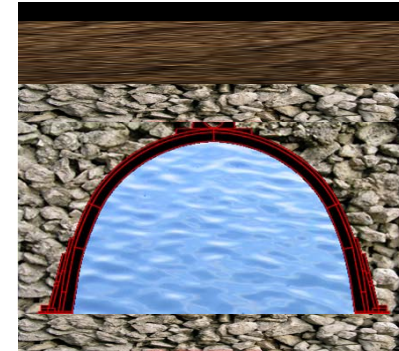
Cross Section Detail



Conceptual graphic only. Not job specific.

Recharger 330XLHD

Pavement	3	inches
95% Compacted Fill	10	inches
Stone Above	6	inches
Chamber Height	30.5	inches
Stone Below	6	inches
Effective Depth	42.5	inches
Bed Depth	55.5	inches

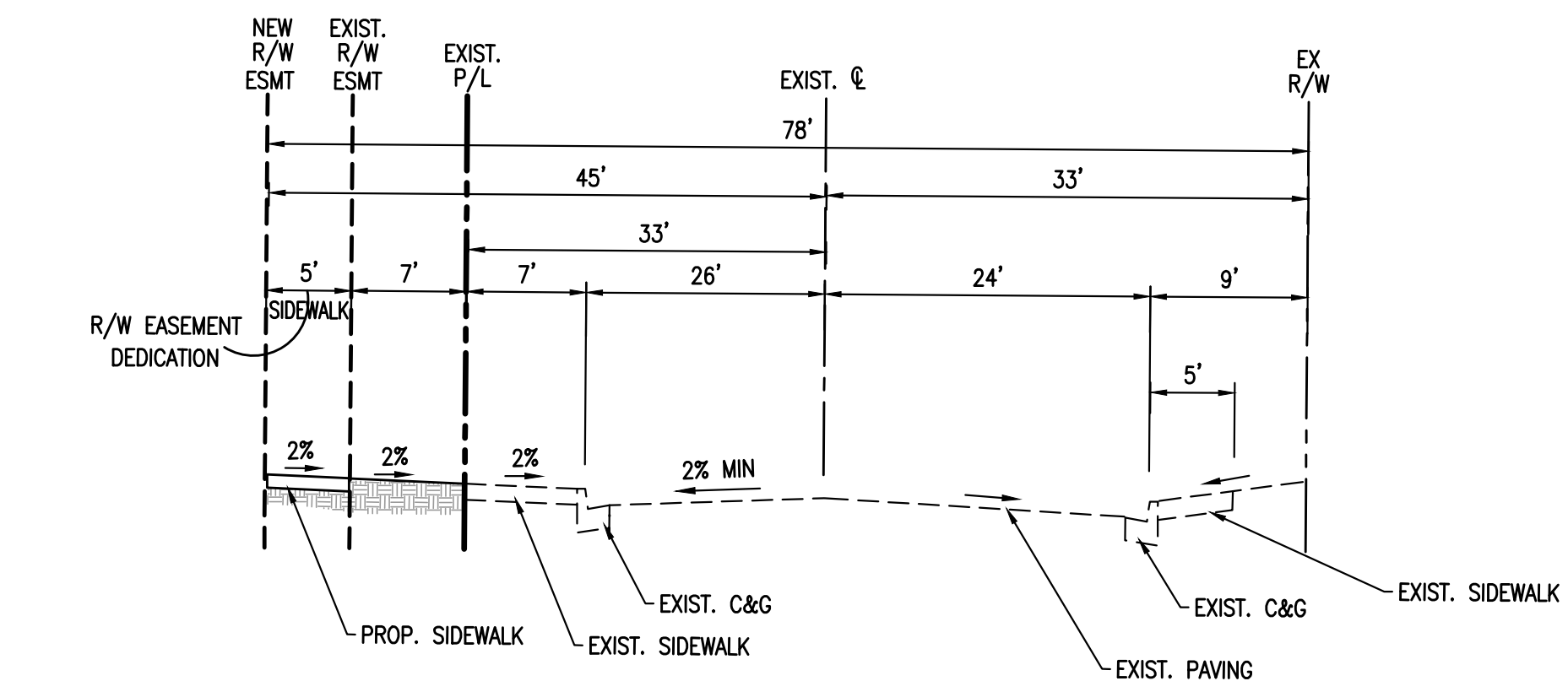
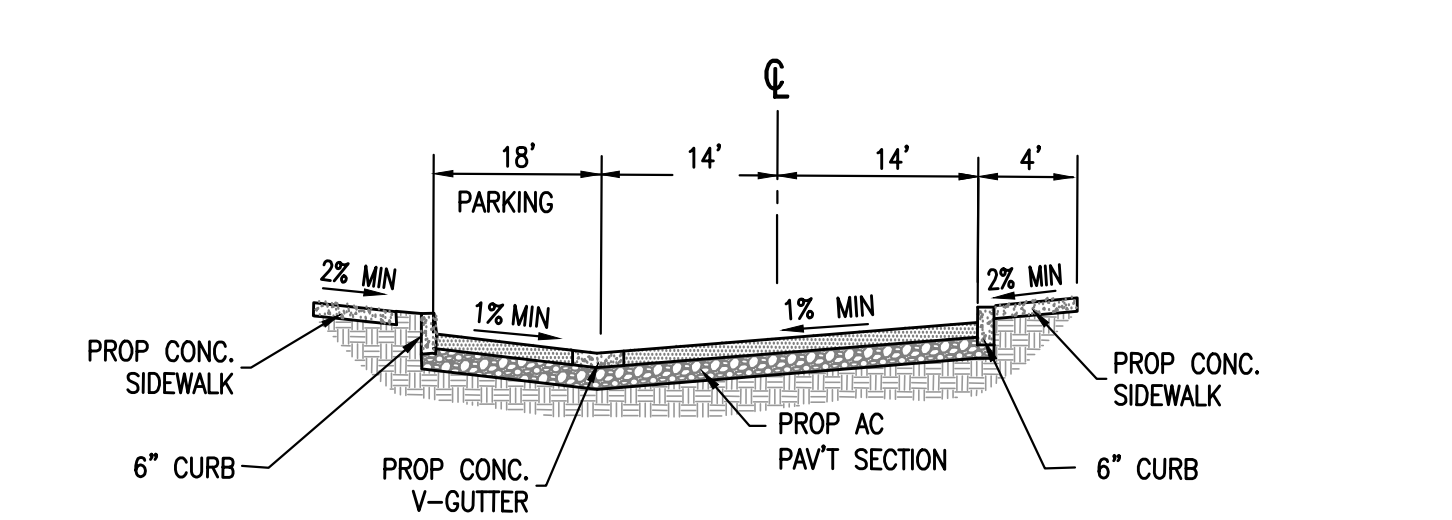
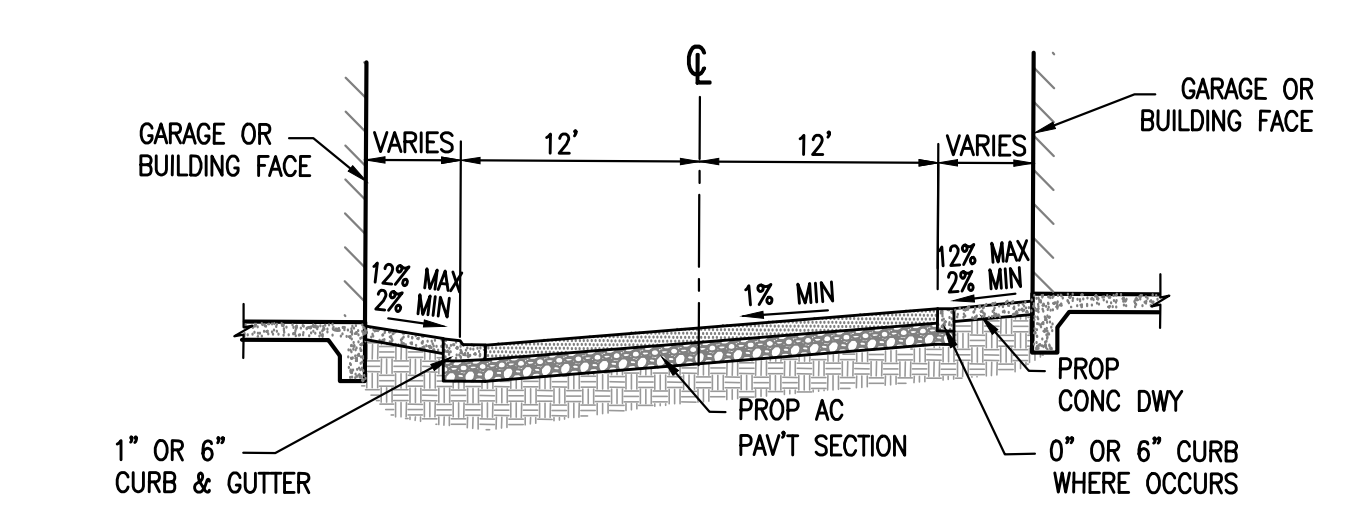
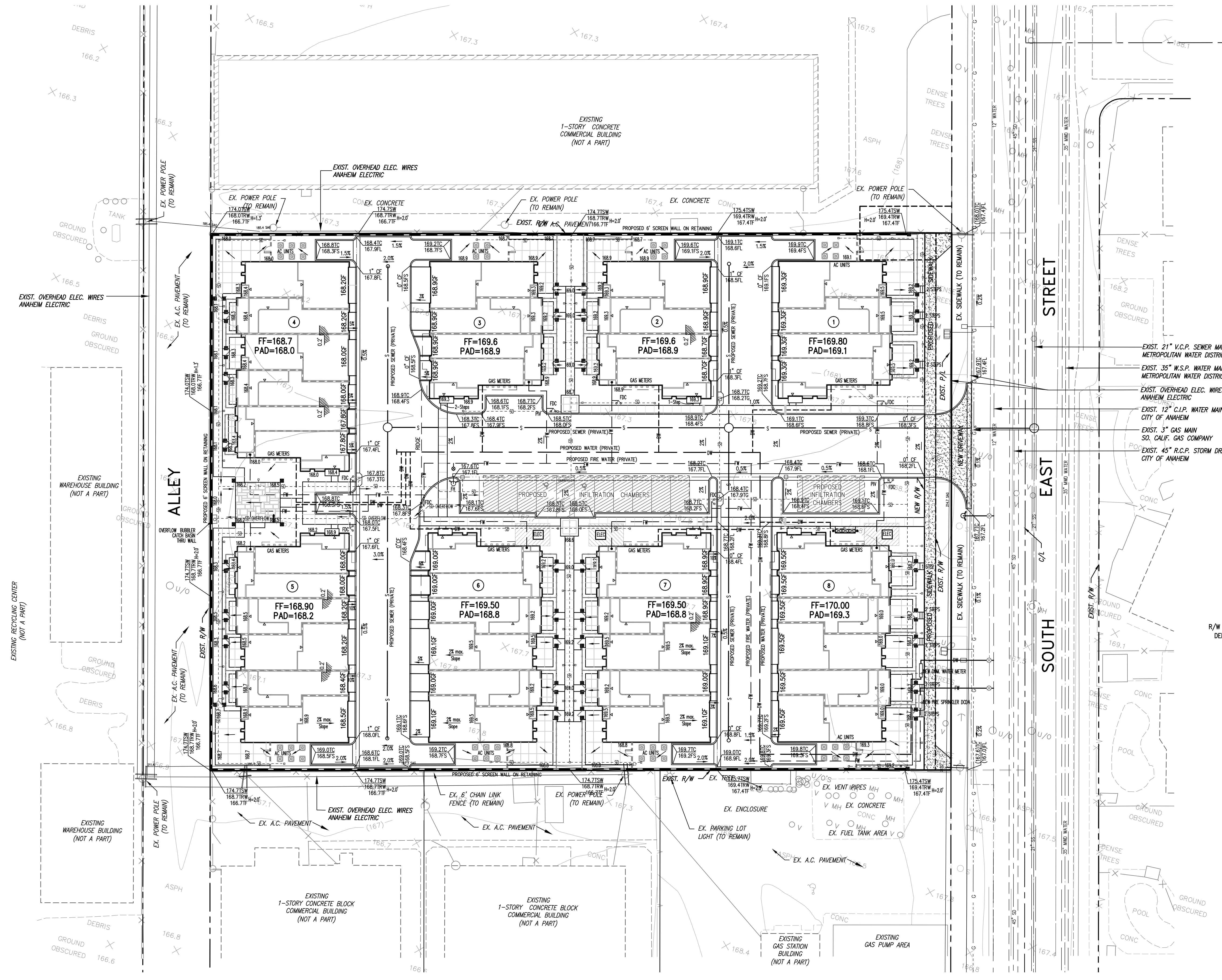


A	Depth of Stone Base	6.0	inches
B	Chamber Height	30.5	inches
C	Depth of Stone Above Units	6.0	inches
D	Depth of 95% Compacted Fill	10.0	inches
E	Max. Depth of Cover Allowed Above Crown of Chamber	12.0	feet
F	Chamber Width	52.0	inches
G	Center to Center Spacing	4.83	feet

Breakdown of Storage Provided by Recharger 330XLHD Stormwater System	
Chambers	2696.43 cu. feet
Feed Connectors	0.91 cu. feet
Stone	1697.73 cu. feet
Total Storage Provided	4395.07 cu. feet

VESTING TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"
 IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA
PRELIMINARY GRADING/UTILITY PLAN



REVISIONS

NO.	DATE	DESCRIPTION	BY

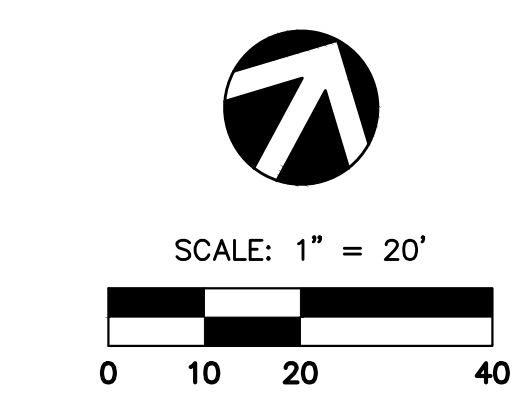
NOTES:

- SEE SHEET 1 FOR TENTATIVE MAP NOTES, SEE SHEET 2 FOR TENTATIVE MAP & EXISTING SITE CONDITIONS.
- SEE SHEET 3 FOR PROPOSED SITE LAYOUT, EASEMENTS AND DIMENSIONS.
- SEE SHEET 6 FOR PROPOSED SEWER AND WATER IMPROVEMENTS ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY.

EARTHWORK QUANTITY ESTIMATE:

QUANTITIES FOR PLAN CHECK PURPOSES ONLY

ITEM	QUANTITY
RAW CUT	250 CY
RAW FILL	1800 CY
NET EXPORT	1550 CY



VESTING
 TENTATIVE TRACT MAP
 NO. 18088
 "FOR CONDOMINIUM PURPOSES"
 711 S. EAST STREET
 IN THE CITY OF ANAHEIM
 COUNTY OF ORANGE, CALIFORNIA
 DATE: DECEMBER 17, 2016

Exhibit

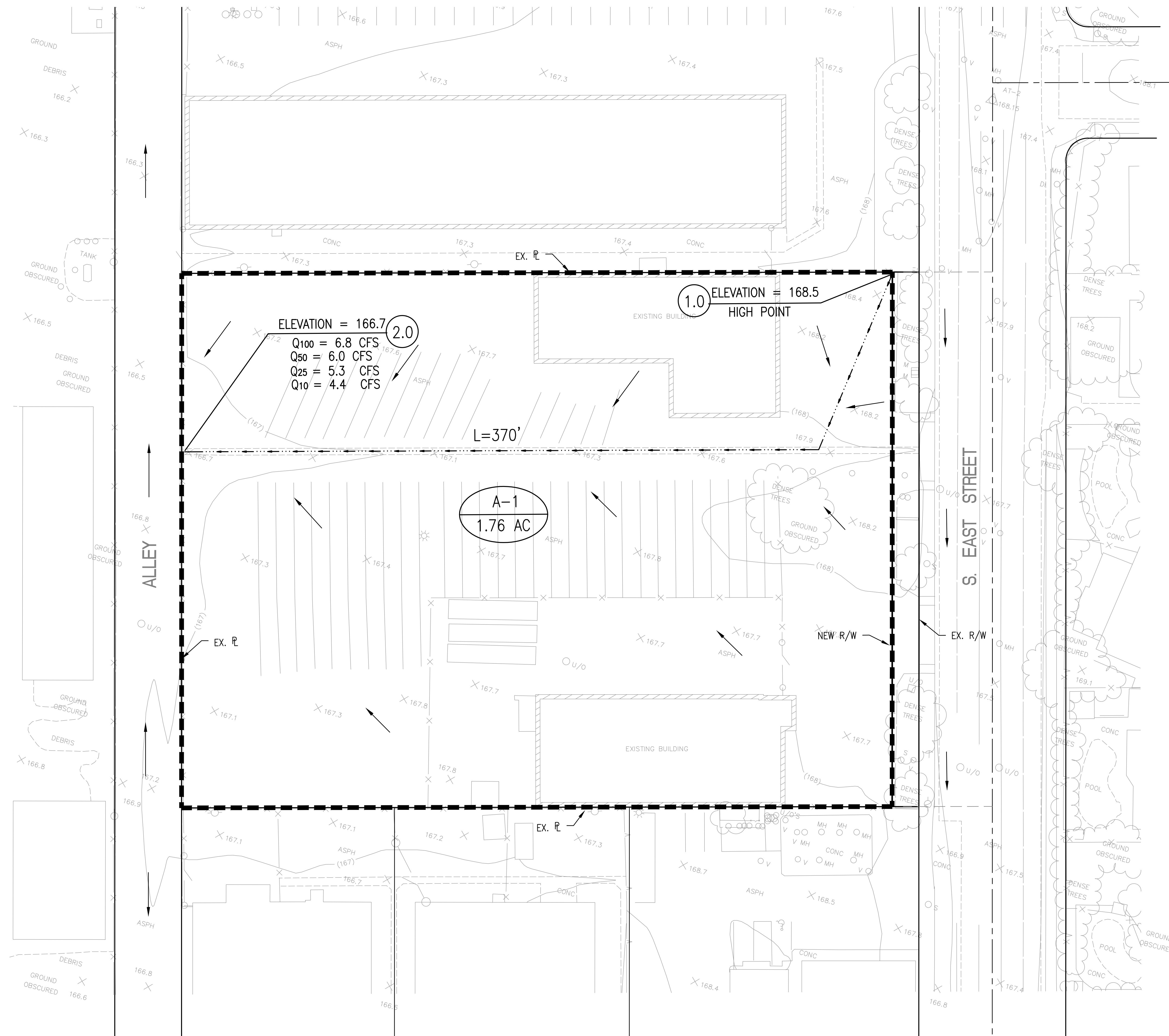
Pre-Development Hydrology Map

VESTING TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

PRE-DEVELOPMENT HYDROLOGY MAP



LEGEND

- (8"SS) --- EXISTING SEWER LINE
- (6"W) --- EXISTING WATER LINE
- EXISTING TELECOM LINE
- EXISTING GAS LINE
- EXISTING ABANDONED GAS LINE
- EXISTING STORM DRAIN
- X X X EXISTING FENCE
- X X X EXISTING RETAINING WALL
- EXISTING COUNTOUR
- EXISTING EASEMENT LINE
- CENTERLINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINE

- DRAINAGE AREA BOUNDARY
- SUB-AREA BOUNDARY
- FLOW DIRECTION
- (A) DRAINAGE AREA NUMBER
- (0.35 AC) DRAINAGE AREA IN ACRES

PRE-DEVELOPMENT HYDROLOGIC DESIGN DATA

STORM FREQUENCY	% IMPERVIOUS	SOIL TYPE	TOTAL Q
2-YR	99.4%	A	2.4 cfs
5-YR	99.4%	A	3.5 cfs
25-YR	99.4%	A	4.4 cfs
50-YR	99.4%	A	5.3 cfs
100-YR	99.4%	A	6.8 cfs



SCALE: 1" = 20'
0 10 20 40

REVISIONS

NO.	DATE	DESCRIPTION	BY

VESTING
TENTATIVE TRACT MAP
NO. 18088
"FOR CONDOMINIUM PURPOSES"
711 S. EAST STREET
IN THE CITY OF ANAHEIM
COUNTY OF ORANGE, CALIFORNIA
DATE: DECEMBER 17, 2016

Exhibit

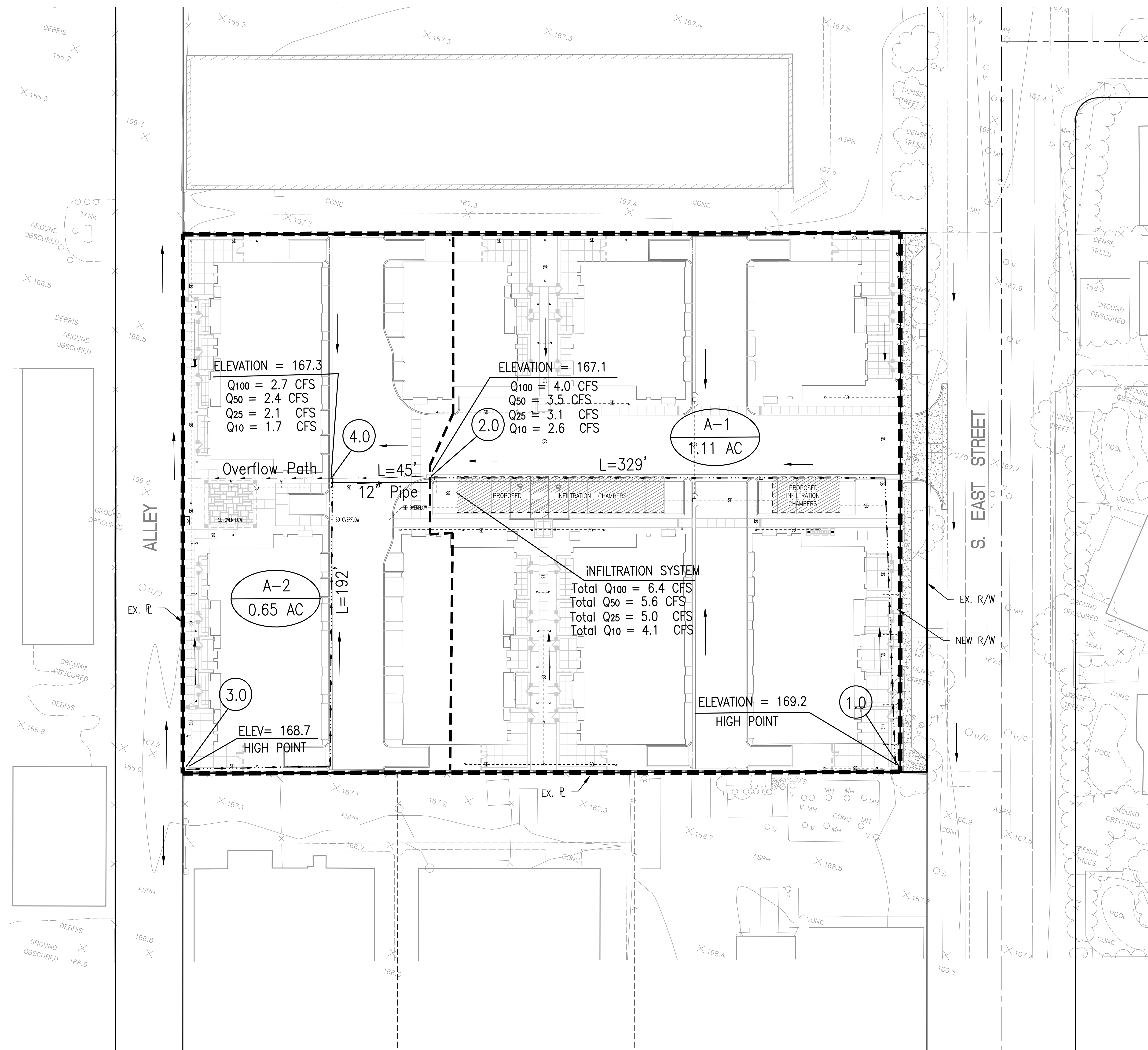
Post Development Hydrology Map

VESTING TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

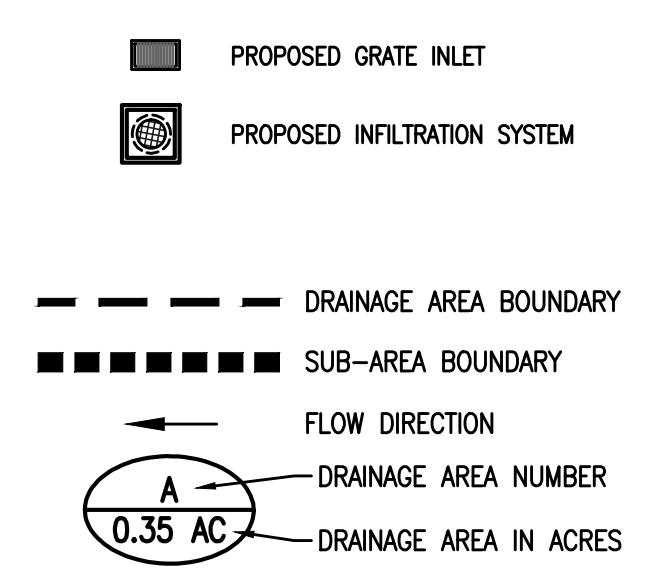
IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

POST DEVELOPMENT HYDROLOGY MAP



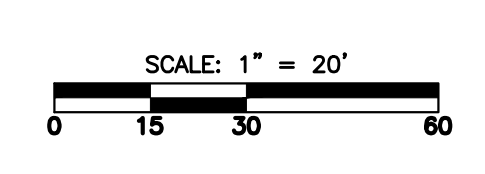
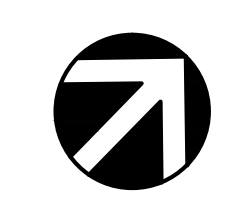
LEGEND

- (8"SS) --- EXISTING SEWER LINE
- (6" W) --- EXISTING WATER LINE
- T --- EXISTING TELECOM LINE
- 2" G --- EXISTING GAS LINE
- --- EXISTING ABANDONED GAS LINE
- --- EXISTING STORM DRAIN
- --- EXISTING BLOCK WALL
- --- EXISTING FENCE
- --- EXISTING RETAINING WALL
- --- EXISTING COUNTOUR
- --- CENTERLINE
- --- EXISTING EASEMENT LINE
- --- EXISTING PROPERTY LINE
- --- EXISTING RIGHT OF WAY
- --- EXISTING LOT LINE
- --- PROPOSED RETAINING WALL



PROPOSED CONDITION HYDROLOGIC DESIGN DATA

STORM FREQUENCY	% IMPERVIOUS	SOIL TYPE	TOTAL Q
2-YR	85%	A	2.2 cfs
5-YR	85%	A	3.2 cfs
10-YR	85%	A	4.1 cfs
25-YR	85%	A	5.0 cfs
50-YR	85%	A	5.6 cfs
100-YR	85%	A	6.4 cfs



REVISIONS

NO.	DATE	DESCRIPTION	BY

VESTING
TENTATIVE TRACT MAP
NO. 18088
"FOR CONDOMINIUM PURPOSES"
711 S. EAST STREET
IN THE CITY OF ANAHEIM
COUNTY OF ORANGE, CALIFORNIA
DATE: DECEMBER 17, 2016

Attachment G
Operation &
Maintenance (O&M)
Plan

To be provided during final engineering

Attachment H

Notice of Transfer

Water Quality Management Plan Notice of Transfer of Responsibility

Submission of this Notice of Transfer of Responsibility constitutes notice to the City of Anaheim that responsibility for the Water Quality Management Plan ("WQMP") for the subject property identified below, and implementation of that plan, is being transferred from the Previous Owner (and his/ her agent) of the site (or a portion thereof) to the New Owner, as further described below.

I. Previous Owner/ Previous Responsibility Party Information

Company/ Individual Name		Contact Person	
Street Address		Title	
City	State	Zip	Phone

II. Information about Site Transferred

Name of Project	
Title of WQMP Applicable to Site:	
Street Address of Site	
Tract Number(s) for Site	Lot Numbers
Date WQMP Prepared (or Revised)	

III. New Owner/ New Responsible Party Information

Company/ Individual Name		Contact Person	
Street Address		Title	
City	State	Zip	Phone

IV. Ownership Transfer Information

General Description of Site Transferred to New Owner	General Description of Portion of Project/ Parcel Subject to WQMP Retained by Owner (if any)
Lot/ Tract Number(s) of Site Transferred to New Owner	
Remaining Lot/ Tract Number(s) to WQMP still held by Owner (if any)	
Date of Ownership Transfer	

Note: When the Previous Owner is transferring a Site that is a portion of a larger project/ parcel addressed by the WQMP, as opposed to the entire project/ parcel addressed by the WQMP, the General Description of the Site transferred and the remainder of the project/ parcel not transferred shall be set forth as maps attached to this notice. These maps shall show those portions of the project/ parcel addressed by the WQMP that are transferred to the New Owner (the Transferred Site), those portions retained by the Previous Owner, and those portions previously transferred by the Previous Owner. Those portions retained by the Previous Owner shall be labeled "Previous Owner," and those portions previously transferred by the Previous Owner shall be labeled as "Previously Transferred."

V. Purpose of Notice of Transfer

The purposes of this Notice of Transfer of Responsibility are: 1) to track transfer of responsibility for implementation and amendment of the WQMP when property to which the WQMP is transferred from the Previous Owner to the New Owner, and 2) to facilitate notification to a transferee of property subject to a WQMP that such New Owner is now the Responsible Party of record for the WQMP for this portions of the site that it owns.

VI. Certifications

A. Previous Owner

I certify under penalty of law that I am no longer the owner of the Transferred Site as described in Section II above. I have provided the New Owner with a copy of the WQMP applicable to the Transferred Site that the New Owner is acquiring from the New Owner.

Print Name of Previous Owner Representative	Title
Signature of Previous Owner Representative	Date

B. New Owner

I certify under penalty of law that I am the owner of the Transferred Site, as described in Section II above, that I have been provided a copy of the WQMP, and that I have informed myself and understand the New Owner's responsibilities related to the WQMP, its implementation, and Best Management Practices associated with it. I understand that by signing this notice, the New Owner is accepting all ongoing responsibilities for implementation and amendment of the WQMP for the Transferred Site, which the New Owner has acquired from the Previous Owner.

Print Name of New Owner Representative	Title
Signature of New Owner Representative	Date

Appendix

Appendix E Hydrology Study

Appendix

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City of Anaheim
DEPARTMENT OF PUBLIC WORKS

July 27, 2017

To: Vincent W. Scarpati, P.E.
C & V Consulting, Inc.
6 Orchard, Suite 200
Lake Forest, California 92630
Tel: 949-916-3800

RE: Preliminary Drainage Study for
Tentative Tract Map 18088, 711 S. East St.
OTH2017-00934, Second Review

Dear Mr. Scarpati:

We have completed our review of this preliminary drainage study. The preliminary study is approved with the following to be required with the final:

1. This markup drainage report and a copy of this letter.
2. Two (2) copies of corrected report addressing all corrections on the check print and/or on a typewritten response letter.
3. Report proposes project developed flows to outlet through a storm drain bubble connecting to existing alley on the west side of the project. The existing alley does not have any curb & gutter to connect to, nor does it have a longitudinal V-gutter to convey developed flows northerly to Water Street gutter. Please clarify and describe the proposed improvements to convey flows.
4. Call out water surface elevation on the Ponding exhibit corresponding to discussion part of the report.
5. Q10 hydrology that was provided on the first review has been taken out of this submittal! Please provide and include Q10, Q25 and Q100-yr hydrology for the purpose of this report.

If you have any questions regarding this project, call me at (714) 765-5054.

Sincerely,

A handwritten signature in blue ink, reading "Shawn Azarhoosh".

Shawn Azarhoosh, P.E.
Associate Civil Engineer

Attachments: Preliminary drainage report, dated June 7, 2017

CC: *The Olson Company*
3010 Old Ranch Pkwy, Suite 100
Seal Beach, CA 90740-2751
(562) 596-4770

Raul Garcia, Development Services Manager
DSL Consulting, PO Box 51371, Irvine, CA 92619
File

**PRELIMINARY HYDROLOGY & HYDRAULIC STUDY
711 S. EAST STREET
IN THE CITY OF ANAHEIM
TENTATIVE TRACT NO. 18088**

**Project Address:
711 S. East Street
Anaheim, CA 92805**

Prepared For:

The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740-2751
(562) 596-4770

Prepared By:

C&V Consulting, Inc.
6 Orchard, Suite 200
Lake Forest, California 92630
Contact: Ryan Bittner
(949) 916-3800

May 18, 2017

TABLE OF CONTENTS

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I.	Introduction.....	1
II.	Methodology.....	2
III.	Design Assumptions.....	3
IV.	Conclusion.....	4
V.	References.....	5

APPENDICIES

- A.** Vicinity Map
- B.** Soils Map
- C.** Pre-Development Hydrology Study
- D.** Post Development Hydrology Study
- E.** Hydraulic Calculations

List of Exhibits:

- 1.** Pre-Development Hydrology Map
- 2.** Post Development Hydrology Map

Conceptual Hydrology Study and Hydraulic Analysis
For
Tentative Tract No. 18088

ACKNOWLEDGEMENT AND SIGNATURE PAGE

This Hydrology Study prepared by C&V Consulting, Inc. under the supervision of Vincent Scarpati, P.E.

Ryan , PE 33520
C&V Consulting, Inc.

Date

Purpose

The purpose of this conceptual report is to provide quantitative information to verify preliminary storm drain infrastructure and hydrologic methodology of the project site. The values and statements within confirm the subject site is designed and planned in accordance to the Orange County Hydrology Manual and the City of Anaheim Drainage Manual for Public and Private Drainage Facilities.

Introduction:

The proposed project's address is 711 S. East Street, in the City of Anaheim. The subject site is bordered to the west by an alley and industrial warehouses, to the north by Commercial development, the east by East Street and single family residential homes, and to the south by medium Commercial gas station and mini mart and a church.

The subject project site proposes 42 units of residential condominiums, constructed on traditional slab on grade. The proposed 1.76 acre site will include open space amenities, vehicular drive aisles and sidewalks.

The project site currently serves as parking lot for car sales and contains two small buildings. The site will be subdivided per the Tentative Tract Map 18088 as one lot for condominium purposes. The site exists as mostly impervious paving.

Post-development drainage will be consistent with a proposed attached Multi-Family Residential project. The tributary areas and direction of run-off flows for the proposed site are delineated on the attached WQMP Exhibit based on the grading and drainage design. Refer to the WQMP Exhibit in Attachment D of this report.

Currently, the site drains via sheet flow to the southeast corner of the site. The historic drainage patterns will be preserved in order to control onsite grading. The proposed drainage runoff will be collected by a drainage system has been design to convey storm water runoff to the proposed BMP treatment system. Collected runoff will be pre-treated and retain onsite by utilizing underground Infiltration BMPs.

The main drive aisle will be utilized as the primary emergency overflow system during larger storm events. Stormwater runoff greater than the required water quality volume of the infiltration chamber system will be discharged normally through an overflow storm drain pipe to a proposed bubbler catch basin at the alley edge and discharges through the wall onto the alley. Should the bubbler system malfunction with the pipe being plugged, then ponding will occur and overflow the system in the main drive aisle and overflow towards to the entry driveway at elevation 168.2, between Buildings 1 and 8 and then into East Street. The ponded depth will not exceed an elevation 168.3+/-, which is 1.3 feet below adjacent finish floors of the buildings.

Normal storm runoff from the site historically flows in the northwesterly direction in the alley and then to the west to a 42" public storm drain that drains back towards South Street and ties into a 72" storm drain(see exhibit herein for schematic layout of surrounding storm drains). The proposed project is not increasing the flow from the site in the proposed developed condition. Therefore downstream systems will not be affected by this project's runoff. Once in the South Street storm drain, runoff continues west in South Street to Walnut Street, then to Ball Road and then to the Anaheim Barber City Channel, then to the Bolsa Chica Channel and finally into Huntington Harbor.

Methodology / Rationale:

The proposed drainage area was analyzed by utilizing the Orange County Local Drainage Manual of Orange County. Each drainage area was divided as demonstrated on the hydrology map (Exhibit 1). Each area was analyzed for acreage, impervious cover, and time of concentration according to the Rational Method. The flows, expressed in cubic feet per second (cfs), were totaled at connections to main storm drain lines.

There are no existing subsurface storm drain pipes that convey flow through the existing project site. The proposed development will install catch basins, on site drainage piping to convey flow subsurface. The low flow, (Q_{bmp}) will be collected and conveyed through the storm drain system into a underground stormwater infiltration system. The storm water will be pre-treated with a Katchall Bio-filtration catch basin prior to entering the infiltration system (storm water chambers). A soils investigation and a percolation test have been prepared to support the approval of the infiltration system. Refer to the prepared Preliminary WQMP report and approved by the City.

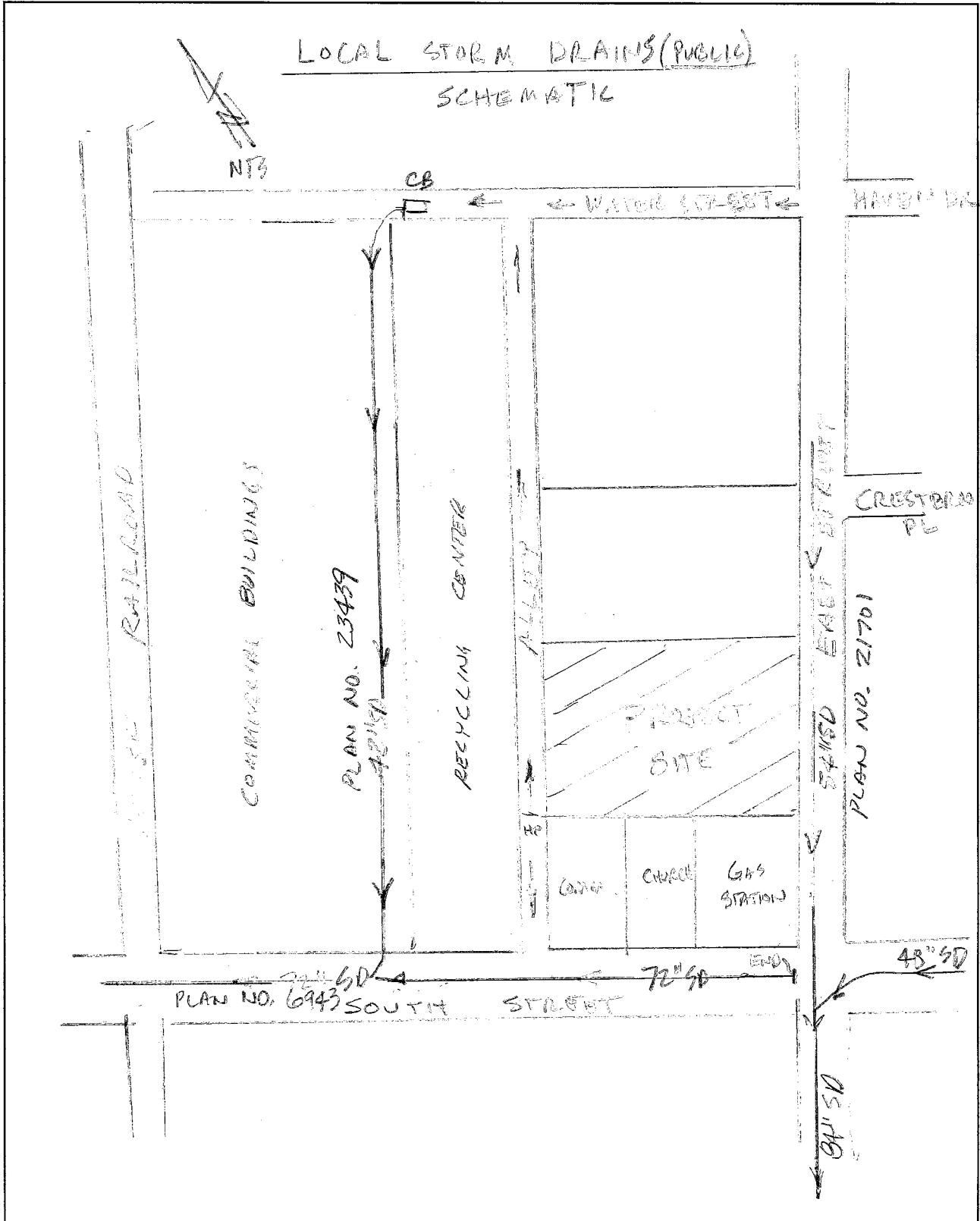
Large storm events will also enter these inlets and subsurface piping and will exit the sub-surface network by use of a bubbler system located at the historic low point of the project at the west side of the project at the alley. Normal storm runoff from the site historically flows in the northwesterly direction in the alley and then to the west to a 42" public storm drain that drains back towards South Street and ties into a 72" storm drain(see exhibit herein for schematic layout of surrounding storm drains). The proposed project is not increasing the flow from the site in the proposed developed condition. Therefore downstream systems will not be affected by this project's runoff. Once in the South Street storm drain, runoff continues west in South Street to Walnut Street, then to Ball Road and then to the Anaheim Barber City Channel, then to the Bolsa Chica Channel and finally into Huntington Harbor

Prepared By:
Thomas A. Petersen, P.E.

Date: 5-17-17

Signature

Page 1 of 1



Design Assumptions:

1. The onsite drainage area was analyzed for a 2, 10, 25 , 50 & 100-year storm event using Rational Method Analysis per the County of Orange Hydrology Manual.
2. The drainage area is located in Soil Groups A according to page 4-9 of the Hydrology Manual
3. AMC III was used for the 100-year flow calculations
4. The existing condition is primarily paved parking lot and was modeled as “commercial” in the Civilcad software.
5. The proposed condition was modeled as “condominiums” in Civilcad.
6. All flows are based on the complete future development of land and roads.
7. The Hydrology Map attached to the back of this study is made part of the study.

****Note: Additional Calculation Assumptions Have Been Noted Throughout Report****

Conclusions:

The results from this hydrology and hydraulic analysis demonstrate the following:

- The drainage design for the Project has been designed to meet the County of Orange Flood Control Standards.
- Building pads will be protected and will be above the theoretical 100 year flood elevation as determined in this study. Site overflow elevation is 168.2 and finish floors are at a minimum of 169.60, which is greater than the 1 foot minimum required.
- Per FEMA FIRM Map Number 06059C0142J Panel 142 of 539, revised December 3, 2009, the subject site is within Flood Zone “X-shaded” (Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood)
- The existing site conditions result in a total predevelopment 100-year flow of 6.8 cfs to the Alley on the west property line.
- The proposed condition directs all flows to the west boundary of the site and results in a 100-year flow of 6.8 cfs. Because the proposed flows to this outlet location are the same as that of the existing, no detention is required for flood control purposes.

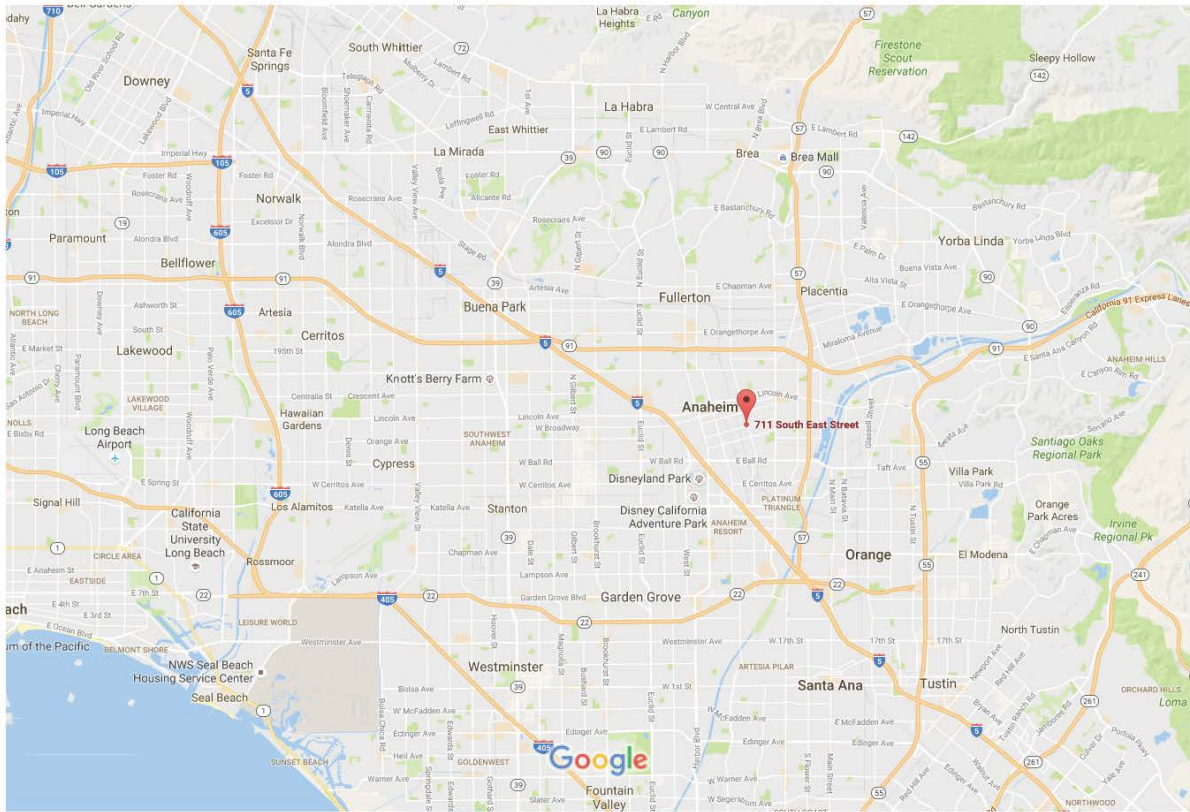
	Total Area (Acres)	25-Yr Storm Event (CFS)	100-Yr Storm Event (CFS)
Existing	1.76	5.3	6.8
Proposed	1.76	5.3	6.8

REFERENCES

1. County of Orange, "Hydrology Manual" dated January 1999.
2. Civilcadd/Civildesign Engineering Software, Orange County Hydrology, 2005 version.

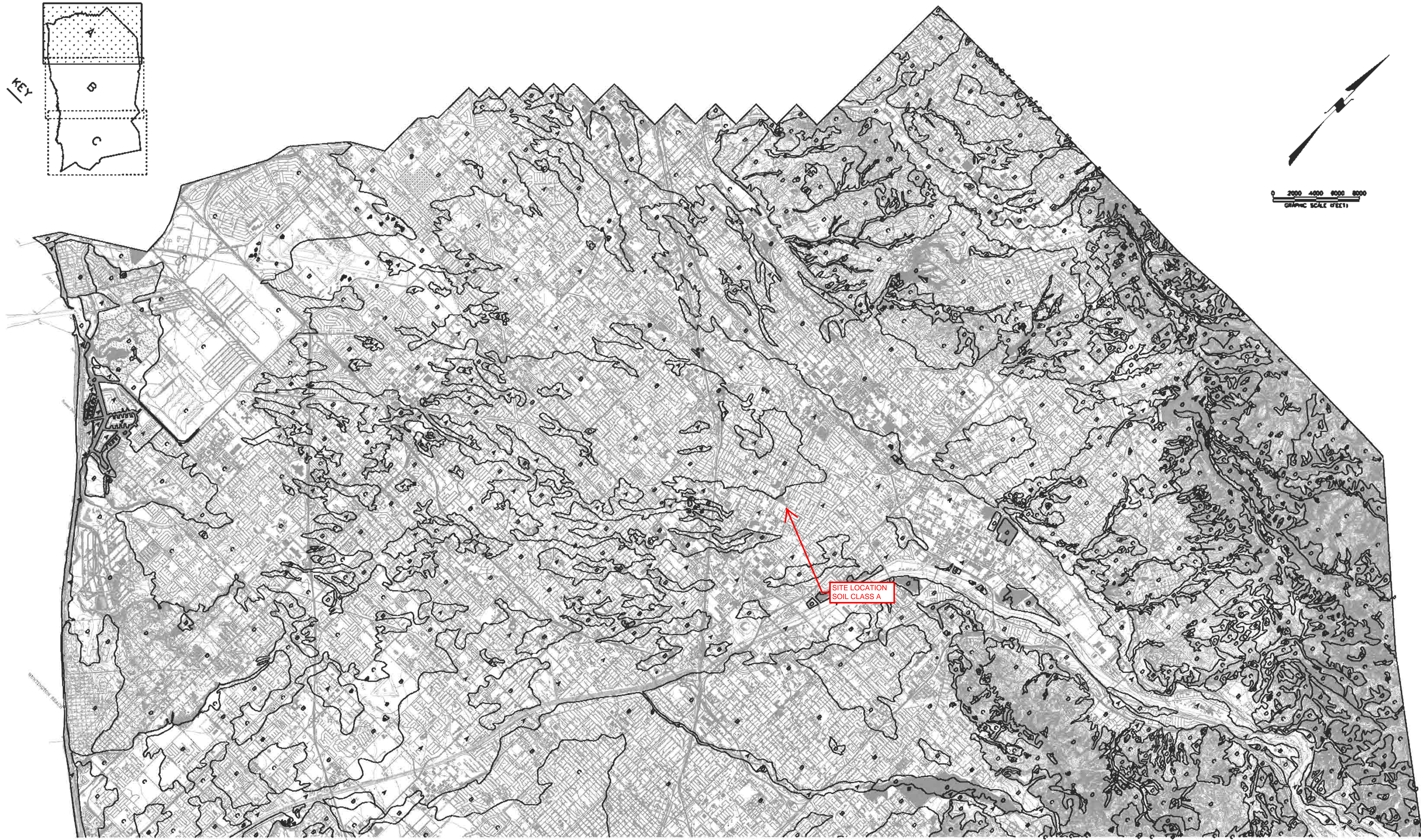
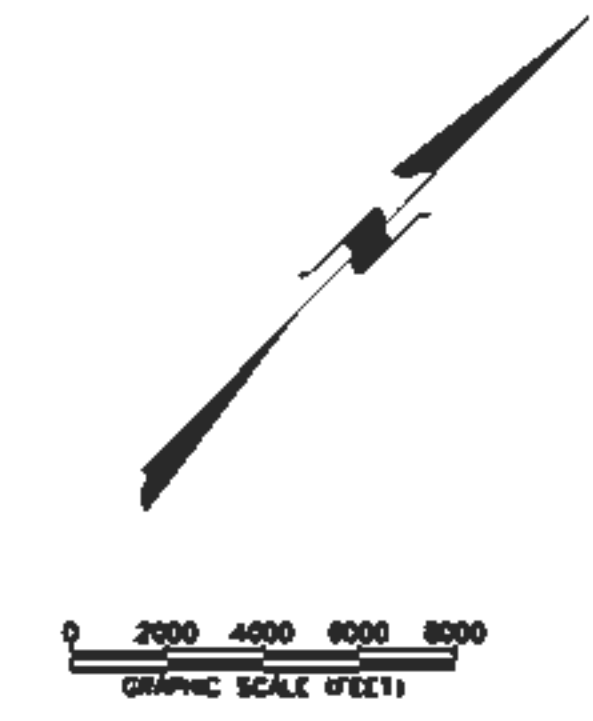
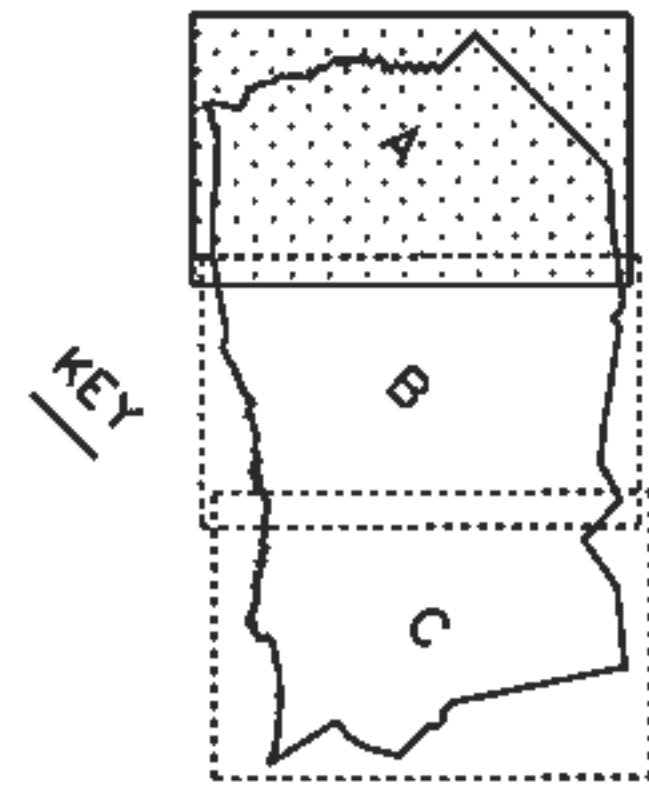
Vicinity Map

Google Maps 711 S East St



711 S East St
Anaheim, CA 92805

Soils Map



ORANGE COUNTY
HYDROLOGY MANUAL

LEGEND
A B C D HYDROLOGIC SOIL GROUPS
— HYDROLOGIC SOIL GROUP BOUNDARY

SOURCES:
BASE MAP - ORANGE COUNTY/RESOURCES & DEVELOPMENT MANAGEMENT DEPT
 GEOMATICS AND LAND INFORMATION SYSTEMS DIVISION
SOIL GROUPS - SOIL SURVEY OF ORANGE COUNTY AND
 WESTERN PART OF RIVERSIDE COUNTY, CALIFORNIA,
 USDA, SOIL CONSERVATION SERVICE, 1978.

HYDROLOGIC CLASSIFICATION OF SOILS
ORANGE COUNTY, CALIFORNIA
PLATE A

Pre-Developed Hydrology Study

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 11/25/16 File Name: 393PR01.roc

-
25-YEAR PRE-DEVELOPMENT
HYDROLOGY STUDY

-
Program License Serial Number 4096

-
***** Hydrology Study Control Information *****

-
Rational hydrology study storm event year is 25.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(A_p) = 0.1000 Max loss rate(F_p)= 0.400(In/Hr)
Max Catchment Loss (F_m) = 0.040(In/Hr)
Initial subarea data:
Initial area flow distance = 370.000(Ft.)
Top (of initial area) elevation = 168.500(Ft.)
Bottom (of initial area) elevation = 166.700(Ft.)
Difference in elevation = 1.800(Ft.)
Slope = 0.00486 s(%)= 0.49
TC = $k(0.304)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 9.392 min.
NOTE: Distance EXCEEDS recommended maximum value of 328.084(Ft.)
for this Development Type
Rainfall intensity = 3.376(In/Hr) for a 25.0 year storm
Effective runoff coefficient used for area ($Q=KCIA$) is $C = 0.889$
Subarea runoff = 5.285(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.100
Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 05/17/17 File Name: 393PR01.roc

-
25-YEAR STORM EVENT
POST DEVELOPMENT
HYDROLOGY STUDY

-

-
Program License Serial Number 4096

-

-
***** Hydrology Study Control Information *****

-

Rational hydrology study storm event year is 25.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+-----+
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 275.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.000(Ft.)
Difference in elevation = 2.200(Ft.)
Slope = 0.00800 s(%)= 0.80
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 8.942 min.
Rainfall intensity = 3.471(In/Hr) for a 25.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.864
Subarea runoff = 5.277(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)

The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.350

Area averaged SCS curve number (AMC 2) = 32.0

Post-Developed Hydrology Study

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 05/17/17 File Name: 393PR01.roc

25-YEAR STORM EVENT
POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 25.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

CONDOMINIUM subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 275.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.000(Ft.)
Difference in elevation = 2.200(Ft.)
Slope = 0.00800 s(%)= 0.80
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 8.942 min.
Rainfall intensity = 3.471(In/Hr) for a 25.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.864
Subarea runoff = 5.277(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)

The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.350

Area averaged SCS curve number (AMC 2) = 32.0

Orange County Rational Hydrology Program

(Hydrology Manual Date(s) October 1986 & November 1996)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 8.0
Rational Hydrology Study, Date: 05/17/17 File Name: 393PR01.roc

100-YEAR STORM EVENT
POST DEVELOPMENT
HYDROLOGY STUDY

Program License Serial Number 4096

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 100.0

Decimal fraction of study above 2000 ft., 600M = 0.0000
English Units Used for input data

Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

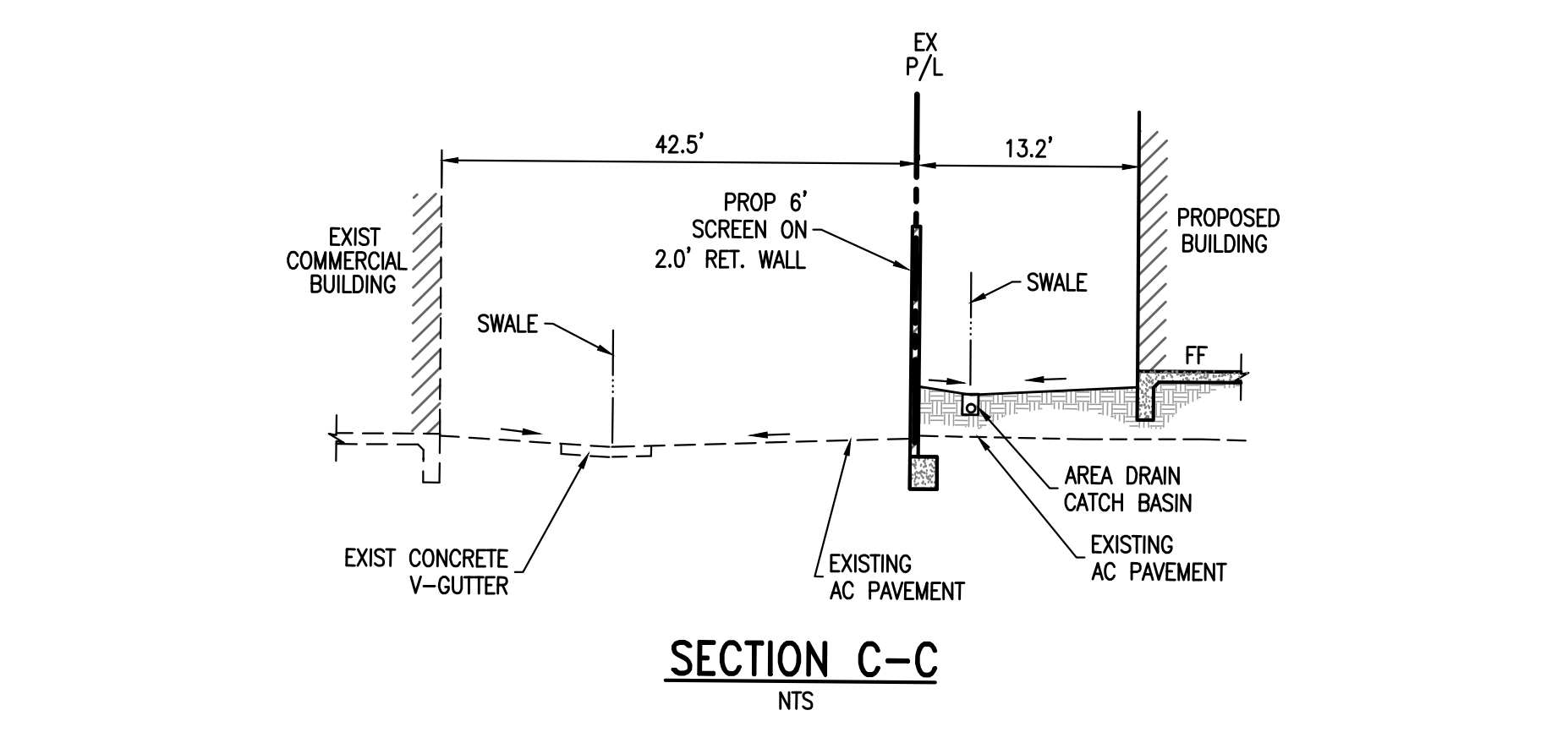
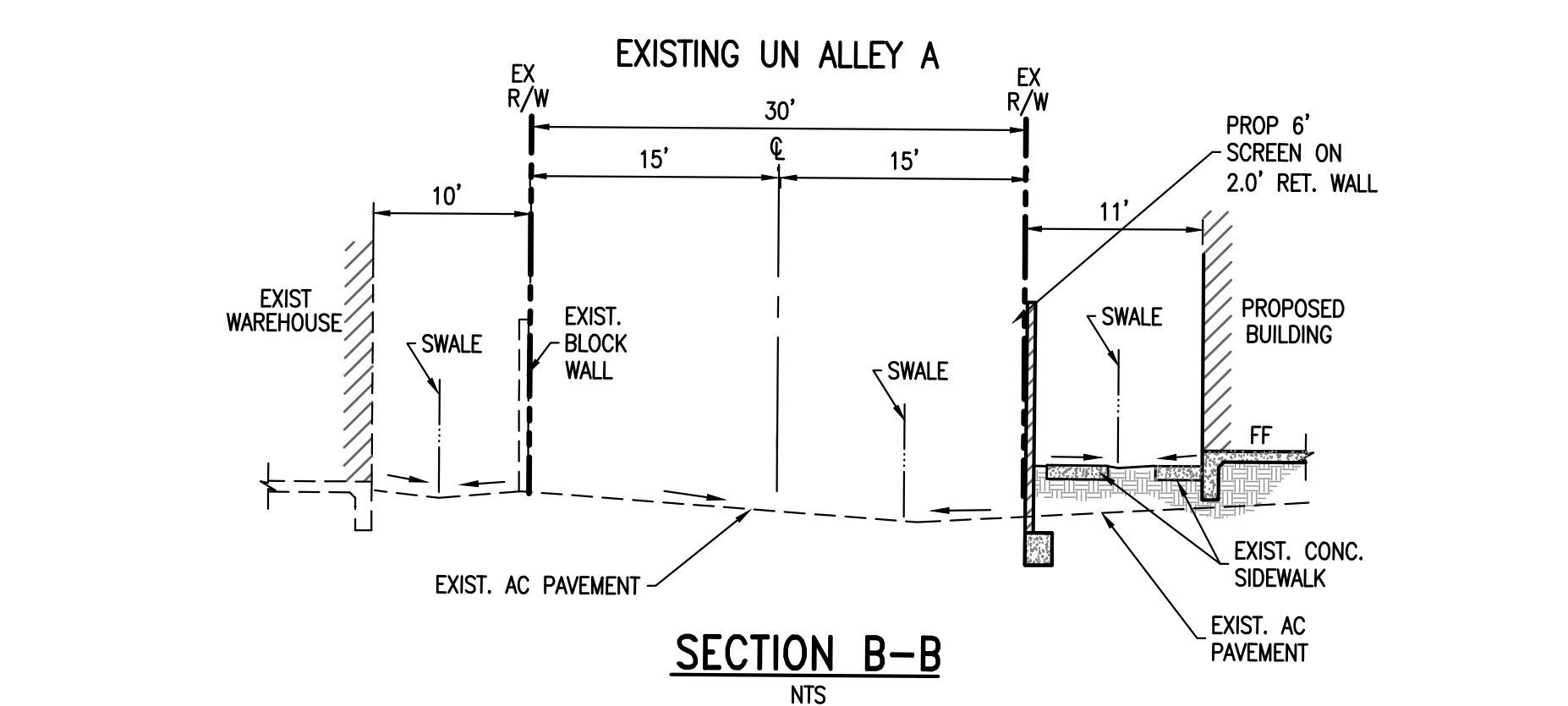
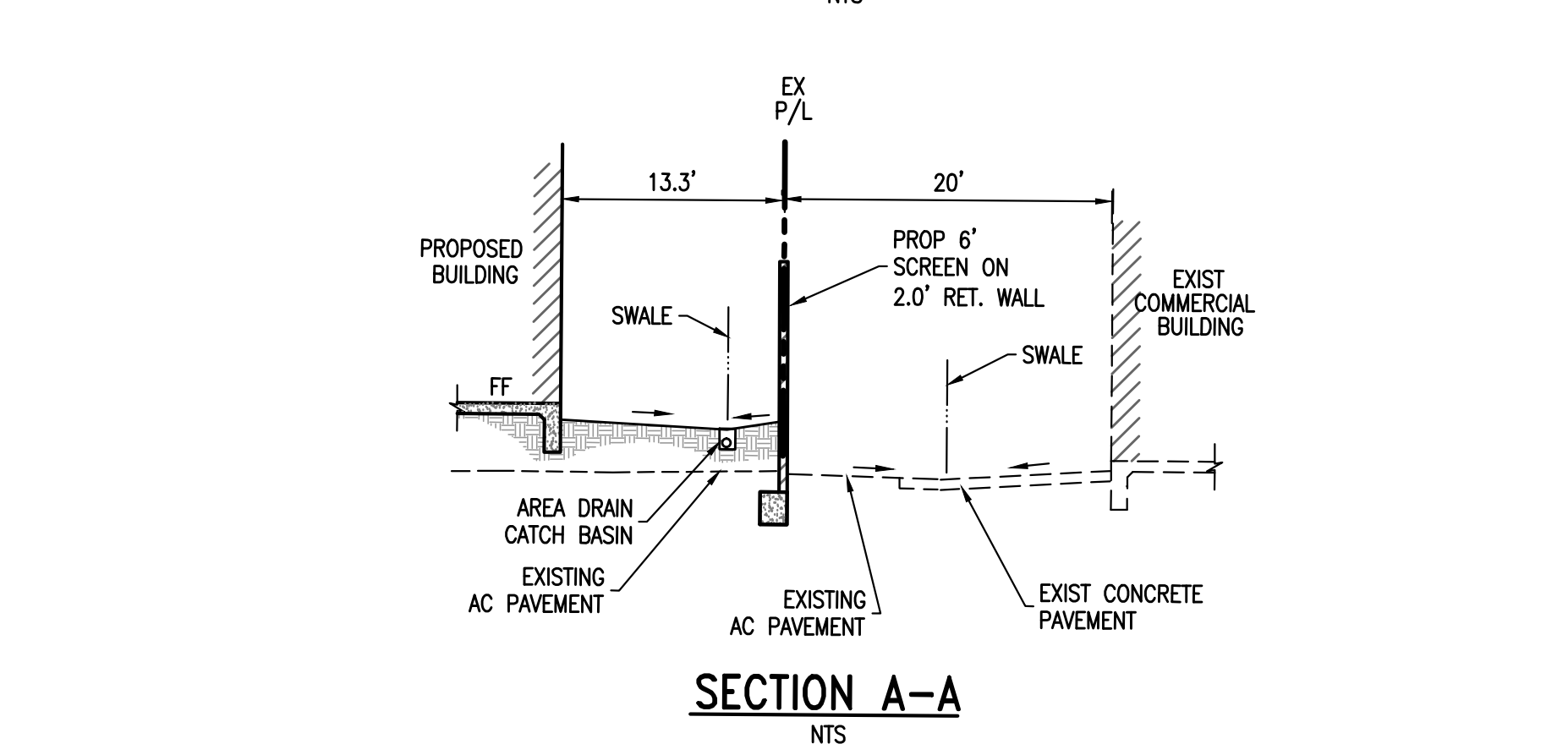
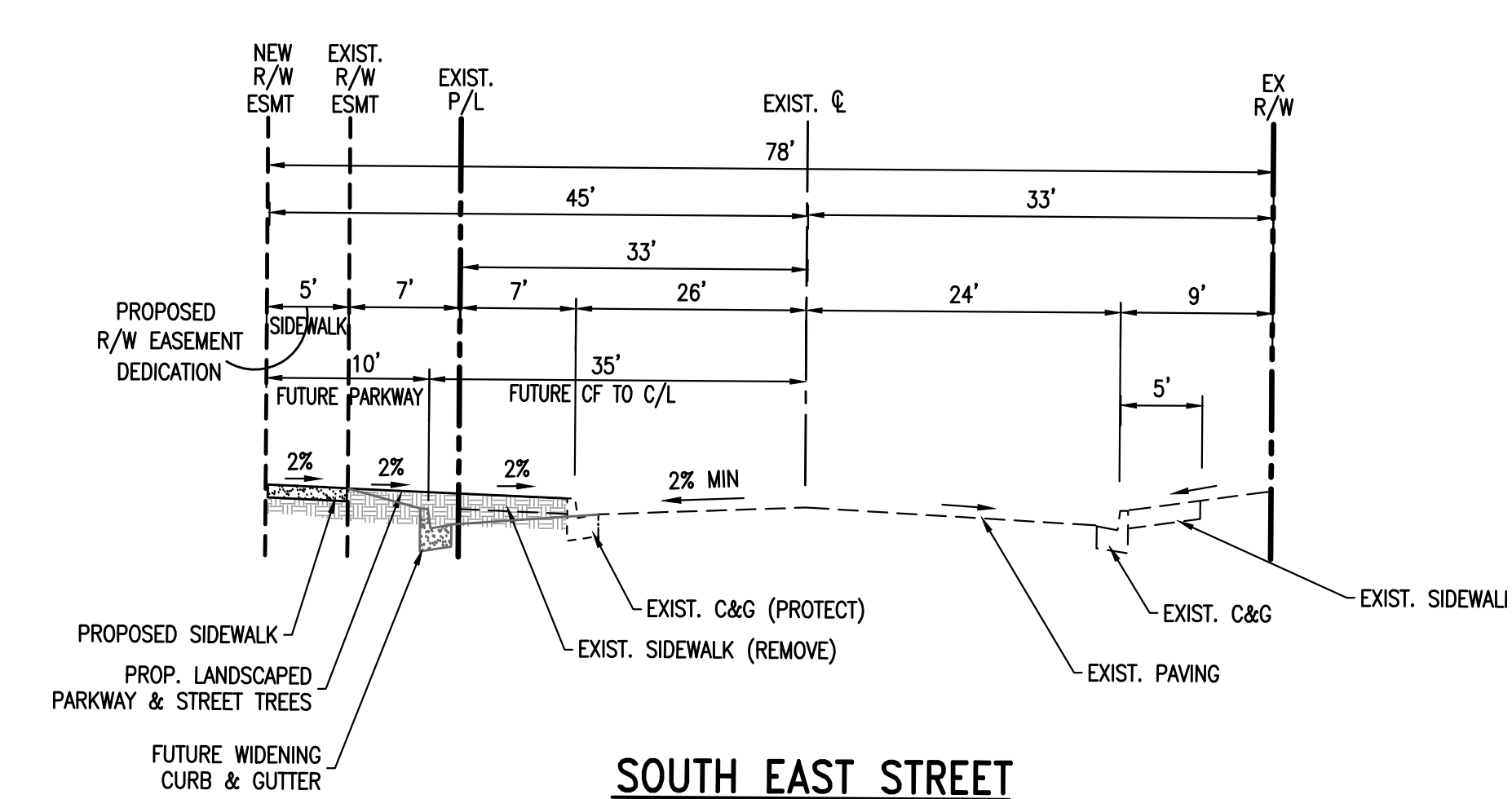
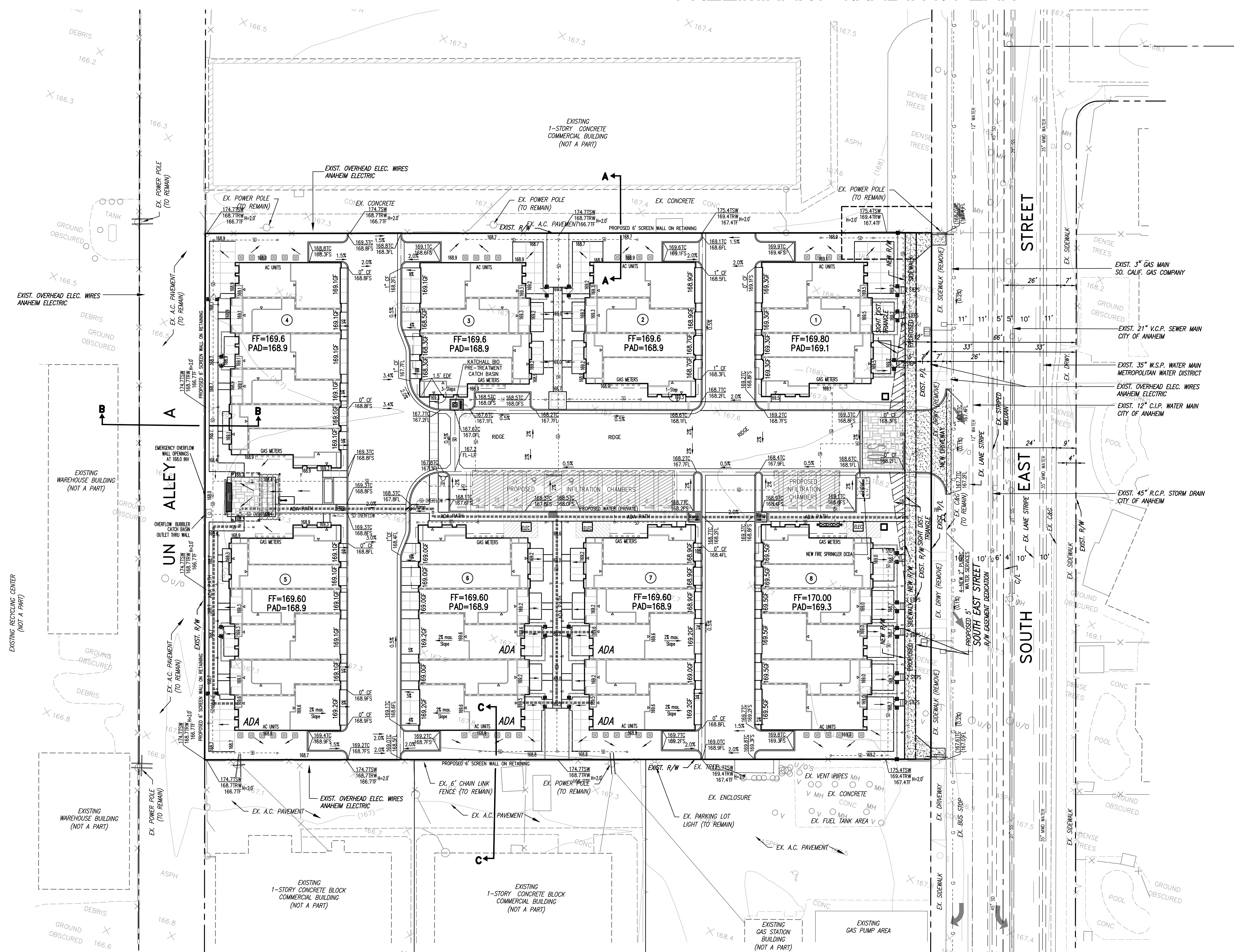
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.3500 Max loss rate(Fp)= 0.400(In/Hr)
Max Catchment Loss (Fm) = 0.140(In/Hr)
Initial subarea data:
Initial area flow distance = 275.000(Ft.)
Top (of initial area) elevation = 169.200(Ft.)
Bottom (of initial area) elevation = 167.000(Ft.)
Difference in elevation = 2.200(Ft.)
Slope = 0.00800 s(%)= 0.80
TC = k(0.360)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 8.942 min.
Rainfall intensity = 4.435(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.872
Subarea runoff = 6.803(CFS)
Total initial stream area = 1.760(Ac.)
End of computations, total study area = 1.76 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.350
Area averaged SCS curve number (AMC 2) = 32.0

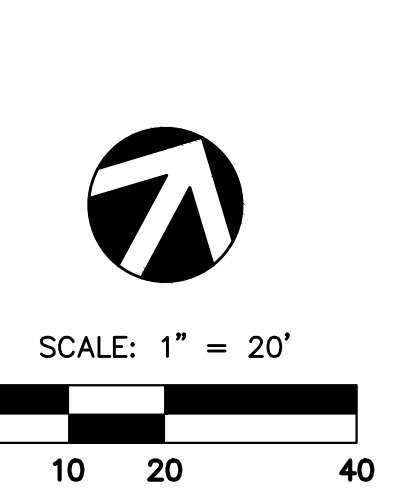
**Infiltration System Design Calculations
and
Overflow Calculations**

TENTATIVE TRACT MAP NO. 18088

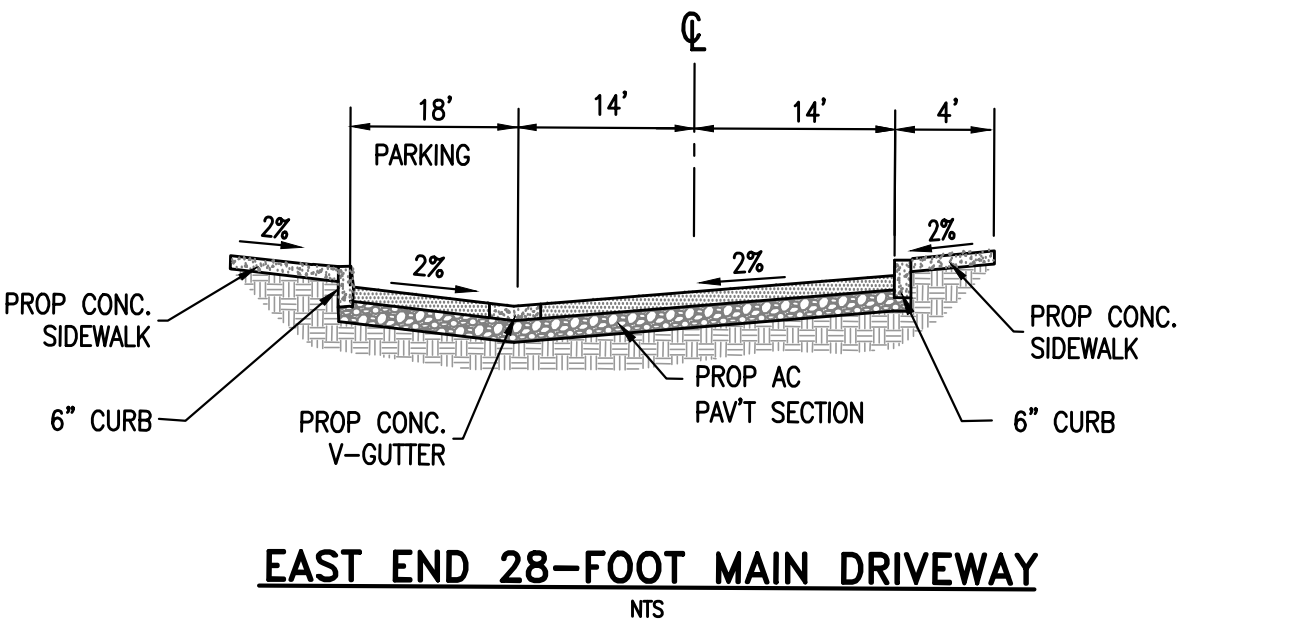
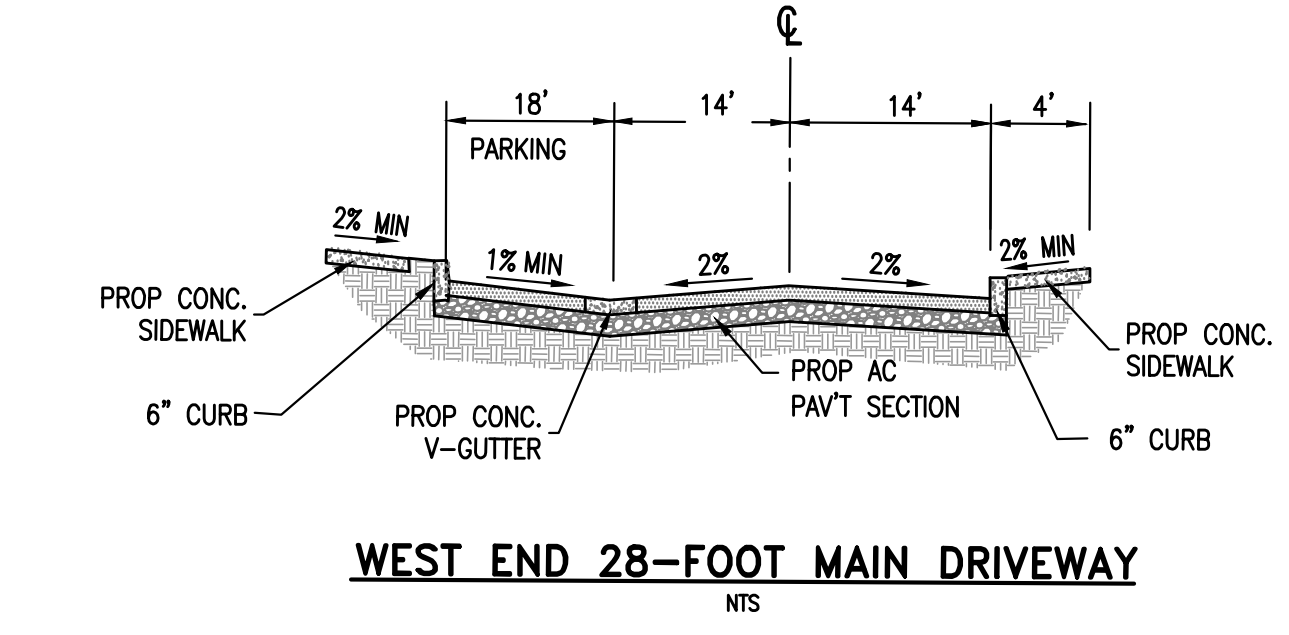
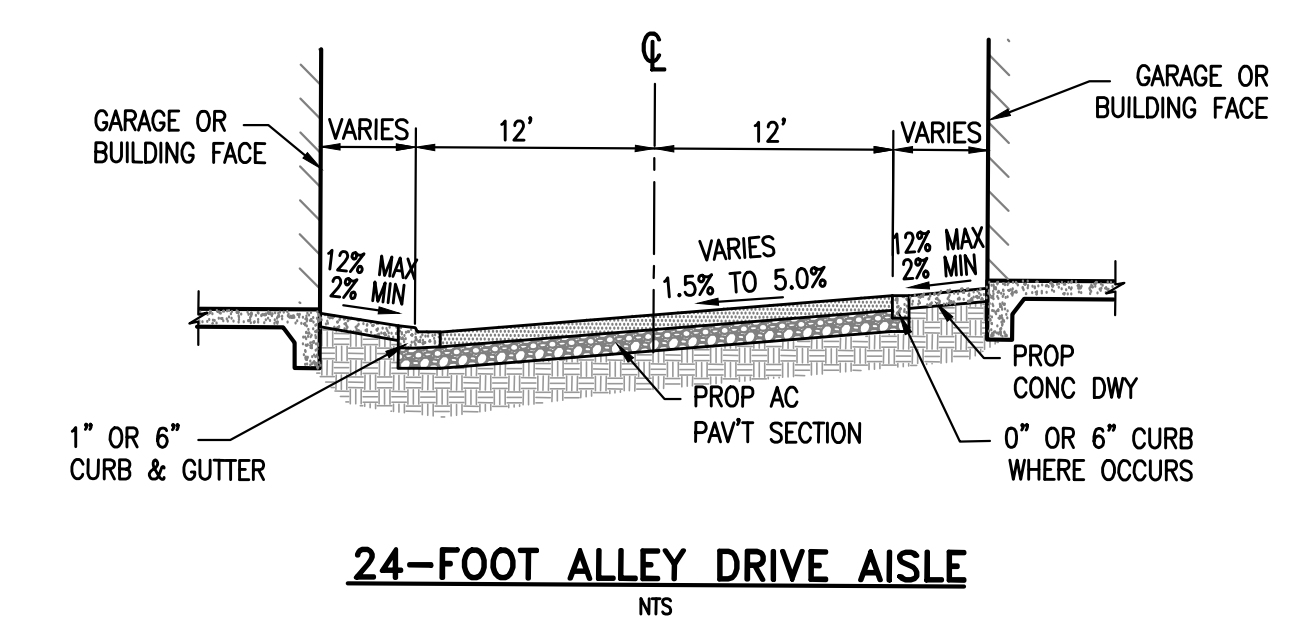
"FOR CONDOMINIUM PURPOSES"
 IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA
PRELIMINARY GRADING PLAN



- NOTES:**
- SEE SHEET C-1 FOR TENTATIVE MAP NOTES. SEE SHEET C-2 FOR TENTATIVE MAP & EXISTING SITE CONDITIONS.
 - SEE SHEET C-3 FOR PROPOSED SITE LAYOUT, EASEMENTS AND DIMENSIONS.
 - SEE SHEET C-5 FOR PROPOSED SEWER AND WATER IMPROVEMENTS ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY.



REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	5/17/17	CITY COMMENTS	TAP
2	2/28/17	CITY COMMENTS	TAP



EARTHWORK QUANTITY ESTIMATE:
 QUANTITIES FOR PLAN CHECK PURPOSES ONLY

ITEM	QUANTITY
RAW CUT	500 CY
RAW FILL	2,200 CY
NET EXPORT	1,700 CY

PRELIMINARY GRADING PLAN
TENTATIVE TRACT MAP
NO. 18088
"FOR CONDOMINIUM PURPOSES"
 711 S. EAST STREET
 IN THE CITY OF ANAHEIM
 COUNTY OF ORANGE, CALIFORNIA
 DATE: DECEMBER 17, 2016

Prepared For:

SANDRA GOTTLIEB
OLSON COMPANY
CA

Project Information:

ANAHEIM EAST STREET
711 S. EAST STREET
ANAHEIM EAST STREET
CA

Date: DECEMBER 10, 2016

Engineer:

THOMAS PETERSEN
C & V CONSULTING
6 ORCHARD
LAKE FOREST
CA
92610
949-387-7035

Calculations Performed By:

Name
Company Name
Street Address
City
State
Zip
Phone
Fax
Email

Input Given Parameters

Unit of Measure	English
Select Model	Recharger 330XLHD
Stone Porosity	40.0%
Number of Header Systems	1 Header
Stone Depth Above Chamber	6 inches
Stone Depth Below Chamber	6 inches
Workable Bed Depth	8.00 feet
Max. Bed Width	16.00 feet
Storage Volume Required	4300.00 cu. feet



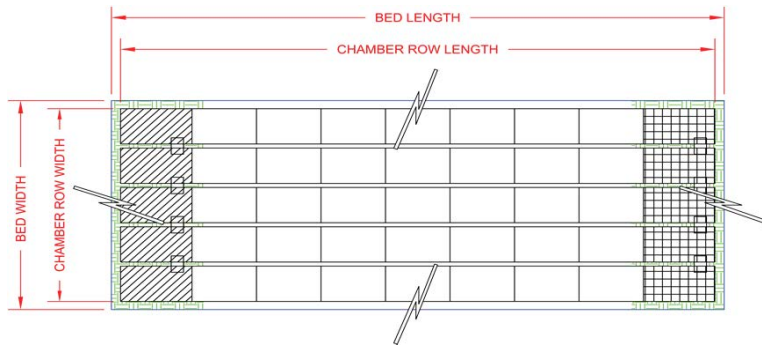
Chamber Specifications

Height	30.5 inches
Width	52.00 inches
Length	8.50 feet
Installed Length	7.00 feet
Bare Chamber Volume	52.21 cu. feet
Installed Chamber Volume	79.26 cu. feet
<i>Image for visual reference only. May not reflect selected model.</i>	
Bed Depth	4.63 feet
Bed Width	16.00 feet
Storage Volume Provided	4395.07 cu. feet

Materials List

Recharger 330XLHD Stormwater System by CULTEC, Inc.			
Approx. Unit Count - not for construction	54	pieces	
Actual Number of Chambers Required	51	pieces	
Starter Chambers	3	pieces	
Intermediate Chambers	45	pieces	
End Chambers	3	pieces	
			HVLV FC-24
			2 pieces
			CULTEC No. 410™ Filter Fabric
			599.02 sq. yards
			CULTEC No. 20L Polyethylene Liner
			16.00 feet
			Stone
			157.20 cu. yards
			Volume of Excavation
			335.74 cu. yards

Bed Detail



Number of Rows Wide	3	pieces
Number of Chambers Long	17	pieces
Chamber Row Width	14.00	feet
Chamber Row Length	120.50	feet
Bed Width	16.00	feet
Bed Length	122.50	feet
Bed Area Required	1960.00	sq. feet

Bed detail for reference only. Not project specific. Not to scale. Use CULTEC StormGenie to output project specific detail.

Project Name: ANAHEIM EAST STREET

Date: DECEMBER 10, 2016

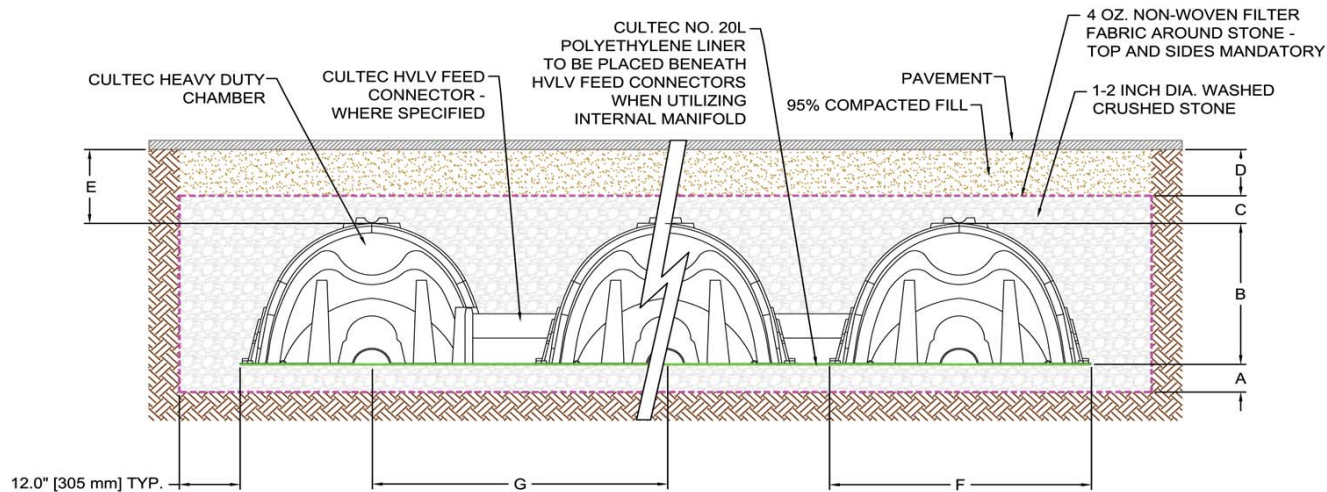
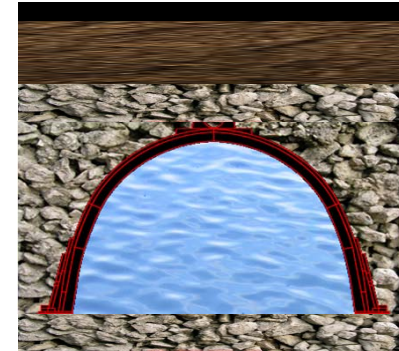
Cross Section Detail



Conceptual graphic only. Not job specific.

Recharger 330XLHD

Pavement	3	inches
95% Compacted Fill	10	inches
Stone Above	6	inches
Chamber Height	30.5	inches
Stone Below	6	inches
Effective Depth	42.5	inches
Bed Depth	55.5	inches



A	Depth of Stone Base	6.0	inches
B	Chamber Height	30.5	inches
C	Depth of Stone Above Units	6.0	inches
D	Depth of 95% Compacted Fill	10.0	inches
E	Max. Depth of Cover Allowed Above Crown of Chamber	12.0	feet
F	Chamber Width	52.0	inches
G	Center to Center Spacing	4.83	feet

Breakdown of Storage Provided by Recharger 330XLHD Stormwater System	
Chambers	2696.43 cu. feet
Feed Connectors	0.91 cu. feet
Stone	1697.73 cu. feet
Total Storage Provided	4395.07 cu. feet

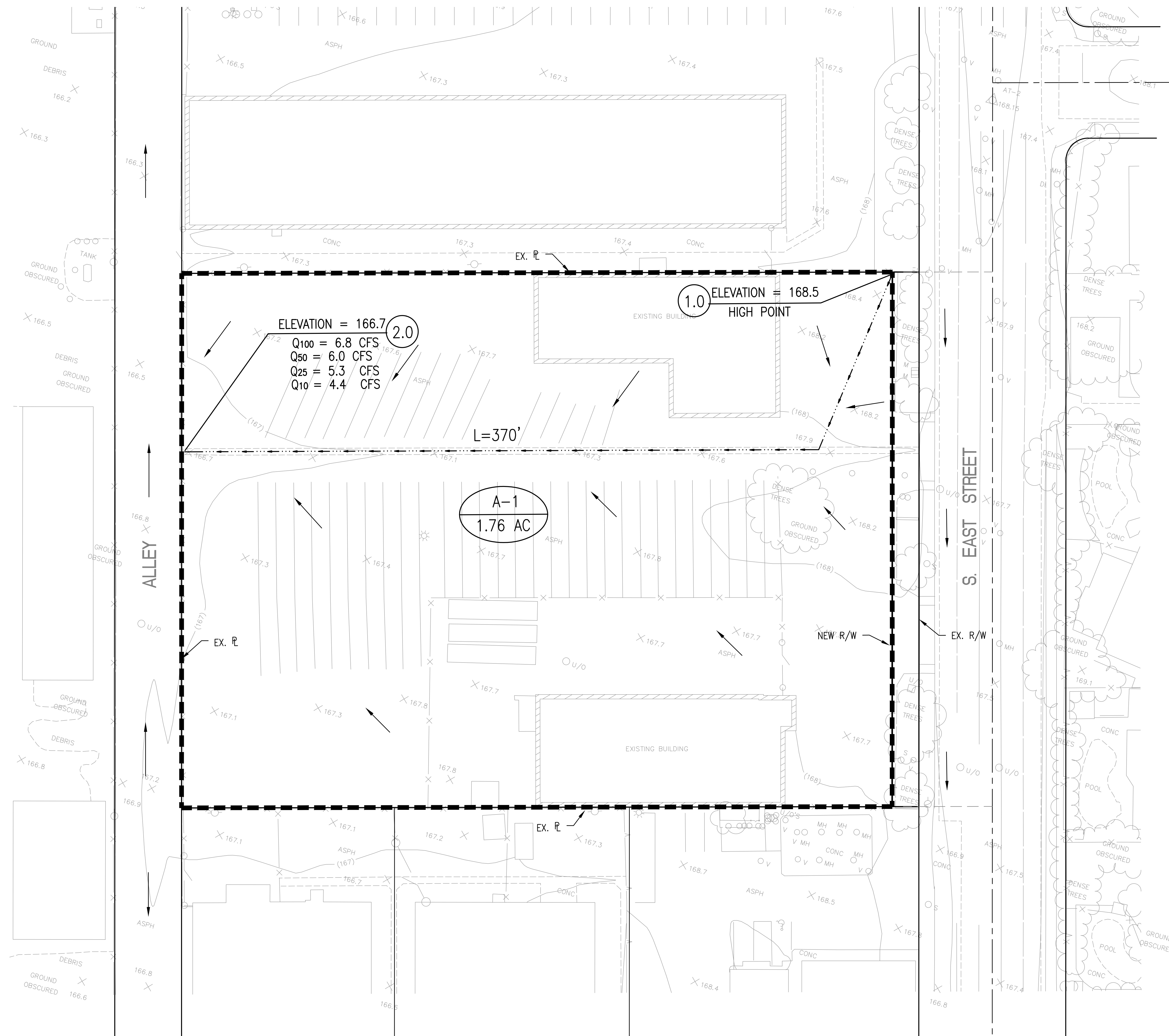
Exhibit
Pre-Development Hydrology Map

VESTING TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

PRE-DEVELOPMENT HYDROLOGY MAP



LEGEND

- (8"SS) --- EXISTING SEWER LINE
 - (6"W) --- EXISTING WATER LINE
 - EXISTING TELECOM LINE
 - EXISTING GAS LINE
 - EXISTING ABANDONED GAS LINE
 - EXISTING STORM DRAIN
 - X X X EXISTING FENCE
 - X X X EXISTING RETAINING WALL
 - EXISTING COUNTOUR
 - EXISTING EASEMENT LINE
 - CENTERLINE
 - EXISTING PROPERTY LINE
 - EXISTING RIGHT OF WAY
 - EXISTING LOT LINE
-
- DRAINAGE AREA BOUNDARY
 - SUB-AREA BOUNDARY
 - FLOW DIRECTION
 - (A) DRAINAGE AREA NUMBER
 - (0.35 AC) DRAINAGE AREA IN ACRES

PRE-DEVELOPMENT HYDROLOGIC DESIGN DATA

STORM FREQUENCY	% IMPERVIOUS	SOIL TYPE	TOTAL Q
2-YR	99.4%	A	2.4 cfs
5-YR	99.4%	A	3.5 cfs
25-YR	99.4%	A	4.4 cfs
50-YR	99.4%	A	5.3 cfs
100-YR	99.4%	A	6.8 cfs



SCALE: 1" = 20'
0 10 20 40

REVISIONS

NO.	DATE	DESCRIPTION	BY

VESTING
TENTATIVE TRACT MAP
NO. 18088
"FOR CONDOMINIUM PURPOSES"
711 S. EAST STREET
IN THE CITY OF ANAHEIM
COUNTY OF ORANGE, CALIFORNIA
DATE: DECEMBER 17, 2016

Exhibit

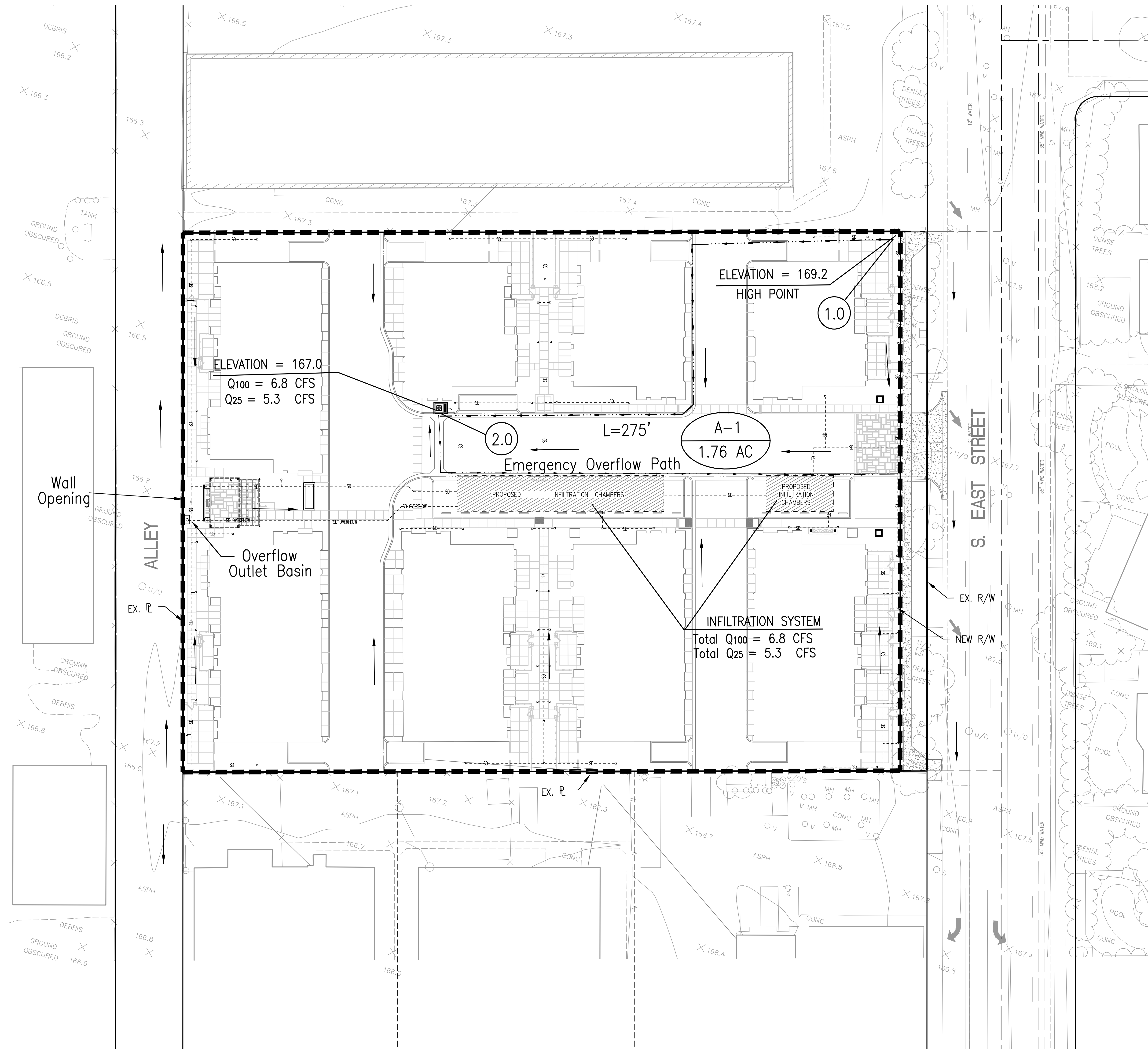
Post Development Hydrology Map

TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

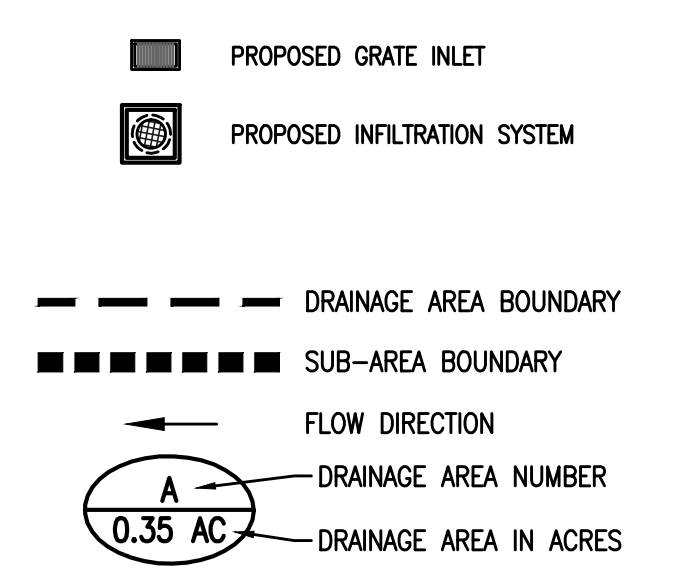
IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

POST DEVELOPMENT HYDROLOGY MAP



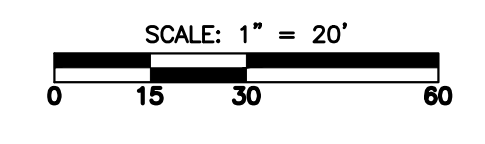
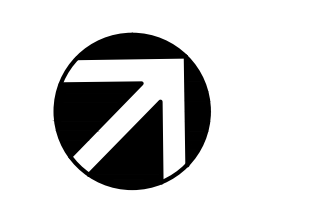
LEGEND

(8"SS)	EXISTING SEWER LINE
(6"W)	EXISTING WATER LINE
T	EXISTING TELECOM LINE
2"Ø	EXISTING GAS LINE
- - - - -	EXISTING ABANDONED GAS LINE
- - - - -	EXISTING STORM DRAIN
- - - - -	EXISTING BLOCK WALL
- - - - -	EXISTING FENCE
X X X X	EXISTING RETAINING WALL
- - - - -	EXISTING COUNTOUR
- - - - -	CENTERLINE
- - - - -	EXISTING EASEMENT LINE
- - - - -	EXISTING PROPERTY LINE
- - - - -	EXISTING RIGHT OF WAY
- - - - -	EXISTING LOT LINE
- - - - -	PROPOSED RETAINING WALL



PROPOSED CONDITION HYDROLOGIC DESIGN DATA

STORM FREQUENCY	% IMPERVIOUS	SOIL TYPE	TOTAL Q
25-YR	85%	A	5.3 cfs
100-YR	85%	A	6.8 cfs



REVISIONS

NO.	DATE	DESCRIPTION	BY
1	5/1/17	01/27/17 CITY COMMENTS	TAP
2	2/1/17	01/27/17 CITY COMMENTS	TAP

TENTATIVE TRACT MAP
NO. 18088
"FOR CONDOMINIUM PURPOSES"
711 S. EAST STREET
IN THE CITY OF ANAHEIM
COUNTY OF ORANGE, CALIFORNIA
DATE: DECEMBER 17, 2016

Exhibit

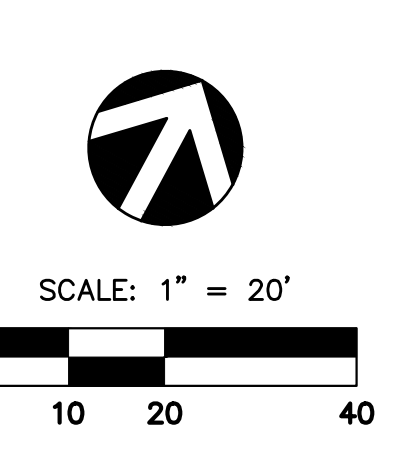
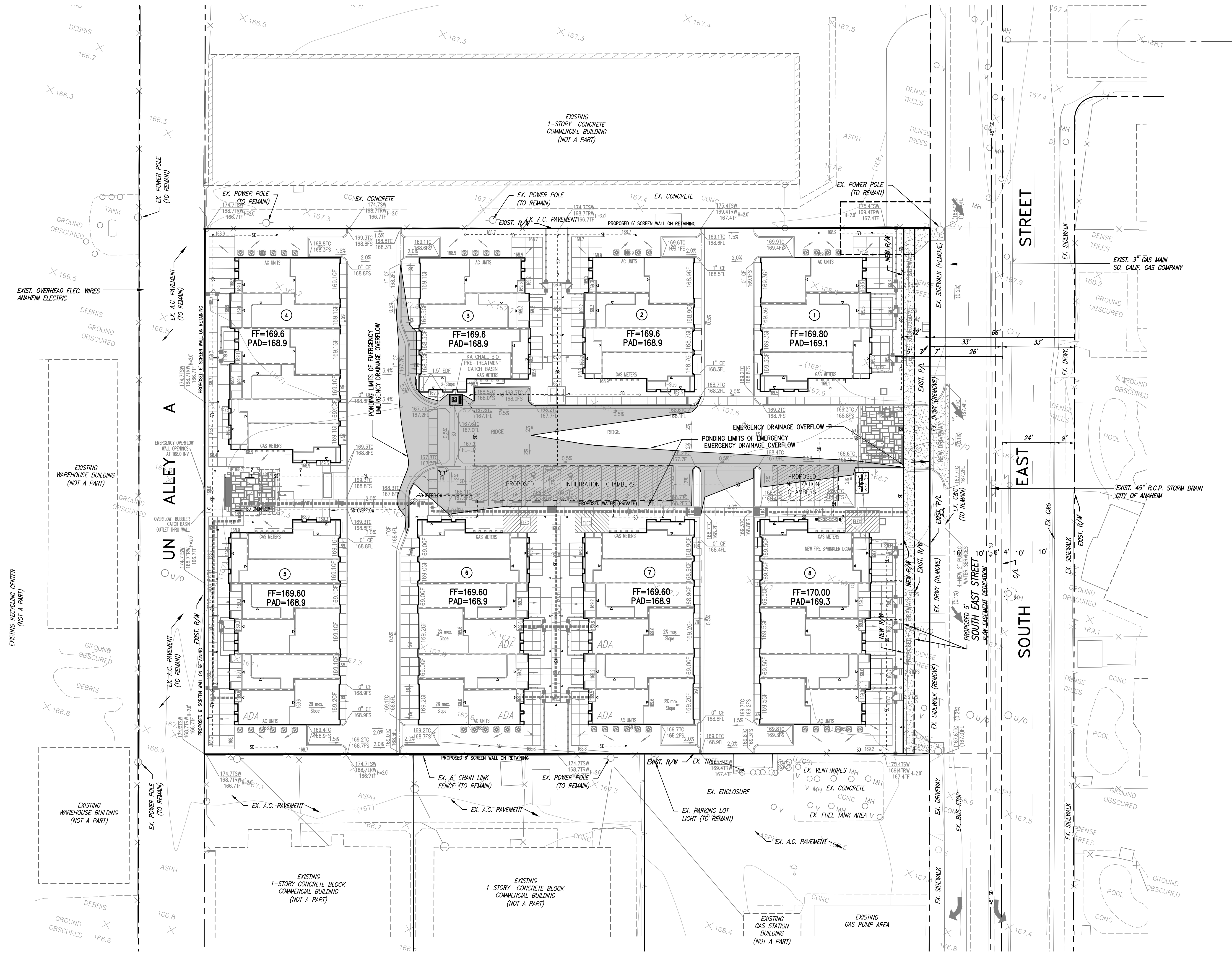
Emergency Overflow Ponding Exhibit

TENTATIVE TRACT MAP NO. 18088

"FOR CONDOMINIUM PURPOSES"

IN THE CITY OF ANAHEIM, COUNTY OF ORANGE, STATE OF CALIFORNIA

PONDING EXHIBIT



REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	5/17/17	CITY COMMENTS	TAP
2	2/28/17	CITY COMMENTS	TAP

PONDING EXHIBIT
 TENTATIVE TRACT MAP
 NO. 18088
 "FOR CONDOMINIUM PURPOSES"
 711 S. EAST STREET
 IN THE CITY OF ANAHEIM
 COUNTY OF ORANGE, CALIFORNIA
 DATE: DECEMBER 17, 2016

Appendix

Appendix F Acoustic Impact Study

Appendix

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ACOUSTIC IMPACT STUDY

711 S. EAST STREET

CITY OF ANAHEIM, CA

Prepared for:

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Prepared by:

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Date:

January 24, 2017

Project No.: P16-056 N

NOISE SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally considered to be unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level.

The decibel (dBA) scale is used to quantify sound pressure levels. Although decibels are most commonly associated with sound, “dBA” is a generic descriptor that is equal to ten times the logarithmic ratio of any physical parameter versus some reference quantity. For sound, the reference level is the faintest sound detectable by a young person with good auditory acuity.

Since the human ear is not equally sensitive to all sound frequencies within the entire auditory spectrum, human response is factored into sound descriptions by weighting sounds within the range of maximum human sensitivity more heavily in a process called “A-weighting,” written as dBA(A). Any further reference in this discussion to decibels written as “dBA” should be understood to be A-weighted.

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called Leq), or alternately, as a statistical description of the sound pressure level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dBA increment be added to quiet time noise levels in a 24-hour noise descriptor called the Ldn (day-night) or the Community Noise Equivalent Level (CNEL). The CNEL metric has gradually replaced the day-night (Ldn) factor, but the two descriptors are essentially identical.

CNEL-based standards are generally applied to transportation-related sources because local jurisdictions are pre-empted from exercising direct noise control over vehicles on public streets, aircraft, trains, etc. The City of Anaheim therefore regulates the traffic noise exposure of the receiving property through land use controls.

Noise/land use compatibility standards for various classes of land uses are generally expressed in the Safety and Noise Element of the General Plan to insure that noise exposure is considered in any development decisions. The City of Anaheim has guidelines for noise exposure standards which are shown in Table 1. For residential uses such as the proposed project, the City recommends an exterior noise exposure of 65 dBA CNEL and interior noise exposure of 45 dBA CNEL.

For “stationary” noise sources such as mechanical equipment (pool pumps, air conditioners, etc.) the City does have legal authority to establish noise performance standards designed to not adversely impact adjoining residential uses. These standards are typically articulated in the jurisdictional Municipal Code. These standards recognize the varying noise sensitivity of both transmitting and receiving land uses. The property line noise performance standards are normally structured according to land use and time of day.

Table 1

City of Anaheim Noise Compatibility Standards

TABLE N-3: STATE OF CALIFORNIA INTERIOR AND EXTERIOR NOISE STANDARDS				
Categories	Land Use	CNEL (dBA)		
	Uses	Interior ¹	Exterior ²	
Residential	Single and multiple-family, duplex		45 ³	65
	Mobile homes		---	65 ⁴
Commercial	Hotel, motel, transient housing		45	---
	Commercial retail, bank, restaurant		55	---
	Office building, research and development, professional offices		50	---
	Amphitheater, concert hall, auditorium, movie theater		45	---
	Gymnasium (Multipurpose)		50	---
	Sports Club		55	---
	Manufacturing, warehousing, wholesale, utilities		65	---
	Movie Theaters		45	---
Institutional/ Public	Hospital, school classrooms/playgrounds		45	65
	Church, library		45	---
Open Space	Parks		---	65

¹ Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors

² Outdoor environment limited to:

- Private yard of single-family dwellings
- Multiple-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)
- Mobile home parks
- Park picnic areas
- School playgrounds
- Hospital patios

³ Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

⁴ Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

CITY OF ANAHEIM NOISE STANDARDS

The City Noise Ordinance is designed to protect people from non-transportation (stationary) noise. The Noise Ordinance for the City of Anaheim sets limits on the level a stationary noise source may impact an adjoining use. Chapter 6.70.010 of the Municipal Code specifies that noise levels cannot exceed 60 dBA at any point on the adjacent property line. Although the noise sensitivity of the receiving use may affect enforcement of the ordinance, the 60 dB noise limit applies to any land use within the City.

Residential uses typically do not generate noise levels that would be regulated by the municipal code. Isolated residential noise events such as loud parties or barking animals may be responded to by law enforcement or animal control agencies as disturbances of the peace if warranted and not under any numerical decibel threshold.

Noise sources associated with construction or building repair are exempt from the City of Anaheim noise standards between the hours of 7:00 AM to 7:00 PM. Additional work hours may be permitted if deemed necessary by the Director of Public Works or Building Official. Therefore, construction of the proposed project is exempt from the City of Anaheim noise standards included in the Municipal Code as long as work is performed during permissible daytime hours.

Additionally, the California Building Code imposes structural acoustical requirements for new residential construction if baseline noise levels exceed specified thresholds. These requirements are addressed through the City of Anaheim Plan Check process. These regulations require that construction be sufficiently acoustically robust to isolate livable space from exterior to interior noise intrusion and from noise transmission through shared wall and through floor/ceiling assemblies.

BASELINE NOISE LEVELS

A short term on-site noise measurement was made in order to document existing baseline levels in the project area. This helps to serve as a basis for projecting noise from the surrounding area on the project. Noise monitoring was conducted on Tuesday, August 9, 2016, at one on-site location between the hours of 11:15 a.m.-12:15 p.m. The measurement location is shown in Figure 1 and summarized below.

Measured Noise Level (dBA)

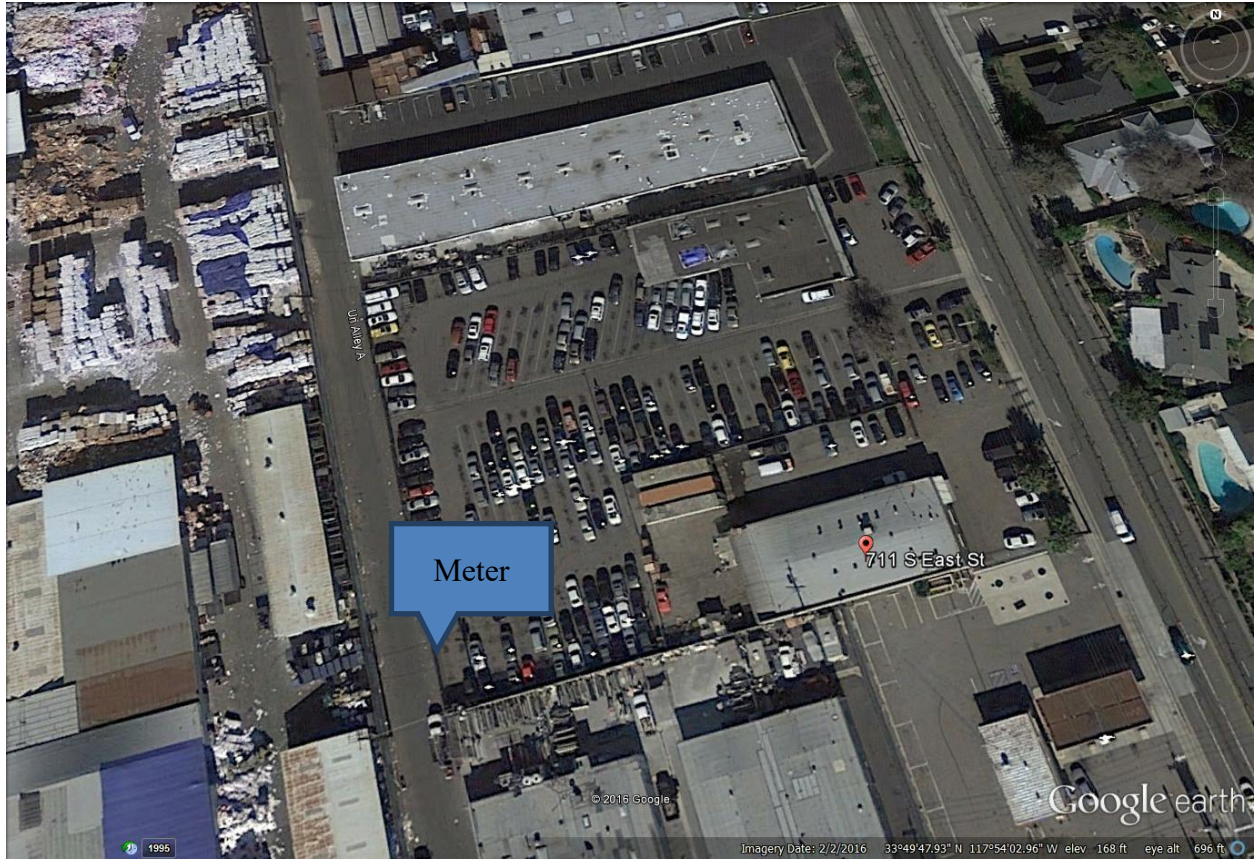
Leq	Lmax	Lmin	L10	L33	L50	L90
64	78	48	67	63	60	54

The noise meter was placed along the western property line and captured noise from the adjacent recycling facility. Monitoring experience shows that 24-hour weighted CNELs can be reasonably well estimated from mid-day noise readings. CNELs are approximately equal to mid-day Leq plus 2-3 dB (Caltrans Technical Noise Supplement, 2009). An Leq of 64 dB would translate to a CNEL of 67 dB. This noise level is slightly above the recommended 65 dB CNEL compatibility threshold for residential use. However, the conversion from hourly readings to CNEL is based upon a typical fraction of daytime activities and ten-fold weighted nocturnal sources. With little or no nocturnal recycling activity, the calculated CNEL may actually be measurably lower than the observed hourly Leq level.

The Municipal Code noise standard is 60 dB Leq at any off-site property line. Recycling facility activities (balers, forklifts, trucks, banging metal containers, etc.) already cause the standard to be violated. Surrounding commercial or industrial uses are likely unaffected by current noise levels because they are not considered noise-sensitive uses. The proposed conversion of the used car auction lot to residential use is likely to reduce the noise impact of on-site activities on the existing noise environment. The periodic auto auction generates considerable noise on auto auction days with delivery and pick-up of cars by auto haulers, purchaser traffic, and loud speakers designed to be audible over the entire lot.

Figure 1

Noise Monitor Location



NOISE IMPACTS

A recent ruling by the California Supreme Court (*CBIA v Bay Area AQMD*, 2015) concluded that:

“agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents”

It is the project’s impact on the environment and not the environments impact on the project that must be analyzed under CEQA. Thus, although noise levels from the adjacent recycling center exceed the City of Anaheim stationary noise ordinance standard, that fact is not a CEQA issue unless project activities were to substantially exacerbate that existing violation.

An infill three-story residential project is not a noise generator that would measurably worsen the surrounding noise environment, and will likely improve it compared to the existing auto auction site use. It should further be noted that Table N-3 of the City of Anaheim General Plan (Noise Standards) specifically exempts outdoor decks or balconies from noise/land use compatibility if usable outdoor recreational space is 6-feet deep or less. Any planned outdoor decks or balconies are less than 6 feet deep along site perimeter units. Even without the recent finding that CEQA would not require an analysis/mitigation of the effects of the acoustic environment upon usable outdoor project space, general plan policy would exempt such an analysis.

It should also be noted that the planning policy is based on the CNEL metric, a weighted 24-hour average. The noise associated with the recycling plant is a daytime noise without the + 10 dB nocturnal noise penalty associated with the CNEL 2

One may thus conclude that any mitigation analysis is not required under CEQA. The outdoor space is exempt by general plan policy, and the 65 dB CNEL standard is barely exceeded along the eastern and western frontages, if at all. However, the banging of metal containers, operation of crushing and baling equipment, semi-continuous back-up alarms, forklifts loading baled recyclables and trucks traveling in and out of the recycling facility may create intrusive single noise events. Consistent with City of Anaheim standards, adequate structural noise protection will be needed to insure that these single events do not penetrate planned livable space.

Outdoor to indoor noise penetration is dependent upon whether windows are open or closed, and whether windows are single or dual glazed. The noise stopping power in residential construction is related to the sound transmission class (STC) rating of closed windows. A confirming acoustical report will be required at Plan Check to verify that the Building Code standard of 45 dB CNEL will be met in habitable space. The exterior façade noise loading on the east frontage from traffic and the west frontage from industrial noise is perhaps 67 dB CNEL. Any windows/door with an STC = 22 or better will meet code as long as the occupants have the option to tightly close the fenestration. The option to close the window/door requires the provision of supplemental ventilation. Air conditioning with a fresh air intake duct for makeup air would meet this requirement.

Shared wall assemblies in duplex construction must meet STC standards for noise leakage between units. Building plans must indicate the sound rating of any proposed “party walls” and cite the acoustical laboratory STC findings and the test report numbers. Typically, fire-rated assemblies also meet the sound limits as long as care is used to minimize or protect any shared wall penetrations.

CONSTRUCTION NOISE IMPACTS

The proposed project would entail construction of eight structures containing a total of 42 units on the western perimeter of S East Street. Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by demolition of existing structures and large earth-moving sources, then by foundation and parking facilities, and finally for finish construction. The demolition and earth-moving sources are the noisiest, with equipment noise typically ranging from 75 to 90 dB at 50 feet from the source.

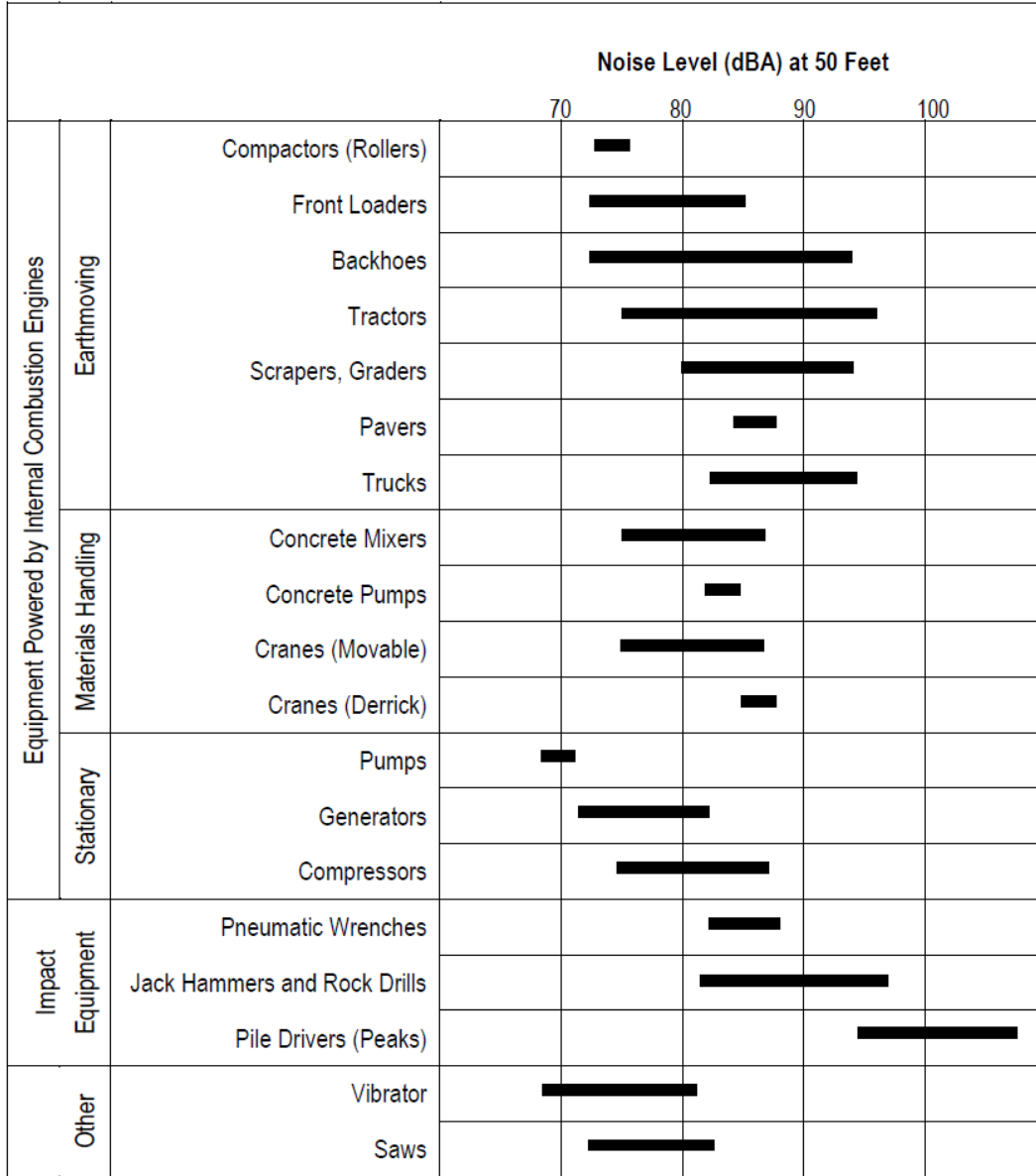
The proposed buildings will be built on a level site. No major grading will be performed although there is demolition. Peak noise levels from demolition equipment are seen in Figure 2 to be 85 dB at 50 feet. The closest homes are approximately 150 feet east of the existing buildings to be demolished. The homes are approximately 110 feet from the closest project property line. All but one of the existing homes has a 5-foot noise wall at the property line.

At these setback distances, maximum construction noise would dissipate to 75 dB for the home without a noise wall and 70 dB for the homes with a wall. Construction noise could be disturbing if windows facing the construction activity were open. Temporary window closure would help minimize disturbance to quiet activities such as taking a nap, reading a book, talking on the phone, etc., but noise levels will still be noticeable. However, many people are away from home during the hours from 7 a.m. to 3 p.m. when temporary construction disturbance would be greatest. In addition, the existing industrial uses in the project area would help mask any project related construction noise.

Construction activities are exempt from numerical noise regulations if they occur during the hours allowed by the Municipal Code. However, as noted above, heavy equipment noise may be a nuisance even if generated during allowable hours. Compliance with these hours (7 a.m. to 7 p.m. Monday-Saturday) will maintain construction activity noise impacts at less-than-significant. Noise sources associated with construction or building repair are exempt from the noise standards.

Figure 2

Typical Construction Equipment Noise Generation Levels



Source: EPA PB 206717, Environmental Protection Agency, December 31, 1971, "Noise from Construction Equipment and Operations."

CONSTRUCTION ACTIVITY VIBRATION

Construction activities generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Within the “soft” sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than to human annoyance.

Possible vibration nuisance is most commonly expressed in terms of the root mean square (RMS) velocity of a vibrating object. RMS velocities are expressed in units of vibration decibels relative to a reference velocity of 1.0 micro-inch per second. The range of vibration decibels (VdB) is as follows:

65 VdB	-	threshold of human perception
72 VdB	-	annoyance due to frequent events
80 VdB	-	annoyance due to infrequent events
100 VdB	-	minor cosmetic damage

To determine potential impacts of the project’s construction activities, estimates of vibration levels induced by the construction equipment at various distances are presented below:

Equipment	Approximate Vibration Levels (VdB)*			
	50 feet	100 feet	110 feet	150 feet
Large Bulldozer	81	75	74	71
Loaded Truck	80	74	73	70
Jackhammer	73	67	66	63
Small Bulldozer	52	46	45	42

* (FTA Transit Noise & Vibration Assessment, Chapter 12, Construction, 1995)

The on-site construction equipment that will create the maximum potential vibration is a large bulldozer. The stated vibration source level in the FTA Handbook for such equipment is 81 VdBA at 50 feet from the source. With typical vibrational energy spreading loss, the vibration annoyance standard is met at 56 feet. The closest residence is 110 feet from the closest project structure. At this distance a bulldozer, even operating near the project property line will likely not be perceptible due to traffic from S East Street, particularly trucks, in addition to recycling center operation would mask any residual construction vibration.

HVAC NOISE

Mechanical equipment typically includes heating, ventilating and air-conditioning equipment. Noise generated mechanical equipment varies significantly depending upon the equipment type

and size. The project proposes 2-ton air conditioning units to be housed behind a 6-foot CMU block wall at the sides of the buildings.

Literature from Carrier and Trane Industries shows residential equipment has a sound level of 50-60 dB. For this project, since only smaller units would be necessary, an average 55 dB was used. Because the units are clustered in groups of 3 or 6, the noise level could be as high as 63 dB if 6 units were all operating simultaneously.

The nearest air conditioning unit is at least 120 feet to the sensitive receptors across S East Street. Distance attenuation would reduce noise levels by 38 dB. In addition, the 6-foot block wall shielding the units would provide at least another 6 dB of attenuation. The resultant 20 dB of noise that would be expected at the nearest residential property line would be significantly below ambient noise levels and not be perceptible. The noise level would be significantly below the City of Anaheim 60 dB maximal noise level for stationary equipment at the nearest sensitive use. The surrounding warehouses and recycling plant are not considered a sensitive use and were not considered in this analysis.

Appendix

Appendix G Traffic Impact Analysis

Appendix

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TRAFFIC IMPACT ANALYSIS

EAST AND SOUTH STREET
CITY OF ANAHEIM, CALIFORNIA

LSA

April 2017

TRAFFIC IMPACT ANALYSIS

EAST AND SOUTH STREET
CITY OF ANAHEIM, CALIFORNIA

Submitted to:

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(949) 553-0666

Project No.: OLC1604

The logo for LSA, consisting of the letters 'L', 'S', and 'A' in a bold, blue, sans-serif font.

April 2017

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INTRODUCTION

LSA has prepared the following analysis to identify the potential traffic impacts resulting from the development of 42 townhome dwelling units on 1.786 acres (ac) near the intersection of South East Street and East South Street (proposed project) in the City of Anaheim (City), California. For the purposes of this analysis, “East Street” and “South Street” refer to the portions of South East Street and East South Street, respectively, in the immediate vicinity of the proposed project. In accordance with the scope of work, LSA has prepared this analysis consistent with the requirements of the City and with applicable provisions of the California Environmental Quality Act (CEQA).

The purpose of this traffic impact analysis is to provide a focused analysis of the proposed project within the Colony District. Figure 1 shows the location of the project site. The traffic analysis for the proposed project examines six scenarios:

1. Existing conditions
2. Existing plus project conditions
3. Future (2019) baseline conditions
4. Future (2019) plus project conditions
5. General Plan buildout baseline conditions
6. General Plan buildout plus project conditions

PROJECT DESCRIPTION

The existing 1.786 ac site is currently occupied by two businesses located at 711 East Street and 633 East Street. The two sites are accessed by separate unsignalized full-access driveways onto East Street. One business performs screen printing and the other is an automobile storage lot that auctions vehicles to dealerships. Auctions occur Mondays at 6:00 p.m. and Fridays at 12:00 p.m.

The proposed project will demolish the existing uses and construct 42 townhome dwelling units. The two existing driveways will be consolidated into one unsignalized full-access driveway on East Street. This driveway is further analyzed in the Access Analysis section of this report. A site plan of the proposed project is illustrated on Figure 2.

METHODOLOGY

The study area analyzed in this report includes the following intersections:

1. East Street/Santa Ana Street
2. East Street/South Street

Additionally, this report analyzes the effects to roadway average daily traffic (ADT) on East Street between Santa Ana Street and South Street. Figure 1 illustrates the locations of the intersections included in the study area.

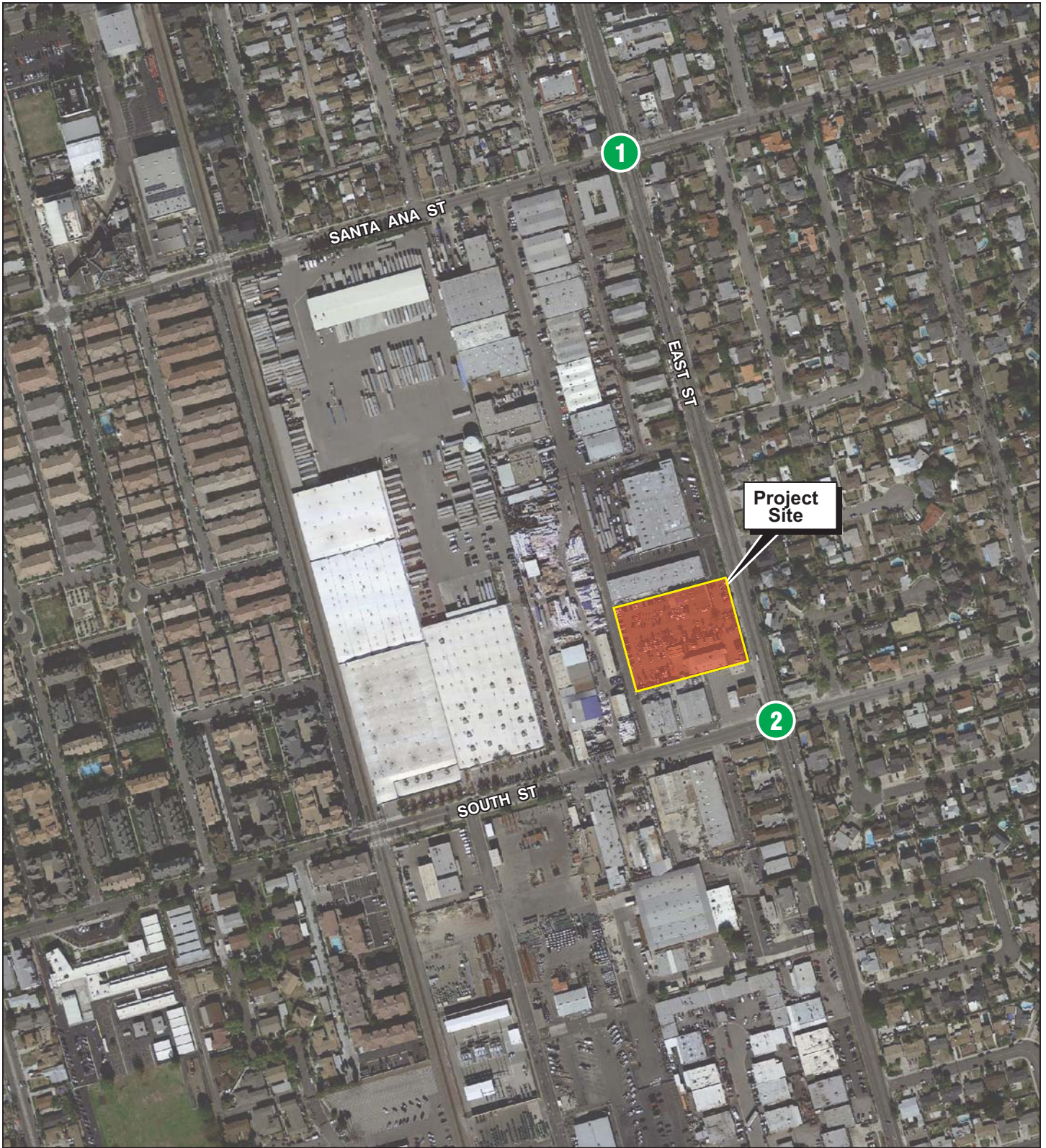


FIGURE 1

LSA

LEGEND

- Study Area Intersection



0 200 400
FEET

SOURCE: Google Earth

I:\OLC1604\G\Location.cdr (12/30/2016)

East and South Street
Project Location

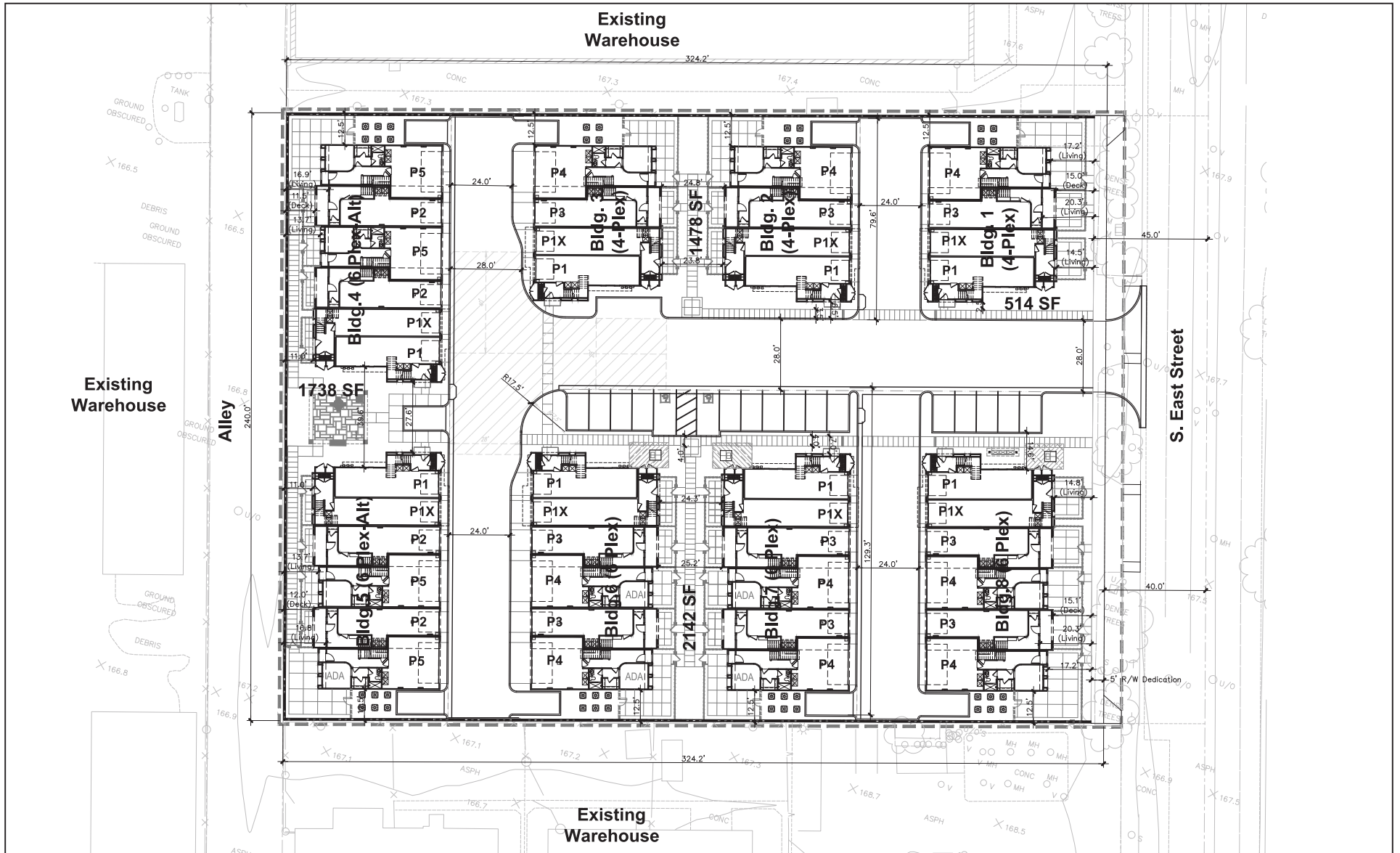
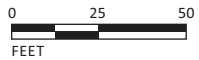


FIGURE 2

LSA



SOURCE: KTG

I:\OLC1604\G\Site Plan.cdr (1/17/2017)

Intersection Level of Service Methodology

In accordance with the City's *Criteria for Preparation of Traffic Impact Studies*, the study area intersections were analyzed using Intersection Capacity Utilization (ICU) methodology for signalized intersections (i.e., study area intersections) and Highway Capacity Manual 2010 (HCM 2010) methodology for unsignalized intersections (i.e., project driveways). *Traffix* (Version 8.0) and *Synchro* 9.1 are the software applications utilized to determine the levels of service (LOS) for signalized and unsignalized intersections, respectively. These programs calculate LOS based on traffic volume and intersection geometry inputs.

The ICU methodology compares the amount of traffic an intersection is able to process (capacity) to the level of traffic during peak hours (volume). The resulting volume-to-capacity (v/c) ratio is expressed in terms of LOS. The HCM 2010 methodology calculates the delay experienced by all movements through an intersection. At a two-way, stop-controlled intersection (i.e., unsignalized intersections where the main street is uncontrolled and the minor street has to stop before finding a gap to enter the main street), delay is reported for the most delayed approach. LOS criteria for intersections are presented below.

LOS Descriptions. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. LOS is assigned along the following letter gradient where LOS A represents free-flow activity, and LOS F represents overcapacity operation:

- **LOS A:** No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
- **LOS B:** This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
- **LOS C:** This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
- **LOS D:** This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
- **LOS E:** Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
- **LOS F:** This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

The relationship between LOS and the delay (in seconds) or v/c ratio at unsignalized and signalized intersections is as follows:

Level of Service	Delay (seconds) (HCM Methodology)	Volume-to-Capacity Ratio (ICU Methodology)
A	≤10.0	< 0.60
B	>10.0 and ≤15.0	0.61–0.70
C	>15.0 and ≤25.0	0.71–0.80
D	>25.0 and ≤35.0	0.81–0.90
E	>35.0 and ≤50.0	0.91–1.00
F	>50.0	> 1.00

HCM = Highway Capacity Manual
ICU = intersection capacity utilization

The City’s guidelines specify the use of a saturation flow rate of 1,700 vehicles per lane per hour and a clearance interval factor of 5 percent. These have been applied in the analysis of all signalized study area intersections.

Roadway Segment Level of Service Methodology

Using the same v/c methodology discussed above, daily roadway link v/c ratios were determined using roadway volume data and the theoretical daily capacities determined by the Circulation Element of the Orange County General Plan. Existing and future roadway volumes are based on volume data collected via pneumatic tube along East Street on Tuesday, December 20, 2016. The theoretical daily capacity of a roadway is dependent on roadway classification, as shown in the table below.

Type of Arterial	Daily Capacity
Eight Lanes Divided	75,000
Six Lanes Divided	56,300
Four Lanes Divided	37,500
Four Lanes (Undivided)	25,000
Two Lanes (Undivided)	12,500

Source: Orange County General Plan, Circulation Element, Table IV-2B.

For roadway segments, the City General Plan establishes a target of LOS C. If a segment is found to operate at LOS D, E, or F under daily conditions, its operation is also analyzed under peak-hour conditions. If the roadway segment also operates at LOS D, E, or F under peak-hour conditions and project traffic increases the daily v/c ratio by 0.01 or greater, then the project is determined to have a significant impact. The relationship between LOS and the v/c ratio for roadways is shown in the following table.

Level of Service	V/C Ratio
A	≤ 0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00

V/C = volume-to-capacity

Significance Criteria

A transportation impact on an intersection is considered significant in accordance with the following table. The “Final V/C Ratio” includes the future v/c ratio at an intersection, considering traffic from existing conditions, ambient growth, approved/related projects, and the proposed project but without any proposed mitigation. Mitigation is required for any intersection where project traffic is considered to have a significant impact.

Level of Service	Final V/C Ratio	Project-Related Increase in V/C Ratio
C	> 0.701–0.800	≥ 0.050
D	> 0.801–0.900	≥ 0.030
E, F	> 0.901	≥ 0.010

Source: City of Anaheim, *Criteria for Preparation of Traffic Impact Studies*.

V/C = volume-to-capacity

EXISTING CONDITION

Existing Circulation System

Key roadways in the vicinity of the proposed project are as follows:

- East Street:** East Street is a north-south roadway located east of and adjacent to the project site and is classified as a Secondary Arterial by the City’s General Plan Circulation Element. East Street is a four-lane roadway divided by a two-way left-turn (TWLT) lane that acts as a median. East Street provides direct access to the project site and therefore facilitates all of the trips generated by the project. The posted speed limit on East Street is 35 miles per hour (mph). There are sidewalks provided on both sides of the street. There are no bike lanes, and on-street parking is not permitted.
- South Street:** South Street is an east-west roadway located south of the project site and is classified as a Collector Street by the City’s General Plan Circulation Element. It is a two-lane, undivided roadway. The posted speed limit on South Street is 35 mph. There are sidewalks on both sides of the street, and on-street parking is permitted. Bike lanes are not provided.
- Santa Ana Street:** Santa Ana Street is an east-west roadway located north of the project site and is classified as a Collector Street by the City’s General Plan Circulation Element. It is a two-lane undivided roadway. The posted speed limit on Santa Ana Street is 35 mph. There are sidewalks on both sides of the street, and on-street parking is permitted. Bike lanes are not provided.

Existing Intersection Level of Service Analysis

Vehicle turning volumes were collected for the study area intersections during the peak morning (7:00 a.m.–9:00 a.m.) and evening (4:00 p.m.–6:00 p.m.) commute periods. LSA confirmed schools were in session with typical hours prior to scheduling data collection. Peak-hour intersection turn volumes were surveyed on a typical weekday (Tuesday, December 20, 2016) at the two study area intersections. These volumes were taken in 15-minute increments and then totaled as hourly volumes, which is the standard procedure for volume data collection. Figure 3 presents the existing a.m. and p.m. peak-hour turn movement volumes for the study area intersections as determined by this method. The traffic volume data sheets are provided in Appendix A.

Table A summarizes the results of the existing a.m. and p.m. peak-hour LOS analysis for the two study area intersections. All ICU analysis worksheets are provided in Appendix B. As Table A indicates, all study area intersections operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours.

Table A: Existing Intersection Level of Service Summary

Study Area No.	Intersections	AM Peak Hour		PM Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS
1	East Street/Santa Ana Street	0.43	A	0.50	A
2	East Street/South Street	0.60	A	0.56	A

LOS = level of service

V/C = volume-to-capacity

Existing Roadway Segment Level of Service Analysis

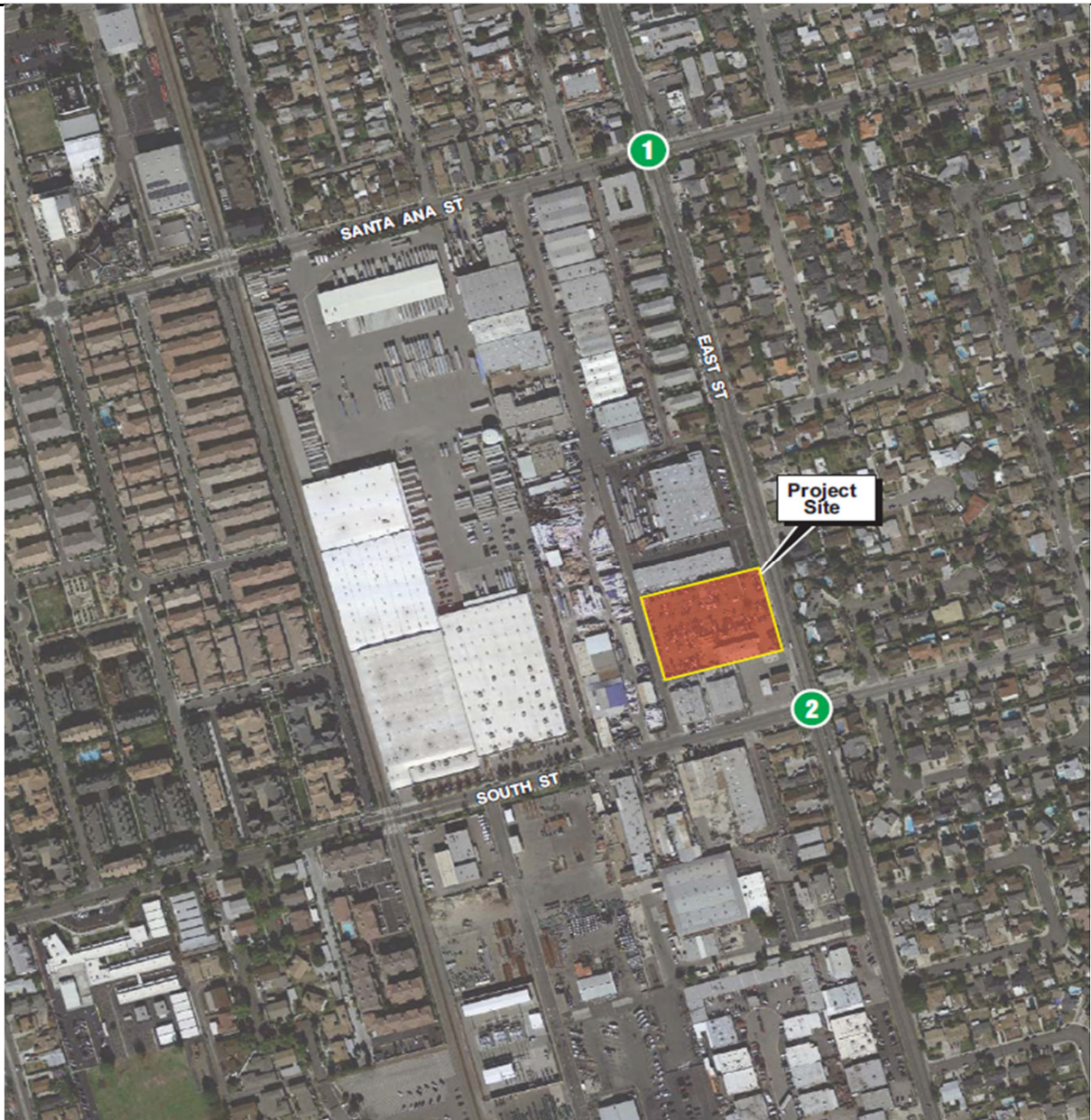
According to the volume data collected on Tuesday, December 20, 2016, the existing daily traffic volume on East Street between Santa Ana Street and South Street is approximately 13,552 average daily traffic (ADT). With a roadway capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.36. The study area roadway segment operates at a satisfactory LOS A in the existing condition.

FUTURE (2019) BASELINE CONDITION

The proposed project is anticipated to be completed by 2019. LSA did not identify any approved or pending projects in the vicinity of the proposed project that would have the potential to add measurable traffic to the study intersections. In order to account for ambient traffic growth in future year baseline traffic volumes, existing roadway and intersection volumes were escalated 1 percent per year, for a total of 2 percent over the next 2 years.

Future (2019) Baseline Intersection Level of Service Analysis

Intersection geometrics at the study area intersections are not anticipated to change by the project opening year. The future a.m. and p.m. peak-hour traffic volumes are shown on Figure 4. Table B summarizes the results of the future a.m. and p.m. peak-hour LOS analysis for both study area



↖ 24 / 32	↗ 571 / 410	↘ 66 / 77	↙ 57 / 94
↖ 62 / 70	↗ 213 / 143	↘ 65 / 35	↙ 169 / 200
↖ 28 / 48	↗ 243 / 617	↘ 26 / 34	↙ 47 / 28

1 East Street/Santa Ana Street

↖ 35 / 38	↗ 594 / 370	↘ 43 / 44	↙ 59 / 61
↖ 34 / 55	↗ 186 / 92	↘ 71 / 26	↙ 188 / 152
↖ 19 / 44	↗ 183 / 548	↘ 37 / 58	↙ 66 / 28

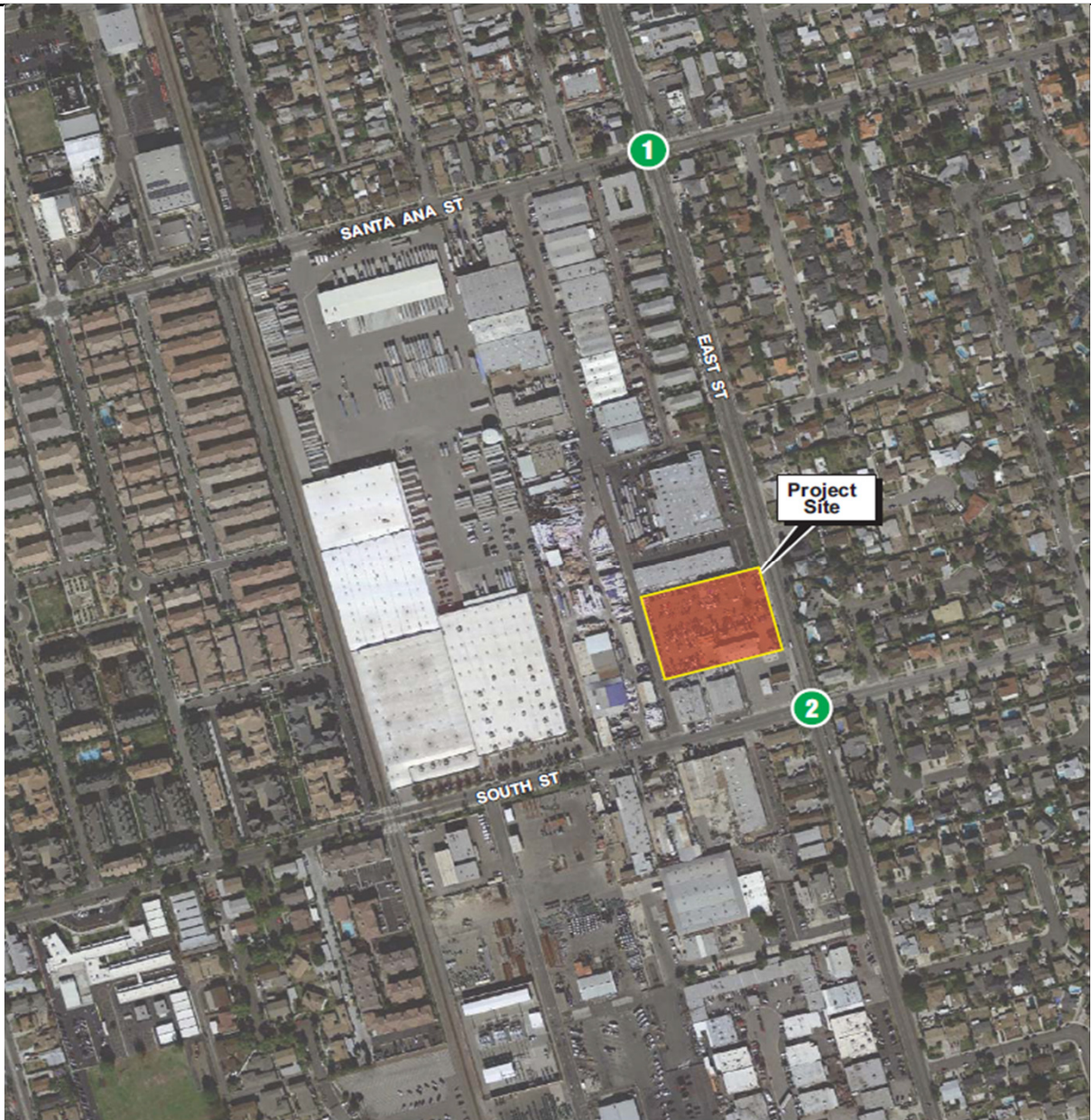
2 East Street/South Street

LSA

XXX / YYY AM / PM Volume

FIGURE 3

East and South Street
Existing Volumes



↖ 24 / 33	↘ 582 / 418	↙ 67 / 79	↗ 58 / 96
↖ 63 / 71	↘ 217 / 146	↙ 66 / 36	↗ 172 / 204
↖ 29 / 49	↘ 248 / 629	↙ 27 / 35	↗ 48 / 29

1 East Street/Santa Ana Street

↖ 36 / 39	↘ 606 / 377	↙ 44 / 45	↗ 60 / 62
↖ 35 / 56	↘ 190 / 94	↙ 72 / 27	↗ 192 / 155
↖ 19 / 45	↘ 187 / 559	↙ 38 / 59	↗ 67 / 29

2 East Street/South Street

LSA

XXX / YYY AM / PM Volume

FIGURE 4

East and South Street
Future (2019) Baseline Volumes

Table B: Future (2019) Baseline Intersection Level of Service Summary

Study Area No.	Intersections	AM Peak Hour		PM Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS
1	East Street/Santa Ana Street	0.44	A	0.51	A
2	East Street/South Street	0.61	B	0.57	A

LOS = level of service
V/C = volume-to-capacity

intersections. As this table indicates, all study area intersections operate at an acceptable LOS in the a.m. and p.m. peak hours in the future (2019) baseline condition.

Future (2019) Baseline Roadway Segment Level of Service Analysis

Existing roadway traffic volume was also escalated by 2 percent to account for regional traffic growth. The projected future daily volume along East Street between Santa Ana Street and South Street is 13,823 ADT. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.37. The study area roadway segment operates at a satisfactory LOS A in the future (2019) baseline condition.

GENERAL PLAN BUILDOUT BASELINE CONDITION

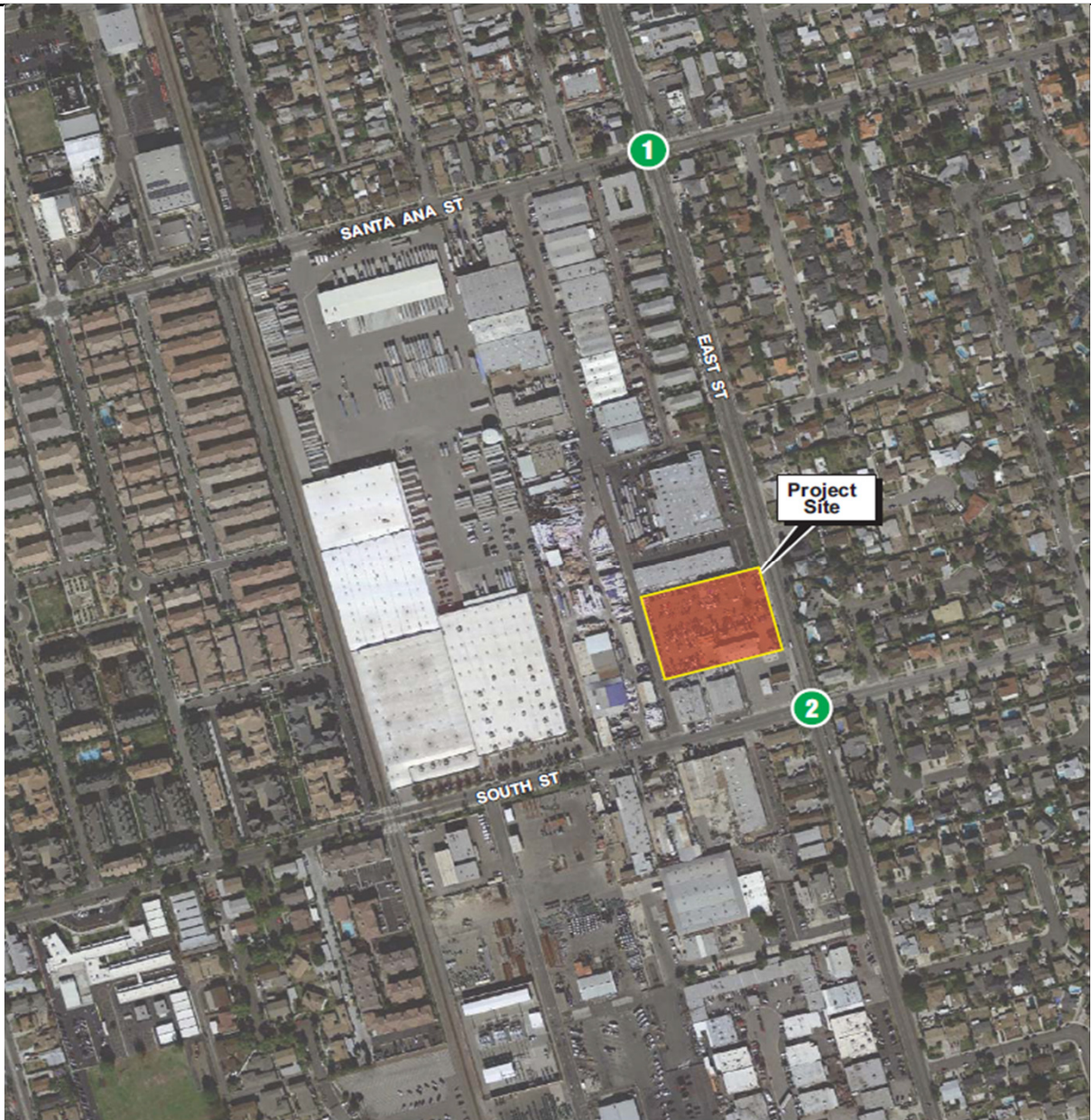
The City analyzed the conversion of this property to residential with the certified Housing Opportunities Rezoning Project (Supplemental Environmental Impact Report [SEIR] 346). At that time, a density of 18 dwelling units per acre (32 dwelling units) was analyzed. The City of Anaheim Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study (Iteris, July 2013) included the intersection of East Street/South Street in the analysis. This data forms the baseline for analysis of the proposed project, which increases the number of dwelling units to 42.

General Plan Buildout Baseline Intersection Level of Service Analysis

Intersection geometrics at the study area intersections are anticipated to change slightly in the General Plan buildout. The southbound and northbound approaches at East Street/South Street currently have one right-turn, one through, and one left-turn movement for each approach. According to the General Plan, the right-turn only lane will become a shared through-right lane on both approaches. The General Plan buildout a.m. and p.m. peak-hour traffic volumes from the Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study are shown on Figure 5. Table C summarizes the results of the future a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table C indicates, all study area intersections operate at an acceptable LOS in the a.m. and p.m. peak hours in the General Plan buildout baseline condition.

General Plan Buildout Baseline Roadway Segment Level of Service Analysis

The City of Anaheim Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study (Iteris, July 2013) did not analyze daily traffic conditions along East Street or South Street. Roadway



↖ 35 / 32	↘ 1198 / 750	↗ 54 / 81	↖ 72 / 59
↙ 59 / 70	↘ 130 / 113	↗ 44 / 27	↖ 163 / 137
↙ 29 / 29	↘ 522 / 1071	↗ 76 / 62	↖ 41 / 46

1 East Street/Santa Ana Street

↖ 145 / 79	↘ 1340 / 581	↗ 46 / 65	↖ 43 / 64
↙ 72 / 114	↘ 304 / 278	↗ 106 / 54	↖ 211 / 309
↙ 30 / 63	↘ 293 / 1127	↗ 43 / 54	↖ 92 / 40

2 East Street/South Street

LSA

XXX / YYY AM / PM Volume

FIGURE 5

East and South Street
General Plan Buildout Baseline Volumes

Source: Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study (Iteris, July 2013)

Table C: General Plan Buildout Baseline Intersection Level of Service Summary

Study Area No.	Intersections	AM Peak Hour		PM Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS
1	East Street/Santa Ana Street	0.60	A	0.59	A
2	East Street/South Street	0.80	C	0.72	C

LOS = level of service

volumes on East Street for the General Plan buildout scenarios have therefore been developed using the p.m. peak-hour intersection turn movement volumes. The General Plan buildout intersection turn movement volumes disclosed in SEIR 346 indicate a p.m. peak-hour volume of 2,030 vehicles along East Street. By applying an industry standard factor (i.e., 10 percent of daily traffic occurs during the p.m. peak hour), the General Plan buildout daily volume along East Street between Santa Ana Street and South Street is estimated at 20,300 ADT. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.54. The study area roadway segment operates at a satisfactory LOS A in the General Plan buildout baseline condition.

PROJECT IMPACTS

Trip Generation

As stated previously, the project site is currently occupied by two businesses: one performs screen printing, and the other is an automobile storage lot that auctions vehicles to dealerships. Auctions occur Mondays at 6:00 p.m. and Fridays at 12:00 p.m. Neither business is easily placed into an Institute of Transportation Engineers (ITE) Trip Generation category. In order to calculate existing trip generation, LSA contracted with an independent data collection company to obtain driveway volumes in the p.m. peak hour on Monday, December 19, 2016 (auction day) and in a.m. and p.m. peak hours the following Tuesday, December 20, 2016 (typical weekday) for 711 East Street (Driveway 1) and 633 East Street (Driveway 2). Given the potential for parking intrusion into the nearby residential neighborhood, pedestrian traffic into 633 East Street was also noted.

For the purposes of determining the trip generation for the existing sites, the typical weekday volumes were used. However, it should be noted that the survey during the auction period on Monday showed a slightly higher volume of vehicles along with pedestrian volumes from vehicles parked in a nearby residential neighborhood.

According to the driveway vehicular volumes, the combined volume of the two driveways (i.e., existing trip generation) was 16 a.m. peak-hour trips (11 inbound and 5 outbound), and 33 p.m. peak-hour trips (9 inbound and 24 outbound) on a typical weekday.

The trip generation potential of the proposed project was calculated using a trip generation rate for townhomes found in the ITE *Trip Generation*, Ninth Edition (2012). The trip generation comparison for the proposed project is summarized in Table D. As Table D indicates, the proposed project is anticipated to generate 244 daily trips, 19 a.m. peak-hour trips (3 inbound and 16 outbound), and 22

Table D: Trip Generation Comparison

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Existing Trip Generation ¹									
Driveway 1 (711 East Street)				5	2	7	2	13	15
Driveway 2 (633 East Street)				6	3	9	7	11	18
<i>Subtotal</i>				<i>11</i>	<i>5</i>	<i>16</i>	<i>9</i>	<i>24</i>	<i>33</i>
Proposed Project Trip Rates ²									
Residential Condominium/Townhome (230)		DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Proposed Project Trip Generation									
Townhomes	42	DU	244	3	16	19	15	7	22
Net Trip Generation (Proposed - Existing)				(8)	11	3	6	(17)	(11)

¹ Trip generation based on the existing driveway volumes from Tuesday, December 20, 2016.

² Trip rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition (2012).

ADT = average daily traffic

DU = dwelling units

p.m. peak-hour trips (15 inbound and 7 outbound). With the project, there are 3 additional a.m. peak-hour trips and 11 fewer p.m. peak-hour trips than the existing condition.

Trip Distribution and Assignment

The potential routes from the project (north to Lincoln Avenue, east to State College Boulevard, south to Ball Road, and west to Harbor Boulevard) appear to have relatively equal utility. Therefore, LSA distributed project trips equally in all directions with east-west movements assigned to South Street. Figure 6 illustrates the net project trip distribution and the a.m. and p.m. peak-hour trip assignment volumes.

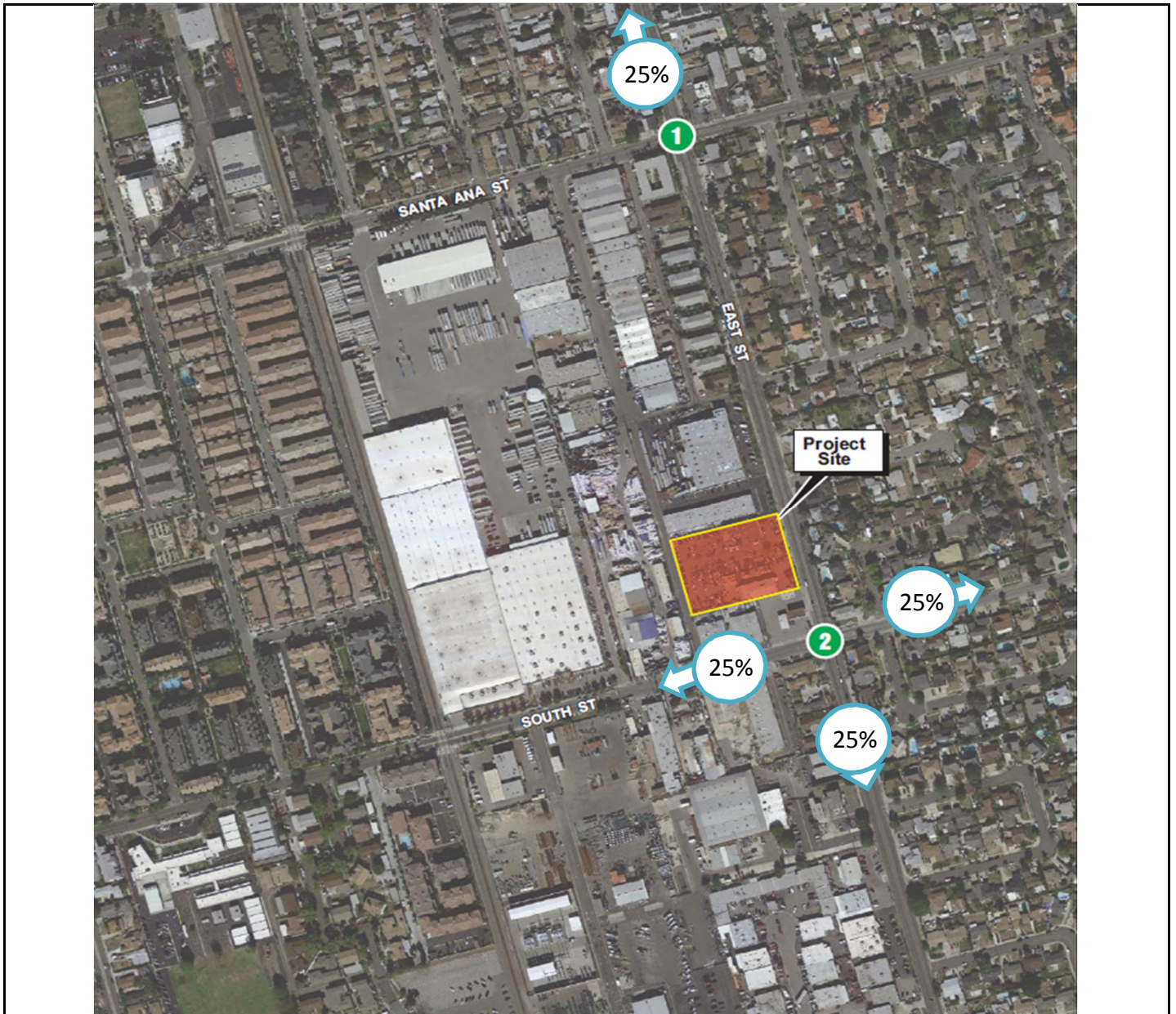
EXISTING PLUS PROJECT CONDITION

The net project trips were added to the existing traffic volumes at the study area intersections and roadway segments. Figure 7 shows the resulting existing plus project a.m. and p.m. peak-hour traffic volumes.

Existing Plus Project Intersection Level of Service Analysis

Table E summarizes the results of the existing plus project a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table E indicates, all study area intersections are anticipated to operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours with implementation of the proposed project.

Based on the City's criteria for determining significant traffic impacts (as described in the Methodology section of this report), the proposed project is not expected to result in a significant impact at any of the study area intersections.



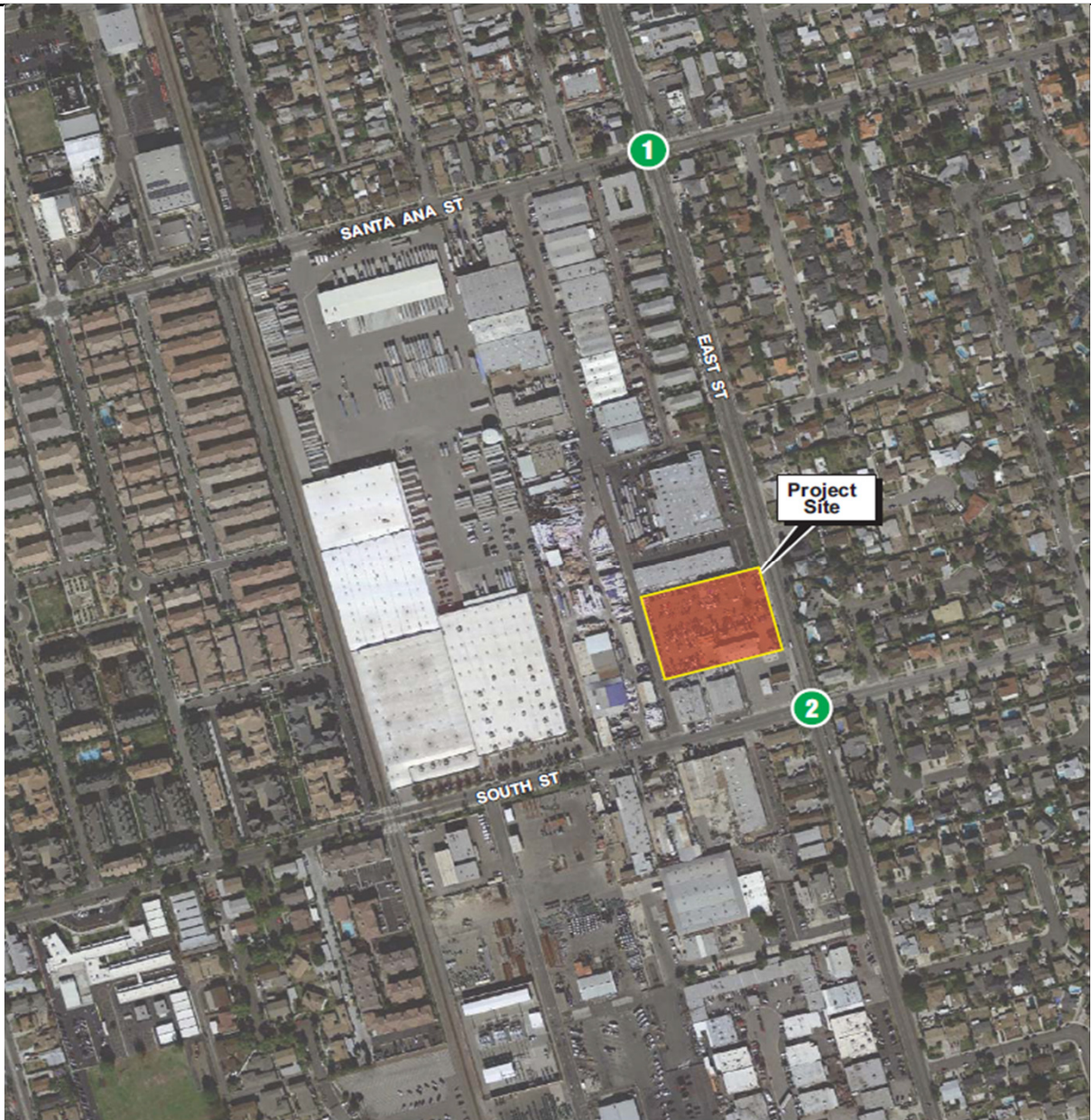
<p>1 East Street/Santa Ana Street</p>	<p>2 East Street/South Street</p>	
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LSA FIGURE 6

XXX / YYY East and South Street

AM / PM Volume Net Project Trip Assignment and Distribution

Trip Distribution Percentage



↖ 24 / 32	↘ 569 / 411	↗ 66 / 77	↖ 57 / 94
↘ 62 / 70	↗ 213 / 143	↖ 65 / 35	↘ 169 / 200
↖ 28 / 48	↘ 246 / 613	↗ 26 / 34	↖ 47 / 28

1 East Street/Santa Ana Street

↖ 37 / 33	↘ 597 / 366	↗ 46 / 40	↖ 57 / 62
↘ 32 / 57	↗ 186 / 92	↖ 71 / 26	↘ 188 / 152
↖ 19 / 44	↘ 181 / 550	↗ 37 / 58	↖ 66 / 28

2 East Street/South Street

LSA

XXX / YYY AM / PM Volume

FIGURE 7

East and South Street
Existing Plus Project Volumes

Table E: Existing Plus Project Intersection Level of Service Summary

Study Area No.	Intersections	Baseline				Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
1	East Street/Santa Ana Street	0.43	A	0.50	A	0.43	A	0.50	A
2	East Street/South Street	0.60	A	0.56	A	0.60	B	0.56	A

LOS = level of service
V/C = volume-to-capacity

Existing Plus Project Roadway Segment Level of Service Analysis

With the addition of 244 ADT generated by the project to the existing ADT of 13,552, the existing plus project ADT along East Street between Santa Ana Street and South Street is 13,796 trips. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.37. The study area roadway segment will continue to operate at a satisfactory LOS A in the existing plus project condition. According to this analysis, the study area roadway segments operate at a satisfactory LOS with the addition of the project.

FUTURE (2019) PLUS PROJECT CONDITION

Traffic generated by the project was added to the future (2019) traffic volumes at each study area intersection and roadway segment. Figure 8 illustrates the resulting future (2018) plus project a.m. and p.m. peak-hour traffic volumes.

Future (2019) Plus Project Intersection Level of Service Summary Analysis

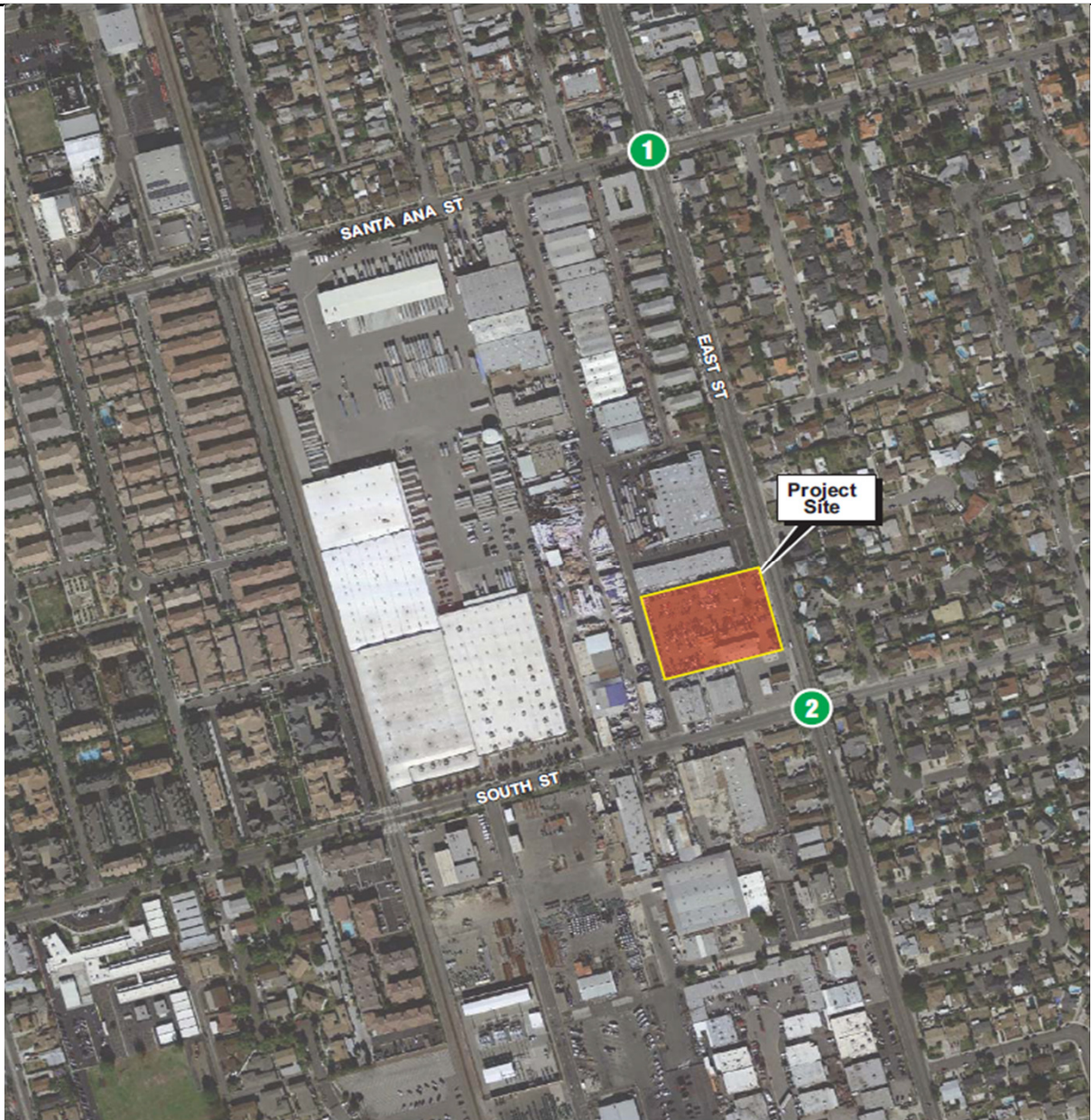
Table F summarizes the results of the future (2019) plus project a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table F indicates, all study area intersections are anticipated to operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours with implementation of the proposed project.

Table F: Future (2019) Plus Project Intersection Level of Service Summary

Study Area No.	Intersections	Baseline				Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
1	East Street/Santa Ana Street	0.44	A	0.51	A	0.44	A	0.51	A
2	East Street/South Street	0.61	B	0.566	A	0.61	B	0.57	A

LOS = level of service
V/C = volume-to-capacity

Based on the City’s criteria for determining significant traffic impacts (as described in the Methodology section of this report), the proposed project is not expected to result in a significant impact at any of the study area intersections.



↖ 24 / 33	↘ 580 / 419	↙ 67 / 79	↗ 58 / 96
↖ 63 / 71	↘ 217 / 146	↙ 66 / 36	↗ 172 / 204
↖ 29 / 49	↘ 251 / 625	↙ 27 / 35	↗ 48 / 29

1 East Street/Santa Ana Street

↖ 38 / 34	↘ 609 / 373	↙ 47 / 41	↗ 58 / 63
↖ 33 / 58	↘ 190 / 94	↙ 72 / 27	↗ 192 / 155
↖ 19 / 45	↘ 185 / 561	↙ 38 / 59	↗ 67 / 29

2 East Street/South Street

LSA

XXX / YYY AM / PM Volume

FIGURE 8

East and South Street
Future (2019) Plus Project Volumes

Future (2019) Plus Project Roadway Segment Level of Service Analysis

With the addition of 244 ADT generated by the project to the future (2019) ADT of 13,823, the future (2019) plus project ADT along East Street between Santa Ana Street and South Street is 14,067 trips. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.38. The study area roadway segment will continue to operate at a satisfactory LOS A in the future (2019) plus project condition. According to this analysis, the study area roadway segments operate at a satisfactory LOS with the addition of the project.

GENERAL PLAN BUILDOUT PLUS PROJECT CONDITION

As mentioned above, the General Plan buildout baseline scenario is based on the data from the City’s SEIR 346, where the conversion of the property to residential land use has already been analyzed. The 32 dwelling units previously analyzed are less than the currently proposed 42 dwelling units. In order to add the project to the General Plan buildout scenario, the trip generation for the additional 10 units has been calculated using rates from ITE *Trip Generation* and is included in Table G.

Table G: Trip Generation for Additional Units

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Residential Condominium/Townhome (230)		DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Proposed Project Trip Generation									
Townhomes (230)	10	DU	58	1	4	5	3	2	5

¹ Trip rates based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition (2012).
ADT = average daily traffic
DU = dwelling units

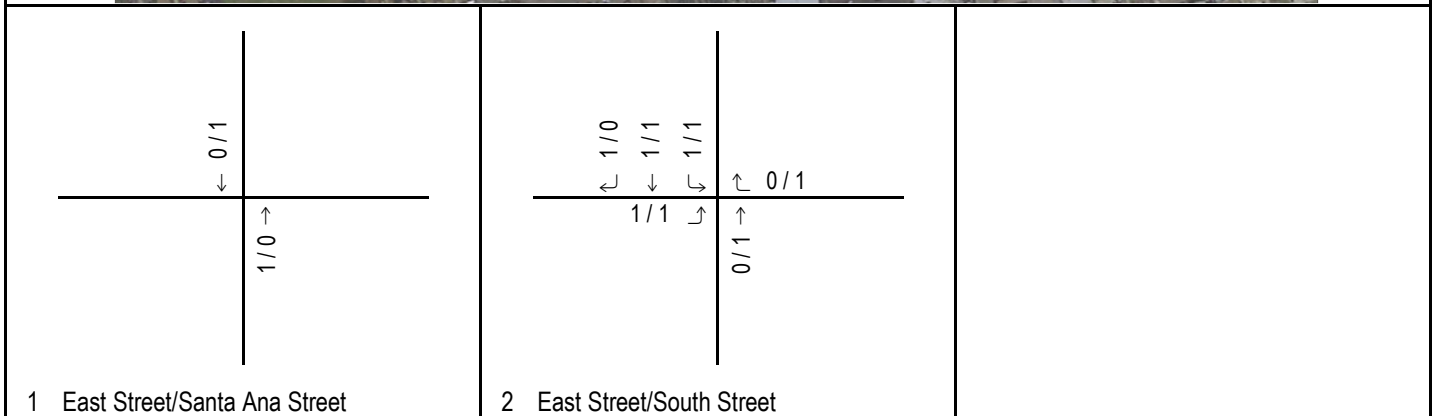
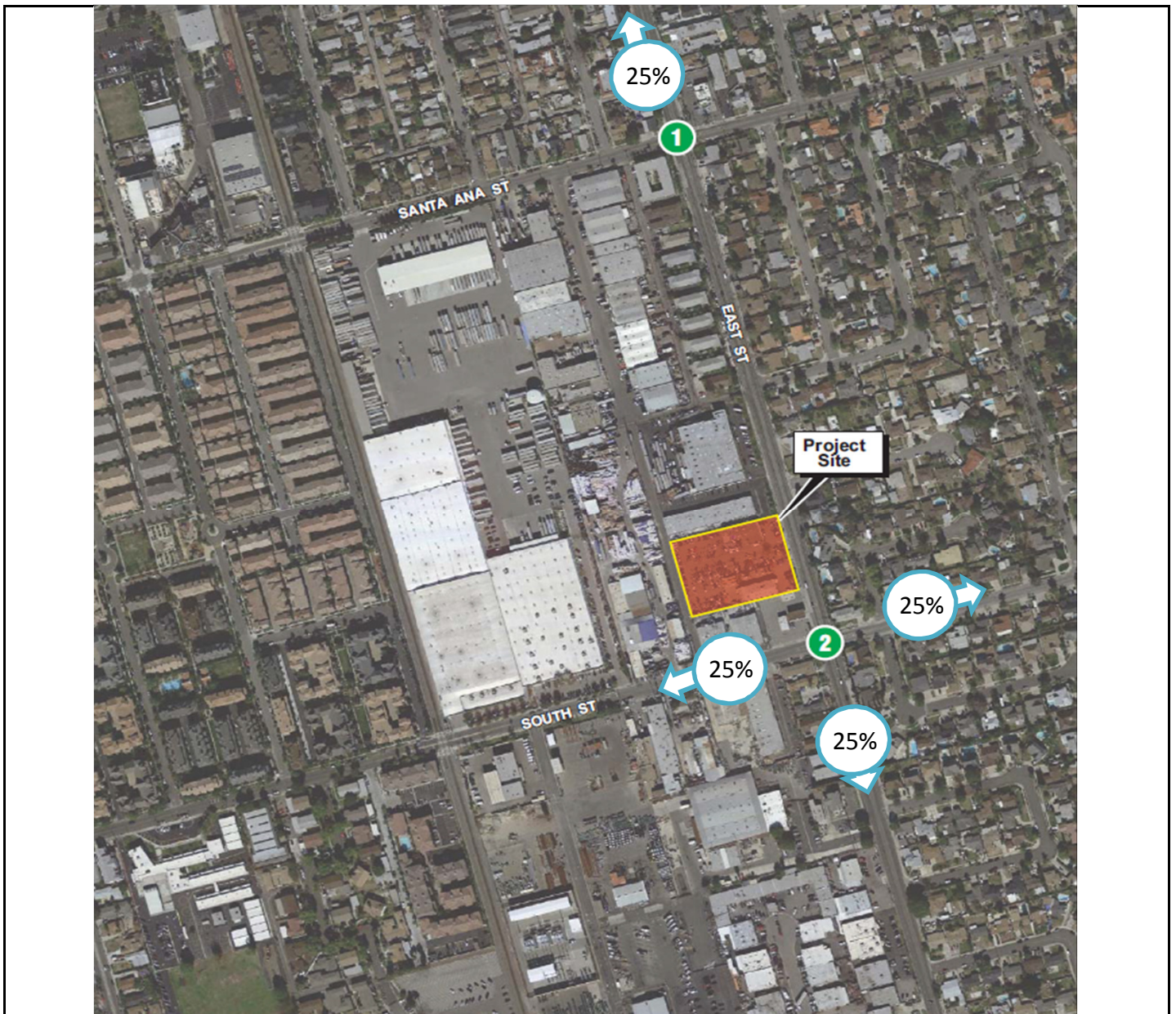
In the same manner that the net project trips were assigned, LSA distributed new project trips equally in all directions with east-west movements assigned to South Street. Figure 9 illustrates the net project trip distribution and the a.m. and p.m. peak-hour trip assignment volumes. The resulting project trip assignments were overlaid onto the General Plan baseline to determine the General Plan plus project traffic volume and LOS at the study intersections. Figure 10 illustrates the resulting General Plan buildout plus project a.m. and p.m. peak-hour traffic volumes.

General Plan Buildout Plus Project Intersection Level of Service Analysis

Table H summarizes the results of the General Plan buildout plus project a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table H indicates, all study area intersections are anticipated to continue to operate at an acceptable LOS in the a.m. and p.m. peak hours with implementation of the proposed project.

General Plan Buildout Plus Project Roadway Segment Level of Service Analysis

With the addition of 58 ADT generated by the project to the General Plan buildout baseline ADT of 20,300, the General Plan buildout plus project ADT along East Street between Santa Ana Street and



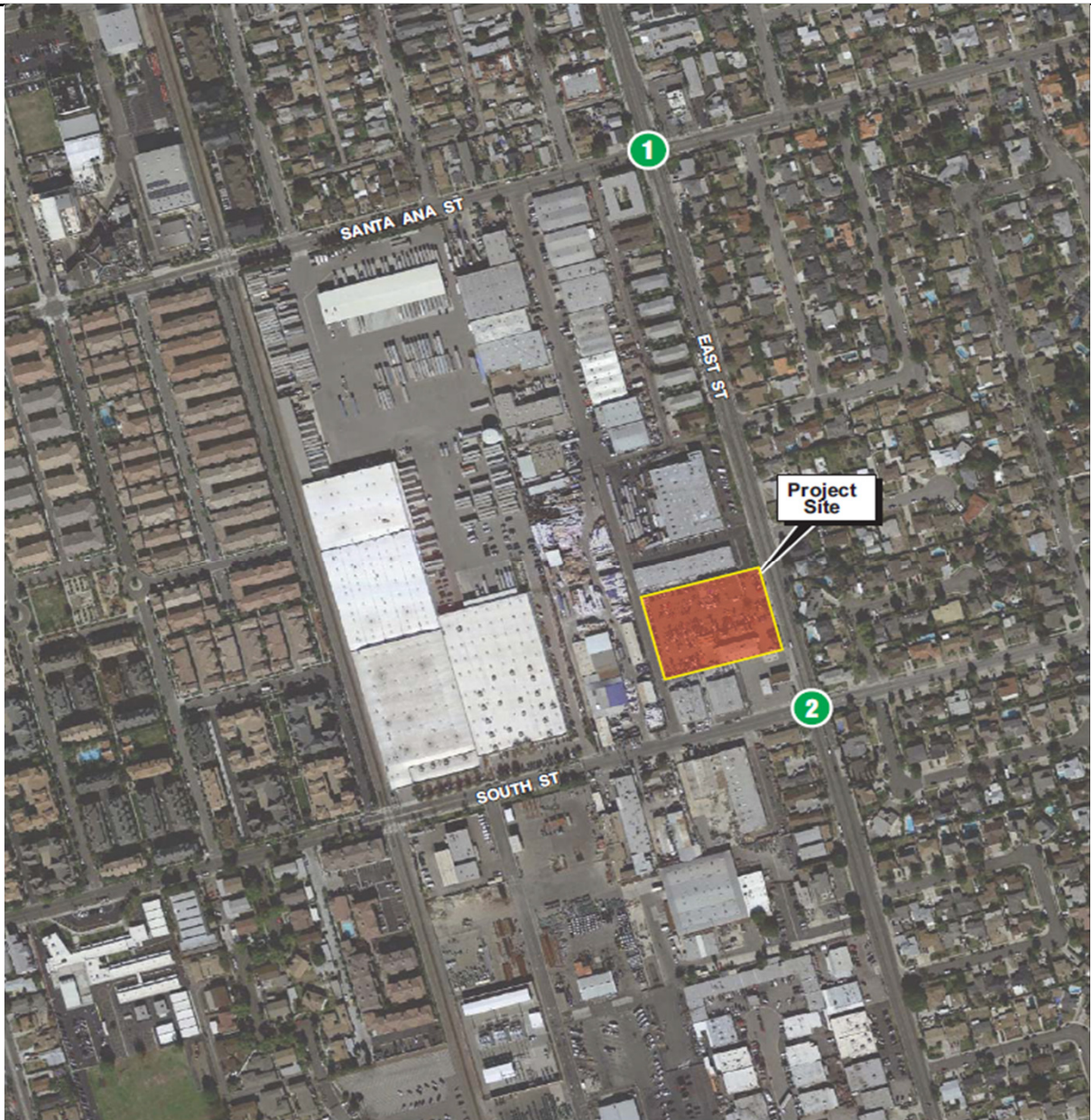
LSA FIGURE 9

XXX / YYY East and South Street

AM / PM Volume

Trip Distribution Percentage Trip Distribution and Assignment for Additional Units

#



35 / 32	1198 / 751	54 / 81	72 / 59
↖	↘	↙	↗
59 / 70	↘	↗	↖
130 / 113	↘	↗	↖
44 / 27	↘	↗	↖
29 / 29	↘	↗	↖
523 / 1071	↘	↗	↖
76 / 62	↘	↗	↖

1 East Street/Santa Ana Street

146 / 79	1341 / 582	47 / 66	43 / 65
↖	↘	↙	↗
73 / 115	↘	↗	↖
304 / 278	↘	↗	↖
106 / 54	↘	↗	↖
30 / 63	↘	↗	↖
293 / 1128	↘	↗	↖
43 / 54	↘	↗	↖

2 East Street/South Street

LSA

XXX / YYY AM / PM Volume

FIGURE 10

East and South Street
General Plan Buildout Plus Project Volumes

Table H: General Plan Buildout Plus Project Intersection Level of Service Summary

Study Area No.	Intersections	Baseline				Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS
1	East Street/Santa Ana Street	0.60	A	0.59	A	0.60	A	0.59	A
2	East Street/South Street	0.80	C	0.72	C	0.80	C	0.72	C

LOS = level of service
V/C = volume-to-capacity

South Street is 20,358 trips. With a capacity of 37,500 ADT, this roadway segment operates with a v/c ratio of 0.54. The study area roadway segment will continue to operate at a satisfactory LOS A in the General Plan buildout plus project condition.

Based on the City’s criteria for determining significant traffic impacts (as described in the Methodology section of this report), the proposed project is not expected to result in a significant impact at any of the study area intersections or roadway segments.

ACCESS ANALYSIS

As discussed in the project description, the project will consolidate the two existing driveways on East Street into one unsignalized full-access driveway. In order to assess the operation of the driveway, LSA used northbound and southbound roadway volumes collected by pneumatic tube and anticipated project turn volumes to calculate peak-hour LOS at the proposed project driveway. On Tuesday, December 20, 2016, the a.m. peak hour occurred at 7:15 a.m., and the p.m. peak hour occurred at 4:15 p.m. Because the proposed project driveway will be unsignalized, LSA calculated delay and LOS using HCM 2010 methodology.

Analysis of the unsignalized driveway has been conducted for the proposed driveway using northbound and southbound roadway volumes collected by pneumatic tube along East Street and anticipated project turn volumes. All HCM worksheets have been attached in Appendix C. According to this analysis, the project driveway is expected to operate at a satisfactory LOS with 12.1 seconds of delay (LOS B) in the a.m. peak hour and 10.6 seconds of delay (LOS B) in the p.m. peak hour.

CONCLUSION

Based on the results of this traffic impact analysis, the proposed 42 townhome dwelling units can be implemented without significantly impacting the circulation system. All study area intersections are anticipated to operate at a satisfactory LOS in both a.m. and p.m. peak hours with the addition of project traffic.

LSA also examined the project access driveway and determined that the project can be expected to function adequately without interference to the arterial street system.

REFERENCES

City of Anaheim, *Criteria for Preparation of Traffic Impact Studies*

Iteris. 2013, July. *Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study*.

Institute of Transportation Engineers. 2012. *ITE Trip Generation*, Ninth Edition.

Orange County General Plan, Circulation Element, Table IV-2B.

Transportation Research Board of the National Academies. 2010. *HCM2010 Highway Capacity Manual*.

APPENDIX A

EXISTING TRAFFIC VOLUMES

ITM Peak Hour Summary

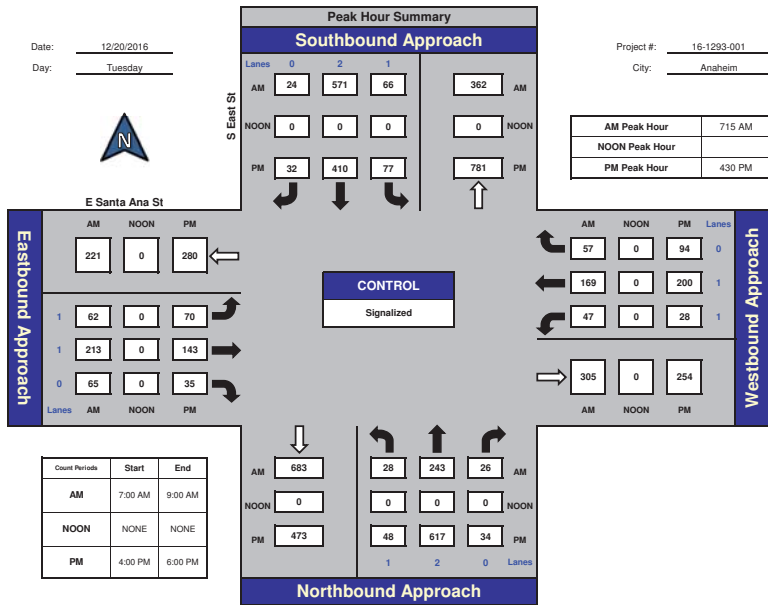


National Data & Surveying Services

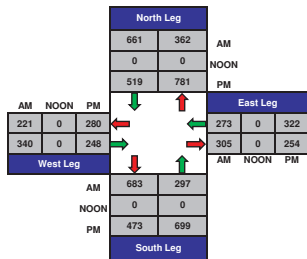
S East St and E Santa Ana St, Anaheim

Date: 12/20/2016
Day: Tuesday

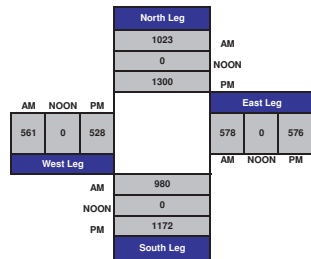
Project #: 16-1293-001
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

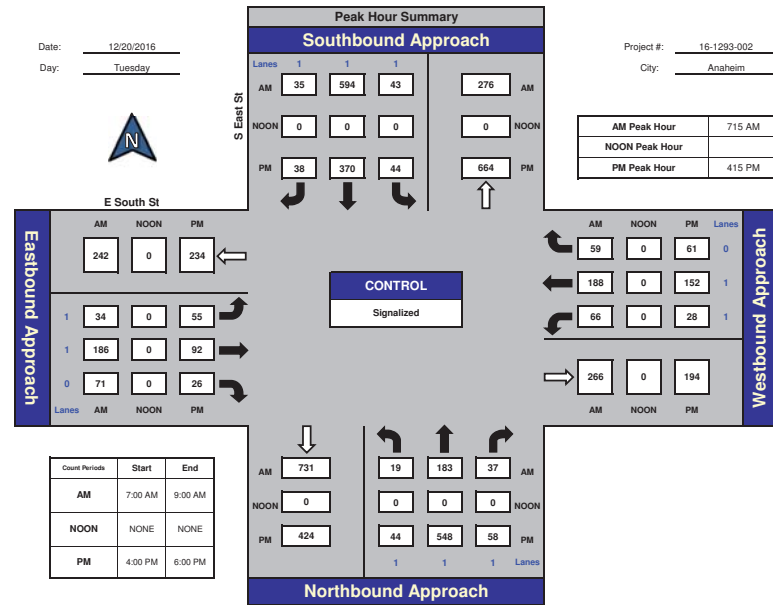


National Data & Surveying Services

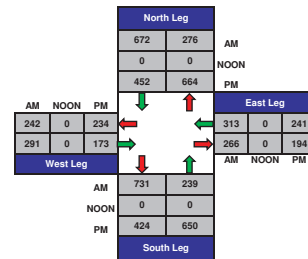
S East St and E South St, Anaheim

Date: 12/20/2016
Day: Tuesday

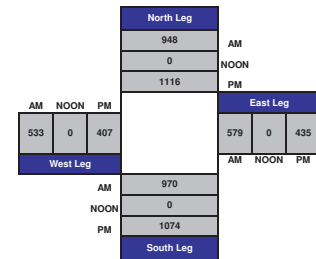
Project #: 16-1293-002
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

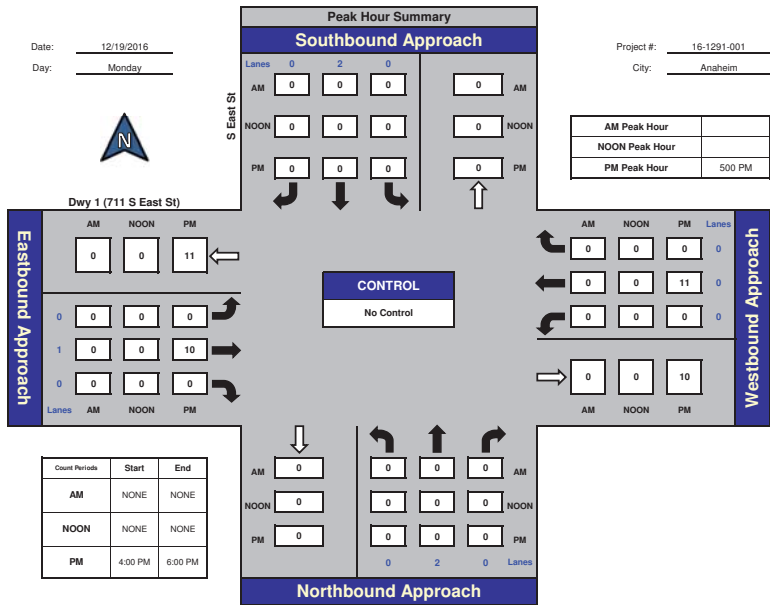


National Data & Surveying Services

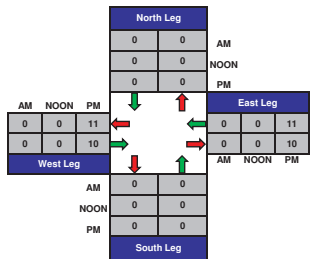
S East St and Dwy 1 (711 S East St), Anaheim

Date: 12/19/2016
Day: Monday

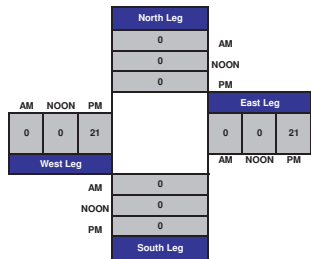
Project #: 16-1291-001
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

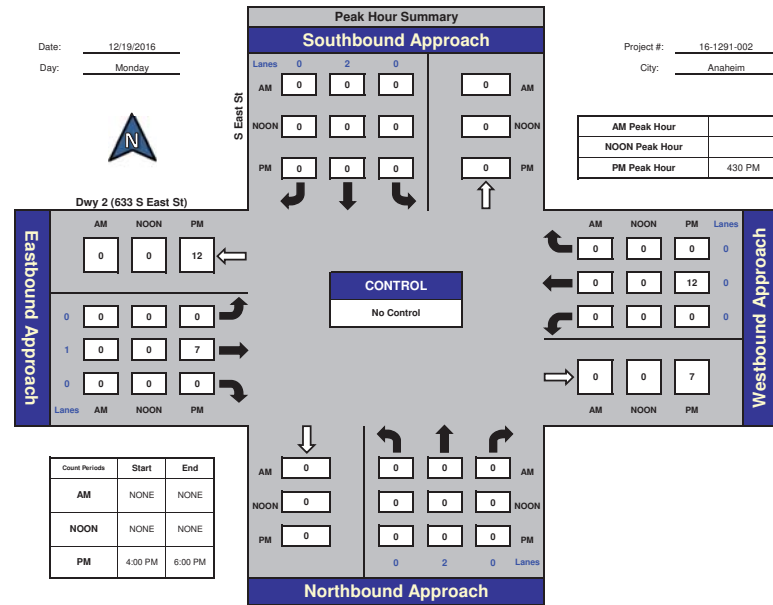


National Data & Surveying Services

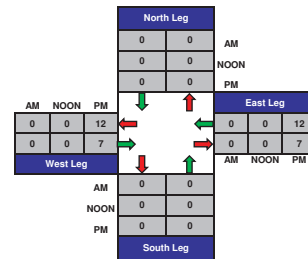
S East St and Dwy 2 (633 S East St), Anaheim

Date: 12/19/2016
Day: Monday

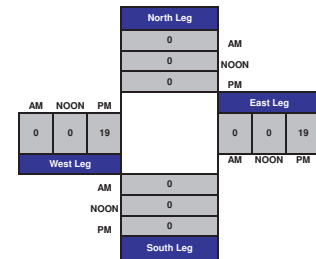
Project #: 16-1291-002
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

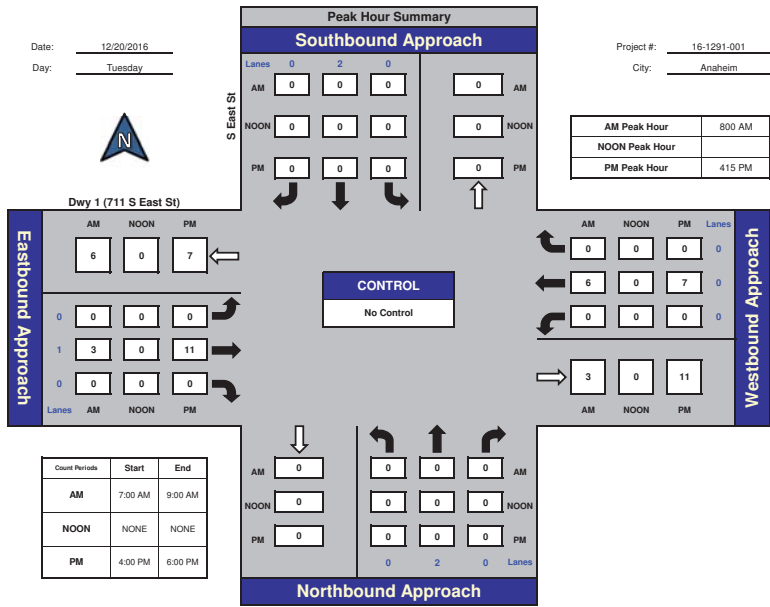


National Data & Surveying Services

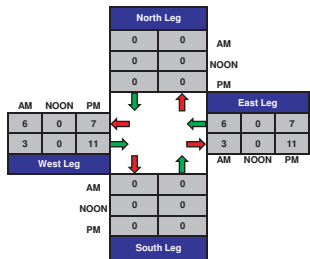
S East St and Dwy 1 (711 S East St), Anaheim

Date: 12/20/2016
Day: Tuesday

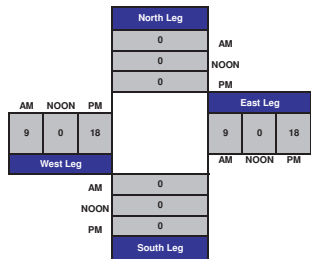
Project #: 16-1291-001
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

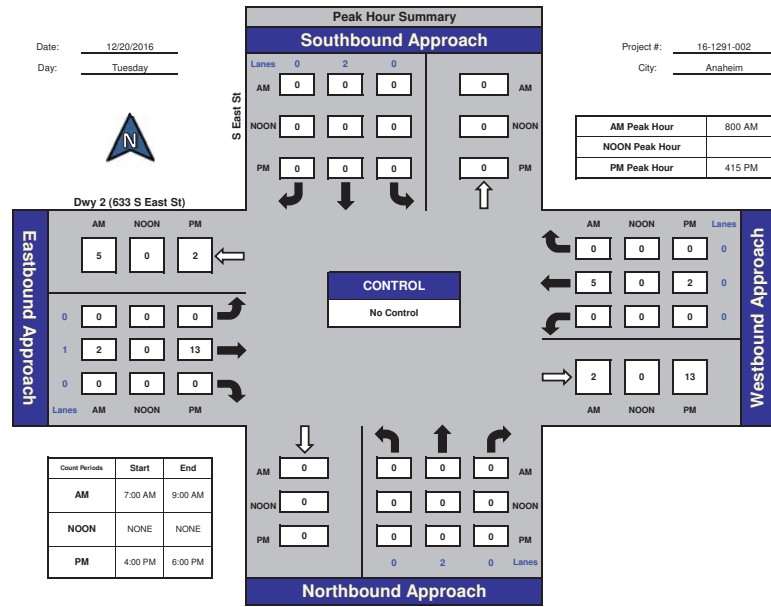


National Data & Surveying Services

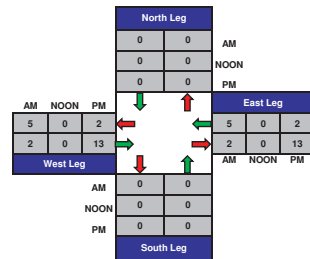
S East St and Dwy 2 (633 S East St), Anaheim

Date: 12/20/2016
Day: Tuesday

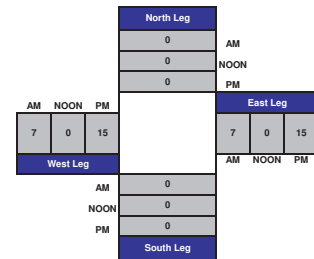
Project #: 16-1291-002
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-1291-002
N/S Street: S East St
E/W Street: Dwy 2 (633 S East St)
DATE: 12/19/2016 DAY: Monday
CITY: Anaheim

P M

PEDESTRIANS

TIME	MIDBLOCK	
	Ins	Outs
4:00 PM	4	0
4:15 PM	0	1
4:30 PM	5	0
4:45 PM	1	6
5:00 PM	3	5
5:15 PM	1	1
5:30 PM	2	0
5:45 PM	4	0
TOTALS	20	13

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-1291-002
N/S Street: S East St
E/W Street: Dwy 2 (633 S East St)
DATE: 12/20/2016 DAY: Tuesday
CITY: Anaheim

A M

PEDESTRIANS

TIME	MIDBLOCK	
	Ins	Outs
7:00 AM	0	0
7:15 AM	0	0
7:30 AM	0	0
7:45 AM	0	0
8:00 AM	0	0
8:15 AM	0	0
8:30 AM	0	0
8:45 AM	0	0
TOTALS	0	0

P M

PEDESTRIANS

TIME	MIDBLOCK	
	Ins	Outs
4:00 PM	0	0
4:15 PM	0	0
4:30 PM	0	0
4:45 PM	0	0
5:00 PM	0	0
5:15 PM	0	0
5:30 PM	0	0
5:45 PM	0	0
TOTALS	0	0

Prepared by NDS/ATD
VOLUME
 S East St S/O E Crestbrook PI

Day: Tuesday
 Date: 12/20/2016

City: Anaheim
 Project #: CA16_1292_001

DAILY TOTALS						NB		SB		EB		WB		Total
						6,394		7,158		0		0		13,552

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	22	17			39	12:00	95	85			180
00:15	22	13			35	12:15	67	100			167
00:30	15	17			32	12:30	84	78			162
00:45	16	75	12	59	28 134	12:45	78	324	100	363	178 687
01:00	8	8			16	13:00	95	89			184
01:15	7	6			13	13:15	81	92			173
01:30	9	7			16	13:30	75	91			166
01:45	10	34	10	31	20 65	13:45	85	336	89	361	174 697
02:00	6	7			13	14:00	86	115			201
02:15	7	3			10	14:15	91	107			198
02:30	4	12			16	14:30	113	121			234
02:45	4	21	8	30	12 51	14:45	134	424	118	461	252 885
03:00	3	14			17	15:00	148	111			259
03:15	11	5			16	15:15	127	133			260
03:30	5	8			13	15:30	163	105			268
03:45	8	27	12	39	20 66	15:45	128	566	118	467	246 1033
04:00	6	14			20	16:00	142	116			258
04:15	20	21			41	16:15	158	111			269
04:30	15	25			40	16:30	194	100			294
04:45	18	59	42	102	60 161	16:45	183	677	112	439	295 1116
05:00	19	23			42	17:00	181	170			351
05:15	29	38			67	17:15	144	108			252
05:30	40	59			99	17:30	138	120			258
05:45	38	126	122	242	160 368	17:45	133	596	130	528	263 1124
06:00	28	72			100	18:00	174	112			286
06:15	26	94			120	18:15	127	109			236
06:30	48	123			171	18:30	109	91			200
06:45	58	160	167	456	225 616	18:45	107	517	82	394	189 911
07:00	58	139			197	19:00	99	82			181
07:15	68	178			246	19:15	61	73			134
07:30	78	189			267	19:30	68	65			133
07:45	85	289	178	684	263 973	19:45	59	287	53	273	112 560
08:00	67	142			209	20:00	61	52			113
08:15	53	146			199	20:15	75	59			134
08:30	74	104			178	20:30	53	68			121
08:45	62	256	102	494	164 750	20:45	49	238	66	245	115 483
09:00	67	93			160	21:00	84	60			144
09:15	59	84			143	21:15	61	49			110
09:30	90	85			175	21:30	46	40			86
09:45	81	297	102	364	183 661	21:45	48	239	52	201	100 440
10:00	85	93			178	22:00	44	44			88
10:15	55	83			138	22:15	31	35			66
10:30	70	87			157	22:30	45	33			78
10:45	92	302	88	351	180 653	22:45	25	145	27	139	52 284
11:00	75	86			161	23:00	32	25			57
11:15	61	87			148	23:15	33	26			59
11:30	77	79			156	23:30	25	18			43
11:45	79	292	92	344	171 636	23:45	17	107	22	91	39 198
TOTALS	1938	3196			5134	TOTALS	4456	3962			8418
SPLIT %	37.7%	62.3%			37.9%	SPLIT %	52.9%	47.1%			62.1%

DAILY TOTALS						NB		SB		EB		WB		Total
						6,394		7,158		0		0		13,552

AM Peak Hour	11:45	07:15			07:15	PM Peak Hour	16:15	17:00			16:15
AM Pk Volume	325	687			985	PM Pk Volume	716	528			1209
Pk Hr Factor	0.855	0.909			0.922	Pk Hr Factor	0.923	0.776			0.861
7 - 9 Volume	545	1178			1723	4 - 6 Volume	1273	967			2240
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:15	17:00			16:15
7 - 9 Pk Volume	298	687	0	0	985	4 - 6 Pk Volume	716	528	0	0	1209
Pk Hr Factor	0.876	0.909	0.000	0.000	0.922	Pk Hr Factor	0.923	0.776	0.000	0.000	0.861

APPENDIX B

INTERSECTION CAPACITY UTILIZATION WORKSHEETS

East and South Street
OLC1604
01 Existing Baseline AM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.433
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 21 Level Of Service: A

 Street Name: East Street Santa Ana Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0
 Volume Module:
 Base Vol: 28 243 26 66 571 24 62 213 65 47 169 57
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 28 243 26 66 571 24 62 213 65 47 169 57
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 28 243 26 66 571 24 62 213 65 47 169 57
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 28 243 26 66 571 24 62 213 65 47 169 57
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 28 243 26 66 571 24 62 213 65 47 169 57
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.81 0.19 1.00 1.92 0.08 1.00 0.77 0.23 1.00 0.75 0.25
 Final Sat.: 1700 3071 329 1700 3263 137 1700 1303 397 1700 1271 429
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.08 0.08 0.04 0.18 0.17 0.04 0.16 0.16 0.03 0.13 0.13
 Crit Moves: ****

East and South Street
OLC1604
01 Existing Baseline AM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.601
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 29 Level Of Service: B

 Street Name: East Street South Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 0 1 0
 Volume Module:
 Base Vol: 19 183 37 43 594 35 34 186 71 66 188 59
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 19 183 37 43 594 35 34 186 71 66 188 59
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 19 183 37 43 594 35 34 186 71 66 188 59
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 19 183 37 43 594 35 34 186 71 66 188 59
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 19 183 37 43 594 35 34 186 71 66 188 59
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.72 0.28 1.00 0.76 0.24
 Final Sat.: 1700 1700 1700 1700 1700 1700 1700 1230 470 1700 1294 406
 Capacity Analysis Module:
 Vol/Sat: 0.01 0.11 0.02 0.03 0.35 0.02 0.02 0.15 0.15 0.04 0.15 0.15
 Crit Moves: ****

East and South Street
OLC1604
01 Existing Baseline PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.501
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 Level Of Service: A

 Street Name: East Street Santa Ana Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0

 Volume Module:
 Base Vol: 48 617 34 77 410 32 70 143 35 28 200 94
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 48 617 34 77 410 32 70 143 35 28 200 94
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 48 617 34 77 410 32 70 143 35 28 200 94
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 48 617 34 77 410 32 70 143 35 28 200 94
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 48 617 34 77 410 32 70 143 35 28 200 94

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.90 0.10 1.00 1.86 0.14 1.00 0.80 0.20 1.00 0.68 0.32
 Final Sat.: 1700 3222 178 1700 3154 246 1700 1366 334 1700 1156 544

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.19 0.19 0.05 0.13 0.13 0.04 0.10 0.10 0.02 0.17 0.17
 Crit Moves: **** **

East and South Street
OLC1604
01 Existing Baseline PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.556
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 26 Level Of Service: A

 Street Name: East Street South Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 44 548 58 44 370 38 55 92 26 28 152 61
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 44 548 58 44 370 38 55 92 26 28 152 61
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 44 548 58 44 370 38 55 92 26 28 152 61
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 44 548 58 44 370 38 55 92 26 28 152 61
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 44 548 58 44 370 38 55 92 26 28 152 61

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 0.22 1.00 0.71 0.29
 Final Sat.: 1700 1700 1700 1700 1700 1700 1700 1325 375 1700 1213 487

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.32 0.03 0.03 0.22 0.02 0.03 0.07 0.07 0.02 0.13 0.13
 Crit Moves: **** **

East and South Street
OLC1604
02 Future Baseline AM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.440
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 21 Level Of Service: A

Street Name:	East Street				Santa Ana Street										
Approach:	North Bound		South Bound		East Bound		West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Permitted		Permitted		Permitted		Permitted		Permitted		Permitted				
Rights:	Include		Include		Include		Include		Include		Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0

Volume Module:
 Base Vol: 28 243 26 66 571 24 62 213 65 47 169 57
 Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
 Initial Bse: 29 248 27 67 582 24 63 217 66 48 172 58
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 29 248 27 67 582 24 63 217 66 48 172 58
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 29 248 27 67 582 24 63 217 66 48 172 58
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 29 248 27 67 582 24 63 217 66 48 172 58

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.81 0.19 1.00 1.92 0.08 1.00 0.77 0.23 1.00 0.75 0.25
 Final Sat.: 1700 3071 329 1700 3263 137 1700 1303 397 1700 1271 429

Capacity Analysis Module:
 Vol/Sat: 0.02 0.08 0.08 0.04 0.18 0.18 0.04 0.17 0.17 0.03 0.14 0.14
 Crit Moves: ****

East and South Street
OLC1604
02 Future Baseline AM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.612
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 30 Level Of Service: B

Street Name:	East Street				South Street										
Approach:	North Bound		South Bound		East Bound		West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Permitted		Permitted		Permitted		Permitted		Permitted		Permitted				
Rights:	Include		Include		Include		Include		Include		Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	1	0	1	1	0	0	1	0

Volume Module:
 Base Vol: 19 183 37 43 594 35 34 186 71 66 188 59
 Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
 Initial Bse: 19 187 38 44 606 36 35 190 72 67 192 60
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 19 187 38 44 606 36 35 190 72 67 192 60
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 19 187 38 44 606 36 35 190 72 67 192 60
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 19 187 38 44 606 36 35 190 72 67 192 60

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.72 0.28 1.00 0.76 0.24
 Final Sat.: 1700 1700 1700 1700 1700 1700 1230 470 1700 1294 406

Capacity Analysis Module:
 Vol/Sat: 0.01 0.11 0.02 0.03 0.36 0.02 0.02 0.15 0.15 0.04 0.15 0.15
 Crit Moves: ****

East and South Street
OLC1604
02 Future Baseline PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.510
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 Level Of Service: A

 Street Name: East Street Santa Ana Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0

 Volume Module:
 Base Vol: 48 617 34 77 410 32 70 143 35 28 200 94
 Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
 Initial Bse: 49 629 35 79 418 33 71 146 36 29 204 96
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 629 35 79 418 33 71 146 36 29 204 96
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 49 629 35 79 418 33 71 146 36 29 204 96
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 49 629 35 79 418 33 71 146 36 29 204 96

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.90 0.10 1.00 1.86 0.14 1.00 0.80 0.20 1.00 0.68 0.32
 Final Sat.: 1700 3222 178 1700 3154 246 1700 1366 334 1700 1156 544

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.20 0.20 0.05 0.13 0.13 0.04 0.11 0.11 0.02 0.18 0.18
 Crit Moves: **** **** **** ****

East and South Street
OLC1604
02 Future Baseline PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 27 Level Of Service: A

 Street Name: East Street South Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 44 548 58 44 370 38 55 92 26 28 152 61
 Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
 Initial Bse: 45 559 59 45 377 39 56 94 27 29 155 62
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 45 559 59 45 377 39 56 94 27 29 155 62
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 45 559 59 45 377 39 56 94 27 29 155 62
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 45 559 59 45 377 39 56 94 27 29 155 62

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 0.22 1.00 0.71 0.29
 Final Sat.: 1700 1700 1700 1700 1700 1700 1325 375 1700 1213 487

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.33 0.03 0.03 0.22 0.02 0.03 0.07 0.07 0.02 0.13 0.13
 Crit Moves: **** **** **** ****

East and South Street
OLC1604
03 General Plan Buildout Baseline AM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 East Street and Santa Ana Street, Anaheim, CA
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.603
Loss Time (sec):   5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    29           Level Of Service:            B
*****
Street Name:      East Street          Santa Ana Street
Approach:         North Bound        South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:         Permitted      Permitted      Permitted      Permitted
Rights:          Include       Include       Include       Include
Min. Green:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:            4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:          1 0 1 1 0 1 0 1 1 0 1 0 1 0 0 1 0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:        29 522 76 54 1198 35 59 130 44 41 163 72
Growth Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    29 522 76 54 1198 35 59 130 44 41 163 72
Added Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    29 522 76 54 1198 35 59 130 44 41 163 72
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    29 522 76 54 1198 35 59 130 44 41 163 72
Reduced Vol:   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   29 522 76 54 1198 35 59 130 44 41 163 72
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   29 522 76 54 1198 35 59 130 44 41 163 72
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         1.00 1.75 0.25 1.00 1.94 0.06 1.00 0.75 0.25 1.00 0.69 0.31
Final Sat.:    1700 2968 432 1700 3303 97 1700 1270 430 1700 1179 521
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:        0.02 0.18 0.18 0.03 0.36 0.36 0.03 0.10 0.10 0.02 0.14 0.14
Crit Moves:     ****          ****          ****          ****
*****

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East and South Street
OLC1604
03 General Plan Buildout Baseline AM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 East Street and South Street, Anaheim, CA
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.800
Loss Time (sec):   5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    52           Level Of Service:            C
*****
Street Name:      East Street          South Street
Approach:         North Bound        South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Permitted      Permitted      Permitted      Permitted
Rights:          Include       Include       Include       Include
Min. Green:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:            4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:          1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:        30 293 43 46 1340 145 72 304 106 92 211 43
Growth Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    30 293 43 46 1340 145 72 304 106 92 211 43
Added Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    30 293 43 46 1340 145 72 304 106 92 211 43
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    30 293 43 46 1340 145 72 304 106 92 211 43
Reduced Vol:   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   30 293 43 46 1340 145 72 304 106 92 211 43
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   30 293 43 46 1340 145 72 304 106 92 211 43
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         1.00 1.74 0.26 1.00 1.80 0.20 1.00 0.74 0.26 1.00 0.83 0.17
Final Sat.:    1700 2965 435 1700 3068 332 1700 1260 440 1700 1412 288
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:        0.02 0.10 0.10 0.03 0.44 0.44 0.04 0.24 0.24 0.05 0.15 0.15
Crit Moves:     ****          ****          ****          ****
*****

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East and South Street
OLC1604
03 General Plan Buildout Baseline PM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 East Street and Santa Ana Street, Anaheim, CA
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.587
Loss Time (sec):  5        Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    28        Level Of Service:      A
*****
Street Name:      East Street      Santa Ana Street
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:             4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:           1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1 0
-----
Volume Module:
Base Vol:        29 1071 62 81 750 32 70 113 27 46 137 59
Growth Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    29 1071 62 81 750 32 70 113 27 46 137 59
Added Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    29 1071 62 81 750 32 70 113 27 46 137 59
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     29 1071 62 81 750 32 70 113 27 46 137 59
Reduc Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    29 1071 62 81 750 32 70 113 27 46 137 59
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    29 1071 62 81 750 32 70 113 27 46 137 59
-----
Saturation Flow Module:
Sat/Lane:       1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:          1.00 1.89 0.11 1.00 1.92 0.08 1.00 0.81 0.19 1.00 0.70 0.30
Final Sat.:     1700 3214 186 1700 3261 139 1700 1372 328 1700 1188 512
-----
Capacity Analysis Module:
Vol/Sat:        0.02 0.33 0.33 0.05 0.23 0.23 0.04 0.08 0.08 0.03 0.12 0.12
Crit Moves:     ****
*****

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East and South Street
OLC1604
03 General Plan Buildout Baseline PM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 East Street and South Street, Anaheim, CA
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.722
Loss Time (sec):  5        Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    40        Level Of Service:      C
*****
Street Name:      East Street      South Street
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:             4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:           1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1 0
-----
Volume Module:
Base Vol:        63 1127 54 65 581 79 114 278 54 40 309 64
Growth Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    63 1127 54 65 581 79 114 278 54 40 309 64
Added Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    63 1127 54 65 581 79 114 278 54 40 309 64
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     63 1127 54 65 581 79 114 278 54 40 309 64
Reduc Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    63 1127 54 65 581 79 114 278 54 40 309 64
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    63 1127 54 65 581 79 114 278 54 40 309 64
-----
Saturation Flow Module:
Sat/Lane:       1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:          1.00 1.91 0.09 1.00 1.76 0.24 1.00 0.84 0.16 1.00 0.83 0.17
Final Sat.:     1700 3245 155 1700 2993 407 1700 1423 277 1700 1408 292
-----
Capacity Analysis Module:
Vol/Sat:        0.04 0.35 0.35 0.04 0.19 0.19 0.07 0.20 0.20 0.02 0.22 0.22
Crit Moves:     ****
*****

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East and South Street
OLC1604
04 Existing Plus Project AM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 East Street and Santa Ana Street, Anaheim, CA
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.432
Loss Time (sec):  5        Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    21        Level Of Service:      A
*****
Street Name:      East Street      Santa Ana Street
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0  4.0 4.0 4.0  4.0 4.0 4.0  4.0 4.0 4.0
Lanes:            1 0 1 1 0    1 0 1 1 0    1 0 0 1 0    1 0 0 1 0
-----
Volume Module:
Base Vol:         28 243 26 66 571 24 62 213 65 47 169 57
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     28 243 26 66 571 24 62 213 65 47 169 57
Added Vol:       0 0 0 0 0 0 0 0 0 0 0 0
Proj Trips:      0 3 0 0 -2 0 0 0 0 0 0 0
Initial Fut:     28 246 26 66 569 24 62 213 65 47 169 57
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      28 246 26 66 569 24 62 213 65 47 169 57
Reduced Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:     28 246 26 66 569 24 62 213 65 47 169 57
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     28 246 26 66 569 24 62 213 65 47 169 57
-----
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           1.00 1.81 0.19 1.00 1.92 0.08 1.00 0.77 0.23 1.00 0.75 0.25
Final Sat.:     1700 3075 325 1700 3262 138 1700 1303 397 1700 1271 429
-----
Capacity Analysis Module:
Vol/Sat:         0.02 0.08 0.08 0.04 0.17 0.17 0.04 0.16 0.16 0.03 0.13 0.13
Crit Moves:      ****          ****          ****          ****
*****

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East and South Street
OLC1604
04 Existing Plus Project AM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 East Street and South Street, Anaheim, CA
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.602
Loss Time (sec):  5        Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    29        Level Of Service:      B
*****
Street Name:      East Street      South Street
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0  4.0 4.0 4.0  4.0 4.0 4.0  4.0 4.0 4.0
Lanes:            1 0 1 0 1    1 0 1 0 1    1 0 0 1 0    1 0 0 1 0
-----
Volume Module:
Base Vol:         19 183 37 43 594 35 34 186 71 66 188 59
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     19 183 37 43 594 35 34 186 71 66 188 59
Added Vol:       0 0 0 0 0 0 0 0 0 0 0 0
Proj Trips:      0 -2 0 3 3 2 -2 0 0 0 0 -2
Initial Fut:     19 181 37 46 597 37 32 186 71 66 188 57
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      19 181 37 46 597 37 32 186 71 66 188 57
Reduced Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:     19 181 37 46 597 37 32 186 71 66 188 57
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     19 181 37 46 597 37 32 186 71 66 188 57
-----
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           1.00 1.00 1.00 1.00 1.00 1.00 0.72 0.28 1.00 0.77 0.23
Final Sat.:     1700 1700 1700 1700 1700 1700 1230 470 1700 1304 396
-----
Capacity Analysis Module:
Vol/Sat:         0.01 0.11 0.02 0.03 0.35 0.02 0.02 0.15 0.15 0.04 0.14 0.14
Crit Moves:      ****          ****          ****          ****
*****

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East and South Street
OLC1604
04 Existing Plus Project PM

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 East Street and Santa Ana Street, Anaheim, CA
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.500
Loss Time (sec):  5        Average Delay (sec/veh):      xxxxxx
Optimal Cycle:   24        Level Of Service:      A
*****
Street Name:      East Street      Santa Ana Street
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:              4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:            1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0 1 0
-----
Volume Module:
Base Vol:         48 617 34 77 410 32 70 143 35 28 200 94
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     48 617 34 77 410 32 70 143 35 28 200 94
Added Vol:       0 0 0 0 0 0 0 0 0 0 0 0 0
Proj Trips:      0 -4 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:     48 613 34 77 411 32 70 143 35 28 200 94
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      48 613 34 77 411 32 70 143 35 28 200 94
Reduced Vol:     0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:     48 613 34 77 411 32 70 143 35 28 200 94
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     48 613 34 77 411 32 70 143 35 28 200 94
-----
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           1.00 1.89 0.11 1.00 1.86 0.14 1.00 0.80 0.20 1.00 0.68 0.32
Final Sat.:     1700 3221 179 1700 3154 246 1700 1366 334 1700 1156 544
-----
Capacity Analysis Module:
Vol/Sat:         0.03 0.19 0.19 0.05 0.13 0.13 0.04 0.10 0.10 0.02 0.17 0.17
Crit Moves:      ****          ****          ****          ****
*****

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East and South Street
OLC1604
04 Existing Plus Project PM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 East Street and South Street, Anaheim, CA
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.556
Loss Time (sec):  5        Average Delay (sec/veh):      xxxxxx
Optimal Cycle:   26        Level Of Service:      A
*****
Street Name:      East Street      South Street
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:              4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:            1 0 1 0 1 1 0 1 0 1 0 1 1 0 1 0 1 0 0 1 0 1 0 0 1 0
-----
Volume Module:
Base Vol:         44 548 58 44 370 38 55 92 26 28 152 61
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     44 548 58 44 370 38 55 92 26 28 152 61
Added Vol:       0 0 0 0 0 0 0 0 0 0 0 0 0
Proj Trips:      0 2 0 0 -4 -4 -5 2 0 0 0 0 0 1
Initial Fut:     44 550 58 40 366 33 57 92 26 28 152 62
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      44 550 58 40 366 33 57 92 26 28 152 62
Reduced Vol:     0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:     44 550 58 40 366 33 57 92 26 28 152 62
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     44 550 58 40 366 33 57 92 26 28 152 62
-----
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 0.22 1.00 0.71 0.29
Final Sat.:     1700 1700 1700 1700 1700 1700 1700 1325 375 1700 1207 493
-----
Capacity Analysis Module:
Vol/Sat:         0.03 0.32 0.03 0.02 0.22 0.02 0.03 0.07 0.07 0.02 0.13 0.13
Crit Moves:      ****          ****          ****          ****
*****

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East and South Street
OLC1604
05 Future Plus Project AM

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 East Street and Santa Ana Street, Anaheim, CA
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.440
Loss Time (sec):   5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    21           Level Of Service:      A
*****
Street Name:      East Street          Santa Ana Street
Approach:         North Bound        South Bound        East Bound        West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----
Control:          Permitted          Permitted          Permitted          Permitted
Rights:           Include            Include            Include            Include
Min. Green:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:             4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:           1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1 0
-----
Volume Module:
Base Vol:         28 243 26 66 571 24 62 213 65 47 169 57
Growth Adj:      1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse:     29 248 27 67 582 24 63 217 66 48 172 58
Added Vol:       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Proj Trips:      0 3 0 0 -2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:     29 251 27 67 580 24 63 217 66 48 172 58
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      29 251 27 67 580 24 63 217 66 48 172 58
Reduct Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:     29 251 27 67 580 24 63 217 66 48 172 58
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     29 251 27 67 580 24 63 217 66 48 172 58
-----
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           1.00 1.81 0.19 1.00 1.92 0.08 1.00 0.77 0.23 1.00 0.75 0.25
Final Sat.:      1700 3075 325 1700 3262 138 1700 1303 397 1700 1271 429
-----
Capacity Analysis Module:
Vol/Sat:         0.02 0.08 0.08 0.04 0.18 0.18 0.04 0.17 0.17 0.03 0.14 0.14
Crit Moves:      ****          ****          ****          ****
*****

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East and South Street
OLC1604
05 Future Plus Project AM

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 East Street and South Street, Anaheim, CA
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.613
Loss Time (sec):   5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    30           Level Of Service:      B
*****
Street Name:      East Street          South Street
Approach:         North Bound        South Bound        East Bound        West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----
Control:          Permitted          Permitted          Permitted          Permitted
Rights:           Include            Include            Include            Include
Min. Green:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:             4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:           1 0 1 0 1 1 0 1 0 1 0 1 1 0 1 0 1 0 0 1 0 1 0 0 1 0
-----
Volume Module:
Base Vol:         19 183 37 43 594 35 34 186 71 66 188 59
Growth Adj:      1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse:     19 187 38 44 606 36 35 190 72 67 192 60
Added Vol:       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Proj Trips:      0 -2 0 3 3 2 -2 0 0 0 0 0 -2
Initial Fut:     19 185 38 47 609 38 33 190 72 67 192 58
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      19 185 38 47 609 38 33 190 72 67 192 58
Reduct Vol:      0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:     19 185 38 47 609 38 33 190 72 67 192 58
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     19 185 38 47 609 38 33 190 72 67 192 58
-----
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.72 0.28 1.00 0.77 0.23
Final Sat.:      1700 1700 1700 1700 1700 1700 1230 470 1700 1304 396
-----
Capacity Analysis Module:
Vol/Sat:         0.01 0.11 0.02 0.03 0.36 0.02 0.02 0.15 0.15 0.04 0.15 0.15
Crit Moves:      ****          ****          ****          ****
*****

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East and South Street
OLC1604
05 Future Plus Project PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.509
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 Level Of Service: A

Street Name:	East Street				Santa Ana Street								
Approach:	North Bound		South Bound		East Bound		West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted		Permitted		Permitted		Permitted		Permitted		Permitted		
Rights:	Include		Include		Include		Include		Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1	0

Volume Module:
 Base Vol: 48 617 34 77 410 32 70 143 35 28 200 94
 Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
 Initial Bse: 49 629 35 79 418 33 71 146 36 29 204 96
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Proj Trips: 0 -4 0 0 0 1 0 0 0 0 0 0 0
 Initial Fut: 49 625 35 79 419 33 71 146 36 29 204 96
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 625 35 79 419 33 71 146 36 29 204 96
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 49 625 35 79 419 33 71 146 36 29 204 96
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 49 625 35 79 419 33 71 146 36 29 204 96

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.89 0.11 1.00 1.86 0.14 1.00 0.80 0.20 1.00 0.68 0.32
 Final Sat.: 1700 3221 179 1700 3154 246 1700 1366 334 1700 1156 544

Capacity Analysis Module:
 Vol/Sat: 0.03 0.19 0.19 0.05 0.13 0.13 0.04 0.11 0.11 0.02 0.18 0.18
 Crit Moves: ****

East and South Street
OLC1604
05 Future Plus Project PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.567
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 27 Level Of Service: A

Street Name:	East Street				South Street								
Approach:	North Bound		South Bound		East Bound		West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted		Permitted		Permitted		Permitted		Permitted		Permitted		
Rights:	Include		Include		Include		Include		Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:
 Base Vol: 44 548 58 44 370 38 55 92 26 28 152 61
 Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
 Initial Bse: 45 559 59 45 377 39 56 94 27 29 155 62
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Proj Trips: 0 2 0 0 -4 -4 -5 2 0 0 0 0 0
 Initial Fut: 45 561 59 41 373 34 58 94 27 29 155 63
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 45 561 59 41 373 34 58 94 27 29 155 63
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 45 561 59 41 373 34 58 94 27 29 155 63
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 45 561 59 41 373 34 58 94 27 29 155 63

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 0.22 1.00 0.71 0.29
 Final Sat.: 1700 1700 1700 1700 1700 1700 1700 1325 375 1700 1208 492

Capacity Analysis Module:
 Vol/Sat: 0.03 0.33 0.03 0.02 0.22 0.02 0.03 0.07 0.07 0.02 0.13 0.13
 Crit Moves: ****

East and South Street
OLC1604
04 General Plan Buildout Plus Project AM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.603
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 29 Level Of Service: B

Street Name:	East Street				Santa Ana Street									
Approach:	North Bound		South Bound		East Bound		West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Permitted		Permitted		Permitted		Permitted		Permitted		Permitted			
Rights:	Include		Include		Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0

Volume Module:
 Base Vol: 29 522 76 54 1198 35 59 130 44 41 163 72
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 29 522 76 54 1198 35 59 130 44 41 163 72
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Proj Trips: 0 1 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 29 523 76 54 1198 35 59 130 44 41 163 72
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 29 523 76 54 1198 35 59 130 44 41 163 72
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 29 523 76 54 1198 35 59 130 44 41 163 72
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 29 523 76 54 1198 35 59 130 44 41 163 72

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.75 0.25 1.00 1.94 0.06 1.00 0.75 0.25 1.00 0.69 0.31
 Final Sat.: 1700 2969 431 1700 3303 97 1700 1270 430 1700 1179 521

Capacity Analysis Module:
 Vol/Sat: 0.02 0.18 0.18 0.03 0.36 0.36 0.03 0.10 0.10 0.02 0.14 0.14
 Crit Moves: ****

East and South Street
OLC1604
04 General Plan Buildout Plus Project AM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.800
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: D

Street Name:	East Street				South Street									
Approach:	North Bound		South Bound		East Bound		West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Permitted		Permitted		Permitted		Permitted		Permitted		Permitted			
Rights:	Include		Include		Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0

Volume Module:
 Base Vol: 30 293 43 46 1340 145 72 304 106 92 211 43
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 30 293 43 46 1340 145 72 304 106 92 211 43
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Proj Trips: 0 0 0 0 1 1 1 1 0 0 0 0
 Initial Fut: 30 293 43 47 1341 146 73 304 106 92 211 43
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 30 293 43 47 1341 146 73 304 106 92 211 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 30 293 43 47 1341 146 73 304 106 92 211 43
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 30 293 43 47 1341 146 73 304 106 92 211 43

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.74 0.26 1.00 1.80 0.20 1.00 0.74 0.26 1.00 0.83 0.17
 Final Sat.: 1700 2965 435 1700 3066 334 1700 1260 440 1700 1412 288

Capacity Analysis Module:
 Vol/Sat: 0.02 0.10 0.10 0.03 0.44 0.44 0.04 0.24 0.24 0.05 0.15 0.15
 Crit Moves: ****

East and South Street
OLC1604
04 General Plan Buildout Plus Project PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 East Street and Santa Ana Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.587
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 28 Level Of Service: A

Street Name:	East Street				Santa Ana Street				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Permitted		Permitted		
Rights:	Include		Include		Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1

Volume Module:
 Base Vol: 29 1071 62 81 750 32 70 113 27 46 137 59
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 29 1071 62 81 750 32 70 113 27 46 137 59
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Proj Trips: 0 0 0 0 0 1 0 0 0 0 0 0
 Initial Fut: 29 1071 62 81 751 32 70 113 27 46 137 59
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 29 1071 62 81 751 32 70 113 27 46 137 59
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 29 1071 62 81 751 32 70 113 27 46 137 59
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 29 1071 62 81 751 32 70 113 27 46 137 59

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.89 0.11 1.00 1.92 0.08 1.00 0.81 0.19 1.00 0.70 0.30
 Final Sat.: 1700 3214 186 1700 3261 139 1700 1372 328 1700 1188 512

Capacity Analysis Module:
 Vol/Sat: 0.02 0.33 0.33 0.05 0.23 0.23 0.04 0.08 0.08 0.03 0.12 0.12
 Crit Moves: ****

East and South Street
OLC1604
04 General Plan Buildout Plus Project PM

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 East Street and South Street, Anaheim, CA

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.724
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: C

Street Name:	East Street				South Street				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Permitted		Permitted		
Rights:	Include		Include		Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1

Volume Module:
 Base Vol: 63 1127 54 65 581 79 114 278 54 40 309 64
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 63 1127 54 65 581 79 114 278 54 40 309 64
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Proj Trips: 0 1 0 0 1 1 0 1 0 0 0 0
 Initial Fut: 63 1128 54 66 582 79 115 278 54 40 309 65
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 63 1128 54 66 582 79 115 278 54 40 309 65
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 63 1128 54 66 582 79 115 278 54 40 309 65
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 63 1128 54 66 582 79 115 278 54 40 309 65

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.91 0.09 1.00 1.76 0.24 1.00 0.84 0.16 1.00 0.83 0.17
 Final Sat.: 1700 3245 155 1700 2994 406 1700 1423 277 1700 1405 295

Capacity Analysis Module:
 Vol/Sat: 0.04 0.35 0.35 0.04 0.19 0.19 0.07 0.20 0.20 0.02 0.22 0.22
 Crit Moves: ****

APPENDIX C
HIGHWAY CAPACITY MANUAL WORKSHEETS

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	12	2	298	687	1
Future Vol, veh/h	4	12	2	298	687	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	13	2	324	747	1

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	913	374	748
Stage 1	747	-	-
Stage 2	166	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	273	623	856
Stage 1	429	-	-
Stage 2	846	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	272	623	856
Mov Cap-2 Maneuver	361	-	-
Stage 1	429	-	-
Stage 2	844	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	856	-	527	-	-
HCM Lane V/C Ratio	0.003	-	0.033	-	-
HCM Control Delay (s)	9.2	-	12.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	1	6	12	716	493	3
Future Vol, veh/h	1	6	12	716	493	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	7	13	778	536	3

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	953	270	539 0
Stage 1	538	-	- -
Stage 2	415	-	- -
Critical Hdwy	6.84	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.52	3.32	2.22 -
Pot Cap-1 Maneuver	257	728	1025 -
Stage 1	549	-	- -
Stage 2	635	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	254	728	1025 -
Mov Cap-2 Maneuver	382	-	- -
Stage 1	549	-	- -
Stage 2	627	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1025	-	645	-	-
HCM Lane V/C Ratio	0.013	-	0.012	-	-
HCM Control Delay (s)	8.6	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-