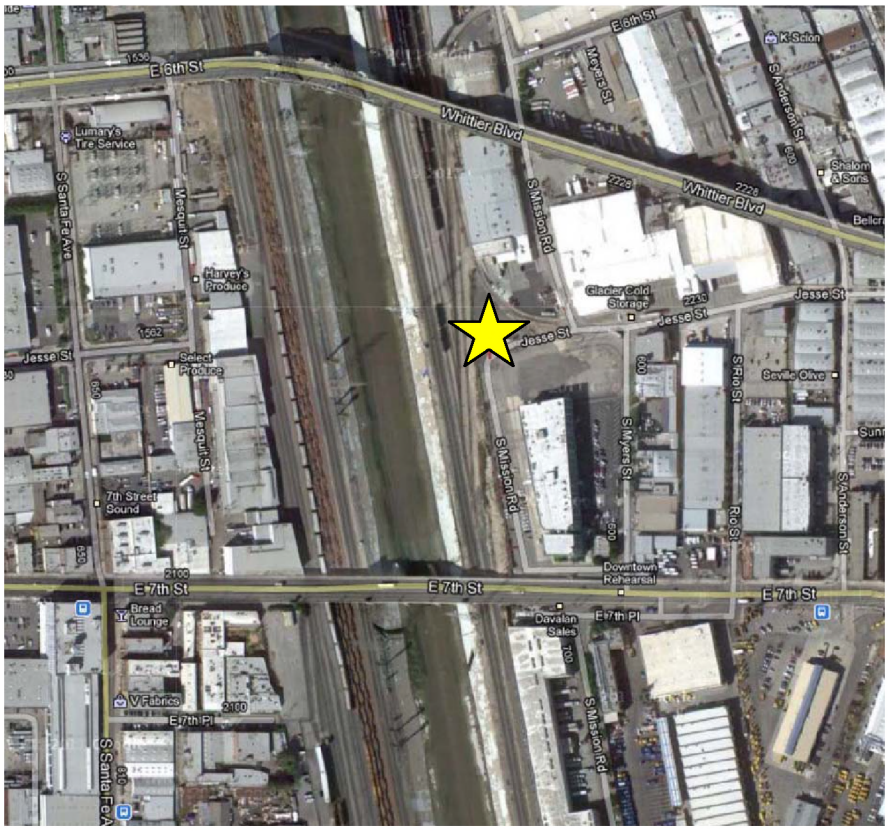
Initial Study/Mitigated Negative Declaration for an

Air Treatment Facility (ATF)
East Central Interceptor Sewer (ECIS) and Street Vacation at Mission Road & Jesse Street

(W.O. SZC11545)



April 2012
Final Revision: May 2012

City of Los Angeles

Bureau of Engineering
Environmental Management Group

CITY OF LOS ANGELES
CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY

Council District: 14 Date: April 2012

Lead City Agency: Department of Public Works, Bureau of Engineering

Project Title: Air Treatment Facility (ATF) and Street Vacation at Mission Road & Jesse Street

I INTRODUCTION

A. Purpose of an Initial Study

The California Environmental Quality Act (CEQA) was enacted in 1970 for the purpose of providing decision-makers and the public with information regarding environmental effects of proposed projects; identifying means of avoiding environmental damage; and disclosing to the public the reasons behind a project's approval even if it leads to environmental damage. The Bureau of Engineering Environmental Management Group has determined the proposed project is subject to CEQA and no exemptions apply. Therefore, the preparation of an Initial Study (IS) is required.

An IS is a preliminary analysis conducted by the lead agency, in consultation with other agencies (responsible or trustee agencies, as applicable), to determine whether there is substantial evidence that a project may have a significant effect on the environment. If the initial study concludes that the project, with mitigation, may have a significant effect on the environment, an Environmental Impact Report (EIR) should be prepared; otherwise the lead agency may adopt a Negative Declaration (ND) or Mitigated Negative Declaration (MND).

The IS/ND contained herein has been prepared in accordance with CEQA (Public Resources Code §21000 et seq.), the State CEQA Guidelines (Title 14, California Code of Regulations, §15000 et seq.), and the City of Los Angeles CEQA Guidelines (1981, amended July 31, 2002).

B. Document Format

This MND is organized into eight sections as follows:

Section I, Introduction: provides an overview of the project and the CEQA environmental documentation process.

Section II, Project Description: provides a description of the project location, project background, project components, and proposed construction and operation.

Section III, Existing Environment: provides a description of the existing environmental setting with focus on features of the environment, which could potentially affect the proposed project or be affected by the proposed project.

Section IV, Environmental Effects/Initial Study Checklist: presents the City's Checklist for all impact areas and mandatory findings of significance. Includes discussion and identifies applicable mitigation measures.

Section V, Mitigation Measures: provides the mitigation measures that would be implemented to ensure that potential adverse impacts of the proposed project would be reduced to a less than significant level.

Section VI, Preparation and Consultation: provides a list of key personnel involved in the preparation of this report and key personnel consulted.

Section VII, Determination – Recommended Environmental Documentation: provides the recommended environmental documentation for the proposed project; and,

Section VIII, References: provides a list of reference materials used during the preparation of this report.

C. CEQA Process

Once the adoption of a ND (or MND) has been proposed, a public comment period opens for no less than twenty (20) days, or thirty (30) days if there is state agency involvement. The purpose of this comment period is to provide public agencies and the general public an opportunity to review the initial study and comment on the adequacy of the analysis and the findings of the lead agency regarding potential environmental impacts of the proposed project. If a reviewer believes the project may have a significant effect on the environment, the reviewer should (1) identify the specific effect, (2) explain why it is believed the effect would occur, and (3) explain why it is believed the effect would be significant. Facts or expert opinion supported by facts should be provided as the basis of such comments.

After the close of the public review period, the Board of Public Works considers the ND or MND, together with any comments received during the public review process, and makes a recommendation to the City Council on whether or not to approve the project. One or more Council committees may then review the proposal and documents and make its own recommendation to the full City Council. The City Council is the decision-making body and also considers the ND or MND, together with any comments received during the public review process, in the final decision to approve or disapprove the project. During the project approval process, persons and/or agencies may address either the Board of Public Works or the City Council regarding the project. Public notification of agenda items for the Board of Public Works, Council committees and City Council is posted 72 hours prior to the public meeting. The Board of Public Works Agenda is available via the internet at http://www.bpw.lacity.org/. The Council agenda can be obtained by visiting the Council and Public Services Division of the Office of the City Clerk at City Hall, 200 North Spring Street, Suite 395; by calling 213/978-1047, 213/978-1048 or TDD/TTY 213/978-1055; or via the internet at http://www.lacity.org/CLK/index.htm.

If the project is approved, the City will file a Notice of Determination with the County Clerk within 5 days. The Notice of Determination will be posted by the County Clerk within 24 hours of receipt. This begins a 30-day statute of limitations on legal challenges to the approval under CEQA. The ability to challenge the approval in court may be limited to those persons who objected to the approval of the project, and to issues presented to the lead agency by any person, either orally or in writing, during the public comment period.

As a covered entity under Title II of the Americans with Disabilities Act (ADA), the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services, and activities.

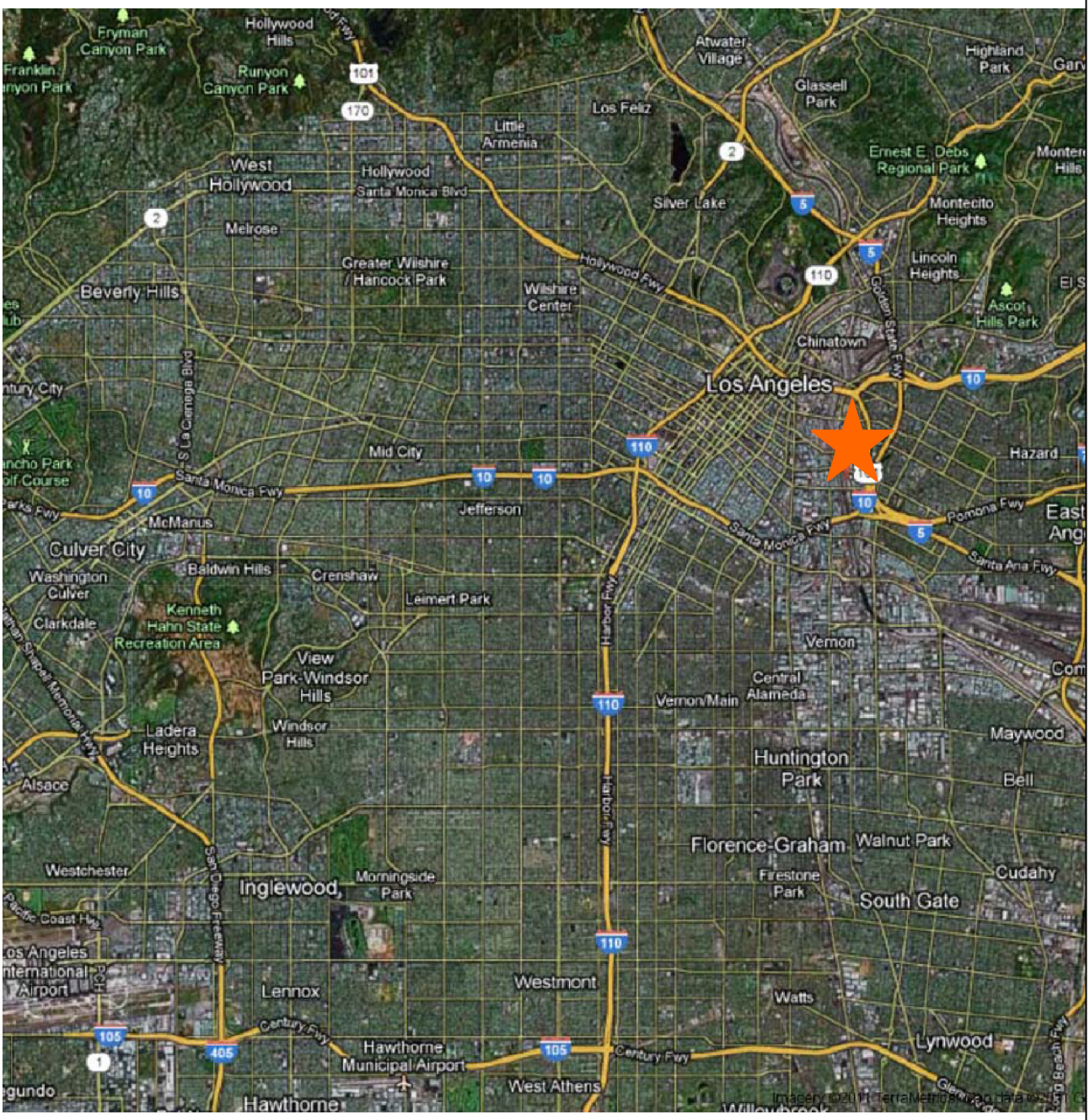
II PROJECT DESCRIPTION

A. Introduction

The proposed project is the construction and operation of a sewer air treatment facility (ATF) near the intersection of Mission Road and Jesse Street (651 South Mission Road) as well as the vacation of Mission Road and Jesse Street adjacent to this location. The ATF is intended to treat foul air resulting from turbulent flow in the existing drop structure, which connects the North Outfall Sewer (NOS) to the Northeast Interceptor Sewer (NEIS) and East Central Interceptor Sewer (ECIS).

B. Location

The ATF ECIS Mission & Jesse project site is located in an industrial area immediately east of downtown Los Angeles and the Los Angeles River, as shown in Figure 1, Project Vicinity Map. The project site is located at 651 South Mission Road, west of the intersection of Jesse Street and Mission Road on a vacant parcel owned by the City of Los Angeles. The site is approximately one-third of an acre, and is located in the Boyle



North

Figure 1 – Project Vicinity Map

Heights Community Planning Area. The two portions of public right-of-way that are proposed to be vacated include Jesse Street west of Mission Road and Mission Road immediately south of Jesse Street. The total square footage of these two street segments is approximately 15,000 square feet (sf).

C. Setting

The ATF ECIS Mission & Jesse project site is located within an industrial and manufacturing area east of downtown Los Angeles and the Los Angeles River. North of the project site is an abandoned rail spur, industrial uses, and the 6th Street Bridge; east of the site is Mission Road, which is proposed to be vacated, and additional manufacturing and industrial buildings; west of the site are several Union Pacific Railroad tracks and the Los Angeles River; south of the site is a four-story industrial/manufacturing building and 7th Street. The industrial area extends from the Los Angeles River on the west to South Clarence Street on the east.

Generally, land use within the project area is comprised of heavy and light industry. The project site itself is vacant and in the recent past was used as a construction staging site for construction of the ECIS. The site and the immediate surrounding area are zoned M2-1, Heavy Manufacturing, with the Union Pacific railroad tracks, located immediately west of the project site, zoned M3-1, Heavy Manufacturing. The project site falls within the East Los Angeles State Enterprise Zone, as well as the Los Angeles River Revitalization Master Plan area, and the Community Redevelopment Agency's Adelante Eastside Redevelopment Project area. The portions of Mission Road and Jesse Street proposed to be vacated are both local streets, bordered on both sides by City of Los Angeles owned property. Additionally, the portion of Mission Road south of the proposed street vacation has already been vacated; therefore this portion of Mission Road is a stub street.

Within the northern portion of the ATF project site is the Mission & Jesse drop structure, as shown in Figure 2, Project Site Plan, which is the eastern terminus of the ECIS. The ECIS was constructed in 2004 to relieve pressure on the existing NOS; the alignment of the ECIS is shown in Figure 3, East Central Interceptor Sewer (ECIS) Alignment.

D. Background

Near the intersection of Mission Road and Jesse Street, wastewater drops approximately 23 feet from the shallower North Outfall Sewer (NOS) to the deeper East Central Interceptor Sewer (ECIS). The turbulence created by this drop releases foul air – more than is normally produced from a smooth-flowing pipe. Unless properly managed, the foul air will escape the sewer system and create nuisance odors. The City proposes to treat and manage the release of this air to prevent nuisance odors.

The City performed a study in 2001 (the ECIS Odor Control Study) to develop process recommendations for ECIS air treatment facilities. The Odor Control Study included a complete liquid and vapor phase odor control technology analysis, demonstration testing, emission testing, site layout evaluations, and lifecycle costs analysis. The study

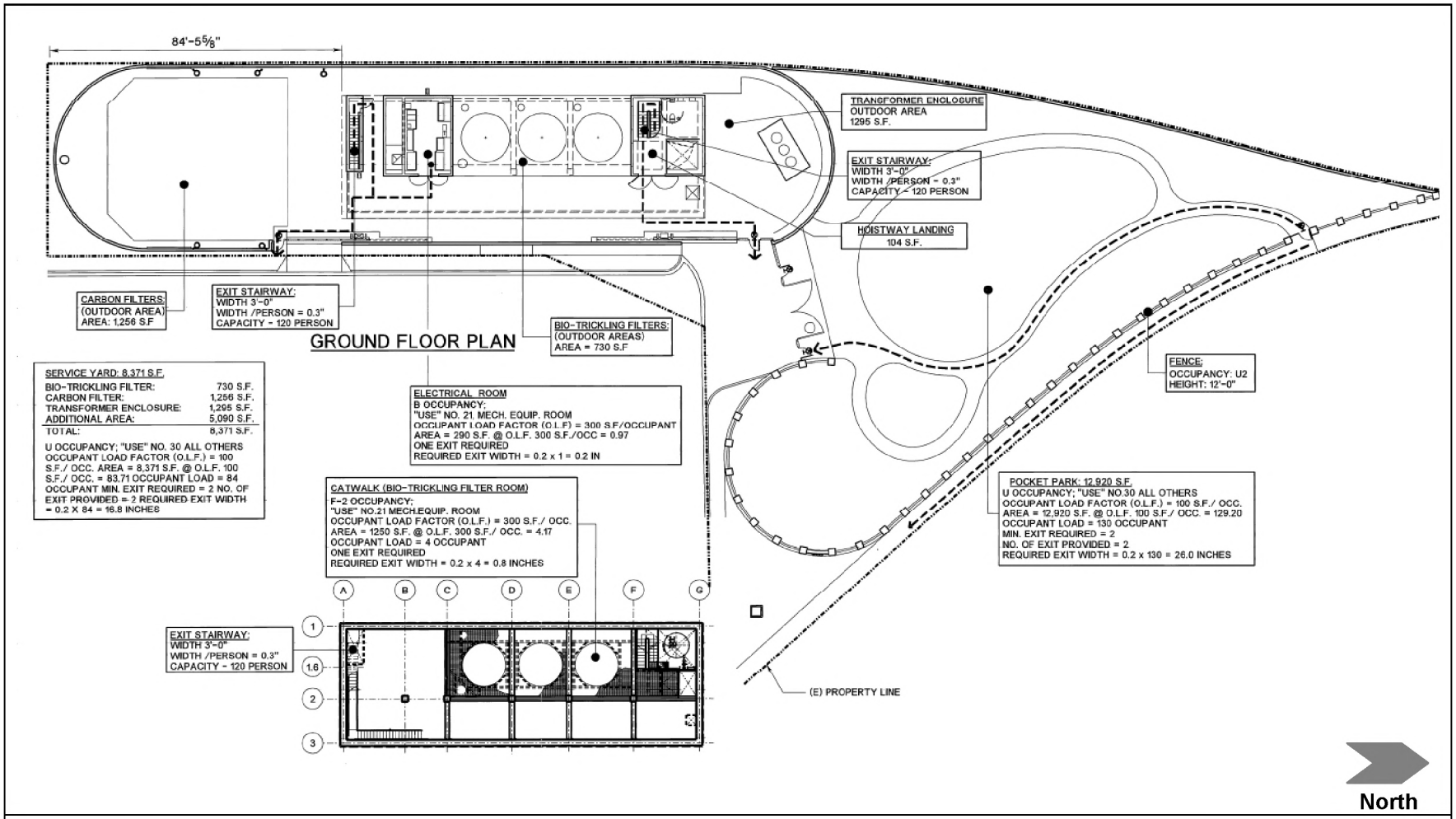


Figure 2 – Project Site Plan

Proposed Air Treatment Facility

Figure 3 – East Central Interceptor Sewer (ECIS) Alignment

recommendations included providing biotrickling filter (BTF) vessels and a biofilter for the first and second stage of the air treatment process.

Subsequent to the release of this study, pilot testing was conducted at Hyperion Treatment Plant on organic and inorganic biofilter media, virgin activated carbon, and "Midas carbon." Data showed carbon provided better odor removal than any of the biofilter media types. For that reason, the City of Los Angeles has elected to use carbon absorption air treatment as the second stage for the ECIS air treatment facility.

E. Proposed Project

The ECIS was ~~constructed and~~ completed in 2004 to relieve ~~the east-west segment of the North Outfall Sewer from its outlet connection to the North Central Outfall Sewer, which conveys flows from the Baldwin Hills area, to west of the vicinity of Mission Road and Jesse Street~~ the middle portion of the existing North Outfall Sewer from approximately the intersection of Jefferson Boulevard and Rodeo Road to the Baldwin Hills area, a distance of approximately 13 miles.

The air treatment facility at Mission Road and Jesse Street would treat foul air emitted from the ECIS and would include two-stage treatment, with BTF vessels as the first stage and activated carbon absorption as the second stage. The BTF vessels would remove hydrogen sulfide and some odorous volatile organic compounds (VOCs), while the carbon units would remove the majority of the remaining VOCs and odors. Therefore, to remove the VOCs and odors, the project would include several components. A site plan of the proposed project is shown in Figure 2.

The project would be constructed on approximately one-third of an acre and include three biotrickling filters (BTFs), four carbon units, one 25-foot tall exhaust stack, a fan building, a standby generator, a transformer, and a recirculation pit. These facilities would be located south of the existing Mission & Jesse drop structure located in the most northern area of the site. The discussion of the ATF facilities below follows the air treatment process.

Additionally, separate but related to this project, Mission Road south of Jesse Street and Jesse Street west of its intersection with Mission Road to the north, would be vacated in order to create a larger, contiguous City-owned property thereby allowing potential future use and build-out of the site by the City. Any future development planned on the site, including expansion of the ATF, would be subject to separate environmental review and discretionary approval. The portions of the streets proposed to be vacated are shown in Figure 4 – Proposed Street Vacations.

Degreaser

A degreaser (grease trap) would be provided within the conveyance system in front of the BTFs to remove oil, grease, and other particles that may have become airborne from the sewer. Air would then pass to the BTFs.

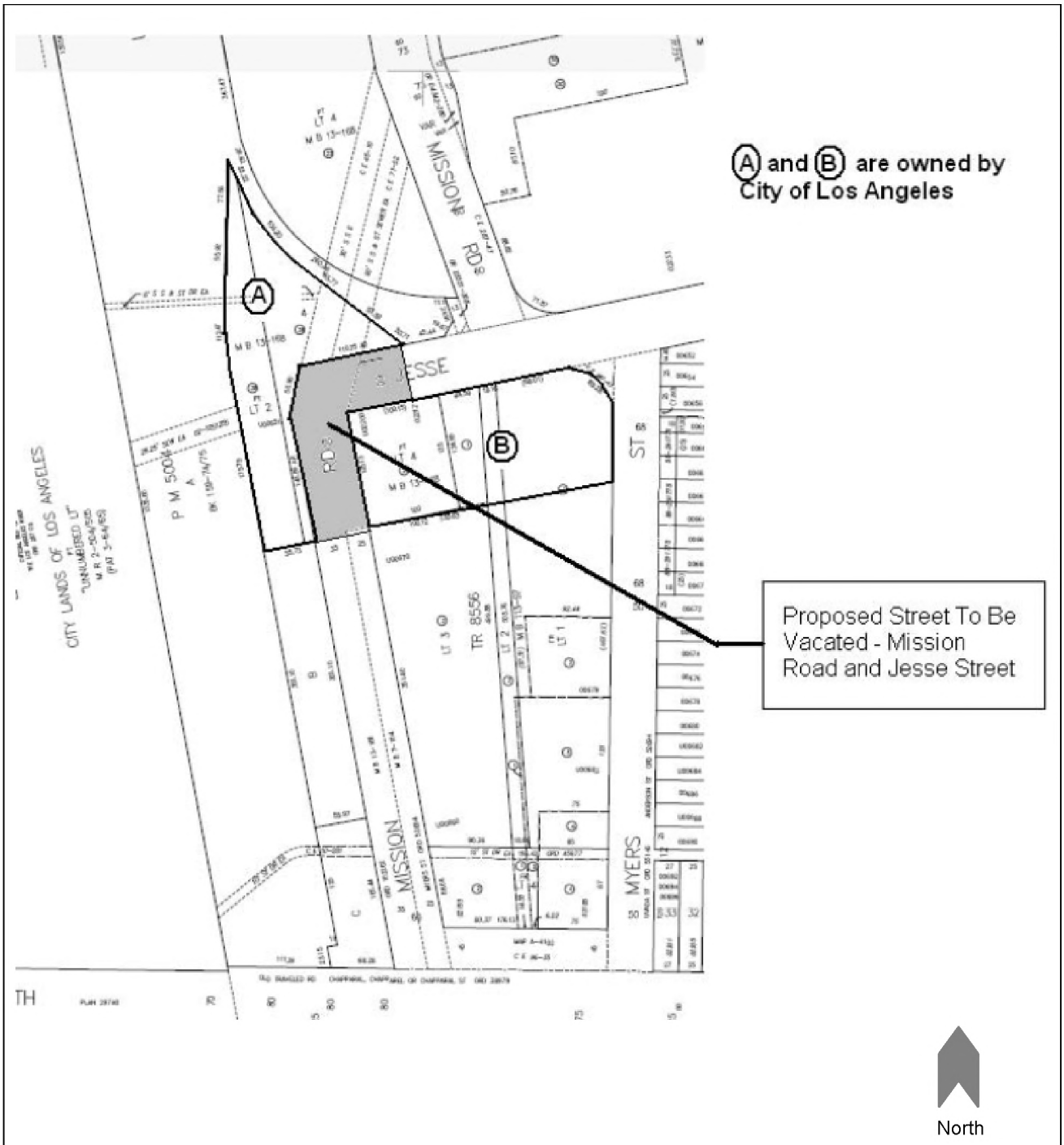


Figure 4 – Proposed Street Vacations

Biotrickling Filters
Three BTFs would be located in the center of the ATF, as shown in Figure 2, and would utilize biological processes to treat foul air. Two stages of inorganic media would be contained within the vessel. Nutrient-rich water would be passed over both stages of media to facilitate and sustain bacteria on the media. Foul air would then be introduced at the bottom of the unit and treated biologically as it passes through the media.

Each of the three vessels would be fabricated from corrosion resistant, gel coated fiberglass reinforced plastic (FRP) with an internal PVC lining. Each vessel would contain two synthetic media cassettes and an irrigation system. Foul air would enter the bottom of the vessel, and treated air would exhaust through an exit located at the top of the vessel. The diameter of each of the vessels would be approximately 12.5 feet, and the total height of each vessel, excluding the concrete pad, would be approximately 30.5 feet.

Each vessel would contain two synthetic media cassettes. The media cassettes are designed to provide support for bacteria growth, while being resistant to plugging. Cassettes also include a large surface area, biological and chemical resistance and low pressure drop. Each cassette would hold up to 5 feet of media.

Water would be pumped into each vessel; therefore, piping would be included to deliver potable water and nutrients to the water cabinet and irrigation system. Water would be supplied from the existing 8-inch water line running along Mission Road and Jesse Street.

Demister
The air discharged from the BTFs would be saturated with corrosive water droplets. A demister would be provided to eliminate mist within the conveyance system between the BTFs and the foul air fans. The demister would remove water droplets of 7 microns or larger for protection of the odor control fans.

Odor Control Fans
Fans would be located between the BTF vessels and carbon units to eliminate the need for dehumidification prior to carbon treatment. One fan would be used during operation, while the other fan would serve as a standby unit. The fans would be used as a heat source to reduce the relative humidity in the air stream prior to its entry into the carbon units. Minimizing the amount of vapor would help maximize the life of the carbon media. Removable insulation blankets would be provided for each fan to minimize heat loss to the environment; the blankets would also provide noise reduction.

Carbon Absorption Units
In secondary treatment, carbon units act as a polishing step, removing much of the remaining H_2S, VOCs, and other odorous compounds. The ATF at Mission & Jesse would include a total of four carbon units located in the southern portion of the project site. Each unit would be 12 feet in diameter, 11 feet tall, and contain a single bed of carbon media. The carbon units would initially contain approximately 3 feet of virgin activated carbon, which is primarily used for VOC and odor removal applications. Piping would be included for each unit to convey condensate from the underdrain of each unit to

a sump, and ultimately to the Mission & Jesse drop structure where the wastewater would be deposited.

Exhaust Stack
After carbon absorption treatment, the air would be collected and conveyed to a stack, located in the most southern portion of the site, where it would be discharged to the atmosphere. The stack height would be approximately 25 feet above grade.

Security Wall & Landscaping
Given the industrial nature of the project area, the BTF vessels would not be enclosed within a building. However, the facility would be screened site with a security wall and landscaping. Additionally, nighttime security lighting would be included at the site. A landscape consultant will provide a site-specific landscape design to be implemented following project construction.

Street Vacation
Separate but related to this project, approximately 15,000 sf of public roadway would be vacated. These roadways, both classified as Local Streets, per the Boyle Heights Community Plan, include Jesse Street west of its intersection with Mission Road to the north, and Mission Road south of Jesse Street. The portion of Mission Road south of the proposed street vacation has already been vacated; therefore, the segment of Mission Road proposed to be vacated is a stub road providing no through access. Vacating these streets would provide one larger, contiguous City-owned property that may be developed in the future. Future development of the larger property, including expansion of the ATF, would be subject to its own environmental review and discretionary approval.

F. Project Construction

The project site is an irregularly shaped, one-third of an acre parcel located at the northwest corner of Jesse Street and Mission Road. The ATF would be located adjacent to the existing Mission & Jesse drop structure on the southern portion of the site. Due to the industrial nature of the site and its surroundings, a BTF building would be constructed. The carbon units would be installed atop concrete pads located approximately five feet below the existing grade of the site, and the BTF vessels would be constructed within the BTF building, which would have a height of approximately 25 feet below existing grade. One small building would be constructed to house the fans and electrical equipment.

Grading and Excavation
Following mobilization, shoring would be installed for excavation and construction of the BTF building, and for the carbon filter area consistent with the recommendations included within the geotechnical evaluation prepared for the proposed project. Currently the site is relatively flat, and the project, when implemented, would be mostly below grade. Grading would consist primarily of excavating the shored areas and last approximately 8 weeks and require the use of excavation equipment. During this phase of project construction, approximately 15 construction workers would be at the site at any given point in time.

Utility Connections
Following the completion of site grading, yard work, trenching and the installation of utilities would be completed.

Potable Water
Potable water would be provided to the site by the existing 8-inch potable water line that runs along Mission Road and Jesse Street. A backwater prevention device would be included onsite. Permission to connect to this line would be required by Los Angeles Department of Water and Power (LADWP).

Sanitary Sewer
Process drain water would be conveyed back to the Mission & Jesse sewer drop structure, located immediately adjacent to the ATF site. Wastewater from the proposed restroom facility would be conveyed to a local sanitary sewer, most likely the existing 10-inch vitrified clay pipe sanitary sewer that runs along Mission Road.

Electrical
Electricity connection would be required to power the BTFs, fans, and ancillary equipment. Permission from LADWP would be required to connect to the existing power system.

Telephone
A telephone line is required for process monitoring and control. An existing overhead telephone line runs along the westerly side of Mission Road and could provide service to the project.

Facilities Construction
With the completion of utility installation, concrete slabs on grade would be poured for the BFT vessel area and the carbon unit area. Following the pouring of the slabs, the BTF vessels and carbon units would be installed, architectural finishings would be completed, and site start-up and training would occur. The estimated construction time is approximately two years, from start to finish.

G. Operation and Maintenance

Upon completion of construction, the ATF will operate continuously and would require periodic check-in and maintenance by City staff. A diesel-powered 80 kW emergency generator would be located at the project site to allow air treatment to continue in the event that power is cut off to the site and the ATF.

I. Project Actions and Approvals

The proposed project and environmental documentation, including this Initial Study/Mitigated Negative Declaration would require approval by the City of Los Angeles Board of Public Works and City Council. Additional anticipated approvals or permits for the proposed project include, but are not limited to the following:

- City of Los Angeles Department of Building and Safety, building permit.
- City of Los Angeles Department of Transportation Street Vacation approval.
- City of Los Angeles Fire Department, fire safety and hazardous materials compliance.
- City of Los Angeles, Cultural Affairs Commission, architectural approval.
- South Coast Air Quality Management District, air permit under Rule 201-Permit to Construct and Rule 203-Permit to Operate.

The analysis in this document assumes that, unless otherwise stated, the proposed project would be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (*e.g., Los Angeles Municipal Code* and Bureau of Engineering *Standard Plans*). Construction would follow the uniform practices established by the Southern California Chapter of the American Public Works Association (*e.g., Standard Specifications for Public Works Construction* and the *Work Area Traffic Control Handbook*) as specifically adapted by the City of Los Angeles (*e.g.,* The City of Los Angeles Department of Public Works Additions and Amendments to the Standard Specifications For Public Works Construction [AKA "The Brown Book," formerly Standard Plan S-610]).

III. EXISTING ENVIRONMENT

The proposed ATF site is located approximately two miles east of downtown Los Angeles in the Boyle Heights Community Plan Area and Council District 14 area of the City of Los Angeles. The project site is located in an industrial area immediately east of the Los Angeles River at the intersection of Mission Road and Jesse Street. In the northwestern portion of the project site is a drop structure for the ECIS; the ATF would be constructed in the remaining portion of the site. Separating the project site from the Los Angeles River are four Union Pacific Railroad tracks.

The ATF project site is approximately one-third of an acre in size, and is zoned M2-1, Manufacturing/Industrial. The site is vacant, and is situated in an entirely industrial area generally bound by 1st Street to the north, the East Los Angeles Interchange (intersection of Interstate 10, Interstate 5, Highway 101, and State Route 60) to the south, South Clarence Street to the east, and the Los Angeles River to the west. The closest major streets to the project site are Whittier Boulevard to the north and 7th Street to the south. The Boyle Heights Community Plan identifies Whittier Boulevard as a secondary street, 7th Street as a secondary street, Mission Road north of Jesse Street as a collector (south of Jesse Street as a local street), and Jesse Street as a local street. For the proposed street vacation, both segments of Jesse Street and Mission Road are classified as local streets, and Mission Road south of the proposed segment to be vacated has already been vacated.

The ATF and street vacation sites are also located within the East Los Angeles State

Enterprise Zone, which is one of three such designated zones in Los Angeles; the intent of enterprise zones is to allow businesses to take advantage of unique state tax credits and deductions with the goal being to stimulate business attraction, growth and increased employment opportunities.

As discussed above, the ATF project site lies immediately east of the Los Angeles River; therefore, because of the site's proximity to the Los Angeles River, the site is included in the Los Angeles River Revitalization Master Plan. The intent of the Los Angeles River Revitalization Master Plan is to improve the general environment of the Los Angeles River by improving natural habitat, water quality, recreation, open space, and economic values. Both near term and longer term improvements are proposed under the Master Plan. Additionally, five opportunity areas are identified; the project site lies within the Downtown Industrial opportunity area.

Additionally, the ATF project site falls within the Community Redevelopment Agency's Adelante Eastside Redevelopment Project area, a 2,200 acre industrial and commercial redevelopment area. The focus for the redevelopment project, which was adopted in March 1999, is the preservation of industrial and commercial uses within the community to promote a stable industrial base to provide jobs for the community as well as enhance existing shopping areas to provide alternative commercial choices for residents.

The California Department of Conservation, California Geological Survey's Seismic Hazard Zonation Program Map indicates that the ATF project and street vacation sites are not within an Alquist- Priolo Earthquake Fault Zone. The nearest active fault to the project area is the Raymond Fault, which is located approximately 5 miles from the ATF site. No active faults are known to cross the project area. The project area is not located within a potentially liquefiable zone nor within a 100-year flood zone.

In the immediate vicinity of the project area, two exploratory borings were drilled to depths of approximately 29.3 meters (96 feet) below the existing ground surface. Fill material consisting primarily of sand with silt was encountered in one boring to a depth of approximately 2.7 meters (9 feet) below the ground surface. Natural materials encountered in the two borings consisted primarily of medium dense to very dense sandy soils with varying percentages of silt and/or clay to depths of approximately 10.1 meters (33 feet). Dense to very dense sands and gravels were encountered between depths of approximately 10.1 meters and 16.1 meters (33 feet to 53 feet). These materials were underlain with very dense sands with varying percentages of silt to the explored depths of approximately 29.3 meters (96 feet).

In the project area, perched groundwater was encountered at depths of approximately 6.0 and 17.7 meters (20 and 58 feet) in the two borings. According to the geotechnical evaluation prepared for the project (2001), groundwater data obtained from the California Division of Mines and Geology indicates that the shallowest reported depth to groundwater in the site area is more than 45 meters (150 feet) below the ground surface.

IV. ENVIRONMENTAL EFFECTS/INITIAL STUDY CHECKLIST

This section documents the screening process used to identify and focus upon environmental impacts that could result from this project. The IS Checklist below follows closely the form prepared by the Governor's Office of Planning and Research and was used in conjunction with the City's *L.A. CEQA Thresholds Guide* and other sources to screen and focus upon potential environmental impacts resulting from this project. Impacts are separated into the following categories:

- No Impact. This category applies when a project would not create an impact in the specific environmental issue area. A "No Impact" finding does not require an explanation when the finding is adequately supported by the cited information sources (e.g., exposure to a tsunami is clearly not a risk for projects not near the coast). A finding of "No Impact" is explained where the finding is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

- Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and would therefore be less than significant impacts.

- Less Than Significant After Mitigation. This category applies where the incorporation of mitigation measures would reduce a "Potentially Significant Impact" to a "Less Than Significant Impact." The mitigation measures are described briefly along with a brief explanation of how they would reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be incorporated by reference.

- Potentially Significant Impact. This category is applicable if there is substantial evidence that a significant adverse effect might occur, and no feasible mitigation measures could be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required. There are no such impacts for the proposed project.

Sources of information that adequately support these findings are referenced following each question. All sources so referenced are available for review at the offices of the Bureau of Engineering, 1149 South Broadway Suite 600 Los Angeles, California 90015. Please call Nicole Cobleigh at (213) 485-5761 for an appointment.

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

1. AESTHETICS – Would the project:

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

Reference: L.A. CEQA Thresholds Guide (Sections A.1 and A.2); Boyle Heights Community Plan

Comment: A scenic vista generally provides focal views of objects, settings, or features of visual interest; or panoramic views of large geographic areas of scenic quality, primarily from a given vantage point. A significant impact may occur if the proposed project introduced incompatible visual elements within a field of view containing a scenic vista or substantially altered a view of a scenic vista.

The proposed ATF project and street vacation sites, as well as land uses surrounding the sites, are industrial in character and have views of downtown Los Angeles to the west, views of the 6th Street Bridge to the north, and views of the 7th Street Bridget to the south. Detracting from the views, however, are transmission towers and power lines, railroad tracks, and the overall industrial character of the surrounding area. The Boyle Heights Community Plan does not delineate or designate any specific views as scenic vistas within the project area. However, views of the historic bridges and the downtown skyline are generally recognized as valued views in Los Angeles.

Currently the project site is vacant and the portions of the streets to be vacated are not utilized; south of the project site is a multi-story industrial building, east of the project site are single-story industrial land uses, and north of the project site are single-story industrial land uses. Railroad tracks and the Los Angeles River are located immediately west of the project site. Due to the undeveloped character of the site, views of the bridges and the downtown Los Angeles skyline from surrounding uses are available.

Project implementation would involve the construction of BTF vessels, carbon units, one exhaust stack, and one building housing electrical equipment on the ATF project site. The erection of these uses on the site would not block views from the multi-story industrial building to the south, and would still allow views of the neighboring 6th Street Bridge, 7th Street Bridge and the Downtown Los Angeles skyline from the surrounding industrial land uses. Vacation of Mission Road and Jesse Street would not affect views either. Additionally, these views are not delineated or designated scenic vistas within the project area. Therefore, the proposed project would have less than significant impact on scenic vistas.

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

Reference: California Scenic Highway Mapping System; L.A. CEQA Thresholds Guide (Sections A.1 and A.2); City of Los Angeles General Plan; Boyle Heights Community Plan

Comment: A significant impact may occur where scenic resources within a state scenic highway would be damaged or removed as a result of the proposed project.

The proposed project is not along or near a designated California Scenic Highway or locally designated scenic highway. In addition, no scenic resources such as trees or rock outcroppings are in the project area. However, the project site and surrounding land uses have views of downtown Los Angeles to the west, views of the 6th Street Bridge to the north, and views of the 7th Street Bridget to the south.

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

As described in Section 1(a) above, the project would not obstruct views or introduce buildings or features that would obstruct views of the downtown skyline, the 6th Street Bridge and the 7th Street Bridge. Therefore, project implementation would result in a less than significant impact to any state scenic highway or locally designated scenic highway, and would have less than significant impacts on views of scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings? ☐ ☐ ☒ ☐
Reference: L.A. CEQA Thresholds Guide (Sections A.1 and A.2)
Comment: A significant impact may occur if the proposed project introduced incompatible visual elements to the project site or visual elements that would be incompatible with the character of the area surrounding the project site.

The ATF and street vacation project site is with an industrial area in the City of Los Angeles. The site itself is vacant and surrounding land uses are all industrial in nature. As described in Section 1(a) above, the project would not obstruct views or introduce buildings or features that would obstruct views of the downtown skyline, the 6th Street Bridge and the 7th Street Bridge. Therefore, project implementation would result in a less than significant impact to the visual character and quality of the site and its surroundings.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? ☐ ☐ ☐ ☒
Reference: L.A. CEQA Thresholds Guide (Section A.4)
Comment: A significant impact would occur if the proposed project caused a substantial increase in ambient illumination levels beyond the property line or caused new lighting to spill-over onto light-sensitive land uses such as residential, some commercial and institutional uses that require minimum illumination for proper function, and natural areas.

The ATF and street vacation project site is illuminated by adjacent street lights (along South Mission Road) and light sources associated with the surrounding industrial land uses. Project construction would occur during daylight hours and, therefore, would not require nighttime lighting. Upon completion of construction, minimal nighttime operational lighting would be required. Lighting for the project would only consist of security lighting.

Given the industrial character of the project area and the surrounding land uses, introduction of additional nighttime security lighting in the project area would not affect light sensitive uses. As such, no lighting impacts would occur.

2. AGRICULTURE AND FOREST RESOURCES – Would the project:

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? ☐ ☐ ☐ ☒
Reference: California State Department of Conservation Farmland Mapping and Monitoring Program website (http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx); City of Los Angeles General Plan Conservation Element; Zone Information & Map Access System (ZIMAS)
Comment: A significant impact may occur if the proposed project were to result in the conversion of state-designated agricultural land from agricultural use to a non-agricultural use.

No prime or unique farmland, or farmland of statewide importance exists within the project area

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

or vicinity. The ATF and street vacation project site is not located on or near any property zoned or otherwise intended for agricultural uses. Therefore, construction and operation of the proposed project would not impact state-designated agricultural land.

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

Reference: California State Department of Conservation Farmland Mapping and Monitoring Program website (http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx); City of Los Angeles General Plan Conservation Element, Zone Information & Map Access System (ZIMAS)

Comment: A significant impact may occur if the proposed project were to result in the conversion of land zoned for agricultural use, or indicated under a Williamson Act contract, from agricultural use to a non-agricultural use.

No land on or near the project site is zoned for or contains agricultural uses. As the City of Los Angeles does not participate in the Williamson Act, there are no Williamson Act properties in the City of Los Angeles. Therefore, no impact from project construction and operation would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code Section 4526)? ☐ ☐ ☐ ☒

References: City of Los Angeles General Plan

Comment: A significant impact may occur if the proposed project were to conflict with an existing zoning classification of forest land or timberland, or cause rezoning of an area classified as forest land or timberland.

The proposed ATF project site is zoned M2-1 (Manufacturing/Industrial), and is currently vacant. Surrounding sites are also zoned for manufacturing and industrial. There are no forest land or timberland areas in the vicinity of the project. Therefore, construction and operation of the proposed project would not conflict with the existing zoning or cause rezoning of forest land or timberland resources, and no impact would occur.

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

References: See 2(c) above

Comment: See 2(c) above.

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? ☐ ☐ ☐ ☒

Reference: See 2(a) and 2(c) above

Comment: See 2(a) and 2(c) above.

3. AIR QUALITY – Would the project:

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

Reference: L.A. CEQA Thresholds Guide (Sections B1 and B2); South Coast Air Quality Management District, Final 2007 Air Quality Management Plan, June 2007; City of Los Angeles General Plan

Comment: A significant impact may occur if the proposed project would conflict with or obstruct implementation of the applicable air quality plan.

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

The ATF and street vacation project is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is responsible for administering the Air Quality Management Plan (AQMP) for the Basin, which is a comprehensive air pollution control program for attaining state and federal ambient air quality standards. The City has an adopted Air Quality Element that is part of the General Plan. The Air Quality Element contains policies and goals for attaining state and federal air quality standards, while continuing economic growth, and includes implementation strategies for local programs contained in the AQMP. A significant impact would occur if the proposed project is inconsistent with the AQMP or the Air Quality Element of the City's General Plan.

The Final 2007 AQMP describes the SCAQMD's plan to attain the federal fine particulate matter less than or equal to 2.5 microns (µm) in diameter ($PM_{2.5}$) and 8-hour ozone (O_3) standards. Although the SCAQMD cannot directly regulate mobile source emissions, the Final 2007 AQMP requires the use of cleaner (as compared to "baseline") in-use off-road equipment. In 2007, CARB adopted a regulation to reduce diesel particulate matter and nitrogen oxides (NOx) emissions from in-use (existing) off-road heavy-duty diesel vehicles. Any construction equipment used to construct the air treatment facility would operate in compliance with state law and would therefore be consistent with the objectives of the Final 2007 AQMP.

The City of Los Angeles adopted an Air Quality Element that is part of the General Plan. Objective 1.3 of the Air Quality Element is to reduce particulate matter emissions from unpaved areas, parking lots, and construction sites. The SCAQMD's Rule 403 contains various control measures that must be implemented on all construction projects under the SCAQMD's jurisdiction. All construction activities would be compliant with Rule 403; therefore, the proposed project would be consistent with the Air Quality Element of the General Plan.

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

Reference: L.A. CEQA Thresholds Guide (Sections B1 and B2); Land Use Emissions Computer Model (California Emissions Estimator Model [CalEEMod], Version 2011.1.1), 2011; South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, 2011; 2011 State Area Designation Maps (http://www.arb.ca.gov/desig/adm/adm.htm)

Comment: A significant impact may occur if the proposed project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The California Clean Air Act, signed into law in 1988, established the California Ambient Air Quality Standards (CAAQS); all areas of the state are required to achieve and maintain the CAAQS by the earliest practicable date. Regions of the state that have not met one or more of the CAAQS are known as nonattainment areas, while regions that meet the CAAQS are known as attainment areas.

The proposed ATF and street vacation project would be located in the Los Angeles County sub-area of the SCAB. Los Angeles County is designated as a state nonattainment area for ozone (O_3), $PM_{2.5}$, inhalable particulate matter less than or equal to 10 µm in diameter (PM_{10}), nitrogen dioxide (NO_2), and lead; and an attainment or unclassified area for carbon monoxide (CO), sulfur dioxide (SO_2), sulfates, hydrogen sulfide, and visibility reducing particles.

In determining attainment and maintenance of air quality standards, the SCAQMD has established thresholds of significance for these and other criteria pollutants. A significant impact

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

would occur if the proposed project results in substantial emissions during construction or operation, which would exceed the established thresholds.

The construction air quality analysis was conducted to determine construction-related emissions using the California Emissions Estimator Model (CalEEMod), Version 2011.1.1 (see Appendix A for results). The analysis assumed that construction would occur over 18 months with a month of mobilization (August 1, 2012 to March 31, 2014), with operations commencing immediately after a one month test period. The major construction phases include mobilization, shoring and trenching, and building construction. Installation of piping, wiring, and equipment were assumed to occur in conjunction with other phases. Approximately 4,000 cubic yards (cy) of soil would be exported and 1,500 cy of concrete would be imported, resulting in 600 one-way truck trips during the shoring and trenching phase. A 3,675 square feet (sq ft) building would be erected in a 30,000 sq ft parcel. In accordance with SCAQMD Rule 403, fugitive dust during construction would be controlled by watering the site twice daily.

Long-term operational emissions would consist of vehicle emissions from a worker visiting the site daily, emissions from operation and maintenance of the building, volatile organic compound (VOC) emissions from air treatment equipment operation, and the use of an 80 kilowatt (kW) diesel emergency generator. It was assumed that the emergency generator would operate a maximum of 24 hours per day and 200 hours per year, in accordance with SCAQMD Rule 1110.2.

A summary of the emissions analysis is provided in Table 1 below.

Table 1: Project Construction & Operation Emissions

	VOC	NOx	CO	SO2	PM10	PM2.5
Construction Emissions	6	50	29	<1	31	3
SCAQMD Construction Thresholds (lbs/day)	75	100	550	150	150	55
Significant Impact?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Operational Emissions	13	3	24	<1	1	<1
SCAQMD Operations Thresholds (lbs/day)	55	55	550	150	150	55
Significant Impact?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Results of the analysis indicate that project-related construction and operations would not exceed the established SCAQMD thresholds for criteria pollutants. As such, the proposed ATF and street vacation project construction and operation would not result in a violation of air quality standards or substantially contribute to existing or projected air quality violations; therefore, the impact would be less than significant.

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

Reference: L.A. CEQA Thresholds Guide (Sections B1 and B2); 2011 State Area Designation Maps (http://www.arb.ca.gov/desig/adm/adm.htm); Land Use Emissions Computer Model

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

(CalEEMod 2011.1.1), 2011

Comment: A significant impact would occur if the proposed project's incremental air quality effects are considerable when viewed in connection with the effects of past, present, and future projects.

As discussed in 3(b) above, emissions would not exceed established thresholds for criteria pollutants during construction and operation and would not cause or contribute to local or regional air quality impacts. Therefore, net increases of emissions generated temporarily by construction or long-term by operation are not considered to substantially exacerbate a violation of air quality standards or significantly contribute to a cumulative air quality impact when combined with the effects of other projects. The impact would be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Sections B1, B2, and B3); SCAQMD Air Permit Application Health Risk Assessment, Mission & Jesse Air Treatment Facility, July 2011

Comment: A significant impact may occur if construction or operation of the proposed project generated pollutant concentrations to a degree that would significantly affect sensitive receptors. Sensitive receptors include residences, board and care facilities, schools, playgrounds, hospitals, parks, child care centers, and outdoor athletic facilities.

Since the ATF would have the potential to emit/control air pollutants, an air permit is required by the SCAQMD under Rule 201 – Permit to Construct and Rule 203 – Permit to Operate. The permitting process mandates compliance with public health requirements set forth in SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants. As such, a Health Risk Assessment (HRA) was prepared for the proposed project, in which emissions of a number of toxic air contaminants (TACs) were analyzed.

Rule 1401 requires the maximum individual cancer risk (MICR) values for all TACs emitted from a new or modified permit unit to be less than one in a million unless best available control technology for toxics (T-BACT) is installed. If T-BACT is installed, then Rule 1401 allows the MICR threshold to be increased to ten in a million. Additionally, the chronic hazard index for non-carcinogenic chronic TACs and the acute hazard index for acute TACs must both be less than 1.0. Based on the analysis completed in the HRA, the estimated cancer risk would be below the required ten in one million cancer risk threshold mandated in the SCAQMD's CEQA thresholds of significance as well as the 1.0 hazard index for non-carcinogenic chronic and acute impacts. However, the estimated maximum individual cancer risk (MICR) is above the one in a million cancer risk threshold under in SCAQMD Rule 1401 for equipment installed without T-BACT. Therefore, under SCAQMD regulations, the ATF would comply with the MICR requirements, provided T-BACT is used. The ATF would incorporate the use of a carbon filtration system, which represents T-BACT based on discussions with SCAQMD staff.

Since the model-predicted MICRs are above one in a million, cancer burden calculations, per SCAQMD Rule 1401, must be performed. Cancer burden is a theoretical estimate of the increased number of cancer cases in a population exposed to a risk of greater than or equal to one in a million. The cancer burden for a given population is the product of the number of persons in the population and the estimated individual risk from TACs. The results of the cancer burden calculations demonstrate that the operation of the ATF would be below the SCAQMD cancer burden threshold of no more than a 0.5 increase in cancer cases in the given population.

According to the HRA, based on discussions with SCAQMD permitting staff, use of the carbon

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

absorption is considered T-BACT and the project carcinogenic and non-carcinogenic health risk impacts comply with SCAQMD Regulation 1401 – New Source Review of Toxic Air Contaminants; impacts would be less than significant.

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

Reference: L.A. CEQA Thresholds Guide (Sections B1 and B2)
Comment: A significant impact would occur if the project created objectionable odors during construction or operation that would affect a substantial number of people.

The purpose of the proposed project is to construct and operate an ATF to remove objectionable odors currently created by the Mission & Jesse drop structure from the sewer system. Treatment of these odors in the BFT vessels and carbon units would eliminate the majority of the objectionable odors currently present at the site. As such, the proposed project would not create new odors but would instead remove existing odors in the project area. No impacts would occur.

4. BIOLOGICAL RESOURCES – Would the project:

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section C); City of Los Angeles General Plan, Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007
Comment: A significant impact may occur if the proposed project would remove or modify habitat for any species identified or designated as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the state or federal regulatory agencies cited.

The proposed ATF and street vacation project site is located in a heavily urbanized and industrial area just east of the Los Angeles River and the adjacent Union Pacific Railroad tracks. The site is vacant and surrounded by development with manufacturing/light industrial uses. Presently crushed concrete and debris exist on the ATF project site. Plant species in the vicinity of the project site include one tree, a European hackberry (*Celtis australis L.*), which is not native to California, a shrub, and weeds. No trees or vegetation exist on the roadway segments proposed for street vacation.

The Los Angeles River is located west of the ATF project site; however, Union Pacific Railroad tracks separate the project site from the river. The river channel is concrete lined, several hundred feet across and more than 50 feet deep. Although the River has year-round flows, fed by urban runoff and treated wastewater, the portion of the river immediately adjacent to the project site does not contain any federally designated critical habitat, and in this location does not support any federal listed proposed, threatened, or endangered species.

As discussed above, one non-native tree exists on the ATF project site. Protected trees within the City of Los Angeles include Bay, Oak, Sycamore, and Walnut trees; the tree, a European hackberry, does not qualify as a protected tree within the City. Additionally, the ATF project site is disturbed and the adjacent river bed is concrete and channelized, and not conducive to supporting either plant or animal species. The site lacks the minimum characteristics and conditions necessary to support any sensitive or protected plant or animal species that may occur within the project region.

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

The ATF and street vacation project site does not contain or support federal- or state-listed plant or animal species and therefore no impacts associated with construction and operation of the proposed project would occur.

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 US Fish and Wildlife Service? ☐ ☐ ☒ ☐

Reference: See 4(a) above
Comment: See 4(a) above.

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? ☐ ☐ ☐ ☒

Reference: City of Los Angeles General Plan; L.A. CEQA Thresholds Guide (Section C); Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007
Comment: A significant impact may occur if federally protected wetlands, as defined by Section 404 of the Clean Water Act, would be modified or removed.

The ATF and street vacation project site is within an industrial and developed area and, as a result, does not contain or support jurisdictional wetlands. Therefore no impacts associated with construction and operation of the proposed project would occur.

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? ☐ ☒ ☐ ☐

Reference: L.A. CEQA Thresholds Guide (Section C); Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007
Comment: A significant impact may occur if the proposed project interfered or removed access to a migratory wildlife corridor or impeded the use of native wildlife nursery sites.

The project area is within an urban and industrial setting, and the ATF and street vacation project site is located east of the Los Angeles River. On the project site itself, there are no native resident or migratory fish, wildlife species, wildlife corridors, nor native wildlife nursery site located on or in the vicinity of the project site. However, project implementation would require the removal of one tree, a European hackberry (*Celtis australis L.*), which is not native to California, on the project site, located in the southwestern portion of this site. There is the potential that this tree provides habitat suitable for nesting by migratory birds. Mitigation Measure BIO-1 is required as follows:

> **Mitigation Measure BIO-1:** A nesting bird survey shall be performed for the European hackberry (*Celtis australis L.*) tree prior to initiating any construction activities that have the potential to disturb and/or remove the tree during the nesting bird season.

Project construction and operation would not affect biological resources in the Los Angeles River. The site is separated from the river by the existing Union Pacific Railroad tracks. Wastewater and runoff from the project site would be directed towards City sewers and storm

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

drains and would not directly drain to the river. Therefore, with implementation of Mitigation Measure BIO-1, all potentially significant biological resources impacts would be reduced to a less than significant level.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ☐ ☐ ☐ ☒
Reference: L.A. CEQA Thresholds Guide (Section C); City of Los Angeles General Plan; Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007
Comment: A significant impact may occur if the proposed project would cause an impact that was inconsistent with local regulations pertaining to biological resources.

One tree exists on the ATF and street vacation project site, a European hackberry (*Celtis australis L.*), which is not native to California. There are no protected biological resources on or in the vicinity of the project site. Therefore, implementation of the project would not impact any protected trees or resources and, therefore, no impact is would occur.

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? ☐ ☐ ☐ ☒
Reference: City of Los Angeles General Plan; L.A. CEQA Thresholds Guide (Section C); Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007
Comment: A significant impact may occur if the proposed project would be inconsistent with the provisions of the adopted habitat conservation plans of the cited type.

The proposed ATF and street vacation project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5. CULTURAL RESOURCES – Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5? ☐ ☐ ☐ ☒
Reference: L.A. CEQA Thresholds Guide (Section D.3); NavigateLA (2011)
Comment: A significant impact may result if the proposed project caused a substantial adverse change to the significance of a historical resource.

Project construction is not anticipated to affect historical resources. No known or listed historic resources exist on or adjacent to the ATF and street vacation project site. As such no historic resource impacts would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations Section 15064.5? ☐ ☐ ☒ ☐
Reference: L.A. CEQA Thresholds Guide (Section D.3)
Comment: A significant impact may occur if the proposed project were to cause a substantial adverse change in the significance of an archaeological resource, which falls under the CEQA Guidelines section cited above.

Project construction activities are expected to affect the top 5 feet of soil at the project site. No known or listed archaeological resources exist and the ATF and street vacation project site, and the site has been previously disturbed during installation of the Mission and Jesse drop structure. Given the shallow construction planned at the site and the fact that the site has been previously

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

disturbed without any archaeological resources being unearthed, project construction is not anticipated to affect archaeological resources. However, in the unlikely event that archaeological resources are discovered during project construction, all work in the immediate vicinity of the discovery shall be suspended until the discovery is assessed by a qualified archaeological monitor working under the direct supervision of a Principal Investigator or Project Manager certified by the Register of Professional Archaeologists (qualifications derived from 36 CFR Part 61) and appropriate treatment is determined. As such, impacts to archaeological resources would be less than significant.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section D.1); Standard Specification for Public Works Construction ("Greenbook")

Comment: A significant impact may occur if grading or excavation activities associated with the proposed project would disturb unique paleontological resources or unique geologic features.

Project construction activities are expected to affect the top 5 feet of soil at the ATF and street vacation project site. No known or listed paleontological resources exist and the project site, and the site has been previously disturbed during installation of the Mission and Jesse drop structure. Given the shallow construction planned at the site and the fact that the site has been previously disturbed without any paleontological resources being unearthed, project construction is not anticipated to affect paleontological resources. However, in the unlikely event paleontological resources are discovered during project construction, standard specifications for Public Works require that all work shall cease within the vicinity of the find until the paleontological resources are properly assessed and subsequent recommendations are determined by a qualified paleontologist. Therefore, potential impacts to paleontological resources during construction activities associated with the project would be less than significant. No impact is anticipated from the operation of the proposed project.

d) Disturb any human remains, including those interred outside of formal cemeteries? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section D.2); Standard Specification for Public Works Construction ("Greenbook")

Comment: A significant impact may occur if grading or excavation activities associated with the proposed project would disturb interred human remains.

No known burial sites are located within or adjacent to the ATF and street vacation project site. The project site has been previously disturbed; however, it is still possible that human remains exist in the subsurface. In the event that an unknown burial site or human remains are found during excavation, in accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during construction activities, the County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are or believed to be Native American, s/he shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with Section 5097.98 of the California Public Resources Code, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendents shall complete their inspection within 48 hours of being granted access to the site. The designated Native

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Therefore, potential impacts to any unknown burial site or human remains being encountered during construction activities associated with the project would be less than significant. No impact is anticipated from the operation of the proposed project.

6. GEOLOGY AND SOILS – Would the project:

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section E.1); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001); California Department of Conservation Publication 42

Comment: A significant impact may occur if the proposed project were located within a state-designated Alquist-Priolo Zone or other designated fault zone and appropriate building practices were not followed.

The ATF and street vacation project site is not located within a State of California Earthquake Fault Zone/Alquist-Priolo Special Study Zone. The project site is located in Southern California, a seismically active area; however the closest known active fault to the site is the Raymond Fault, which is approximately 5 miles from the site.

Therefore, construction and operation of the project would not expose people or structures to potential adverse effects from the rupture of a known earthquake fault; and the impact is not anticipated to be significant.

ii) Strong seismic ground shaking? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section E.1); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001); California Department of Conservation Publication 42

Comment: A significant impact may occur if the proposed project design did not comply with building code requirements intended to protect people from hazards associated with strong seismic ground shaking.

As with most locations in southern California, the ATF and street vacation project site is susceptible to ground shaking emanating from causative faults during an earthquake. As indicated in 6(a)(i) above, the project site is not located within an Alquist-Priolo Special Study Zone, and thus the potential for hazards associated with strong seismic ground-shaking such as ground surface rupture affecting the site is considered low. Known regional faults that could produce significant ground shaking at the project site include the Santa Monica, Newport-Inglewood, Malibu Coast, Palos Verdes, Hollywood, and Puente Hills Blind Thrust Faults, among others. The closest of these are the Elysian Park and Newport-Inglewood faults. Seismic activity along any of the above-mentioned faults could affect the proposed project, and is considered during the design of proposed structures.

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

The ATF project site is currently vacant and the segments of roadway proposed for street vacation are not utilized. Construction of the project would take the seismic conditions of the region and the site itself into consideration, as discussed in the geotechnical evaluation prepared for the project. The design of the project would address ground shaking concerns, as such the construction and operation of the project would have no impact related to exposing people or structures to strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section E.1); General Plan Safety Element; California Department of Conservation Publication 42; Los Angeles, California; Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001)

Comment: A significant impact may occur if the proposed project would be located in an area identified as having a high risk of liquefaction and appropriate design measures required within such designated areas were not incorporated into the project.

Liquefaction typically occurs when near-surface (usually upper 50 feet) saturated, clean, fine-grained loose sands are subject to intense ground shaking. According to the geotechnical evaluation prepared for the project, the ATF and street vacation site is not located within a potentially liquefiable zone (as mapped by the California Division of Mines and Geology). As such, the construction and operation of the project would have a less than significant impact related to liquefaction.

iv) Landslides? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section E.1); City of Los Angeles General Plan (Landslide Inventory and Hillside Areas in the City of Los Angeles Map); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001); California Department of Conservation Publication 42

Comment: A significant impact may occur if the proposed project would be located in an area identified as having a high risk of landslides and appropriate design measures required within such designated areas were not incorporated into the project.

The ATF and street vacation project is located in an area that is relatively flat and is not identified as a potential landslide hazard area by the California Department of Mines and Geology. Therefore, construction and operation of the proposed project would not expose people or structures to potential adverse effects from landslides and no impact is anticipated.

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

Reference: L.A. CEQA Thresholds Guide (Section E.2)

Comment: A significant impact may occur if the proposed project were to expose large areas to the erosion effects of wind or water for a prolonged period of time.

Construction of the proposed ATF and street vacation project would include ground-disturbing activities, including excavation, trenching, grading, and landscaping. These activities could result in the potential for erosion to occur at the proposed project site, though soil exposure would be temporary and short-term in nature. In accordance with standard specifications for public works construction and building code requirements, the proposed project would require implementation of a Storm Water Pollution Prevention Plan (SWPPP) for erosion and sedimentation control. Construction BMPs would also be undertaken to control runoff and erosion from any earthmoving

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

activities that would occur. Implementation of such control measures would prevent substantial soil erosion or the loss of topsoil from exposed soils. After site clearance, excavation and grading activities, building construction and equipment installation would occur. No large areas of exposed soil would exist that would be exposed to the effects of erosion by wind or water. As such, construction or operation the project would have less than significant impacts related to erosion and loss of topsoil.

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section C1); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001)

Comment: A significant impact may occur if the proposed project was built in an unstable area without proper site preparation or design features to provide adequate foundations for project buildings, thus posing a hazard to life and property.

A subsurface evaluation was performed at the site in October 2001 and consisted of drilling two borings. The geotechnical evaluation prepared for the project indicates the site consists of fill material consisting primarily of sand with silt to a depth of approximately 2.7 meters (9 feet) below the ground surface. Natural materials encountered in the two borings consisted primarily of medium density to very dense sandy soils with varying percentages of silt and/or clay to depths of approximately 10.1 meters (33 feet). Dense to very dense sands and gravels were encountered between depths of approximately 10.1 meters and 16.1 meters (33 feet to 53 feet). These materials were underlain with very dense sands with varying percentages of silt to the explored depths of approximately 29.3 meters (96 feet).

Based on the two borings, fill materials and shallow unsuitable natural soils may exist at the site. According to the geotechnical evaluation, the site is suitable for the construction of the Odor Control Facility; however, the site would require grading for support of the near surface biofilter. The biotrickling filter building can be founded on undisturbed natural soils at a depth of 4.3 meters (14 feet) or more below ground surface. Support of the biofilter will require a 1.5 meter (5 foot) minimum removal of any existing fill materials and unsuitable natural soils.

The ATF and street vacation site would not be susceptible to landslide given the flat condition of the site and its surroundings. Nor would the site be subject to lateral spreading, liquefaction or collapse, according to the geotechnical evaluation. Grading the upper 1.5 meters (5 feet) of the material beneath the biofilter foundation and replacing this with properly compacted fill material would avoid any seismic settlement or subsidence potential. As such, construction and operation of the project would have less than significant impacts related to soil instability.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ☐ ☐ ☒ ☐

Reference: Uniform Building Code; Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001)

Comment: A significant impact may occur if the proposed project would be built on expansive soils without proper site preparation or design features to provide adequate foundations for project buildings, thus posing a risk to life and property.

Expansion Index (EI) presented below in Table 2 is used to measure a basic index property of soil and therefore, the EI is comparable to other indices such as the liquid limit, plastic limit, and

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

plasticity index of soils. The classification of a potentially expansive soil is based on the following table:

Table 2: Classification of Expansive Soils	
Expansion Index	**Expansion Potential**
0–20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High

Based on the findings within the geotechnical evaluation for the proposed project, unsuitable fill materials and shallow natural soils may be encountered at the ATF and street vacation site. The site is considered suitable for the construction of the ATF, however, the site would require grading for support of the near surface biofilter. Mat foundations may be used for support of the structures. The biotrickling filter building can be founded on undisturbed natural soils. Support of the biofilter will require a 1.5 meter (5-foot) minimum removal of any existing fill materials and unsuitable natural soils.

Therefore, the any import material used for backfill should consist of clean, non-expansive material that conforms with the latest edition of the "Greenbook" Standard Specifications for Public Works Construction for structure backfill. Non-expansive soil has an EI of 20 or less. Therefore, the soils at the site would have a very low potential to be expansive; construction and operation of the project would have less than significant impacts related to soil expansion.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ☐ ☐ ☐ ☒

Reference: None applicable

Comment: A significant impact may occur if the proposed project were built on soils that were incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system, and such a system were proposed.

Construction and operation of the proposed ATF and street vacation project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, no impact associated with construction and operation of the proposed project would occur.

7. GREENHOUSE GAS EMISSIONS – Would the project:

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

Reference: SCAQMD. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008; Land Use Emissions Computer Model (California Emissions Estimator Model [CalEEMod], Version 2011.1.1), 2011

Comment: SCAQMD developed a recommended interim threshold for assessing the significance of potential GHG emissions that uses a tiered approach to determining significance. The preferred significance threshold for GHG emissions from an industrial project is less than 10,000 metric tons of carbon dioxide equivalent (MTCO2e) per year, which includes construction emissions amortized over the lifetime of the project (default is 30 years) and then added to operational

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

GHG emissions. The SCAQMD also proposed a screening level for significance for residential/commercial projects of 3,000 MTCO2e per year, which also includes construction emissions amortized over 30 years and then added to operational GHG emissions to determine total project GHG emissions. On December 5, 2008, the SCAQMD Board adopted the industrial source threshold of 10,000 MTCO2e per year, but did not vote on the residential/commercial threshold because SCAQMD staff needed additional time to complete analysis on the threshold.

While the proposed ATF and street vacation project is the construction of an air treatment facility and is not an industrial or residential/commercial project, in the absence of more applicable thresholds, the SCAQMD's recommended threshold of 10,000 MTCO2e provides a benchmark for comparison purposes to assess the project's relative contribution of GHG emissions.

Construction and operational emissions were calculated using CalEEMod Version 2011.1.1 with the same assumptions used for the air quality analysis (see Section 3). Total construction emissions were estimated to be 534 MTCO2e (Appendix A) over the 18-month construction period. Emissions from the operation and maintenance of the ATF would be approximately 120 MTCO2e per year. Using the method discussed above, the total project emissions would be 138 MTCO2e per year, approximately one percent of SCAQMD's recommended threshold of 10,000 MTCO2e for industrial projects

As described above, while SCAQMD's 10,000 MTCO2e threshold would not apply to the proposed project, it is presented here as benchmark for comparison purposes to demonstrate that the proposed project would not result in substantial amounts of GHG emissions that could potentially have a significant impact on the environment. Therefore, emissions of GHG associated with the construction and operation of the proposed ATF and street vacation project are anticipated to be less than significant.

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

Reference: California Air Resources Board, The California Global Warming Solutions Act of 2006 (AB32), 2006

Comment: A significant impact may occur if the proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

As described below, several initiatives, plans, policies, and regulations have been adopted at the state and local level related to reducing GHG emissions. In general, California's goals and strategies for the systematic statewide reduction of GHG emissions are embodied in the combination of Executive Order S-3-05 and Assembly Bill (AB) 32, which call for the following reductions of GHG emissions:

- 2000 levels by 2010 (11 percent below business-as-usual)
- 1990 levels by 2020 (25 percent below business-as-usual)
- 80 percent below 1990 levels by 2050

As discussed in 7(a), GHG emissions associated with construction and operation of the proposed ATF and street vacation project would not be substantial, and would be well below SCAQMD's significance criteria. The significance criteria established by the SCAQMD is sufficient to capture projects that represent approximately 90 percent of GHG emissions from new sources. In other words, 90 percent of total emissions from all stationary sources would be captured by this threshold. SCAQMD staff indicated that this threshold would be sufficient to

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

prevent new development from substantially hindering progress towards achieving the goals of Executive Order S-3-05. GHG emissions would not conflict with AB 32 or S-3-05 and would be less than significant.

8. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

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

Reference: L.A. CEQA Thresholds Guide (Sections F.1 & F.2); ECIS/NEIS/NCOS/NORS Air Treatment Facilities Design Memorandum, September 2004; Methane Report, Proposed Air Treatment Facility, March 2005

Comment: A significant impact may occur if the proposed project utilizes substantial amounts of hazardous materials as part of its routine operations and could potentially pose a hazard to the public under accident or upset conditions.

Construction

The ATF project site is currently undeveloped, and the two street segments proposed for street vacation are not utilized. Construction would involve minimal excavation and grading to level the site, followed by excavation for running pipes and electrical conduits to and under the planned structures. Following installation of pipes and conduit, the concrete equipment pad/slab would be poured and equipment would be installed. Once the structures are completed, the architectural finishing phase would begin, which includes painting, paving and landscaping. The estimated time to complete this construction is approximately one year.

Given that the project site does not contain any hazardous materials on site and that construction activities would not involve the use of hazardous materials, project construction would not generate a risk to the public or the environment through the transport or use of hazardous materials. Additionally, according to the Methane Report prepared for the project site (2005), methane was not detected at shallow depths and measured methane concentrations in the on-site deep soil gas probes were low enough that no methane mitigation is required. Impacts would be less than significant.

Operation

During operation of the ATF, a biological process would be used to remove hydrogen sulfide (H_2S) from the air through biotrickling filters in vessels that are approximately 12.5 feet in diameter and 30.5 feet tall. Bacteria would exist within each vessel on media cassettes designed to support bacteria growth with intermittent irrigation using potable water.

Water discharge with a pH of 2 or less to a public wastewater collection system is prohibited due to its classification as a hazardous waste. Additionally, the City of Los Angeles Industrial Discharge Ordinance prohibits discharges with a pH of less than 5.5. However, the ATFs have been deemed as part of the collection system by the City, discharge into the City's collection system with a pH greater than 2 is acceptable. As such, discharge with a pH of at least 2 will be maintained at all times.

Additionally, one 264-gallon nutrient tank would be permanently located on site. This tank would hold the biological material used in the air treatment process. The tank would be sealed and the bacteria inside, if in the unlikely event that it is exposed to the air, would not result in risks to human health & safety. Additionally, as discussed above, according to the Methane Report prepared for the project site (2005), methane was not detected at shallow depths and measured methane concentrations in the on-site deep soil gas probes were low enough that no methane mitigation is required. As such, impacts would be less than significant.

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Sections F1 and F.2); California Code of Regulations, Title 8, Sections 1529 and 1532.1, available at http://www.dir.ca.gov/title8/1529.html and http://www.dir.ca.gov/title8/1532_1.html respectively; SCAQMD Rule 1403 (www.aqmd.gov/rules/reg/reg14/r1403.pdf); ECIS/NEIS/NCOS/NORS Air Treatment Facilities Design Memorandum, September 2004; Phase 1 Environmental Site Assessment, North Outfall Sewer – East Central Interceptor Sewer, March 27, 2000; Geotechnical and Hazardous Materials Investigation, East Central Interceptor Sewer Project, January 31, 2000; Geotechnical and Hazardous Materials Investigation East Central Interceptor Sewer Project, Addendum No. 2, May 8, 2000; East Central Interceptor Sewer Addendum to the Geotechnical Data Report, May 11, 2000; Methane Report, Proposed Air Treatment Facility, March 2005

Comment: A significant impact may occur if the proposed project has the potential to result in the accidental release of hazardous materials.

The ATF project site is currently undeveloped, and the two street segments proposed for street vacation are not utilized. Construction would involve minimal excavation and grading to level the site, followed by excavation for running pipes and electrical conduits to and under the planned structures. Following installation of pipes and conduit, the concrete equipment pad/slab would be poured and equipment would be installed. Once the structures are completed, the architectural finishing phase would begin, which includes painting, paving and landscaping. The estimated time to complete this construction is approximately one year.

No known contaminants exist at the project site. In 2000 a Phase 1 ESA was prepared, which recommended that additional analysis be conducted given the past land uses of the site as well as surrounding land uses. Additional analysis completed as part of geotechnical investigations for the ECIS and NEIS revealed only minor occurrences of recoverable petroleum hydrocarbons in spot locations; in these locations the soil was removed during construction activities for the ECIS and NEIS construction shafts. Additionally, in 2005 a Methane Report was prepared for the project site; methane was not detected at shallow depths and measured methane concentrations in the on-site deep soil gas probes were low enough that no methane mitigation is required.

Construction

Given that minimal amounts of shallow earthmoving activities would be required during project construction and that the likely presence for hazards and hazardous materials is low, impacts during construction would be less than significant.

Operation

During operation of the ATF, a biological process would be used to remove hydrogen sulfide (H_2S) from the air through biotrickling filters in vessels that are approximately 12.5 feet in diameter and 30.5 feet tall. Bacteria would exist within each vessel on media cassettes designed to support bacteria growth with intermittent irrigation using potable water.

Water discharge with a pH of 2 or less to a public wastewater collection system is prohibited due to its classification as a hazardous waste. Additionally, the City of Los Angeles Industrial Discharge Ordinance prohibits discharges with a pH of less than 5.5. However, the ATFs have been deemed as part of the collection system by the City, discharge into the City's collection system with a pH greater than 2 is acceptable. As such, discharge with a pH of at least 2 will be

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

maintained at all times.

Additionally, one 264-gallon nutrient tank would be permanently located on site. This tank would hold the biological material used in the air treatment process. The tank would be sealed and the bacteria inside, if in the unlikely event that it is exposed to the air, would not result in risks to human health & safety. Additionally, as discussed above, according to the Methane Report prepared for the project site (2005), methane was not detected at shallow depths and measured methane concentrations in the on-site deep soil gas probes were low enough that no methane mitigation is required. As such, the potential for accidental release is low and impacts would be less than significant.

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

Reference: L.A. CEQA Thresholds Guide (Section F.2)

Comment: A significant impact may occur if the proposed project were located within one-quarter mile of an existing or proposed school site and were projected to release toxic emissions which pose a hazard beyond regulatory thresholds.

The names, addresses and distance to the ATF and street vacation project site for each of closest schools to the site are shown in Table 3 below. As shown therein, no schools are located within one-quarter mile of the project site.

Table 3: Schools in Vicinity of Project Site

School	Address	Distance to Site
Soto Elementary School	1020 South Soto Street	0.7 miles
Bishop Mora Salesian High School	960 South Soto Street	0.7 miles
Soto Early Education Center	2616 East 7th Street	0.8 miles
Santa Isabel Elementary School	2424 Whittier Blvd	0.9 miles
Saint Mary Elementary School	416 South Saint Louis Street	1.1 miles
Hollenbeck Middle School	2510 East 6th Street	1.2 miles
Roosevelt High School	456 South Matthews Street	1.3 miles
Breed Elementary School	2226 East 3rd Street	1.3 miles

No schools are planned within one-quarter mile of the project site, and given that no existing schools are located within a one-quarter mile radius of the project site, the proposed project would not result in the release of toxic emissions which pose a hazard beyond regulatory thresholds. No impacts to schools 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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section F.2); State Department of Toxic Substances Control, www.envirostor.dtsc.ca.gov (accessed September 7, 2011); Phase 1 Environmental Site Assessment, North Outfall Sewer – East Central Interceptor Sewer, Mission Road at Jesse Street (March 2000);

Comment: A significant impact may occur if the proposed project were 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.

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

A site search on EnviroStor (www.envirostor.com) on September 7, 2011, confirmed that the ATF and street vacation project site is not listed on any databases; however, the following sites were in the vicinity of the project site:

- Santa Fe/W.A Grant, located at 2144 East 7th Street, Los Angeles, CA 90021 – This site is located 0.3 miles, and across the Los Angeles River, from the project site and was a Voluntary Cleanup Program site. A No Further Action determination was issued for the site in 1996.

- City of Los Angeles Bureau of Street Services, located at 2222 East 7th Street, Los Angeles, CA 90023 – This site is located 0.2 miles from the project site and is a Leaking Underground Storage Tank (LUST) Cleanup Site. The site had diesel leaking into the soil; remediation activities were completed in 2006, and since then the site is undergoing monitoring for verification of effective remediation.

- 7th Street Los Angeles Public Works Maintenance Facility, located at 2300 East 7th Street, Los Angeles, CA 90023 – This site is located 0.3 miles from the project site and is a LUST Cleanup Site. The site had diesel leaking into the soil and has been undergoing remediation since 2006.

- Dean & Associates, located at 700 South Santa Fe Avenue, Los Angeles, CA 90021 – This site is located 0.5 miles from the project site; cleanup was certified as complete in 1987. Cleanup activities were state response for cleanup of PCBs in soil from a scrap metal facility that historically accepted transformers with PCBs.

As the project site is not listed as a designated hazards or hazardous materials site, and construction and operation of the project would not result in new hazards to the public or the environment, impacts would be less than significant.

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? ☐ ☐ ☐ ☒

Reference: General Plan, L.A. CEQA Thresholds Guide (Section F.1); Boyle Heights Community Plan; Google Maps (2011)

Comment: A significant impact may occur if the proposed project site were located within a public airport land use plan area, or within two miles of a public airport, and would create a safety hazard.

The ATF and street vacation project site is not located within an airport land use plan, or within two miles of a public airport of public use airport. The project site is located approximately 11 miles southeast of the Burbank Airport, 12 miles northwest of the Los Angeles International Airport, 12 miles west of the El Monte Airport, and 13 miles northwest of the Santa Monica Airport. Therefore, no safety hazard associated with proximity to an airport is anticipated for the proposed project.

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? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section F.1); Boyle Heights Community Plan; Google

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

Maps (2011)
Comment: A significant impact may occur if the proposed project is in the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area.

The ATF and street vacation project site is not located within the vicinity of a private airstrip. Therefore, no safety hazard from proximity to a private airport or airstrip is anticipated from the construction and operation of the proposed project

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐
Reference: L.A. CEQA Thresholds Guide (Section F.1); City of Los Angeles General Plan
Comment: A significant impact may occur if the proposed project were to substantially interfere with roadway operations used in conjunction with an emergency response plan or evacuation plan or would generate sufficient traffic to create traffic congestion that would interfere with the execution of these plans.

During construction activities, vehicles and equipment would access the ATF and street vacation project site via the entrance off Mission Road and Jesse Street, which would be created by the proposed street vacation. With the street vacation, no construction activities would occur within the active roadways surrounding the project site. During construction, ingress and egress to the site and surrounding properties, particularly for emergency response vehicles, would be maintained at all times. Vacating Jesse Street south and west of Mission Road, and vacating Mission Road south of Jesse Street would not affect emergency access or responses. These segments of roadway are not currently utilized, provide no through access to neighboring uses, and are located adjacent to two City-owned, vacant parcels. Additionally, the segment of Mission Road south of the segment proposed for vacation has already been vacated; the segment of Mission Road proposed for vacation is a stub street. Therefore, construction and operation of the proposed project would not impair or interfere with implementation of an adopted emergency response plan or emergency evacuation plan and the impact is less than significant.

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? ☐ ☐ ☐ ☒
Reference: L.A. CEQA Thresholds Guide (Section F.1); City of Los Angeles General Plan
Comment: A significant impact may occur if the proposed project were located in a wildland area and poses a significant fire hazard, which could affect persons or structures in the area in the event of a fire.

The ATF and street vacation project site is not located within a designated High Fire Hazard Severity Zone according to the City of Los Angeles General Plan Safety Element. The project site and surrounding areas are completely developed and there are no wildlands adjacent to the site. Therefore, no impact involving wildlands would occur from the construction and operation of the proposed project.

9. HYDROLOGY AND WATER QUALITY – Would the project:

a) Violate any water quality standards or waste discharge requirements? ☐ ☐ ☒ ☐
Reference: L.A. CEQA Thresholds Guide (Section G.2); NavigateLA
Comment: A significant impact may occur if the proposed project discharged water which did not meet the quality standards of agencies which regulate surface water quality and water discharge

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

into stormwater drainage systems such as the LARWQCB. These regulations include compliance with the Standard Urban Storm Water Mitigation Plan (SUSMP) requirements to reduce potential water quality impacts.

The ATF and street vacation project site is currently undeveloped, with a fence surrounding a relatively flat, partially paved and partially unpaved site with debris stored on site, and the segments of roadway proposed for street vacation are not currently utilized. The site itself does not currently have any drainage infrastructure, however, there is existing infrastructure associated with developed uses surrounding the site. Uses surrounding the site are primarily industrial and manufacturing, and immediately west of the project site are Union Pacific Railroad tracks and the Los Angeles River.

The only water currently originating from the project site is stormwater runoff, and as such, trash and debris as well as soils from the site enter the drainage system during rain events. Runoff from the project site and surrounding area flows south and into the Mission Road storm drain, which flows into the Hollenbeck Lake Storm Sewer within the Los Angeles River Drainage Basin. This flow would be unaffected by project construction and operation.

Construction activities associated with the proposed project would include site grading, trenching for utilities, pouring concrete slabs, construction of equipment room, and installation of processing equipment. Similar to the existing condition at the site, during construction, there is the potential for stormwater runoff to convey soils and debris into the drainage system. However, standard runoff control practices would be implemented at the project site to minimize the amount of runoff from the project site during construction.

Operation of the ATF would introduce air processing equipment at the project site. All air processing and treatment would occur within enclosed structures, with a single stack located in the southern portion of the site releasing the treated air. Associated with project implementation would be site improvements, including properly channeling drainage and runoff from the site into the storm drainage system.

Operations would also generate wastewater, which would be discharged directly to the ECIS. Water discharge with a pH of 2 or less to a public wastewater collection system is prohibited due to its classification as a hazardous waste. Additionally, the City of Los Angeles Industrial Discharge Ordinance prohibits discharges with a pH of less than 5.5. However, the ATFs have been deemed as part of the collection system by the City, discharge into the City's collection system with a pH greater than 2 is acceptable. As such, discharge with a pH of at least 2 will be maintained at all times.

Therefore, construction and operation of the project does not have the potential to violate water quality standards; impacts would be less than significant.

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)? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Sections G.2 and G.3); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001)

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

Comment: A project would normally have a significant impact on groundwater supplies if it were to result in a demonstrable and sustained reduction of groundwater recharge capacity or change the potable water levels sufficiently that it would reduce the ability of a water utility to use the groundwater basin for public water supplies or storage of imported water, reduce the yields of adjacent wells or well fields, or adversely change the rate or direction of groundwater flow.

The Los Angeles Coastal Plan consists of the West Coast and Central Basins. The ATF and street vacation project site is located in the Central Basin. Groundwater currently provides about 40 percent of the total water used in the West Coast and Central Basins. Depth to groundwater in the Central Basin has been on average 108 feet from 1964 through 2002. As noted in Section 8(a) above, perched groundwater under the project site has been encountered at depths of 20 and 58 feet bgs.

The project site and project area are not used for groundwater recharge or as groundwater supplies. The project site is within an industrial area and is primarily covered with asphalt. Project implementation would result in the introduction of concrete pads and equipment at the site; project operations would not draw from groundwater supplies. Therefore, a decrease in groundwater supplies would not occur and no impacts would occur.

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Sections G.1 and G2)

Comment: A significant impact may occur if the proposed project resulted in a substantial alteration of drainage patterns that resulted in a substantial increase in erosion or siltation during construction or operation of the project.

The ATF and street vacation project site is flat and mostly paved (impervious). The project would not alter the course of a stream or a river. Construction would result in demolition and ground surface disruption activities, including site grading and excavation that would leave the site surface stabilized. The replacement of impervious surfaces with areas of pervious surface would have the effect of reducing the rate of runoff from the project site, which is considered a beneficial impact to the storm drain system. Construction activities could result in the potential for erosion to occur at the project site; however, soil exposure would be temporary and short-term in nature and applicable Department of Building and Safety erosion control techniques would limit potential erosion as discussed in 9(a) above. Therefore construction and operation of the proposed project would not result in substantial erosion or siltation off-site, and impacts would be less than significant.

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 that would result in flooding on- or off-site? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section G.1)

Comment: A significant impact may occur if the proposed project resulted in increased runoff volumes during construction or operation of the proposed project that would result in flooding conditions affecting the project site or nearby properties.

Site drainage patterns are not expected to change with project implementation. The site is currently covered with impervious surfaces, and with project implementation this would continue

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

to be the case; as such, runoff with the project would be comparable to runoff that currently occurs at the site. Additionally, project construction and operation would not affect or alter the course of a stream or river. Therefore, construction and operation of the proposed project would have a less than significant impact.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section G.2)

Comment: A significant impact may occur if the volume of runoff were to increase to a level, which exceeded the capacity of the storm drain system serving a project site. A significant impact may also occur if the proposed project would substantially increase the probability that polluted runoff would reach the storm drain system.

The proposed ATF and street vacation project would not result in an increase in runoff, nor result in an increase in the probability of polluted runoff. The project site is currently undeveloped and contains debris, soils and trash that commingle with stormwater runoff and contribute to pollution within the storm drainage system. The project would improve the existing conditions at the project site and prevent the release of debris and trash with runoff from the site. As such, no impacts would occur.

f) Otherwise substantially degrade water quality? ☐ ☐ ☒ ☐

Reference: Refer to 9(a) above.

Comment: Refer to 9(a) above

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? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Sections G.1 to G.3); FIRM FEMA Map Number 06037C1628F Panel No 1628F

Comment: A significant impact may occur if the proposed project were to 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.

According to Flood Insurance Rate Map (FIRM), the entire ATF and street vacation project site is not located within Zone AE, which is a 100-year flood hazard area. Additionally, the proposed project does not include the construction of housing. Therefore, construction and operation of the proposed project would not involve placing housing within a 100-year flood hazard area and no impact would occur.

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

Reference: L.A. CEQA Thresholds Guide (Sections G.1 & G.3); FIRM FEMA Map Number 06037C1628F Panel No 1628F

Comment: A significant impact may occur if the proposed project were to place within a 100-year flood hazard area structures that would impede or redirect flood flows.

As noted in 9(g) above, the ATF and street vacation project site is not located within a 100-year flood hazard area. As such, project implementation would not place structures within a 100-year

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

flood hazard area and no impacts 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? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Sections E.1 & G.3); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001)

Comment: A significant impact may occur if the proposed project were located in an area where a dam or levee could fail, exposing people or structures to significant risk of loss, injury or death.

As indicated above, the ATF and street vacation project site is not located within of the 100-year flood zone. In addition, as discussed in the geotechnical evaluation, the site is not would not be subject to inundation from the rupture of a dam or levee or inundation from a tsunami. Therefore, construction and operation of the project would not expose people or structures to a significant risk from flooding.

j) Inundation by seiche, tsunami, or mudflow? ☐ ☐ ☐ ☒

Reference: LA CEQA Thresholds Guide (Section E.1); Geotechnical Evaluation – ECIS Odor Control Facility, Mission Road and Jesse Street (October 26, 2001)

Comment: A significant impact may occur if the proposed project would cause or accelerate geologic hazards, which would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Although the project site is located adjacent to the Los Angeles River, the River is not considered an enclosed large body of water that could experience seiches during an earthquake. Thus, there is no potential for seiches impacting the project site; therefore, there is no impact associated with the construction and operation of the proposed project.

Tsunamis are tidal waves generated in large bodies of water caused by fault displacement or major ground movement. Hazardous tsunamis, which are rare along the Los Angeles coastline, have the potential to cause flooding in the low-lying coastal area. The ATF and street vacation project site is not located within tsunami hazard area. Therefore, there is no impact associated with the construction and operation of the proposed project.

The project site is not located in an area considered susceptible to seismically-induced landslides. Therefore, no impact associated with inundation from mudflow would occur.

10. LAND USE AND PLANNING – Would the project:

a) Physically divide an established community? ☐ ☐ ☐ ☒

Reference: LA CEQA Thresholds Guide (Section H.2); City of Los Angeles General Plan, including the Boyle Heights Community Plan

Comment: A significant impact would occur if the project includes features such as a highway, above-ground infrastructure, or an easement that would cause a permanent disruption to an established community or would otherwise create a physical barrier within an established community.

The proposed project would occur on the existing vacant site at South Mission Road & Jesse Street; additionally, the segments of Mission Road and Jesse Street immediately adjacent to the

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

project site would be vacated. Neither construction nor operation if the project would include features such as a highway, above-ground linear infrastructure, or an easement that would cause a permanent disruption to an established community or would otherwise create a physical barrier within an established community. While roadways segments would be vacated, these segments are not currently utilized and do not provide access to any uses other than the existing City-owned property. Instead, the project would involve the construction of an air treatment facility within an existing industrial and manufacturing area in East Los Angeles. Therefore, no impact would occur from project implementation.

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? ☐ ☐ ☒ ☐

Reference: LA CEQA Thresholds Guide (Sections H.1 & H.2); City of Los Angeles General Plan; Zone Information & Map Access System (ZIMAS); Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007

Comment: A significant impact may occur if the proposed project were inconsistent with the General Plan, or other applicable plan, or with the site's zoning if designated to avoid or mitigate a significant potential environmental impact.

The ATF and street vacation project site is located within an industrial and manufacturing area in East Los Angeles and is zoned M2-1 (Manufacturing/Industrial). Land uses surrounding the site and roadway segments also include industrial and manufacturing uses. The project site is located within the Boyle Heights Community Plan as well as within the Los Angeles River Revitalization Master Plan area.

According to the Los Angeles River Revitalization Master Plan (LARRMP), the project site falls within the Downtown Industrial Opportunity Area, and within the Downtown Industrial Opportunity Area, the project site is one of several proposed pocket park locations. The overall purpose of the LARRMP is to improve the general environment of the Los Angeles River by improving natural habitats, water quality, recreation, open space, and economic values. As one of five designated Opportunity Areas, the intent of this classification is to identify regions where long-term land use changes can be undertaken to help achieve long-term economic viability and sustainability within a revitalized River Corridor.

Construction of the proposed ATF on the project site would preclude future construction of a pocket park, as planned for within the LARRMP, on the project site. However, given the surrounding land uses, including industrial and manufacturing buildings as well as the Union Pacific Railroad tracks, use of this particular site as a pocket park would not be compatible with surrounding land uses. The ATF, however, would be consistent with existing zoning and land use designations at and around the project site.

While construction and operation of an ATF on the project site would conflict with the adopted LARRMP, the intent of the plan and the planned park at this location was not intended to avoid or mitigate an environmental impact. Therefore, while the project would conflict with the Plan, environmental impacts resulting from this conflict would not occur. Impacts would be less than significant.

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

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

Reference: LA CEQA Thresholds Guide (Sections H.1 & H.2); City of Los Angeles General Plan; Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007
Comment: A significant impact may occur if the proposed project were located within an area governed by a habitat conservation plan or natural community conservation plan and would conflict with such plan.

As previously discussed in 4(d), the ATF and street vacation project site is not located in a habitat conservation plan or a natural community conservation plan. However, the project site is within the Downtown Industrial Opportunity Area of the Los Angeles River Revitalization Master Plan, and more specifically, according to the Master Plan, a pocket park is proposed at the project site. Implementation of the proposed air treatment facility at the project site would preclude the use of the site as a pocket park moving forward. Nevertheless, no adopted habitat conservation plans guide development on the project site; therefore, impacts would be less than significant.

11. MINERAL RESOURCES – Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ☐ ☐ ☐ ☒
Reference: L.A. CEQA Thresholds Guide (Section E4); City of Los Angeles General Plan
Comment: A significant impact may occur if the proposed project is located in an area used or available for extraction of a regionally important mineral resource, if the project converts a regionally important mineral extraction use to another use, or if the project affects access to such use.

No mineral resources are identified within the project area. Therefore, construction and operation of the proposed project would not result in the loss of availability of a valuable known mineral resource and no impact is anticipated.

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? ☐ ☐ ☐ ☒
Reference: Refer to 11(a) above.
Comment: Refer to 11(a) above.

12. NOISE – Would the project result in:

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? ☐ ☐ ☒ ☐
Reference: City of Los Angeles Municipal Code (Chapter IV, Article 1, Section 41.40; Section 112.05 of Chapter IX, Article 2); ECIS/NEIS/NCOS/NORS Air Treatment Facility Design Memorandum (September 2004)
Comment: A significant impact may occur if the proposed project were to exposure persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The City regulates construction noise via the LAMC (Chapter IV, Article 1, Section 41.40; Section 112.05 of Chapter IX, Article 2). A significant impact may occur if the proposed project generates construction noise outside of the hours prescribed in the LAMC or increases noise levels during project operation in excess of 5 dBA (A-weighted decibel) over ambient Community Noise Equivalent Level (CNEL).

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

Under the noise provisions, construction equipment noise levels are limited to 75 dBA if technically feasible. The City allows construction during the week between the hours of 7:00 a.m. and 9:00 p.m., and specifically prohibits night construction if related noise can disturb persons occupying sleeping quarters in any dwelling, hotel, or residence. In addition, construction within 500 feet of a residence is restricted to the hours of 8:00 a.m. to 6:00 p.m. on Saturdays and National Holidays, and prohibited on Sundays. The City's standard construction specifications require construction equipment to have noise suppressing devices, and requires noise controls such as placement of noise barriers, use of low-noise generating equipment, maintenance of mufflers and ancillary noise abatement equipment, scheduling high noise producing activities during periods that are least sensitive, routing construction-related truck traffic away from noise-sensitive areas, and reducing construction vehicle speeds. Despite the required noise controls, construction equipment noise levels can exceed the 75 dBA goal established in the LAMC. Project construction would occur Monday through Friday between the hours of 7:00 a.m. and 9:00 p.m., although daily construction would not likely occur after 6:00 p.m., and between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays. No construction would occur during prohibited hours.

Uses surrounding the ATF and street vacation project site, including industrial and manufacturing uses, as well as the adjacent Union Pacific Railroad tracks, are not considered noise-sensitive uses. Due to the site's proximity to existing railroad tracks, the site and the uses immediately surrounding the site, are currently subject to high noise levels associated with trains traveling along the tracks. Additionally, because construction for the proposed project would occur within the allowable hours, significant noise impacts would not occur.

Once construction is complete, operation of the ATF would not generate noise levels in excess of standards. The design of the ATF will ensure the operational sound levels do not increase the ambient sound levels at the project site property line through the use of sound mitigating equipment and materials, as well as project design, to ensure noise levels remain the same at the property line. Therefore, a less than significant noise impact is anticipated during project operation.

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

Reference: L.A. CEQA Thresholds Guide (Section I); City of Los Angeles General Plan, City of Los Angeles Municipal Code

Comment: A significant impact may occur if the project were to expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Construction activities associated with the project could generate minor groundborne vibration from use of heavy equipment. Typically, only heavy construction activities, such as pile driving, would generate vibrations that could result in groundborne noise at nearby structures or in cosmetic damage to the structures. No pile driving would occur, and excessive groundborne vibration and/or groundborne noise are not anticipated. Therefore, a less than significant impact is anticipated during project construction.

Project operations would not involve activities that could generate vibrations or groundborne noise, or otherwise expose persons to such impacts. Therefore, project operation would not result in significant impacts related to groundborne vibration or noise.

Issues

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Reference: L.A. CEQA Thresholds Guide (I.2)

Comment: A significant impact may occur if the project were to substantially and permanently increase the ambient noise levels in the project vicinity above levels existing without the proposed project.

As discussed in 12(a) above, operation of the proposed project would not result in substantial increases in ambient noise levels because the project would operate passively and only maintenance and inspections would occur. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity.

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

Reference: City of Los Angeles Municipal Code

Comment: A significant impact may occur if the proposed project were to create a substantial increase in the ambient noise levels that conflicts with the noise conditions allowed in the City's Noise Ordinance.

Heavy equipment operations, given the context of the site (location adjacent to active railroad tracks, major arterial street, light industrial) and the fact that elevated noise levels would not occur at night or on Sundays (consistent with the Noise Ordinance), would experience a temporary increase in ambient noise levels. This increase, however, is not considered to be substantial. Therefore, as discussed in 12(a) above, project construction would occur within the hours allowed in the City's Noise Ordinance, and would therefore result in a less than significant impact on ambient noise levels.

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?	☐	☐	☐	☒

Reference: The Thomas Guide, Los Angeles County Street Guide (2010)

Comment: A significant impact may occur if the proposed project would expose people residing or working in the project area to excessive noise levels due to the project site being located within an airport land use plan or within two miles of a public airport where such a plan has not been adopted.

The ATF and street vacation project site is located approximately 17 miles southeast of the Burbank Airport, 15 miles northwest of the Los Angeles International Airport, 13 miles west of the El Monte Airport, and 13 miles east of the Santa Monica Airport. Therefore, construction and operation of the proposed project would not expose people residing or working in the project area to excessive noise levels due to the project site being located within an airport land use plan or within two miles of a public airport where such a plan has not been adopted. No impact is anticipated.

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?	☐	☐	☐	☒

Reference: The Thomas Guide, Los Angeles County Street Guide, 2010; Google Earth, 2009

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

Comment: A significant impact may occur if the proposed project would expose people residing or working in the project area to excessive noise levels due to the vicinity to a private airstrip.

No private airstrips are located within the vicinity of the project area. Therefore, no impacts associated with the construction and operation of the proposed project would occur.

13. POPULATION AND HOUSING – Would the project:

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)? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section J.1); General Plan, including the Boyle Heights Community Plan

Comment: A significant impact may occur if the proposed project induced substantial population and housing growth through new development in undeveloped areas or by introducing unplanned infrastructure that was not previously evaluated in the adopted community plan or general plan.

Construction and operation of the proposed ATF is intended to treat foul air associated with the drop structure at Mission & Jesse for the East Central Interceptor Sewer, currently in use by the City. Implementation of the air treatment system would not expand the existing sewer capacity and as such, the project would not result in population and/or housing growth. No impacts would occur.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Sections J.1 and J.2)

Comment: A significant impact may occur if the proposed project displaced substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

No housing would be displaced or changed as a result of the proposed ATF and street vacation project; therefore, no impact would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

Reference: See 13(b) above.

Comment: See 13(b) above.

14. PUBLIC SERVICES –

a) Would the 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:

i) Fire protection? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section K.2); City of Los Angeles General Plan Safety Element

Comment: A significant impact may occur if the project required the addition of a new fire station or the expansion, consolidation or relocation of an existing facility to maintain service.

The ATF and street vacation project site and surrounding area is currently served by the LAFD's local Fire Station No. 17 located at 1601 South Santa Fe Avenue (1.1 miles

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

driving distance from project site), Fire Station No. 25 located at 2927 Whittier Boulevard (1.4 miles driving distance from project site), and Fire Station No. 2 located at 1962 East Cesar Chavez Avenue (1.6 miles driving distance from project site). The proposed project consists of constructing an ATF to treat foul air from the Mission & Jess drop structure associated with the East Central Interceptor Sewer and vacating two street segments that are currently unused. The site and surrounding areas are currently served by the LAFD.

Construction of the proposed project would be temporary and not require the addition of a new fire station or the expansion, consolidation or relocation of an existing facility to maintain service. The operation of the proposed project would not increase the need for additional fire service. While two street segments would be vacated, these streets do not provide access to any uses other than the City-owned property on which the ATF would be constructed. Street vacation would not affect emergency access to the site or any other neighboring uses because these roadway segments are currently closed to through access. Therefore, the proposed project would not result in a need for construction of additional fire protection facilities or adversely affect service ratios or response times. No impacts would occur.

ii) Police protection? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section K.1); City of Los Angeles General Plan Safety Element

Comment: A significant impact may occur if the proposed project were to result in an increase in demand for police services that would exceed the capacity of the police department responsible for serving the site.

The ATF and street vacation project site and surrounding area is served by the Los Angeles Police Department Hollenbeck Station located at 2111 E. First Street, Los Angeles (approximately 1.5 miles driving distance from the project site). The proposed project consists of constructing and operating an air treatment facility for the East Central Interceptor Sewer on a currently vacant parcel in East Los Angeles, adjacent to manufacturing and industrial uses. As part of the project is the vacation of two currently unused street segments. The site and surrounding areas are currently served by the Los Angeles Police Department.

Construction of the proposed project would be temporary and not result in an increase in demand for police services that would exceed the capacity of the police department responsible for serving the site. The operation of the proposed project would not increase the need for additional police protection services. While two street segments would be vacated, these streets do not provide access to any uses other than the City-owned property on which the ATF would be constructed. Street vacation would not affect emergency access to the site or any other neighboring uses because these roadways segments are currently closed to through access. Therefore, the existing police service would be adequate and not result in a need for construction of additional police protection facilities or adversely affect service ratios or response times. No impacts would occur.

iii) Schools? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section K.3)

Comment: A significant impact may occur if the proposed project included substantial employment or population growth that could generate demand for school facilities that

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

exceeded the capacity of the school district responsible for serving the project site.

The construction of the proposed ATF and street vacation project is not growth-inducing, either directly or indirectly, and therefore, would not increase the demand for schools in the area. In addition, the proposed project is not considered an employment generator that could induce demand for school facilities that exceed the capacity of the local school district. Therefore, no impacts to schools would occur from project implementation.

iv) Parks? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section K.4); ECIS/NEIS/NCOS/NORS Air Treatment Facilities Design Memorandum, September 2004; Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007

Comment: A significant impact may occur if the recreation and park services available could not accommodate the population increase resulting from the implementation of the proposed project and new or physically altered facilities were needed.

The closest recreational facilities to the ATF and street vacation project site include Aliso-Pico Recreation Center, located approximately 0.7-mile from the project site, Boyle Heights Sports Center, located approximately 0.9-mile from the project site, Pecan Recreation Center located approximately 1 mile from the project site, and Hollenbeck Park, located approximately 1.1 miles from the project site. Additionally, the project site falls within the Los Angeles River Revitalization Master Plan, Downtown Industrial Opportunity Area. According to the Master Plan, the site is proposed to be developed as a pocket park and provide access to the linear bicycle and pedestrian trail along the east bank of the Los Angeles River. Implementation of the proposed project would preclude future development of the site as a pocket park. However, the northern portion of the site would remain undeveloped, be landscaped and would allow for future public access to the Los Angeles River.

Additionally, as discussed above, the construction of the proposed project is not growth-inducing, either directly or indirectly, and therefore, would not increase the demand for recreation in the area. Therefore, less than significant impacts on the need for new parks would occur due to the proposed project.

v) Other public facilities? ☐ ☐ ☐ ☒

Reference: None applicable

Comment: A significant impact would occur if the project results in the need for new or altered public facilities, such as libraries, due to population or housing growth.

Construction and operation of the proposed ATF and street vacation project would not induce growth, either directly or indirectly, and, therefore, would not increase the demand for or use of libraries or other public facilities in the area. Therefore, no impact would occur under the proposed project.

15. RECREATION –

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section K.4); ECIS/NEIS/NCOS/NORS Air Treatment

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

Facilities Design Memorandum, September 2004; Los Angeles River Revitalization Master Plan Final PEIR/PEIS, April 2007

Comment: A significant impact may occur if the proposed project included substantial employment or population growth that generated demand for public park facilities that exceed the capacity of existing parks or that substantially affected the level or service of existing park facilities.

The proposed ATF and street vacation project is not a growth-inducing project, either directly or indirectly, and, therefore, would not increase the demand for parks or other recreational facilities in the area. The project site does fall within the Los Angeles River Revitalization Master Plan, Downtown Industrial Opportunity Area. According to the Plan, the site is proposed to be developed as a pocket park and provide access to the linear bicycle and pedestrian trail along the east bank of the Los Angeles River. Implementation of the proposed project would preclude future development of the site as a pocket park. However, the northern portion of the site would remain undeveloped, be landscaped and would allow for future public access to the Los Angeles River.

Given that the project is not growth-inducing and will permit public access to the Los Angeles River in the future, impacts to recreation would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section K.4)

Comment: A significant impact may occur if the proposed project would require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

The proposed ATF and street vacation project is not a growth-inducing project, either directly or indirectly, and, therefore, would not increase the demand for parks or other recreational facilities in the area resulting in the need for the construction or expansion of recreational facilities. Additionally, the project does not include any recreational components. Therefore, no impacts would occur.

16. TRANSPORTATION/TRAFFIC – Would the project:

a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section L)

Comment: A project would have a significant traffic impact if the traffic volume to roadway capacity ratio is increased, as follows:

According to the L.A. CEQA Thresholds guide, a project has the potential to result in traffic and transportation impacts if the project would generate more than 500 total daily trips or more than 43 a.m. or p.m. peak hour trips.

Construction of the proposed ATF and street vacation project would require minimal amounts of construction traffic. Construction activities would involve street closure, site grading, trenching and installation of pipes and wiring, pouring of foundations, erection of two buildings, and installation of mechanical equipment and instrumentation. At any given point during the 18

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

month construction period, no more than 20 construction workers would be at the site. Additionally, minimal export of soil will be required; as such no more than 600 haul trips would occur during the construction period. It is estimated that no more than 20 truck trips per day would occur. Given that fewer than 500 total daily trips and fewer than 43 peak hour trips would occur during construction of the proposed project, no significant traffic impacts would occur during construction.

Operation of the project would not normally require the presence of employee(s), although daily visits by one operator may occur. Access to the project site would remain at the intersection of Mission Road and Jesse Street, and vacation of the street segments west and south of this intersection would not prevent access to the site. These roadway segments to not provide access to any sites other than the two City-owned vacant parcels on either side of the streets. Employee trips to and from the site would be the only operation-related trips associated with the project. Given that fewer than 500 total daily trips and fewer than 43 peak hour trips would occur during operation of the proposed project, no significant traffic impacts would occur during project operation.

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section L)

Comment: A significant impact may occur if the proposed project would 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.

Because project construction and operation would not result in significant traffic impacts on local roadways, as discussed in 16(a) above, significant impacts on Congestion Management Program roadways would not occur.

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

Reference: L.A. CEQA Thresholds Guide (Section L)

Comment: A significant impact may occur if the proposed project results in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks.

The proposed project is an ATF for the City's sewer, and also includes the vacation of two street segments immediately adjacent to the proposed ATF site. Neither construction nor operation of the project would affect air traffic patterns. Therefore, no impacts to air traffic patterns are anticipated.

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

Reference: L.A. CEQA Thresholds Guide (Section L.5)

Comment: A significant impact may occur if the proposed project substantially increased road hazards due to a design feature or incompatible uses.

With the exception of any improvements to the sidewalk, curb and gutter along South Mission

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

Road and Jesse Street, construction and operation of the proposed ATF and street vacation would not change the street configurations such that there would be increases in road hazards. The sidewalk, curb, and gutter improvements are not considered to be hazardous design features. Therefore, no impacts would occur.

e) Result in inadequate emergency access? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section L.5 and L.8)
Comment: A significant impact may occur if the proposed project resulted in inadequate emergency access.

As part of standard specifications, all contractors are required to coordinate with the commanders of potentially affected fire and police stations prior to construction so that alternative route planning can occur and can be implemented if required. In addition, access to emergency vehicles would be maintained at all times during construction. Construction and operation of the proposed project would utilize the current access areas at the project site. While two street segments would be vacated, these streets do not provide access to any uses other than the City-owned property on which the ATF would be constructed. Street vacation would not affect emergency access to the site or any other neighboring uses because the street segments are currently closed and do not provide access to any other properties. Therefore, construction and operation of the proposed project would not affect emergency access or result in inadequate emergency access.

f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? ☐ ☐ ☐ ☒

Reference: L.A. CEQA Thresholds Guide (Section L)
Comment: A significant impact may occur if the proposed project were to conflict with adopted policies, plans, or programs supporting alternative transportation.

Neither construction nor operation of the proposed ATF and street vacation project would require rerouting of bus lines or relocations of bus stops. In addition, there are no bike lanes in the area that would be affected by project construction or operation. Therefore, no impact to alternative transportation modes or supporting programs would occur from construction and operation of the proposed project.

17. UTILITIES AND SERVICE SYSTEMS – Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section M.2); ECIS/NEIS/NCOS/NORS Air Treatment Facility Design Memorandum, September 2004
Comment: A significant impact would occur if the proposed project discharges wastewater, which would exceed the regulatory limits established by the LARWQCB.

During operation, wastewater generated by the proposed project, which is a part of the City of Los Angeles wastewater collection system would be discharged into the wastewater collection system at the Mission & Jesse drop structure. Water is required in the air treatment process; therefore, wastewater would be generated by the project. During the treatment process, a pH of at least 2 will be maintained; wastewater generated by the project will have a pH of 2 or greater. Any discharge with a pH of 2 or less to a public wastewater collection system is prohibited due to its classification as a hazardous waste. Additionally, the City of Los Angeles Industrial Discharge Ordinance (157676) prohibits discharges with a pH of less than 5.5. However, ATFs have been

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

deemed part of the wastewater collection system by the City, thus, a blowdown of discharge with a pH of greater than 2 to the collection system is acceptable. As such, project operations would not result in exceedences of wastewater treatment requirements and no significant impacts would occur.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Sections M.1 and M.2); ECIS/NEIS/NCOS/NORS Air Treatment Facility Design Memorandum (September 2004)

Comment: A significant impact may occur if the proposed project resulted in the need for new construction or expansion of water or wastewater treatment facilities that could result in an adverse environmental effect that could not be mitigated.

The proposed ATF and street vacation project involves the construction of an ATF associated with the existing sewer system. No new water or wastewater infrastructure would be required to serve the ATF; potable water would be supplied to the site via the existing 8-inch water line that runs along Mission Road and Jesse Street. Wastewater from the restroom facility at the site would be discharged into the existing 10-inch VCP sanitary sewer line that runs along Mission Road, and the process waste from the BTF vessels would be discharged directly into the ECIS at the drop structure on the project site. As such, adequate water and wastewater infrastructure exists to serve the project and no new facilities would need to be constructed; no significant impacts would occur.

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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section M.2)

Comment: A significant impact may occur if the volume of stormwater runoff from the proposed project increases to a level exceeding the capacity of the storm drain system serving the project site.

Construction and operation of the proposed ATF and street vacation project may slightly modify the drainage at the project site. Currently the site drains in a southerly direction, and with project implementation, this would continue to occur. The site is currently paved and would remain paved with project implementation. As such, construction and operation of the ATF would not increase the volume of stormwater runoff from the project site thereby creating the need for additional storm water drainage facilities. Impacts would be less than significant.

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

Reference: L.A. CEQA Thresholds Guide (Section M.1), City of Los Angeles, Department of Water and Power Urban Water Management Plan, 2010

Comment: A significant impact may occur if the proposed project's water demands would exceed the existing water supplies that serve the site.

The LADWP provides potable water to the project area via an 8-inch water line running along Mission Road and Jesse Street. The proposed project would result in increased water demand compared to the existing site. An estimated 37,800 gallons per day, or 42.35 acre feet per year, of water would be used for irrigating the media that removes the foul odors from the sewer

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

system. The City of Los Angeles Department of Water and Power prepares an Urban Water Management Plan (UWMP) every five years, which serves as a master plan for water supply and resources management consistent with the City's goals and policy objectives. The UWMP includes projections for future water use in the City of Los Angeles, including planned increases in water demands associated with population growth and increased services in the City. To account for increases in water demands, the City is relying more and more on increased use of water conservation and recycled water.

The proposed ATF and street vacation project requires the use of potable water and therefore cannot depend on recycled water or water conservation practices to reduce water demands. However, at other industrial facilities throughout the City, water conservation and the use of recycled water is increasing, thereby offsetting the potential increased use of potable water. Therefore, water demand associated with the ATF is accounted for within the City's future water projections and impacts would be less than significant.

e) Result in a determination by the wastewater treatment provider that 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? ☐ ☐ ☒ ☐

Reference: L.A. CEQA Thresholds Guide (Section M.2)

Comment: A significant impact may occur if the proposed project results in a determination by the wastewater treatment provider that 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.

Refer to 17(a) and 17(b) above

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

Reference: L.A. CEQA Thresholds Guide (Section M.3); California Department of Resources Recycling and Recovery (2010), Solid Waste Information System (http://www.calrecycle.ca.gov/SWFacilities/Directory/); City of Los Angeles Solid Waste Integrated Resources Plan (http://www.zerowaste.lacity.org) and Bureau of Sanitation (http://www.lacitysan.org/solid_resources/recycling); California Integrated Waste Management Act of 1989 (Assembly Bill 939)

Comment: The management of solid waste in the City involves public and private refuse collection services as well as public and private operation of solid waste transfer, resource recovery, and disposal facilities. A significant impact would occur if the proposed project results in solid waste generation of five tons or more per week.

The City's Bureau of Sanitation and private refuse companies manage the collection, transfer, and disposal of municipal solid waste. A significant impact would occur if the proposed project results in solid waste generation of five tons or more per week. There are three types of disposal facilities within state; (1) Class III Landfills (Municipal Solid Waste Landfills), (2) Unclassified (Inert) Landfills, and (3) Transformation (waste to energy) Facilities.

Construction would involve grading and excavation, preparing concrete slabs, and equipment installation. Grading activities would require excavation of oils, which would be hauled off-site. It is estimated that approximately 4000 cubic yards of excavated material would need to be hauled from the project site and disposed of at appropriate landfill locations.

While no known hazard wastes exist at the project site, in the event that contaminated soils are

Issues

Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant | No Impact

encountered, hazardous waste would be disposed of at a Class I facility, the nearest of which is Clean Harbors Buttonwillow facility, described in detail below. The remaining debris, including non-hazardous/non-RCRA soils may be disposed of at one of the facilities listed below, or identified by the contractor in accordance with the City's project specifications.

- Sunshine Canyon Landfill is located at 14747 San Fernando Road, Sylmar, CA, approximately 28 miles from the project site. This facility has a maximum permitted throughput of 12,100 tons per day with a remaining capacity of 112,300,000 cubic yards (as of July 31, 2007), and has an estimated closure date of 2037. The waste types accepted at this facility include construction and demolition debris, green materials, industrial, inert, and mixed municipal.

- Calabasas Sanitary Landfill is located at 5300 Lost Hills Road, Agoura, CA, approximately 35 miles from the project site. This facility has a maximum permitted throughput of 3,500 tons per day with a remaining capacity of 18,100,000 cubic yards (as of March 31, 2008), and has an estimated closure date of 2025.

- Chiquita Canyon Sanitary Landfill is located at 29201 Henry Mayo Drive, Castaic, CA, approximately 40 miles from the project site. This facility has a maximum permitted throughput of 6,000 tons per day with a remaining capacity of 29,300,000 cubic yards (as of November 23, 2006), and has an estimated closure date of 2019. The waste types accepted at this facility include mixed municipal, green materials, construction and demolition debris, industrial, and inert.

- Azusa Land Reclamation Co. Landfill is located at 1211 West Gladstone Street, Azusa, CA, approximately 25 miles from the project site and consists of several units (active and closed). For purposes of the proposed project, only Unit 1 of this facility may be used for the disposal of asbestos, and is therefore described herein. Unit 1 has a maximum permitted throughput of 6,500 tons per day with a remaining capacity of 34,100,000 cubic yards (as of March 31, 1995), and has an estimated closure date of 2025. The waste types accepted at Unit 1 of this facility include asbestos, friable, inert, and tires.

- Clean Harbor Buttonwillow Landfill is located at 2500 West Lokern Road, approximately 135 miles from the project site. This facility has a maximum permitted capacity of 10,482 tons per day with a remaining capacity of 14,293,760 cubic yards (no date available), and has an estimated closure date of 2040. The waste types accepted at this facility (classified as Class I) includes contaminated soil, industrial, other designated, and other hazardous. The excavated soils from the Remedial Action Areas (RAA-1 and RAA-2) would be disposed of at this facility, as well as any other waste considered as hazardous during construction, demolition, and/or remediation activities.

The excavated material would be recycled whenever possible, or disposed of at an appropriate facility. As demonstrated above and according to the CalRecycle's SWIS database, there is sufficient inert waste disposal capacity available in Los Angeles County to adequately accommodate the anticipated excavated material, as demonstrated above. Further, certain landfills accept wastes considered to be beneficial-use materials, such as soil, green waste, and asphalt. Soils are used as part of regular landfill operations and also are used to cap closed landfills. Several landfills in the greater Los Angeles area accept excavated soil, including those that otherwise are restricted by ordinances from accepting municipal solid waste generated in the City of Los Angeles. Therefore, impacts associated with solid waste generation and disposal

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

during project construction would be less than significant. Operation of the proposed project would not generate any solid waste; no operational impacts would occur.

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

Reference: L.A. CEQA Thresholds Guide (Section M.3)

Comment: A significant impact may occur if the proposed project would generate solid waste that was in excess of or was not disposed of in accordance with applicable regulations.

The City of Los Angeles Solid Waste Management Policy Plan (SWMPP) is the long range solid waste management policy plan for the City. The objective of the SWMPP is to reduce at the source or recycle a minimum of 50 percent of the City's waste and calls for the disposal of the remaining waste in local and possibly remote landfills. The SWMPP establishes citywide diversion objectives, including diversion of 75 percent by 2013. While the SWMPP is the long-range solid waste management policy plan for the City, the Source Reduction and Recycling Element (SRRE) is the strategic action policy plan for diverting solid waste from landfills. The source reduction, recycling, composting, special waste, and public education goals are defined by specific programmatic elements including tasks, roles, responsibilities, and an implementation schedule. The SRRE provides solid waste diversion objectives in accordance with the requirement of AB 939. It is updated annually and is based on an ongoing evaluation of programs and waste analysis. Guidance for, and implementation of, the solid waste diversion programs identified in the SRRE are administered by the City of Los Angeles Department of Public Works, Bureau of Sanitation, Solid Resources Citywide Recycling Division. The City's Bureau of Sanitation presently operates other solid waste reduction and recycling programs, such as its Curbside Recycling Program, which was designed to promote source reduction to achieve the goals established by AB 939 and associated City programs (e.g., the SRRE).

As discussed above in 17(f), construction activities would generate solid waste and operational activities associated with the completed project would generate minimal amounts of solid waste. As also described in 17(f) above, several programs are in place (i.e., AB 939) with which the proposed project must comply. Furthermore, solid waste generated on-site would be disposed of by permitted solid waste haulers to regulated sites that have adequate capacity and are in compliance with all applicable regulations related to solid waste collection and disposal.

Solid waste disposal during construction of and operation of the proposed project would comply with federal, state, local statutes and regulations related to solid waste and therefore, impacts would be less than significant.

18. MANDATORY FINDINGS OF SIGNIFICANCE

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? ☐ ☒ ☐ ☐

Reference: Preceding analyses

Comment: No plant or animal species listed on any state or federal lists for endangered, threatened or special status species were identified on-site. There are no known cultural resources located on-site. Implementation of the proposed ATF would not eliminate important examples of the major periods of California history or prehistory. The project area is not

Issues

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant	No Impact

considered sensitive for cultural resources, and there is known cultural resources within the immediate vicinity; however, in the unlikely event cultural resources are encountered, the City's standard specifications include guidance on how to address the potential discovery of previously unknown archeological or paleontological resources; impacts would all be less than significant.

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)? ☐ ☐ ☒ ☐

Reference: Preceding analyses

Comment: All project-level impacts are either less than significant or can be mitigated to a less than significant level. As a result, construction of the project would not result in a cumulative considerable contribution to a significant cumulative impact related to construction. Operation of the project would improve sewer system flows and not result in any impacts. Therefore, operation of the project would not result in a cumulative considerable contribution to a significant cumulative impact related to operation.

c) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals? ☐ ☐ ☐ ☒

Reference: Preceding analyses

Comment: The purpose of proposed project is to improve both the short-term and long-term air and odor in the project area, as well as upstream and downstream from the project site itself. Therefore, the overall project is anticipated to have positive long-term impacts to air and odor quality. No impact is anticipated.

d) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☐ ☒ ☐

Reference: Preceding analyses

Comment: The construction and operation of the project is not anticipated to have significant impacts that would cause substantial adverse effects on human beings, either directly or indirectly.

V. MITIGATION MEASURES

The following mitigation measures form the foundation of a mitigation monitoring program (MMP) for the proposed project. CEQA requires public agencies to adopt a reporting or monitoring program for the changes to the project that have been adopted to mitigate or avoid significant effects on the environment (Public Resources Code Section 21081.6). The program must be adopted by the public agency at the time findings are made regarding the project. The State CEQA Guidelines allow public agencies to choose whether its program will monitor mitigation, report on mitigation, or both (14 CCR Section 15097(c)).

The mitigation measures described herein are supplemental to those required as standard procedure for the City and its contractors. The City and its contractors are the parties responsible for: (1) the necessary implementing actions; (2) verifying that the

necessary implementing actions are taken; and (3) the primary record documenting the necessary implementing actions.

The mechanisms for verifying that mitigation measures have been implemented include design drawings, project plans and specifications, construction documents intended for use by construction contractors and construction managers, field inspections, field reports, and other periodic or special reports. All records pertaining to this mitigation program will be maintained and made available for inspection by the public in accordance with the City's records management systems.

Biological Resources:

> **Mitigation Measure BIO-1:** A nesting bird survey shall be performed for the European hackberry (*Celtis australis L.*) tree prior to initiating any construction activities that have the potential to disturb and/or remove the tree during the nesting bird season.

VI. PREPARATION AND CONSULTATION

A. Preparer

Camp Dresser & McKee, Inc.
523 West 6th Street, Suite 400
Los Angeles, CA 90015

Nicole Cobleigh, Project Manager
Gwen Pelletier, Senior Air Quality Analyst
Asami Tanimoto, Air Analyst

B. Coordination and Consultation

City of Los Angeles
Department of Public Works
Bureau of Engineering
1149 South Broadway
Los Angeles, CA 90015

Jim Doty, Environmental Affairs Officer
William Jones, Environmental Specialist II
Gus Malkoun, Project Manager

Black & Veatch
800 Wilshire Blvd, Suite 600
Los Angeles, CA 90017

Jeffrey Mohr, P.E., PMP

VII. DETERMINATION - RECOMMENDED ENVIRONMENTAL DOCUMENTATION

A. Summary

The proposed project is the construction and operation of a sewer air treatment facility (ATF) near the intersection of Mission Road and Jesse Street (651 South Mission Road) as well as the vacation of Mission Road and Jesse Street adjacent to this location. The ATF is intended to treat foul air resulting from turbulent flow in the existing drop structure, which connects the North Outfall Sewer (NOS) to the Northeast Interceptor Sewer (NEIS) and East Central Interceptor Sewer (ECIS). Vacation of these two street segments would create one larger, contiguous City-owned allowing for potential future development. Future development, including the expansion of the ATF would be subject to its own environmental review and discretionary approval.

B. Recommended Environmental Documentation

On the basis of this initial evaluation, I find that the project could not have a significant effect on the environment, and a **Mitigated Negative Declaration** should be adopted.

Prepared by: _____
Nicole Cobleigh

Approved by: _____
James E. Doty
Environmental Affairs Officer
Environmental Management Group

VIII. REFERENCES:

American Public Works Association, Southern California Chapter. *Standard Specifications for Public Works Construction* (Greenbook).

Black & Veatch Corporation. *ECIS/NEIS/NCOS/NORS Air Treatment Facilities Design Memorandum*, September 2004.

Black & Veatch Corporation. *Air Permit Application, Health Risk Assessment, Mission & Jesse Air Treatment Facility*, July 2011.

California Air Pollution Control Officers Association. *CEQA and Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act,* January 2008.

California Air Resources Board, *AB 32 Fact Sheet – California Global Warming Solutions Act of 2006*. Accessed in November 2011 at http://www.arb.ca.gov/cc/factsheets/ab32factsheet.pdf.

California Air Resources Board, *2006 State Area Designation Maps*, Accessed in November 2011 at http://www.arb.ca.gov/desig/adm/adm.htm#state.

California State Department of Conservation Farmland Mapping and Monitoring Program website. Accessed in November 2011 at http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx.

California, Department of Conservation (CDC), Division of Mines and Geology. *Special Publication 42: "Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Map".* Released 1997, Supplemented in 1999, Interim revision 2007. Accessed in November 2011 at http://www.consrv.ca.gov/CGS/rghm/ap/index.htm.

California Department of Transportation (CALTRANS). *California Scenic Highway Mapping System* website. Accessed in November 2011 at http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm.

City of Los Angeles. *Climate LA – Municipal Program Implementing the Green LA Climate Action Plan*, 2008.

City of Los Angeles, *City of Los Angeles Municipal Code*.

City of Los Angeles, Department of City Planning. *General Plan*, including community plans and technical elements. Accessed in November 2011 at http://cityplanning.lacity.org.

City of Los Angeles, Department of City Planning. Planning and Zoning Code. Accessed in November 2011 at City's web page at http://cityofla.org/PLN/.

City of Los Angeles, Department of City Planning. ZIMAS (Zone Information & Map Access System). Accessed in November 2011 at http://zimas.lacity.org.

City of Los Angeles, Environmental Affairs Department. *L.A. CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles*. 2006. Accessed in November 2011 at http://lacity.org/ead/EADWeb-AQD/thresholdsguide.htm.

City of Los Angeles, Department of Public Works, Bureau of Engineering, Environmental Group. *Phase 1 Environmental Site Assessment, North Outfall Sewer – East Central Interceptor Sewer*, March 27, 2000.

City of Los Angeles, Department of Public Works, Bureau of Engineering. *East Central Interceptor Sewer Addendum to the Geotechnical Data Report*, May 11, 2000.

City of Los Angeles, *Green LA -- An Action Plan to Lead the Nation in Fighting Global Warming*, 2007.

City of Los Angeles, NavigateLA website. Planning Department Parcel Profile Report. June 2009.

Dames & Moore. *Geotechnical and Hazardous Materials Investigation, East Central Interceptor Sewer Project*, January 31, 2000.

Dames & Moore, *Geotechnical and Hazardous Materials Investigation East Central Interceptor Sewer Project*, Addendum No. 2, May 8, 2000.

Federal Emergency Management Agency, Flood Insurance Rate Map (FIRM), Community Panel Number 060371566 F, September 2008.

Kleinfelder, Inc. *Methane Report, Proposed Air Treatment Facility,* March 2, 2005.

South Coast Air Quality Management District (SCAQMD). *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

SCAQMD. *Final 2007 Air Quality Management Plan*, June 2007.

The Thomas Guide. *Los Angeles County Street Guide*, 2010.

List of Appendices

Appendix A: Air Quality Worksheets

Appendix B: Geology and Soils Technical Reports

Geotechnical Evaluation, ECIS Odor Control Facility, Mission Road and Jesse Street. October 26, 2001.

Supplemental Report, Soil Report Update and Updated Seismic Design Parameters, Air Treatment/Odor Control Facility, Mission Road and Jesse Street. March 22, 2011.

Appendix C: Hazards and Hazardous Materials Technical Reports

Phase I Environmental Assessment, North Outfall Sewer – East Central Interceptor Sewer, Mission Road at Jesse Street. March 27, 2000.

Methane Report, Proposed Air Treatment Facility. March 2, 2005.

SCAQMD Air Permit Application Health Risk Assessment, Mission & Jesse Air Treatment Facility. July 2011.

This page is intentionally left blank.

COMMENTS AND RESPONSES

The Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Air Treatment Facility (ATF) East Central Interceptor Sewer (ECIS) and Street Vacation at Mission Road and Jesse Street project was circulated for public review beginning on Thursday, April 19, 2012. The public review period, during which interested agencies, organizations, and members of the public were invited to submit written comments, was noticed and conducted in compliance with CEQA Section 21091 and State CEQA Guidelines 15105. The 20-day public review period ended on Tuesday, May 8, 2012. During the public review period, one correspondence commenting on the IS/MND and project was received by the Bureau of Engineering of the City of Los Angeles (BOE). This correspondence was an email from Ms. Joyce Dillard, received on May 8, 2012. One minor change to the text of the IS/MND is required in response to one comment. The change in the document is noted with double-strike though text for deletions and single underlines for additions.

Following are the comments and responses to those comments. This section is organized in the following manner. Each comment is bracketed and numbered. Following the comment letter are the corresponding responses. No changes to the text of the IS/MND are required as a result of the comments and responses to comments resulting from the public review period.

This page is intentionally left blank.

Commenter No. 1

Joyce Dillard
P.O. Box 31377
Los Angeles, CA 90031
dillardjoyce@yahoo.com

E-mail dated May 8, 2012

Response 1:

Although not directly stated by the commenter, the quoted text in the comment requires a correction to one sentence on Page 9 in the IS/MND. The text has been revised to read as follows:

> *The ECIS was ~~constructed and~~ completed in 2004 to relieve ~~the east-west segment of the North Outfall Sewer from its outlet connection to the North Central Outfall Sewer, which conveys flows from the Baldwin Hills area, to west of the vicinity of Mission Road and Jesse Street~~ the middle portion of the existing North Outfall Sewer from approximately the intersection of Jefferson Boulevard and Rodeo Road to the Baldwin Hills area, a distance of approximately 13 miles.*

Response 2:

The ATF Mission & Jesse project does not involve or require any oil or gas fracking; therefore, no testing, analysis or monitoring for harmful effects of odors, sediment, or other material from fracking will occur.

Response 3:

Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, is intended to protect California citizens and the State's drinking water sources from chemicals known to cause cancer, birth defects or other reproductive harm, and to inform citizens about exposures to such chemicals.

No Proposition 65 hazardous materials will be stored at the project site; however, emissions from the operational ATF, as discussed in the air quality analysis will emit chemical substances identified on the Proposition 65 hazardous materials list. The emissions from the ATF will be regulated by the South Coast Air Quality Management District, and as discussed in the IS/MND will not exceed air quality emission thresholds or health risk levels.

Response 4:

As discussed on pages 36 through 39 of the IS/MND, project implementation will not result in groundwater contamination. Operations would generate wastewater, which

would be discharged directly into the East Central Interceptor Sewer (ECIS).

Response 5:

As discussed on pages 36 through 39 of the IS/MND, wastewater generated by the project would be discharged directly into ECIS. The project would not contribute to any TMDLs in the Los Angeles River Watershed Management Area; as such, no mitigation is planned.

Response 6:

Thank you for your clarification. Additional information regarding the project site's location in a methane zone is provided below.

Response 7:

Because the project site is located within an identified Methane Zone, methane mitigation is required at the site. The methane mitigation system will either consist of a gas detection system, which will undergo annual calibration of the detectors, or a continuous ventilation system with 12 air changes per hour. The selected mitigation system will be incorporated into the project design and will be installed during construction of the ATF. Methane mitigation will be at Level V with an active mitigation system.

Response 8:

The methane mitigation system will be designed, installed and operated in compliance with applicable local, regional and state standards.

Response 9:

As discussed on pages 45 and 46 of the IS/MND, adequate police and fire protection are available to service the project site. No new positions are required to be funded as a result of project implementation.

Response 10:

The project site is currently vacant and undeveloped; no existing emergency evacuation plan exists for the site. Project implementation would require periodic inspection and maintenance of the ATF; however, no permanent full-time staff would occupy the site. As such, no evacuation plan would be required.

Response 11:

The project site is currently vacant and undeveloped; no Emergency Dispatch System currently exists at the site.

Response 12:

Air quality monitoring for the project will be required by SCAQMD as part of Rule 203 – Permit to Operate; monitoring will be done in compliance with the permit requirements.

Response 13:

Air quality monitoring for the project will be required by SCAQMD as part of Rule 203 – Permit to Operate; monitoring will be done in compliance with the permit requirements.

Appendix A

Air Quality Worksheets

Air Treatment Facility East Central Interceptor Sewer (ECIS) Mission Road & Jesse Street
Initial Study/Negative Declaration
Project Data

<Construction Data>

Start Date August 2012
End Date April 2014

Phase	Start Date	End Date	Days	Notes
Mobilization	8/1/2012	8/31/2012	23	1 month
Install shoring & trenching	9/1/2012	10/27/2012	40	8 weeks
Install pipes & wiring				
Erect building	10/28/2012	2/28/2014	350	
Install mechanical equipment & instrumentation	3/1/2014	3/31/2014	21	
Testing	4/1/2014	4/30/2014	22	1 month

Construction Area

Total parcel footprint	30,000	sq ft	grading & landscaping
Construction footprint	14520	sq ft	
Building dimensions	3675	sq ft	(17ft above grade; 5 ft below grade)

Construction Workers

Max construction workers	20	workers
Shoring & trenching	15	workers

Hauling

Soil exported	4000	cy	1100
Concrete imported	1500	cy	
Total truck trips	600	truck trips	
Peak truck trip	20	trucks per day	

<Operational Data>

Vehicle Trips 2 trips per day (single daily visit)

Air Treatment Equipment Emissions

Hours of operation	24	hrs per day
	365.25	days per year
Air flow	12000	cfm
Max VOC emission	16	ppmv NMHC as methane
Molar volume	379.48	scf/lb-mol
Molecular weight of methane	16	lb/lb-mol
Hourly NMHC emissions	0.49	lb/hr
Daily NMHC emissions	11.7	lb/day

Emergency Generator

Engine size	80	kW standby	72 kW continuous
Fuel type	diesel		
Hours of operation	200	hrs (compliant w/ SCAQMD rules)	

Tier 4 (2012-2014) 75-130 kW Emissions	g/hp-hr	lb/hr	lb/day	tpy
PM	0.02	0.004	0.08	0.00
NMHC+Nox	4	0.705	16.93	0.07
NMHC	0.19	0.034	0.80	0.00
NOx	0.4	0.071	1.69	0.01
CO	5	0.882	21.16	0.09

Source:
[TABLE CEQA Question Responses 20111104.doc] from N. Cobleigh to G. Pelletier Nov 7, 2011.
[construction data.docx] from N. Cobleigh to A. Tanimoto and G. Pelletier Nov 7, 2011.
Fact Sheet on Emergency Backup Generators (http://www.aqmd.gov/permit/fact_sheet_emergency_backup_gen.htm)
13CCR2423

Air Treatment Facility East Central Interceptor Sewer (ECIS) Mission Road & Jesse Street
Initial Study/Negative Declaration
CalEEMod Input

<Project Information>

Project Detail

Project Name	Mission Road & Jesse Street Air Treatment Facility
Project Location	Los Angeles County - South Coast
Climate Zone	11
Land Use	Urban
Operational Year	2014
Utility	LADWP

Land Use

Land Use Type	Industrial	
Land Use Subtype	General Light Industry	
Unit Amount	30	1000 sq ft
Lot Acreage	0.69	acre
Square Feet	3675	sq ft

<Construction Information>

Mobilization

Phase information

CalEEMod Phase	Site Preparation
Start Date	8/1/2012
End Date	8/31/2012
Days/Wk	5
Total Days	23

Fugitive Dust

Import	0
Export	0
Total acres disturbed	0.69

Equipment

1	Graders	8
1	Tractors/Loaders/Backhoes	8

Trips

# Workers	2.5	Worker Trips	6
Haul trucks	0	Vendor	0

Notes:
Default CalEEMod eqiupment list was selected.
Worker trips = # equipment x 1.25 x 2 rounded up to the nearest even integer.

Install shoring & trenching

Phase information

CalEEMod Phase	Grading
Start Date	9/1/2012
End Date	10/27/2012
Days/Wk	5
Total Days	40

Fugitive Dust

Import (cy)	1,500
Export (cy)	4,000
Total acres disturbed	0.69

Equipment

1	Concrete/Industrial Saws	8
1	Rubber Tired Dozers	1
2	Tractors/Loaders/Backhoes	6
1	Water Trucks (Off-Highway Tı	8
1	Plate Compactors	8

Trips

# Workers	15	Worker Trips	30
Haul trucks	1200	Vendor	0

Notes:
A compactor and water truck (off-highway truck) were added to the default CalEEMod equipment list.
Assume 15 workers (project estimated value).

Erect building

Phase information

CalEEMod Phase	Building Construction
Start Date	10/28/2012
End Date	2/28/2014
Days/Wk	5
Total Days	350

Notes:
Default CalEEMod eqiupment list was selected.
Assume maximum construction worker during this phase.

Equipment

1	Crane	4
2	Forklifts	6
2	Tractors/Loaders/Backhoes	8

Trips

# Workers	20	Worker Trips	40
Haul trucks	0	Vendor	2

Architectural Coating

Phase information

CalEEMod Phase	Architectural Coating
Start Date	3/1/2014
End Date	3/31/2014
Days/Wk	5
Total Days	21

Notes:
Default CalEEMod eqiupment list was selected.

Equipment

1	Air Compressors	6

Trips

# Workers	1.25	Worker Trips	4
Haul trucks	0	Vendor	0

Construction Mitigation

2x daily watering to meet dust control requirements

<Operational Information>

Vehicle Trips	2	trips per day (7 days per week)
	100% commercial-work	
Consumer products	default	
Architectural coating	default	
Landscape	365 summer days	
Energy	default	
Water/wastewater	assume no water use	
Solid waste	assume no waste generation	

Mission Road & Jesse Street Air Treatment Facility

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Light Industry	30	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	11		2.2		
		Precipitation Freq (Days)			
			33		

1.3 User Entered Comments

Project Characteristics -

Land Use - Total footprint of the parcel is 30,000 sq ft. The building will be 35' x 105' (3,675 sq ft).

Construction Phase - Mobilization 8/1/2012-8/31/2012. Construction period is 9/1/2012-3/31/2014. Grading for 8 weeks. Assuming a month for architectural coating (3/1-31/2014), the building construction phase was assumed to be the entire duration between grading and coating.

Off-road Equipment - Default equipment plus a plate compactor for trenching and a water truck (off-highway trucks). Non-default equipment assumed to operate 8 hours per day.

Grading - Assume entire parcel is disturbed for site prep and grading.

Trips and VMT - # worker trips per day assumed to be 1.25 x # equipment x 2 single trips per day rounded up to the nearest even number for site preparation and architectural coating. Project assumes 15 workers for grading and 20 maximum wokers (assumed to be during building construction). Project assumes 600 total one-way haul trips.

Vehicle Trips - One worker makes a trip to the facility every day for inspection.

Water And Wastewater - Assume no water use at facility.

Solid Waste - Assume no waste generation at facility.

Construction Off-road Equipment Mitigation - Water exposed twice a day to meet SCAQMD dust control requirements.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

	ROG	NOx	CO	SO2	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					
2012	6.16	49.17	28.55	0.06	28.82	2.57	31.38	0.29	2.57	2.85	0.00	6,593.73	0.00	0.48	0.00	6,603.74
2013	2.50	16.93	14.10	0.03	0.63	1.07	1.71	0.02	1.07	1.10	0.00	2,514.69	0.00	0.23	0.00	2,519.49
2014	4.52	15.58	13.75	0.03	0.63	0.95	1.58	0.02	0.95	0.97	0.00	2,506.49	0.00	0.21	0.00	2,510.91
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall 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	0.10	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		22.28		0.00	0.00	22.42
Mobile	0.34	0.82	3.31	0.01	0.60	0.04	0.64	0.02	0.04	0.06		576.58		0.03		577.14
Total	**0.44**	**0.84**	**3.33**	**0.01**	**0.60**	**0.04**	**0.64**	**0.02**	**0.04**	**0.06**		**598.86**		**0.03**	**0.00**	**599.56**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2012

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					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	1.85	13.45	8.72	0.01		0.89	0.89		0.89	0.89	0.00	1,402.65		0.17		1,406.13
Total	**1.85**	**13.45**	**8.72**	**0.01**	**0.01**	**0.89**	**0.90**	**0.00**	**0.89**	**0.89**	**0.00**	**1,402.65**		**0.17**		**1,406.13**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.04	0.51	0.00	0.09	0.00	0.10	0.00	0.00	0.01		78.60		0.00		78.70
Total	**0.04**	**0.04**	**0.51**	**0.00**	**0.09**	**0.00**	**0.10**	**0.00**	**0.00**	**0.01**		**78.60**		**0.00**		**78.70**

3.3 Grading - 2012

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					0.35	0.00	0.35	0.19	0.00	0.19						0.00
Off-Road	4.01	30.64	15.20	0.03		1.72	1.72		1.72	1.72	0.00	3,685.29		0.36		3,692.81
Total	**4.01**	**30.64**	**15.20**	**0.03**	**0.35**	**1.72**	**2.07**	**0.19**	**1.72**	**1.91**	**0.00**	**3,685.29**		**0.36**		**3,692.81**

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	1.93	18.32	10.80	0.02	28.00	0.83	28.84	0.08	0.83	0.91		2,515.45		0.09		2,517.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.22	0.22	2.54	0.00	0.46	0.02	0.48	0.02	0.02	0.03		392.99		0.02		393.52
Total	**2.15**	**18.54**	**13.34**	**0.02**	**28.46**	**0.85**	**29.32**	**0.10**	**0.85**	**0.94**		**2,908.44**		**0.11**		**2,910.94**

3.4 Building Construction - 2012

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	2.39	17.66	10.87	0.02		1.17	1.17		1.17	1.17	0.00	1,945.40		0.21		1,949.90
Total	**2.39**	**17.66**	**10.87**	**0.02**		**1.17**	**1.17**		**1.17**	**1.17**	**0.00**	**1,945.40**		**0.21**		**1,949.90**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.04	0.37	0.25	0.00	0.02	0.01	0.03	0.00	0.01	0.02		55.17		0.00		55.21
Worker	0.29	0.29	3.39	0.01	0.61	0.02	0.63	0.02	0.02	0.04		523.99		0.03		524.69
Total	**0.33**	**0.66**	**3.64**	**0.01**	**0.63**	**0.03**	**0.66**	**0.02**	**0.03**	**0.06**		**579.16**		**0.03**		**579.90**

3.4 Building Construction - 2013

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	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52
Total	**2.20**	**16.33**	**10.77**	**0.02**		**1.04**	**1.04**		**1.04**	**1.04**	**0.00**	**1,945.40**		**0.20**		**1,949.52**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.34	0.22	0.00	0.02	0.01	0.03	0.00	0.01	0.01		55.35		0.00		55.38
Worker	0.27	0.26	3.11	0.01	0.61	0.02	0.63	0.02	0.02	0.04		513.94		0.03		514.58
Total	**0.30**	**0.60**	**3.33**	**0.01**	**0.63**	**0.03**	**0.66**	**0.02**	**0.03**	**0.05**		**569.29**		**0.03**		**569.96**

3.4 Building Construction - 2014

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	2.02	15.03	10.68	0.02		0.92	0.92		0.92	0.92	0.00	1,945.40		0.18		1,949.18
Total	**2.02**	**15.03**	**10.68**	**0.02**		**0.92**	**0.92**		**0.92**	**0.92**	**0.00**	**1,945.40**		**0.18**		**1,949.18**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.31	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01		55.46		0.00		55.49
Worker	0.25	0.24	2.87	0.01	0.61	0.02	0.64	0.02	0.02	0.04		505.63		0.03		506.24
Total	**0.28**	**0.55**	**3.07**	**0.01**	**0.63**	**0.03**	**0.67**	**0.02**	**0.03**	**0.05**		**561.09**		**0.03**		**561.73**

3.5 Architectural Coating - 2014

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	4.05					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**4.50**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.29	0.00	0.06	0.00	0.06	0.00	0.00	0.00		50.56		0.00		50.62
Total	**0.02**	**0.02**	**0.29**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**		**50.56**		**0.00**		**50.62**

4.0 Mobile Detail

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	0.34	0.82	3.31	0.01	0.60	0.04	0.64	0.02	0.04	0.06		576.58		0.03		577.14
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	60.00	60.00	60.00	181,321	181,321
Total	60.00	60.00	60.00	181,321	181,321

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	8.90	13.30	7.40	100.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		22.28		0.00	0.00	22.42
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Light Industry	0.189388	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		22.28		0.00	0.00	22.42
Total		**0.00**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**22.28**		**0.00**	**0.00**	**22.42**

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	0.10	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

	ROG	NOx	CO	SO2	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	0.02					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.07					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.09**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mission Road & Jesse Street Air Treatment Facility

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Light Industry	30	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	11		2.2		
		Precipitation Freq (Days)			
			33		

1.3 User Entered Comments

Project Characteristics -

Land Use - Total footprint of the parcel is 30,000 sq ft. The building will be 35' x 105' (3,675 sq ft).

Construction Phase - Mobilization 8/1/2012-8/31/2012. Construction period is 9/1/2012-3/31/2014. Grading for 8 weeks. Assuming a month for architectural coating (3/1-31/2014), the building construction phase was assumed to be the entire duration between grading and coating.

Off-road Equipment - Default equipment plus a plate compactor for trenching and a water truck (off-highway trucks). Non-default equipment assumed to operate 8 hours per day.

Grading - Assume entire parcel is disturbed for site prep and grading.

Trips and VMT - # worker trips per day assumed to be 1.25 x # equipment x 2 single trips per day rounded up to the nearest even number for site preparation and architectural coating. Project assumes 15 workers for grading and 20 maximum wokers (assumed to be during building construction). Project assumes 600 total one-way haul trips.

Vehicle Trips - One worker makes a trip to the facility every day for inspection.

Water And Wastewater - Assume no water use at facility.

Solid Waste - Assume no waste generation at facility.

Construction Off-road Equipment Mitigation - Water exposed twice a day to meet SCAQMD dust control requirements.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

	ROG	NOx	CO	SO2	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					
2012	6.22	50.25	29.13	0.06	28.82	2.57	31.39	0.29	2.57	2.86	0.00	6,553.56	0.00	0.48	0.00	6,563.59
2013	2.53	16.99	13.97	0.03	0.63	1.07	1.71	0.02	1.07	1.10	0.00	2,476.48	0.00	0.23	0.00	2,481.26
2014	4.53	15.64	13.62	0.03	0.63	0.95	1.58	0.02	0.95	0.97	0.00	2,468.89	0.00	0.21	0.00	2,473.29
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall 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	0.10	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		22.28		0.00	0.00	22.42
Mobile	0.35	0.88	3.27	0.01	0.60	0.04	0.64	0.02	0.04	0.06		541.67		0.02		542.13
Total	**0.45**	**0.90**	**3.29**	**0.01**	**0.60**	**0.04**	**0.64**	**0.02**	**0.04**	**0.06**		**563.95**		**0.02**	**0.00**	**564.55**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2012

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					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	1.85	13.45	8.72	0.01		0.89	0.89		0.89	0.89	0.00	1,402.65		0.17		1,406.13
Total	**1.85**	**13.45**	**8.72**	**0.01**	**0.01**	**0.89**	**0.90**	**0.00**	**0.89**	**0.89**	**0.00**	**1,402.65**		**0.17**		**1,406.13**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.48	0.00	0.09	0.00	0.10	0.00	0.00	0.01		72.82		0.00		72.92
Total	**0.05**	**0.05**	**0.48**	**0.00**	**0.09**	**0.00**	**0.10**	**0.00**	**0.00**	**0.01**		**72.82**		**0.00**		**72.92**

3.3 Grading - 2012

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					0.35	0.00	0.35	0.19	0.00	0.19						0.00
Off-Road	4.01	30.64	15.20	0.03		1.72	1.72		1.72	1.72	0.00	3,685.29		0.36		3,692.81
Total	**4.01**	**30.64**	**15.20**	**0.03**	**0.35**	**1.72**	**2.07**	**0.19**	**1.72**	**1.91**	**0.00**	**3,685.29**		**0.36**		**3,692.81**

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	1.97	19.36	11.51	0.02	28.00	0.84	28.84	0.08	0.84	0.92		2,504.16		0.10		2,506.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.24	0.25	2.42	0.00	0.46	0.02	0.48	0.02	0.02	0.03		364.11		0.02		364.62
Total	**2.21**	**19.61**	**13.93**	**0.02**	**28.46**	**0.86**	**29.32**	**0.10**	**0.86**	**0.95**		**2,868.27**		**0.12**		**2,870.79**

3.4 Building Construction - 2012

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	2.39	17.66	10.87	0.02		1.17	1.17		1.17	1.17	0.00	1,945.40		0.21		1,949.90
Total	**2.39**	**17.66**	**10.87**	**0.02**		**1.17**	**1.17**		**1.17**	**1.17**	**0.00**	**1,945.40**		**0.21**		**1,949.90**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.04	0.39	0.27	0.00	0.02	0.01	0.03	0.00	0.01	0.02		54.80		0.00		54.84
Worker	0.32	0.34	3.23	0.00	0.61	0.02	0.63	0.02	0.02	0.04		485.48		0.03		486.15
Total	**0.36**	**0.73**	**3.50**	**0.00**	**0.63**	**0.03**	**0.66**	**0.02**	**0.03**	**0.06**		**540.28**		**0.03**		**540.99**

3.4 Building Construction - 2013

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	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52
Total	**2.20**	**16.33**	**10.77**	**0.02**		**1.04**	**1.04**		**1.04**	**1.04**	**0.00**	**1,945.40**		**0.20**		**1,949.52**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.36	0.25	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.96		0.00		54.99
Worker	0.29	0.31	2.95	0.00	0.61	0.02	0.63	0.02	0.02	0.04		476.13		0.03		476.75
Total	**0.32**	**0.67**	**3.20**	**0.00**	**0.63**	**0.03**	**0.66**	**0.02**	**0.03**	**0.05**		**531.09**		**0.03**		**531.74**

3.4 Building Construction - 2014

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	2.02	15.03	10.68	0.02		0.92	0.92		0.92	0.92	0.00	1,945.40		0.18		1,949.18
Total	**2.02**	**15.03**	**10.68**	**0.02**		**0.92**	**0.92**		**0.92**	**0.92**	**0.00**	**1,945.40**		**0.18**		**1,949.18**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.32	0.23	0.00	0.02	0.01	0.03	0.00	0.01	0.01		55.06		0.00		55.09
Worker	0.27	0.28	2.72	0.00	0.61	0.02	0.64	0.02	0.02	0.04		468.43		0.03		469.01
Total	**0.30**	**0.60**	**2.95**	**0.00**	**0.63**	**0.03**	**0.67**	**0.02**	**0.03**	**0.05**		**523.49**		**0.03**		**524.10**

3.5 Architectural Coating - 2014

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	4.05					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**4.50**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00		46.84		0.00		46.90
Total	**0.03**	**0.03**	**0.27**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**		**46.84**		**0.00**		**46.90**

4.0 Mobile Detail

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	0.35	0.88	3.27	0.01	0.60	0.04	0.64	0.02	0.04	0.06		541.67		0.02		542.13
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	60.00	60.00	60.00	181,321	181,321
Total	60.00	60.00	60.00	181,321	181,321

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	8.90	13.30	7.40	100.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		22.28		0.00	0.00	22.42
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.10	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

	ROG	NOx	CO	SO2	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	0.02					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.07					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.09**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mission Road & Jesse Street Air Treatment Facility

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Light Industry	30	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	11		2.2		
		Precipitation Freq (Days)			
			33		

1.3 User Entered Comments

Project Characteristics -

Land Use - Total footprint of the parcel is 30,000 sq ft. The building will be 35' x 105' (3,675 sq ft).

Construction Phase - Mobilization 8/1/2012-8/31/2012. Construction period is 9/1/2012-3/31/2014. Grading for 8 weeks. Assuming a month for architectural coating (3/1-31/2014), the building construction phase was assumed to be the entire duration between grading and coating.

Off-road Equipment - Default equipment plus a plate compactor for trenching and a water truck (off-highway trucks). Non-default equipment assumed to operate 8 hours per day.

Grading - Assume entire parcel is disturbed for site prep and grading.

Trips and VMT - # worker trips per day assumed to be 1.25 x # equipment x 2 single trips per day rounded up to the nearest even number for site preparation and architectural coating. Project assumes 15 workers for grading and 20 maximum wokers (assumed to be during building construction). Project assumes 600 total one-way haul trips.

Vehicle Trips - One worker makes a trip to the facility every day for inspection.

Water And Wastewater - Assume no water use at facility.

Solid Waste - Assume no waste generation at facility.

Construction Off-road Equipment Mitigation - Water exposed twice a day to meet SCAQMD dust control requirements.

2.0 Emissions Summary

2.1 Overall 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					
2012	0.21	1.56	1.02	0.00	0.53	0.09	0.62	0.01	0.09	0.10	0.00	186.67	186.67	0.02	0.00	187.00
2013	0.33	2.21	1.83	0.00	0.07	0.14	0.21	0.00	0.14	0.14	0.00	294.48	294.48	0.03	0.00	295.05
2014	0.10	0.36	0.32	0.00	0.01	0.02	0.04	0.00	0.02	0.02	0.00	51.50	51.50	0.00	0.00	51.59
Total	**0.64**	**4.13**	**3.17**	**0.00**	**0.61**	**0.25**	**0.87**	**0.01**	**0.25**	**0.26**	**0.00**	**532.65**	**532.65**	**0.05**	**0.00**	**533.64**

2.2 Overall 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	0.02	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	28.57	28.57	0.00	0.00	28.67
Mobile	0.06	0.15	0.60	0.00	0.10	0.01	0.10	0.00	0.01	0.01	0.00	91.15	91.15	0.00	0.00	91.23
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.08**	**0.15**	**0.60**	**0.00**	**0.10**	**0.01**	**0.10**	**0.00**	**0.01**	**0.01**	**0.00**	**119.72**	**119.72**	**0.00**	**0.00**	**119.90**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2012

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.15	0.10	0.00		0.01	0.01		0.01	0.01	0.00	14.63	14.63	0.00	0.00	14.67
Total	**0.02**	**0.15**	**0.10**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**14.63**	**14.63**	**0.00**	**0.00**	**14.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.78	0.00	0.00	0.78
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.78**	**0.78**	**0.00**	**0.00**	**0.78**

3.3 Grading - 2012

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					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.61	0.30	0.00		0.03	0.03		0.03	0.03	0.00	66.85	66.85	0.01	0.00	66.98
Total	**0.08**	**0.61**	**0.30**	**0.00**	**0.01**	**0.03**	**0.04**	**0.00**	**0.03**	**0.03**	**0.00**	**66.85**	**66.85**	**0.01**	**0.00**	**66.98**

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	0.04	0.37	0.23	0.00	0.50	0.02	0.52	0.00	0.02	0.02	0.00	45.55	45.55	0.00	0.00	45.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.04**	**0.37**	**0.28**	**0.00**	**0.51**	**0.02**	**0.53**	**0.00**	**0.02**	**0.02**	**0.00**	**52.31**	**52.31**	**0.00**	**0.00**	**52.36**

3.4 Building Construction - 2012

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	0.06	0.41	0.25	0.00		0.03	0.03		0.03	0.03	0.00	40.58	40.58	0.00	0.00	40.67
Total	**0.06**	**0.41**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**40.58**	**40.58**	**0.00**	**0.00**	**40.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	1.15	0.00	0.00	1.15
Worker	0.01	0.01	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.37	10.37	0.00	0.00	10.38
Total	**0.01**	**0.02**	**0.09**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**11.52**	**11.52**	**0.00**	**0.00**	**11.53**

3.4 Building Construction - 2013

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	0.29	2.13	1.40	0.00		0.14	0.14		0.14	0.14	0.00	230.25	230.25	0.02	0.00	230.74
Total	**0.29**	**2.13**	**1.40**	**0.00**		**0.14**	**0.14**		**0.14**	**0.14**	**0.00**	**230.25**	**230.25**	**0.02**	**0.00**	**230.74**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.53	6.53	0.00	0.00	6.54
Worker	0.04	0.04	0.39	0.00	0.07	0.00	0.07	0.00	0.00	0.01	0.00	57.70	57.70	0.00	0.00	57.78
Total	**0.04**	**0.08**	**0.42**	**0.00**	**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.01**	**0.00**	**64.23**	**64.23**	**0.00**	**0.00**	**64.32**

3.4 Building Construction - 2014

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	0.04	0.32	0.23	0.00		0.02	0.02		0.02	0.02	0.00	37.93	37.93	0.00	0.00	38.01
Total	**0.04**	**0.32**	**0.23**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**37.93**	**37.93**	**0.00**	**0.00**	**38.01**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	1.08	0.00	0.00	1.08
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	9.35	9.35	0.00	0.00	9.36
Total	**0.01**	**0.02**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**10.43**	**10.43**	**0.00**	**0.00**	**10.44**

3.5 Architectural Coating - 2014

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	0.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.68	2.68	0.00	0.00	2.69
Total	**0.04**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.68**	**2.68**	**0.00**	**0.00**	**2.69**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.00	0.00	0.46
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.46**	**0.46**	**0.00**	**0.00**	**0.46**

4.0 Mobile Detail

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	0.06	0.15	0.60	0.00	0.10	0.01	0.10	0.00	0.01	0.01	0.00	91.15	91.15	0.00	0.00	91.23
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	60.00	60.00	60.00	181,321	181,321
Total	60.00	60.00	60.00	181,321	181,321

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	8.90	13.30	7.40	100.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	24.88	24.88	0.00	0.00	24.96
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.69	3.69	0.00	0.00	3.71
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	69126.8	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.69	3.69	0.00	0.00	3.71
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**3.69**	**3.69**	**0.00**	**0.00**	**3.71**

5.3 Energy by Land Use - Electricity

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	44283.8					24.88	0.00	0.00	24.96
Total						**24.88**	**0.00**	**0.00**	**24.96**

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	0.02	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

	ROG	NOx	CO	SO2	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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Air Treatment Facility East Central Interceptor Sewer (ECIS) Mission Road & Jesse Street
Initial Study/Negative Declaration
Emissions Calculations

Project Construction & Operation Peak Daily Criteria Pollutant Emissions						
	VOC	NOx	CO	SO2	PM10	PM2.5
Construction Emissions	6	50	29	0.06	31	3
SCAQMD Construction Thresholds (lbs/day)	75	100	550	150	150	55
Significant Impact?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Operational Emissions	13	3	24	0.01	0.7	0.1
SCAQMD Operations Thresholds (lbs/day)	55	55	550	150	150	55
Significant Impact?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Construction Emissions

Peak Daily Construction Emissions (lb/day)						
Year	**VOC**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Summer						
2012	6.16	49.17	28.55	0.06	31.38	2.85
2013	2.5	16.93	14.1	0.03	1.71	1.1
2014	4.52	15.58	13.75	0.03	1.58	0.97
Winter						
2012	6.22	50.25	29.13	0.06	31.39	2.86
2013	2.53	16.99	13.97	0.03	1.71	1.1
2014	4.53	15.64	13.62	0.03	1.58	0.97
Maximum						
2012	6.22	50.25	29.13	0.06	31.39	2.86
2013	2.53	16.99	14.1	0.03	1.71	1.1
2014	4.53	15.64	13.75	0.03	1.58	0.97
Max Daily Emissions	**6.22**	**50.25**	**29.13**	**0.06**	**31.39**	**2.86**

Emissions calculated by CalEEMod

Operational Emissions

Peak Daily Operational Emissions (lb/day)						
	VOC	NOx	CO	SO2	PM10	PM2.5
Mobile/Energy Use/Area Emissions						
Summer	0.44	0.84	3.33	0.01	0.64	0.06
Winter	0.45	0.90	3.29	0.01	0.64	0.06
Max Daily Emissions	0.45	0.90	3.33	0.01	0.64	0.06
Generator	0.80	1.69	21.16		0.08	0.08
ATF	11.66					
Total	**12.91**	**2.59**	**24.49**	**0.01**	**0.72**	**0.14**

Project Construction & Operation GHG Emissions (MTCO2e)	
Construction Emissions	534
Operational Emissions	120
Amortized total	138
SCAQMD GHG Thresholds (MTCO2e/yr)	10,000
Significant Impact?	**NO**

Appendix B

Geology and Soils Technical Reports

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

GEOTECHNICAL ENGINEERING DIVISION (GED)

REPORT
GEOTECHNICAL EVALUATION
ECIS ODOR CONTROL FACILITY

Mission Road and Jesse Street
Los Angeles, CA
FOR: Baron Miya

GED FILE # 01-139
W.O. E2001442
October 26, 2001

TABLE OF CONTENTS

GEOTECHNICAL EVALUATION
ECIS ODOR CONTROL FACILITY
MISSION ROAD AND JESSE STREET

WO E2001442 **FILE #01-139**

Attachments: Figure 1 – Site Vicinity Map
Figure 2 – Approximate Locations of Exploratory Borings
References
Appendix A – Exploratory Boring Logs
Appendix B - Laboratory Test Data

1 INTRODUCTION

This report presents the results of the geotechnical evaluation conducted for the proposed East Central Interceptor Sewer (ECIS) Odor Control Facility to be located west of the intersection of Mission Drive and Jesse Street, along the ECIS alignment, within the City of Los Angeles (See Figure 1). This evaluation was conducted to provide geotechnical recommendations for design and construction of the proposed facility. The Geotechnical Engineering Division (GED) prepared this report in response to a request on September 5, 2001 from Baron Miya.

This report is based on a visual observation of site conditions by GED, two ECIS exploratory borings drilled in the site area, and results of laboratory tests performed on samples obtained from these exploratory borings. Logs of these exploratory borings and laboratory test results are included in Appendices A and B, respectively, of this report. Figure 2 depicts the locations of the proposed structures and exploratory borings.

2 PROJECT SCOPE

2.1 Proposed Construction

The Odor Control Facility will include a biotrickling filter building and an adjacent biofilter. The biotickling building will have plan dimensions of approximately 13.1 meters by 19.5 meters (43 feet by 64 feet) with a maximum building height of about 6 meters (20 feet). This building will include a subterranean level extending to a depth of 4.3 to 6.1 meters (14 to 20 feet) below existing grade. Three biotrickling filters (approximately 3.66 meters (12 feet) in diameter and 8.84 meters (29 feet) in height), a temporary recirculation tank with a diameter of approximately 2.3 meters (7.5 feet), a control room, control panel, and piping will be located within this building. A partial mezzanine level will be constructed along one side of the building.

The biofilter is expected to have plan dimensions of approximately 7.3 meters by 20.1 meters (24 feet by 66 feet) with a maximum height of approximately 6.2 meters (20 feet). This building will be subdivided into three independent biofilter cells. This structure is not planned to have a subterranean level. However, the floor of this structure will be located on the order of one meter (3 feet) below the adjacent site grade.

Odor Control Facility structures at this site will be located away from the ECIS tunneling access shaft. The existing site is relatively flat. Site grading is expected to consist of cuts and fills of 0.3 to 0.6 meters (one to two feet) or less.

2.2 Structural Considerations

As currently proposed, the biotrickling filter building will be founded on a concrete mat foundation with an estimated loading of approximately 96 KN/m^2 (approximately 2,000 pounds per square foot). The biofilter will have a maximum operating weight of approximately 9,790 KN corresponding to a uniform foundation pressure of approximately 66 KN/m^2 (approximately 1,400 pounds per square foot). A concrete mat foundation is planned for support of the biofilter.

3 SUBSURFACE CONDITIONS

Two exploratory borings drilled for the ECIS project are located near the proposed Odor Control Facility. The borings were drilled to depths of approximately 29.3 meters (96 feet) below the existing ground surface. Standard Penetration Tests and relatively undisturbed samples were collected from each of the borings. Logs of the borings are presented in Appendix A. Approximate locations of the borings in relation to the proposed Odor Control structure locations are shown on Figure 2.

4 EXISTING SITE CONDITIONS

4.1 Surface Conditions

The subject site is an irregular shaped parcel located west of the intersection of Mission Road and Jesse Street. The area of the proposed structures currently exists as concrete paved parking area with a perimeter fence. The proposed Odor Control Facility site is bounded by unpaved ground to the north, Mission Road to the east, a paved parking area to the south, and Southern Pacific railroad tracks to the west. The site and site area is relatively flat with ground surface elevations on the order of 76 meters (250 feet) above sea level.

4.2 Subsurface Conditions

Fill material consisting primarily of sand with silt was encountered in one boring to a depth of approximately 2.7 meters (9 feet) below the ground surface. Natural materials encountered in the two borings consisted primarily of medium dense to very dense sandy soils with varying percentages of silt and/or clay (Unified Soil Classifications of SP-SM, SM, and SM-SC) to depths of approximately 10.1 meters (33 feet). Dense to very dense sands and gravels (Unified Soil Classifications of SP, SP-SM, GP, and GP-GM) were encountered between depths of approximately 10.1 meters and 16.1 meters (33 feet to 53 feet). These materials were underlain with very dense sands with varying percentages of silt (Unified Soil Classifications of SP, SP-SM, SM, SW, and SW-SM) to the explored depths of approximately 29.3 meters (96 feet).

4.3 Groundwater

Perched groundwater was encountered at depths of approximately 6.0 and 17.7 meters (20 and 58 feet) in the two borings. Groundwater data obtained from CDMG (1998) indicates that the shallowest reported depth to groundwater in the site area is more than 45 meters (150 feet) below the ground surface.

5 LABORATORY TESTING

Numerous in-situ moisture and density tests, seven direct shear tests, 11 mechanical analyses, 12 percent passing the number 200 sieve, and one Atterberg Limits test were conducted on samples obtained at various depths from the borings.

In-situ moisture content and dry density tests were performed on a large number of relatively undisturbed ring samples. The percent of moisture as a function of dry weight, and the measured dry density in units of Kilonewton per cubic meter (KN/m^3) are presented on the exploration logs (see Appendix A).

Percent passing the No. 200 sieve was determined for 12 samples. Results are presented on the exploration logs (see Appendix A).

Atterberg Limits testing was performed on one soil sample collected from a depth of approximately 7.6 meters (25 feet). The liquid limit (LL) and plasticity index (PI) of the sample is shown on the exploration log (see Appendix A).

Consolidated drained three-point direct shear tests were performed on seven relatively undisturbed samples of the subsurface earth materials. Individual specimens were prepared and different vertical normal stresses were applied. Specimens were soaked prior to shearing. Samples were sheared at a constant rate of strain. Based upon the range of normal loads applied, the shear strength envelope was determined. Results of the test are presented on the Figures C-56 through C-62 in Appendix B. Test results indicate friction angles of 36 to 49 degrees with cohesion intercepts of 0 to 26.72 KN/m^2 (170 psf).

Sieve analyses were performed on 11 samples to assist in soil classification and to determine the distribution of soil particle sizes. Results of the tests are presented on Figures C-244 through C-254 of Appendix B.

6 REGIONAL GEOLOGY/FAULTING

The proposed Odor Control Facility site is an area where the bedrock is overlain by thick alluvium deposits. The alluvium consists primarily of sands and gravels with varying percentages of silt and/or clay. These materials are generally medium dense to very dense.

The proposed site is within the seismically active Southern California Area. There are a number of hazards that earthquakes typically present to structures. These hazards are discussed below.

6.1 Ground Surface Rupture

Ground surface rupture is typically considered to occur along active faults. Active faults are faults that have had displacement within the past 11,000 years. Since there are no known active faults beneath this site, or in close proximity to it, the potential for ground surface rupture is very low.

6.2 Liquefaction

The site is shown on the State of California Seismic Hazard Zones Map as not being within an area that has a potential for liquefaction. Liquefaction typically occurs when near surface (usually the upper 15 meters (50 feet)), saturated, clean, fine-grained loose sands are subjected to intense ground shaking.

The soils at this site consist primarily of sands and gravels with varying percentages of silt and/or clay. The natural granular materials were generally dense to very dense below a depth of approximately 4 meters (13 feet). In one of the nearby borings, perched groundwater was encountered at a depth of approximately 6 meters (20 feet) below the ground surface. Based on the subsurface data of the area, we do not expect groundwater to rise a significant amount above the perched level. Considering the denseness of the earth materials below a depth of 4 meters (13 feet), it is our opinion that liquefaction at the site is unlikely.

6.3 Ground Shaking

During an earthquake, ground shaking impacts structures throughout the area. Faults capable of generating a major earthquake that are within 25 kilometers (15 miles) of the proposed site are listed in Table 1 below (the San Andreas fault is also listed since it is the largest fault in Southern California).

TABLE 1 - Summary of Nearby Faults

Fault	Distance, Km (miles)	Magnitude
Elysian Park Zone	1 (0.5)	6.7
Newport-Inglewood	14 (9)	6.9
Raymond	8 (5)	6.5
San Andreas(Mojave)	56 (35)	7.8
San Gabriel	20 (12)	7.0
Santa Monica	9 (6)	6.6
Sierra Madre	20 (12)	7.0
Verdugo	11 (7)	6.7
Whittier	8 (5)	6.8

Note that these distances will vary slightly from distances obtained using the California Department of Conservation, Division of Mines and Geology "Active Fault Near Source Zones" map due to difference in measuring the surface location and subsurface projections. According to the state map the closest fault is the Raymond Fault at a distance of approximately 8 km (5 miles) and is a type "B" fault. The 8-km (5 mile) distance shall be used when computing near source factors according to the 1999 Los Angeles Building Code.

6.4 Earthquake Induced Landslide

Due to the relatively flat nature of the subject site, as well as the surrounding area, the potential for an earthquake-induced landslide to affect the proposed structures is considered very low.

6.5 Earthquake Induced Flooding

Earthquakes can cause the flooding of a site due to structure failure of an upstream dam, seiches (sloshing of water in large inland bodies of water) and tsunamis (large waves caused by seismic

events in the ocean). Due to the distance from the site to the ocean, tsunamis are not considered to pose any danger. No large inland bodies of water are located in close proximity to the site and the general area is predominately flat. Therefore, the potential for seiches or dam failure affecting the site is considered very low because any releases of large quantities of water from great distances would be dispersed before reaching the site.

6.6 Seismic Settlement

The on-site surfical soils are generally cohesionless in nature. The shallow granular soils within approximately 4 meters (13 feet) of the ground surface could be potentially susceptible to seismically induced settlement. Earth materials below a depth of approximately 4 meters (13 feet) are dense to very dense and not subject to significant seismically induced settlement. Since the biotrickling filter building will be founded in the dense granular materials at a depth of approximately 5 meters (20 feet) below the ground surface the potential for seismically induced settlement impacting this building is considered very low.

To mitigate the possibility of seismic settlement in the near surface bearing soils, the upper 1.5 meters (5 feet) of material beneath the biofilter foundation should be removed and replaced with properly compacted fill materials. Fill materials should be compacted to a minimum of 95% of the maximum dry density obtained by the ASTM D1557 Method.

7 FINDINGS

Based on the two borings, fill materials and shallow unsuitable natural soils may be encountered at the site. Natural materials beneath the site consist primarily of medium dense to very dense sandy soils with varying percentages of silt and/or clay to depths of approximately 10.1 meters (33 feet). Dense to very dense sands and gravels with some silt underlie these materials to a depth of approximately 16.1 meters (53 feet). These materials were underlain with very dense sand with varying percentages of silt to the explored depths of approximately 29.3 meters (96 feet).

Secondary seismic effects such as ground rupture, liquefaction, landslides, and inundation are not considered a problem at this site. Existing fill soils and any unsuitable natural soils will require removal and replacement for support of the biofilter foundation. However, the site is less than 25 kilometers (15 miles) from eight faults that are classified as Type B Faults, and 47 kilometers from the San Andreas Fault, which is a Type A Fault. Therefore, this site like much of Southern California is subject to strong ground shaking from nearby earthquakes.

8 CONCLUSIONS

The following conclusions are based on the results the materials encountered in the nearby borings, laboratory test results and our understanding of the project.

- The site is suitable for the construction of an Odor Control Facility as proposed; however, the site would require grading for support of the near surface biofilter.

- Mat foundations may be used for support of the structures as planned. The biotrickling filter building can be founded on undisturbed natural soils at a depth of 4.3 meters (14 feet) or more below the ground surface. Support of the biofilter will require a 1.5 meter (5-foot) minimum removal of any existing fill materials and unsuitable natural soils. The removal may exceed 1.5 meters (5 feet) in some areas. The actual depth of removal will be determined by a GED representative at the time of construction.

- According to the 1999 Los Angeles Building Code, fill shall be placed on natural undisturbed material or approved compacted fill. All required fill and backfill shall be placed in loose level lifts not exceeding 0.2 meters (8 inches) in thickness. It should also be moisture conditioned to near optimum moisture, and mechanically compacted to at least 95% of the maximum density obtained by the ASTM D1557 Method. For fill soils with more than 15% clay, the required relative compaction may be decreased to 90% in accordance with the requirements of the Los Angeles Department of Building and Safety Grading Code. However, test results indicate that this is not the case for the on-site soil, which will be used for fill and backfill. Therefore, the minimum compaction shall be 95% of the maximum density for the on-site soil. GED's representative shall test all fill soils for adequacy, under the supervision of the Geotechnical Engineer. Compaction by jetting or by flooding shall not be allowed.

- There are no known active faults crossing the site. The site may be subjected to heavy shaking from any of the nearby faults listed in Table 1, however the 1999 Los Angeles Building Code static design method should be adequate for the proposed Odor Control Facility.

- Imported fill shall be tested to ensure that the new soils have similar characteristics to the on-site soils. All imported fill soil shall be approved by the Geotechnical Engineering Division, prior to importing.

- Perched groundwater was encountered at a depth of approximately 6 meters (20 feet) below the ground surface. Groundwater is not expected to impact the construction with the possible exception of the biotrickling filter foundation and installation of any shoring.

9 SITE GRADING

9.1 Site Grading

The site will require grading for the support of the foundation of the proposed biofilter. It has been our experience that in urban areas that have been developed, it is not possible, or economical to find all the pockets of fill or disturbed soil with exploratory borings. Therefore, it is recommended that as a minimum the upper 1.5 meters (5 feet) of foundation soil be removed from the biofilter building and replaced with properly compacted fill. Prior to placing any new fill, a GED representative shall observe the bottom of the over-excavation to determine if additional removals are required. If additional fill or unsuitable soils are found, these materials will have to be removed to suitable natural material.

9.2 Site Preparation

The proposed structural areas of the site (building areas plus 1.5 meters (5 feet) beyond the building limits) shall be cleared of all trash, deleterious materials, vegetation, roots, irrigation lines, and utility lines (if any). All deleterious materials shall be disposed of off-site. In addition, any existing foundations, slabs, retaining walls, and other obstructions below the existing grade shall be removed and wasted from the site.

The biofilter area should be over-excavated a minimum of 1.5 meters (5 feet) below the bearing elevation of the mat foundation and replaced with either clean on-site soil, or imported fill material similar to the on-site soils. The removal limits should extend a minimum of 1.5 meters (5 feet) beyond the plan dimensions of the structure. The bottom shall be observed by a GED representative, scarified, moisture conditioned to between optimum moisture content and a few percent above optimum and compacted to a minimum of 95 percent relative compaction.

All fill shall be free of organic material, hazardous waste contamination, deleterious debris, and brick and concrete rubble larger than 0.15 meters (6 inches) in size. Fill and backfill shall be placed in loose level lifts not exceeding 0.2 meters (8 inches) in thickness, moisture conditioned to between optimum moisture and a few percent above optimum, and mechanically compacted to at least 95% of the maximum density obtained by the ASTM D1557 Method. For fill soils with more than 15% clay, the required relative compaction may be decreased to 90% in accordance with the requirements of the Los Angeles Department of Building and Safety Grading Code. This is not the case and the required relative compaction shall be 95% of the maximum density. A representative from GED shall test all fill soils for adequacy, under the supervision of the Geotechnical Engineer. Compaction by jetting or by flooding shall not be allowed.

10 DESIGN RECOMMENDATIONS

10.1 General

Mat foundations can be used for support of the proposed structures. Foundations of the biotrickling filter building, with a subterranean level extending approximately 4.3 meters (14 feet) below grade, can be supported on undisturbed natural soils. The foundation of the biofilter can be supported on a minimum of 1.5 meters (five feet) of properly compacted fill material. Fill materials may consist of either on-site soils or approved imported soils. Design recommendations for seismicity, earthwork, foundations, and retaining walls are provided. Construction considerations, such as temporary excavations, are discussed in the "Construction Considerations" section later in this report.

The recommendations of this report are based on limited information regarding the proposed construction. Further recommendations, in the form of a supplemental report, may be provided, if desired. If a supplemental report is desired, please submit a written request to our office.

The foundation and grading plans shall be reviewed by our office to ensure that the recommendations contained in this report and any supplemental reports are appropriate to the project as designed.

10.2 Seismicity

This site, along with all of Southern California, is located within a seismically active area (UBC Zone 4), however the site is not within a special studies zone. The provisions of the 1999 Los Angeles Building Code (LABC) are considered appropriate minimums for the design of the proposed structures, provided the appropriate site parameters are included as discussed below.

Section 1636 of the 1999 LABC defines six different soil profile types ($S_A - S_F$). These soil profile types are used to lookup values of the seismic coefficients Ca and Cv in tables 16-Q and 16-R respectively. These coefficients, together with the near source factors to be discussed a little later, are used in the formulas to determine the static base shear force that the structure must be designed to withstand.

Soil Profile Types are based on the average properties of the upper 30 meters (100 feet) of soil. The appropriate soil profile type is chosen by referencing the average shear wave velocity, average Standard Penetration Test (SPT) blowcounts, and/or the undrained shear strength of the soil.

The site is shown on the State of California Seismic Hazard Zones Map as not being within an area that has a potential for liquefaction. During the subsurface investigation, ground water was encountered at depths of approximately 6 and 17.7 meters (approximately 20 feet and 58 feet) below the ground surface. The shallow ground water depth was perched on a clayey sand layer. The boring logs indicate that the soils are generally dense to very dense below a depth of approximately 4 meters (13 feet). Based on this information, it is our opinion that liquefaction at the site is unlikely.

As previously mentioned, near source factors are also used to determine the seismic coefficients Ca and Cv. The near source factors Na and Nv can be determined from 1999 LABC Tables 16-S and 16-T respectively. In order to use the tables it is necessary to know the distance to the nearest fault and the corresponding fault type as found in the State of California Department of Conservation "Active Fault Near-Source Zones" maps. According to this map, the nearest fault is the Raymond Fault (type"B"fault) at a distance of approximately 8 km (5 miles).

Using the above information and the appropriate tables within the 1999 LABC, the near source factors and seismic coefficient can be determined. These values are summarized in Table 2 below.

TABLE 2 – Seismic Design Data

Seismic Zone Factor (Z)	0.4
Soil Profile Type	S_C
Near Source Factor Na	1.0
Near Source Factor Nv	1.08
Seismic Coefficient Ca	0.40
Seismic Coefficient Cv	0.60

10.3 Seismic Settlement

Since the biotrickling filter building will be founded in the dense granular materials at a depth of approximately 5 meters (16 feet) below the ground surface the potential for seismically induced settlement impacting this building is considered very low. To mitigate the possibility of seismic settlement in the near surface bearing soils, the upper 1.5 meters (5 feet) of material beneath the biofilter foundation should be removed and replaced with properly compacted fill materials. Fill materials shall be placed and compacted in accordance with the recommendations of Section 10.4 Earthwork of this report.

10.4 Earthwork

10.4.1 Removals

Proper site preparation will require the removal of the existing vegetation, and any interfering substructures. All disturbed soil containing debris, or other undesirable material, and all debris resulting from any demolition shall be removed and wasted from the site. Disturbed soils such as those derived from demolition shall be properly removed.

The area of the biofilter foundation should be over-excavated to remove any existing fill materials or other unsuitable materials to a uniform depth below the bottom of foundations and replaced with compacted fill. Based on the data obtained during previous investigation of the site area, overexcavation depths on the order of 1.5 meters (5 feet) below the bearing elevation of the biofilter foundation is recommended. Removal excavations should extend a horizontal distance beyond the edges of the foundations equal to the depth of overexcavation below the footings or a minimum of 1.5 meters (5 feet), whichever is greater.

Slab-on-grade and pavement areas should be over-excavated to a depth of at least 0.6 meters (2 feet) below existing grade or the finish subgrade elevation, whichever is lower,

and replaced with properly compacted fill. Removal excavations should extend a horizontal distance of at least 1 meter (3 feet) beyond the plan dimensions of pavements.

Overexcavation depths may have to be greater in some areas to completely remove unsuitable soils. Thus, we recommend that unit costs for site earthwork be obtained during the initial bidding process. Unit pricing should be obtained for site overexcavation, soil moisture conditioning, fill import, and fill placement and compaction.

10.4.2 Subgrade Preparation and Compaction

Prior to placing any fill, the exposed natural subgrade shall be inspected and approved by the Geotechnical Engineer. If soft, yielding, or unsuitable soils such as old fill are exposed at the subgrade surface, then the unsuitable soils shall be removed and replaced with properly compacted fill soils in accordance with the following section.

10.4.3 Fill Compaction

All required fill and backfill shall be placed in loose level lifts not exceeding 0.2 meters (8 inches) in thickness, moisture conditioned to near optimum moisture, and mechanically compacted to at least 95% of the maximum density obtained by the ASTM D1557 Method. The GED's representative shall test all fill soils for adequacy, under the supervision of the Geotechnical Engineer. Compaction by jetting or by flooding shall not be allowed.

10.4.4 Control of Moisture Content

Soils shall be compacted between optimum moisture content and a few percent above the optimum moisture.

10.4.5 Fill Materials

All existing soils at the site may be used for fill, or backfill provided they are free of organic material, hazardous waste contamination, deleterious debris, and brick or concrete rubble larger than 0.15 meters (6 inches) in size. Such unsuitable material shall be removed and wasted from the site.

The 1.5 meter (5 foot) over-excavated area beneath the future foundation of the biofilter and over-excavated slab-on-grade and pavement areas shall be replaced with either clean on-site soil, or soil that is similar in properties to the on site soil. All fill shall be free of organic material, hazardous waste contamination, deleterious debris, and brick and concrete rubble larger than 0.15 meters (6 inches) in size. All fill shall be placed in thin loose lifts not more than 0.2 meters (8 inches) thick, and compacted too at least 95% relative compaction. The Building Code requires that structural fill that is granular in

nature, that is having less than 15% passing 0.005 mm, be compacted to 95% relative compaction. Relative compaction shall be defined as the ratio of field dry density to the maximum dry density as determined by the latest version of ASTM Standard Method D1557.

All imported soils shall be approved at the borrow site by the geotechnical engineer prior to its import. The geotechnical engineer shall be notified at least 3 working days prior to import to allow time to conduct the appropriate tests and calculations which will verify the required bearing capacity.

10.5 Mat Foundations

10.5.1 Vertical Capacity

Based on our understanding of the anticipated structure types and the characteristics of the on-site soils, the proposed structures may be supported on mat foundations. The biotrickling filter building shall be founded on undisturbed natural soil and the biofilter on at least 1.5 meters (5 feet) of properly compacted fill. Foundations shall be founded at least 0.5 meters (18 inches) below the lowest adjacent grade and shall be designed to impose a dead load plus live load bearing pressure not to exceed 140 KN/m^2 (2,900 pounds per square foot). A 1/3 increase may be used when considering transient loading conditions such as wind or seismic forces.

A coefficient of vertical subgrade reaction, for a 0.3-meter-square loaded area, of 31.4 KN/m^3 may be used for design. Vertical subgrade modulus, k, can be calculated as $k = 31.4\ (B+1/2B)^2$, where B is the mat width in meters.

All loose and disturbed soil at the bottom of the proposed foundation excavations shall be excavated and replaced with structural concrete or properly compacted fill. All fill placed adjacent to foundations shall be mechanically compacted to the same standards as outlined in the fill placement section of this report.

The bearing capacity shall be verified by remolding samples of the fill soil at or below the bottom of the footing elevation. The remolded samples shall be tested to determine their shear strength and compressibility. These tests will be reported in the compaction report.

10.5.2 Lateral Capacity

Foundations may be utilized to resist temporary lateral forces such as those developed by wind or seismic forces. The allowable passive resistance of the native soil or properly compacted fill may be assumed 47 KN/m^3 (300 pounds per square foot per foot of depth), with a maximum of 470 KN/m^2 (3,000 psf). The coefficient of friction between the bottom of the footing and native soil may be assumed to be 0.35 and may be used without reduction of the lateral bearing resistance.

10.6 Settlement

The magnitude of total and differential static settlements of the mat foundation will be a function of the structural design and stiffness of the mat. Based on our understanding of the proposed construction, we estimate that total settlement of the proposed structures will not exceed 12 mm (2 inch) with differential settlements of approximately 6 mm (3 inch) or less.

10.7 Retaining Walls

Plans provided to GED show that the maximum height of soil retained by the basement walls of the biotrickling filter building will be 4.3 to 6.1 meters (14 to 20 feet). The basement wall can be considered as a restrained wall (the rotation of the top of the wall is restricted by the above ground floor). A uniform lateral earth pressure of 4.3H kN/m^2 (28H psf), where H is the height of retainment in meters (feet), shall be used for the design of the basement wall. This earth pressure is for the condition of a level backfill for a horizontal distance equal to or greater than the height of the wall.

In addition to the above static soil pressures, a seismic lateral earth pressure should be used for design of subterranean walls. Evaluation of dynamic seismic lateral earth pressure was performed for a horizontal ground acceleration of 0.4g. For this level of ground motion, we recommend that an inverted dynamic equivalent fluid pressure of 4.7 kN/m^3 (30 pcf) be used in the design of the walls. This pressure should be applied as an inverted triangular pressure distribution with the base of the triangle at the top of the wall and the tip of the triangle at the wall base.

In addition to the above lateral forces due to retained earth, surcharge due to improvements, such as an adjacent structure or cranes for service of the facility, should be considered for design of the retaining walls. Loads applied within a 1H:1V projection behind the heel (or back) of the wall footing should be considered as lateral surcharge.

The calculated lateral earth pressure is based on the assumption that hydrostatic pressure will not develop behind the back of the basement wall. However, as provided in the plans, basement walls need to be waterproofed to ensure that no water from landscaping or other sources can seep through the basement walls that are in contact with soil. A minimum of 0.1 meter (4-inch) diameter perforated pipe shall be provided at the bottom and behind the basement wall to collect water. Inside the basement, a sump pump with a sump pump pit shall be provided to collect and dispose water of water seepage from behind the back of the wall or other unforeseen conditions.

Backfills for retaining walls should be compacted to a minimum of 90 percent relative compaction (based on ASTM Test Method D1557). During construction of retaining walls, the backcut should be made in accordance with the requirements of Cal/OSHA Construction Safety Orders. Relatively light construction equipment should be used to backfill retaining walls.

10.8 Slabs-on-Grade

Slabs-on-grade should be placed on properly compacted fill soils as described in the earthwork section of this report. Prior to placing concrete, the exposed subgrade should be scarified to at least 0.15 meters (6 inches), moisture-conditioned, and then compacted to 95 percent of the ASTM Test Method D1557-91 laboratory maximum density. The subgrade should not be allowed to dry out prior to concrete placement.

Care should be taken to avoid slab curling if slabs are poured in hot weather. Slabs should be designed and constructed as promulgated by the Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted.

In areas where a moisture-sensitive floor covering (such as vinyl, tile, or carpet) is used, a polyethylene vapor barrier with a thickness of at least 6-mils should be placed between the slab and compacted subgrade. Where the barrier is used, it should be protected with 50 millimeters (2 inches) of sand placed above to prevent punctures and to aid in the concrete cure. Vapor barrier seams should be overlapped a minimum of 0.15 meters (6 inches) and taped or otherwise sealed.

10.9 Pavement Design

Prior to subgrade preparation, pavement areas should be over-excavated and replaced with properly compacted fill material in accordance with Section 10 of this report. Prior to the placement of aggregate base or asphalt concrete pavements, the upper 0.15 meters (6 inches) of subgrade soils should be scarified, moisture-conditioned, and properly compacted. Exposed subgrade soils should be moisture-conditioned to between optimum-moisture content and a few percent above the optimum-moisture content and compacted. Subgrade soils should be compacted to a minimum of 95 percent of the ASTM Test Method D1557-91 laboratory maximum density to a depth of approximately 0.15 meters (6 inches).

Shallow soils encountered within the borings consisted primarily of sand with some silt. Based on these soil descriptions we have assumed an R-value of 40 for the subgrade soils. We recommend that R-value testing be performed at the completion of site earthwork to determine the R-value of the soils exposed at the subgrade elevation. For an assumed Traffic index of 6 and an R-value of 40, we recommend a preliminary pavement section consisting of 7.6 cm (3 inches) of asphalt concrete over 10 cm (4 inches) of aggregate base.

10.10 Cement Type

No chemical test data is available to evaluate the potential for the corrosion of concrete in contact with the site soils. Lacking this information, we recommend that concrete be designed per the "severe" category of Table 19-A-4 of the 1997 UBC. If desirable, soil samples could be collected from the site and tested to determine if less restrictive concrete requirements could be used for the project.

11 CONSTRUCTION CONSIDERATIONS

11.1 Groundwater Control

Perched groundwater may be encountered during construction of the biotrickling filter building, therefore, some amount of groundwater control may be necessary to facilitate construction. Minor hydrocarbon or lead contamination is possible. The contractor should follow the May 2001 "Hazardous Waste/Soil Management Plan" prepared by Parsons Engineering Science, Inc. for the ECIS project.

It is anticipated that control of groundwater can be accomplished with portable sump pumps set in trenches excavated around the perimeter of the foundation. Prior to excavating below the water table, dewatering should be performed to lower the immediate water surface to at least 1 meter (3 feet) below the planned depth of excavation to prevent bottom heave. Groundwater should be maintained at this elevation until construction has progressed above the surrounding static groundwater level, and sufficient structural dead-load and backfill have been placed to counteract hydrostatic uplift pressures. The system should operate continuously until the construction process has progressed above the surrounding static water table surface.

The dewatering program should consider the effects on adjacent structures. To reduce the potential for impacting the performance of the adjacent building and other structures, the dewatering system should be designed and operated to prevent significant lowering of groundwater levels beneath adjacent structures. Consideration should be given to installing monitoring wells near existing structures in order to measure and document groundwater levels during excavation and construction.

11.2 Temporary Excavations

Temporary construction slopes shall not exceed 1:1 (horizontal : vertical) for slopes 2 meters (7 feet) or less in height. Temporary excavation slopes more than 2 meters (7 feet) in height to a maximum of 6 meters (20 feet) high can be cut as a compound slope with the lower 2 meters (7 feet) sloped at a 1:1 (horizontal : vertical) gradient and the portion of the slope above constructed at a 1-1/2:1 (horizontal : vertical) or flatter gradient.

11.3 Temporary Shoring

Cantilevered shoring walls up to 5 meters in height that are permitted to yield, shall be designed to withstand a lateral force equivalent to a fluid having a density of 4.7 kN/m^3 (30 pcf) for a level back slope. If a braced shoring system is used instead, it shall be designed to withstand a rectangular lateral pressure distribution equal to 4H kN/m^2 (25H psf), where H is the height of the wall in meters (feet).

11.4 Geotechnical Services During Construction

Foundation recommendations in this report are based on the assumption that all foundations will be embedded into firm, competent material. A representative from our office shall observe all foundation excavations prior to the placement of steel or concrete. The purpose of the observation is to evaluate that the foundations are founded on firm, competent material and that the excavation is free of loose and/or disturbed soils.

Structural fill and backfill shall be placed and compacted under the observation of a representative from our office. To schedule inspection call (213) 485-3805 at least two working days before inspection is required.

12 CLOSURE

12.1 Plan Review

This report has been prepared to aid in the evaluation of the proposed Odor Control Facility and to assist architects and engineers in design of the proposed structures. Our office shall be provided an opportunity to review the design drawings and specifications at 50% and 100% completion to ensure that the recommendations of this report have been properly implemented.

12.2 Closing

It shall be understood that where this report recommends inspection by the Geotechnical Engineer. The inspection may be made by either the Geotechnical Engineer or GED personnel working under the supervision of the Geotechnical Engineer.

If there are any questions regarding this report, please contact Patrick Schmidt at (213) 847-4046, or Theo Seeley at (213) 847-4044.

Patrick J. Schmidt GE 2260
Geotechnical Engineer I

REFERENCES

Blake, Thomas F., 1993, EQFAULT Version 2.01, Computer program for estimation of peak horizontal accelerations from digitized California faults.

California Department of Conservation, Division of Mines and Geology, 1999, Official Map of Seismic Hazard Zones, Los Angeles Quadrangle, released March 25, 1999.

_____, 1998, Seismic Hazard Evaluation of the Los Angeles 7.5-minute Quadrangle, Los Angeles County, California: OFR 98-20.

_____, 1997, Guidelines for Evaluating and Mitigating Seismic Hazards in California: SP 117.

Dibblee, Thomas W. Jr., 1991, Geologic Map of the Los Angeles Quadrangle, Dibblee Geological Foundation Map Series.

International Conference of Building Officials, 1997, Uniform Building Code, Volume 2.

International Conference of Building Officials, 1998, Maps of Known Active Near-Source Zones in California and Adjacent Portions of Nevada, for the 1997 Uniform Building Code.

Kramer, Steven K., 1996, Geotechnical Earthquake Engineering, Prentice Hall, New Jersey.

National Center for Earthquake Engineering Research, 1997, Proceeding of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, Youd, T. L., and Idriss, I. M., Editors, Technical Report NCEER-97-0022.

Peterson, M. D., Bryant, W. A., Cramer, C. H., Cao, T., Reichle, M. S., Frankel, A. D., Lienkaemper, J. J., McCrory, P. A., and Schwartz, D. P., 1996, Probabilistic Seismic Hazard Assessment for the State of California, CDMG OFR 96-08, USGS OFR 96-706.

Pradel, D., 1998, Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils, Journal of Geotechnical and Geoenvironmental Engineering, Volume 124, No. 4, April 1998.

Seed, H. B., Tokimatsu, K., Harder, L. F., and Chung, R. M., 1984, The Influence of SPT Procedures in Soil Liquefaction Resistance Evaluations, Earthquake Engineering Research Center Report No. UCB/EERC-84/15.

Tokimatsu, K. and Seed, H. B., 1984, Simplified Procedure for Evaluation of Settlements in Clean Sand: University of California Earthquake Engineering Research Report, UBC/EERC-84/16.

United States Geological Survey, 1981, Los Angeles Quadrangle, California, Los Angeles County, 7.5-Minute Series, Topographic.

APPENDIX A

APPENDIX B

Appendix C

Hazards and Hazardous Materials Technical Reports

Phase I Environmental Site Assessment

Project: North Outfall Sewer—East Central Interceptor Sewer
Mission Road at Jesse Street

Study By: City of Los Angeles
Bureau of Engineering
Environmental Group

Date: March 27, 2000

EXECUTIVE SUMMARY

This Phase I environmental site assessment (ESA) provides an evaluation of potential chemical impact to soil and groundwater at the proposed site of a construction shaft related to the North Outfall Sewer—East Central Interceptor Sewer (NOS-ECIS), near the intersection of Mission Road and Jesse Street ("the Site").

Based on observed conditions and public records, Environmental Group (EG) finds a risk of chemical impact to soil and groundwater from former onsite railroad uses and/or from offsite sources. The potential offsite sources include current and former industrial uses of nearby properties. Moreover, at two nearby UST sites, a total of at least seven USTs that formerly contained gasoline and/or other organic compounds were removed, but no environmental assessments were conducted at either site. Additionally, EG did not have rights-of-entry to all properties comprising the Site. As such, EG recommends further investigation of site conditions.

First, EG urges a thorough "walk-through" investigation of the Site by a qualified environmental assessor before finalizing acquisition plans. Because EG did not possess rights of entry to all facilities, EG performed a "long distance" assessment of most of the Site.

Second, EG advises a Phase II subsurface investigation, focusing on the railroad right-of-way but also including limited sampling at key locations on or near the Site.

Prepared by: _____
Paul Teensma
Environmental Associate
Environmental Group

Approved by: _____
Ara Kasparian, Ph.D.
Manager
Environmental Group

1. INTRODUCTION

On behalf of the City of Los Angeles (the City), the Department of Public Works, Bureau of Engineering, Environmental Group (EG) performed a Phase I Environmental Site Assessment (ESA) of parcels and/or portions of parcels of land identified in Table 1 and collectively referred to herein as "the Site." The Department of Public Works intends to use the Site for locating a construction shaft for use in building the North Outfall Sewer—East Central Interceptor Sewer (NOS-ECIS) project ("the Project"). At the time EG prepared this ESA, the extent of land required at the Site remained undetermined. Figure 1 shows the general location of the Project and Figure 2 shows the layout of the Site. On Figure 2, EG labeled the lots potentially required for the Project as "Lot A" through "Lot D." EG labeled "Lot E" because it serves as a common reference to historical activity at the Site. This ESA also refers to the lots designated as Assessor's Parcel Number (APN) 5171-015-002 as the "Triangular Parcel." The Triangular Parcel is required under all acquisition scenarios. Figure 3 is a photograph of the Triangular Parcel, Figure 4 is a photograph of the buildings occupying Lots A through D, and Figure 5 is a photograph that further illustrates the proximal relationship of the properties composing the Site.

The records examined as part of this ESA include various recent and historic maps and photographs, as well as federal, state, and local government agency records.

1.1. Background

The Project, as planned, will relieve approximately 13 miles (21 kilometers) of the existing North Outfall Sewer (NOS) from an area near the intersection of Rodeo Road and Jefferson Boulevard to an area near the intersection of 4th Street and Mission Road. This section of the NOS is deteriorated and/or hydraulically overburdened.

The City evaluated four project alternatives, including two deep-bore tunnel alternatives (Alternatives A and B) and two cut-and-cover trench alternatives (Alternatives C and D). In 1998, the City chose Alternative B, one of the deep-bore tunnel alternatives, as the preferred NOS-ECIS alternative. Using deep-bore tunnel construction, the Project will involve construction of a subterranean pipe as large as 11 feet (3.4 meters) in diameter.

The Project will divert wastewater from the middle part of the NOS so that the deteriorated sewer can be rehabilitated at some future time, as needed. The Project will also provide additional capacity for anticipated future increases in wastewater flow.

1.2. Location

To accomplish the Project as currently planned, the City must acquire property interests to the parcels that comprise the Site. The property interests required include estate(s) in fee and possibly other interests, depending on which parcels are ultimately required for the Project at the Site and what their use requirements entail. The Site is located roughly at the southwest corner of the intersection of Mission Road and Jesse Street (Figures 1 and 2). An area containing well-traveled railroad tracks and a switching area separates the Site from the Los Angeles River to the west.

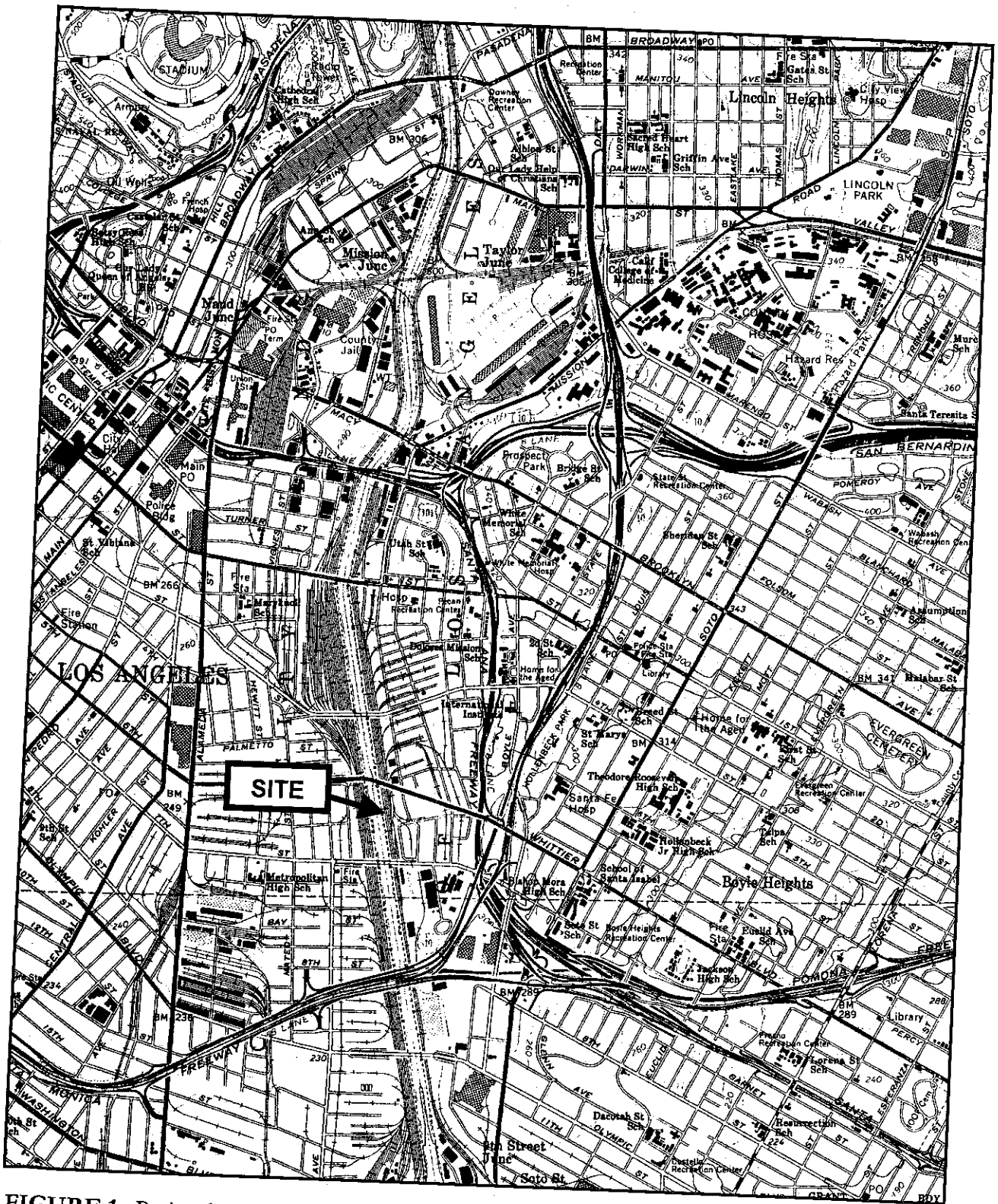


FIGURE 1. Project location.

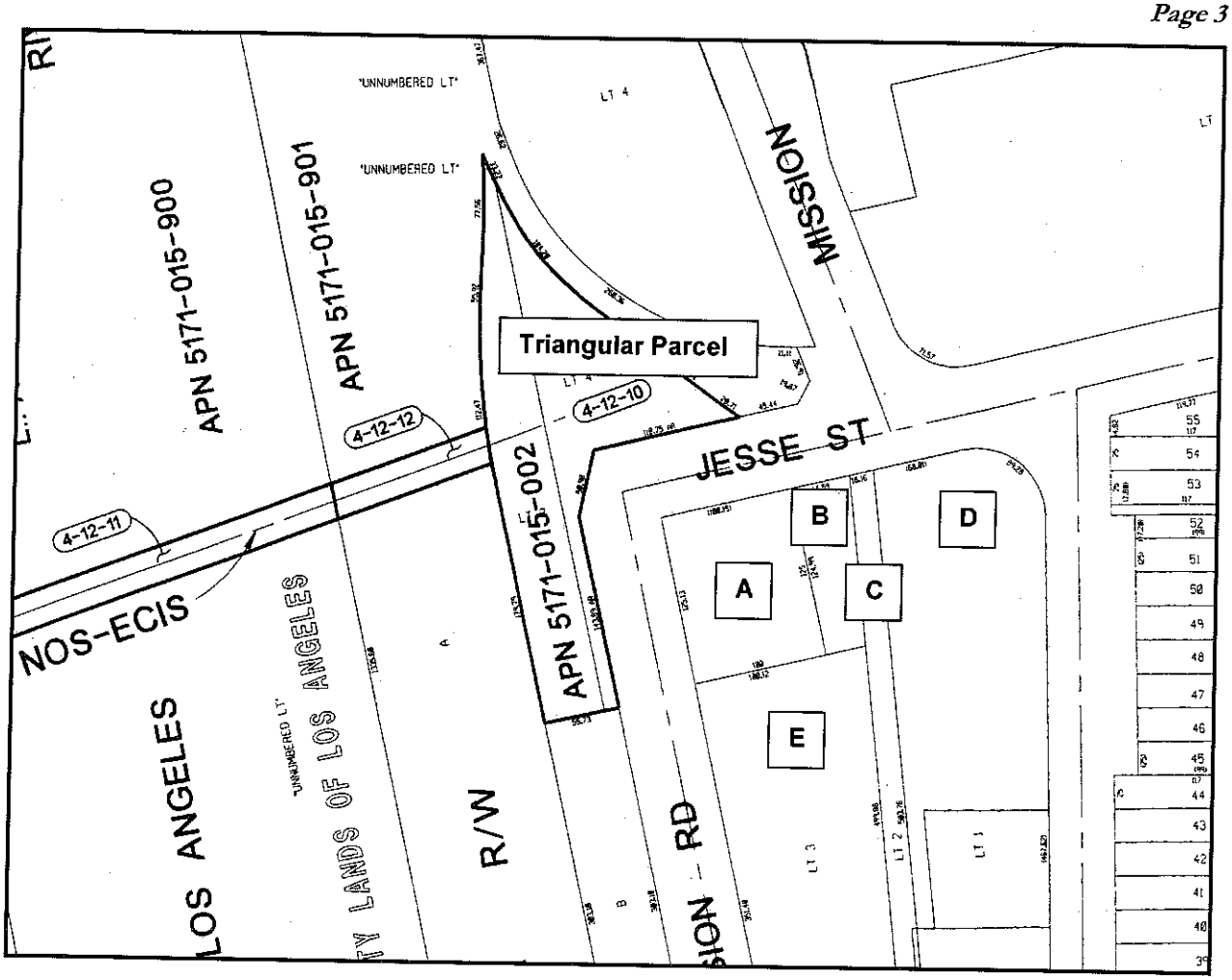


FIGURE 2. Site Map.

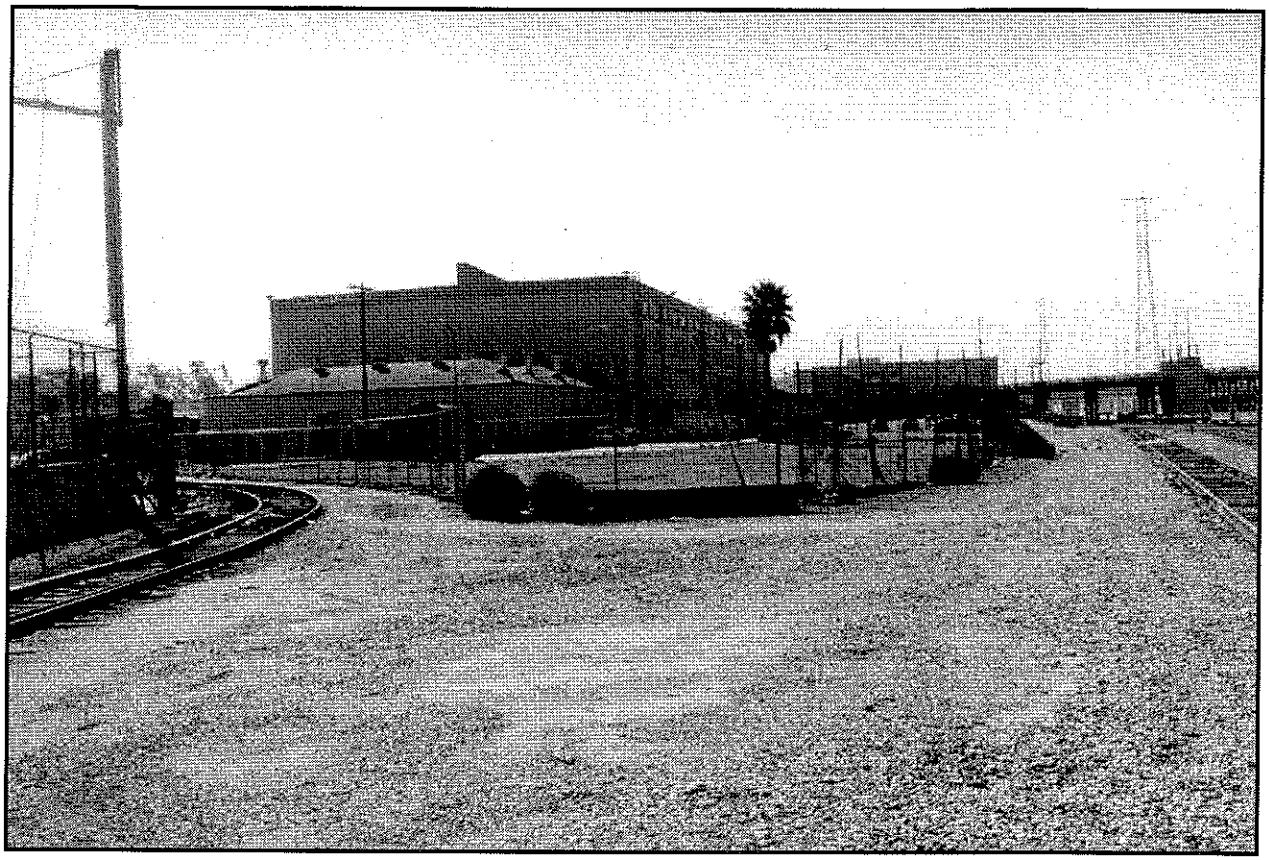


FIGURE 3. Photograph of the Triangular Parcel.

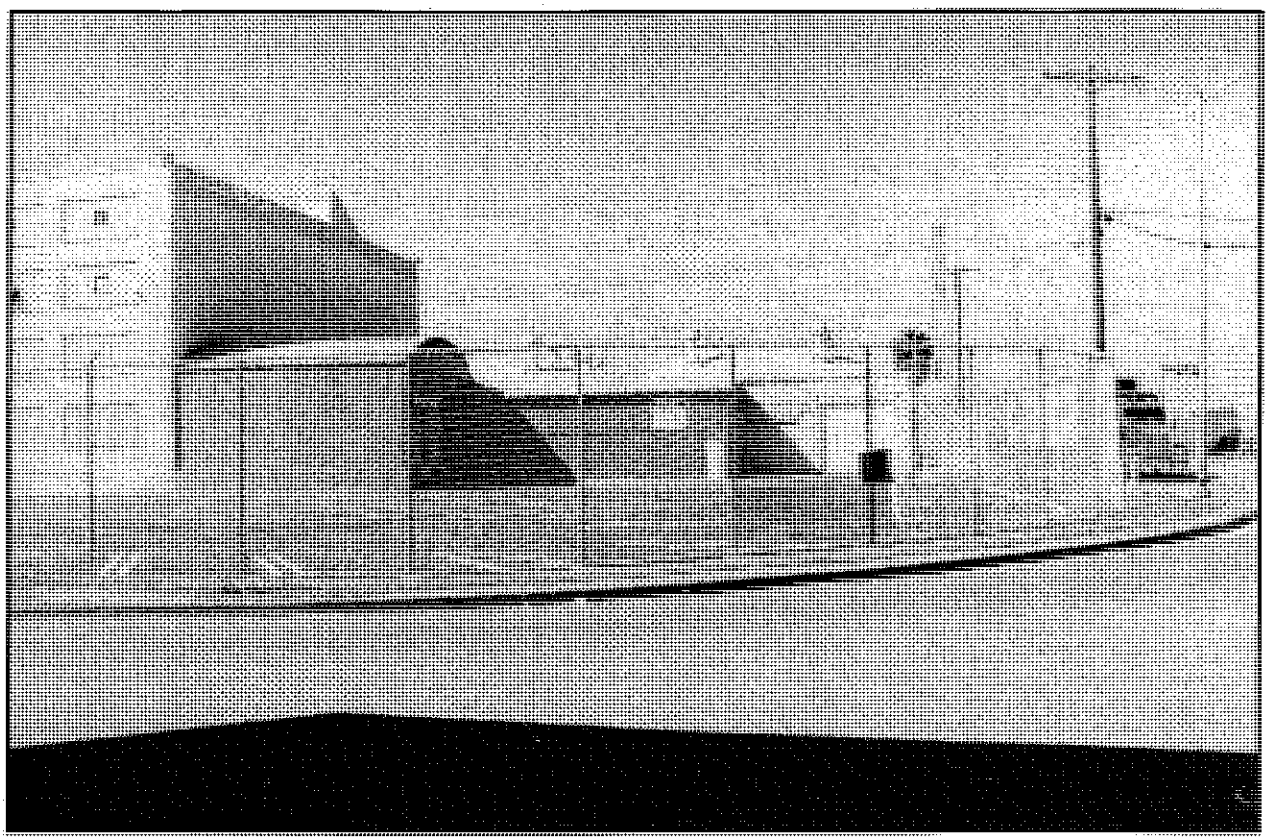


FIGURE 4. Photograph of buildings occupying Lots A through D.

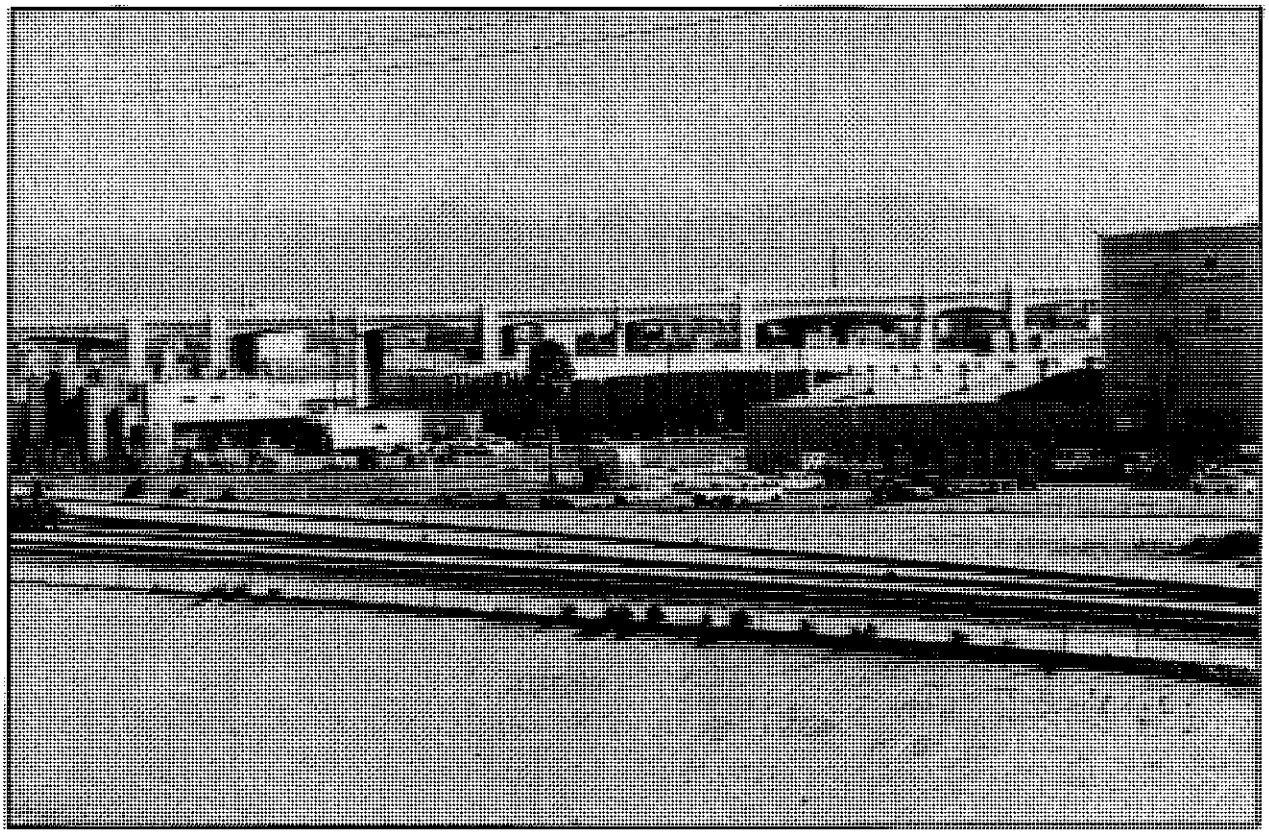


FIGURE 5. Photograph illustrating proximal relationship of parcels comprising the Site.

TABLE 1. List of parcels potentially comprising the Site.

Street No.	Street Name	APN	Current Land Use of Parcels Under Consideration	Estate Required	Comments
651	Mission Road	5171-015-002	Parking lot and semi-abandoned rail right-of-way	Fee	Required for NOS-ECIS construction.
2200	Jesse Street	5171-015-004 (por)	Warehouse(s); parking lot	To be determined	See map for portion of parcel included in study area. When EG prepared this ESA the dimensions of land required remained undetermined.

1.3. Purpose and Scope of Work

Presence or use of hazardous material or generation of hazardous waste on or near a property can potentially diminish the property's value due to the relatively high cost of hazardous waste cleanup and disposal (most commonly, contaminated soil and/or groundwater). In addition, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) imposes liability on parties responsible for contamination caused by hazardous substance releases. Also under CERCLA, however, an "innocent landowner" defense is available to an owner or purchaser who demonstrates that they conducted "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice." With these things in mind, this ESA aims to evaluate the likelihood of environmental degradation to the Site caused by hazardous materials or wastes.

1.4. Assumptions and Limitations

EG bases the findings and recommendations in this report on the results of a visual reconnaissance of the Site and a review of environmental records as described herein. The scope of work did not include any sampling or chemical analyses of soil, water, air, and/or other materials. At the time EG performed this ESA, EG was not authorized to enter the properties comprising the Site, thus restricting EG's physical access to the properties. As such, EG made all observations noted herein from properties adjacent to the Site and open to the public, and from public rights of way.

Professional opinions expressed herein apply to the conditions and standards applicable at the time of investigation. Passage of time may result in changed environmental circumstances at the Site and surrounding properties. Regulatory standards applicable to the Project may change as a result of new legislation, court decisions, or changes in implementation guidelines.

Findings and recommendations in this report reflect EG's opinion based on the sources cited only and should not be considered as legal opinions. The sources cited are believed but not guaranteed to be reliable. EG is not responsible for information withheld or incorrectly reported by agencies, clients, or other sources.

2. SITE DESCRIPTION

2.1. Site Features, Facility Information, and Land Use

EG staff visited the Site during March 2000 as part of this ESA. All descriptions and observations of the Site reflect conditions during the time of the Site visit. Similarly, EG documented selected conditions with photographs during the site visit and, hence, photographs contained in or attached to this report reflect conditions at the time.

Parcels comprising the Site represent a relatively narrow range of uses, including vacant land, semi-abandoned railroad right-of-way, and commercial warehouses. Table 1 lists the parcels and includes the land use observed by EG.

During EG's site visit, EG observed no air pollution control equipment at any properties within the Site. EG noted no electrical transformers on the Site. EG found no evidence of floor drains, sumps, septic tanks, leach fields, process wastewater sewers, aboveground tanks, lagoons, pits, or similar disposal and/or storage areas on the Site.

Of particular concern, EG observed railroad ties and isolated railroad tracks chronicling a former rail spur that crossed the Site. Figure 6 shows the location and remains of part of this spur. Although EG noted no particular chemical impacts, railroad uses commonly cause negative environmental impacts to soil and groundwater.

Because EG did not perform "walk through" inspections of the properties comprising the Site, EG cannot reach informed conclusions regarding environmental conditions that may have been out of view. Examples of environmental conditions of concern that often can be assessed only by comprehensive site visits include, among others:

- Floor drains, sumps, pits, trenches, liquid clarifiers, oil/water separators, etc.;
- Underground storage tank (UST) plumbing fixtures;
- Evidence of spills or other discharges;
- Chemical storage areas;
- Air pollution control equipment;
- Onsite groundwater wells; and
- Abandoned equipment containing chemical residues.

Additionally, onsite inspections often encounter lead-based paints and/or asbestos. Testing for these concerns does not fall within the scope of this ESA, but often a "walk through" investigation can assist in determining target areas for such analytical testing.

Thus, to better characterize conditions, EG urges thorough onsite assessment of the Site by a qualified environmental assessor. Because EG did not gain full access to all properties, particularly the warehouse properties, EG performed a "long distance"

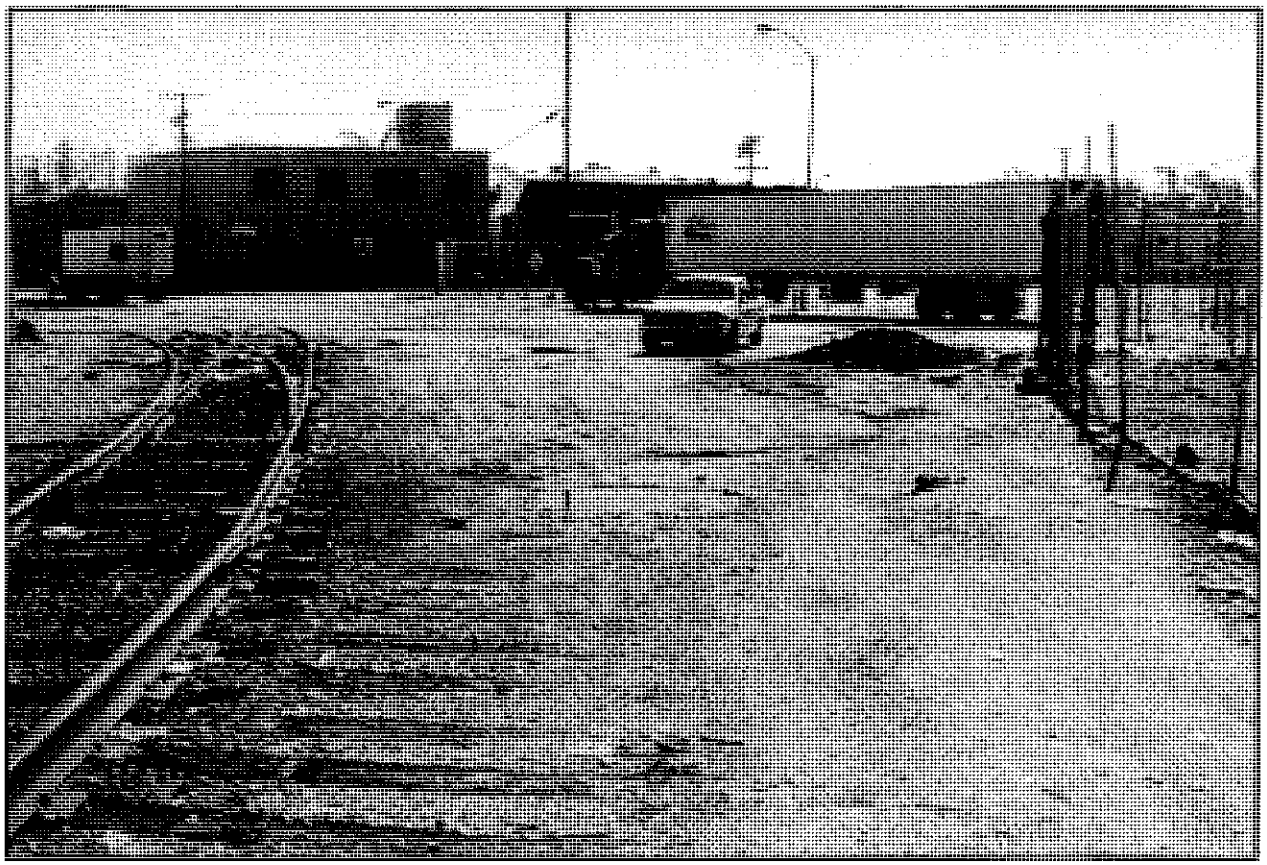


FIGURE 6. Remains of railroad spur on Triangular Parcel and continuing on Lot C (behind tractor-trailer rig).

assessment of much of the Site. As such, before finalizing acquisition plans EG advises a thorough "walk-through" investigation of each property considered for acquisition.

2.2. Housekeeping / Waste Management

During the site visit, EG noted two issues of potential environmental concern. First, EG observed a partially dismantled automobile in the gated parking lot at 651 S. Mission Road. Automobile dismantling and repair sometimes results in releases of hazardous materials and accumulation of such releases could seriously impact soil and/or groundwater. However, as shown in Figure 7, from EG's remote perspective there is no evidence that chemical releases occurred during the dismantling of this automobile, nor does it appear that such dismantling is common practice at this location. Second, EG noted some apparent unauthorized dumping of wastes, including fragmented, weathered asphaltic concrete, at an unfenced portion of the Triangular Parcel.

Again, in order to increase the chances of finding materials that pose a possible risk to the environment, EG urges inspection of all properties comprising the Site by a qualified environmental assessor upon receiving rights of entry.

2.3. Geological and Hydrogeological Features

The Site does not lie in an area where "historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements" or where "previous occurrence of landslide movement, or local topographic, geological, geotechnical, and subsurface conditions indicate a potential for permanent ground," according to the Official Map of Seismic Hazards, released by the California Department of Conservation, Division of Mines and Geology on March 25, 1999. Appendix A contains a copy of this map together with explanations and qualifications.

According to a 1973 geologic map of Los Angeles prepared by the Bureau of Engineering and modified from California Department of Water Resources Bulletin Number 104, dated 1961, the soils underlying and surrounding the Site are composed mostly of Quaternary alluvium. This assessment is also consistent with other, larger-scale maps that EG reviewed.

EG noted no drinking water or monitoring wells on the Site. Reports prepared by Geotechnical Services address the geology and hydrogeology at or near the Site. As such, please contact Geotechnical Services at (213) 847-4008 to discuss recent work performed by Geotechnical Services in the area of the Site.

2.4. Pre-Historic and Historic Cultural Resources

The Construction Phase Cultural Resources Monitoring and Treatment Plan (Cultural Resources Plan or CRP), dated February 2000 and prepared for the NOS-ECIS Project, page 9, reports that the tunnel corridor east of Alameda Street, along the Los Angeles River and including the Site, has a high sensitivity for prehistoric deposits. The CRP continues, "[t]he proximity to a large, permanent water source (the Los Angeles River) would have provided an attractive area for prehistoric habitation or resource

FIGURE 7. Partially dismantled automobile on Triangular Parcel.

procurement." The CRP cites as an example that just northeast of the Site researchers located a site "containing abundant historical features and deposits overlying a large prehistoric cemetery possibly related to the ethnohistoric village of *Yaanga.*"

The CRP further characterized the sensitivity for historic archeological resources near the Site as "moderate."

The CRP contains additional information regarding cultural resources near the Site and describes sensitivities related to those resources at this portion of NOS-ECIS.

2.5. Other Field Observations

EG noted no other unusual conditions on the Site, such as discolored soils, discolored standing water, or unusually distressed vegetation. However, EG observed conditions that prompt concern at nearby properties, as described below.

3. RECORDS REVIEW

This report gives a brief description of available data from each source studied, followed by a summary of information obtained from that source and within the study zone specified.

3.1. United States Geological Survey Topographic Maps

EG reviewed United States Geological Survey (USGS) topographic maps from various years. The earliest map EG reviewed was a 1900-edition USGS topographic map, reprinted in 1927, and based on an 1894 survey. This map shows the Site and immediate vicinity as undeveloped, except for a single railroad track immediately appurtenant to and parallel with the Los Angeles River. The area is generally vacant, between and in contrast with the downtown area and the nearby Los Angeles "suburbs" of Brooklyn Heights and Boyle Heights. Shown in Figure 8 is a copy of part of this map.

EG reviewed topographic maps dated 1927 and 1928; both are based on a 1925 survey and exhibit no differences between the two that are germane to the Site. Although urban development proliferated, only limited development existed near the Site. Mission Road and Myers Street extended north from 7th Street, but did not continue north beyond what is now Jesse Street. The large warehouse building now marked as 2155 7th Street existed, as did a now-gone smaller structure immediately to the east and several smaller buildings along Myers Street. Railroad use expanded dramatically from that shown on the 1900 map described above and railroad switching spurs possibly occupied the Site. Figure 9 shows the 1928 edition map.

Figure 10 is a 1981 photorevised version of a 1966 topographic map for the area, with minor revisions prepared in 1994. This map shows conditions similar to those found today. EG also reviewed the 1972 and 1981 photorevised versions of this map and found that no changes appear to affect the Site, although properties in surrounding areas showed increased development over time.

3.2. Historic Insurance Maps

The Cultural Resources Plan reports that according to a 1906 Sanborn fire insurance map, dated 1906, "neither Mission Road nor Jesse Street have been built." This section describes insurance maps analyzed by EG.

Baist's Real Estate Atlas

Review of Baist's Real Estate Atlas dated 1921 indicates that the area was mostly undeveloped by uses other than the railroads, although subdivision of land had begun and scattered buildings occupied the land. A large structure occupied the site now occupied by the building labeled "Holtzman Office Furniture Co." and marked as 2155 7th Street. The structure, labeled as "Salt Lake [Railroad] Automobile Dock," appears to have the same dimensions as the building there today. However, the 1969 Sanborn map suggests that the current building was constructed in 1923. Additionally,

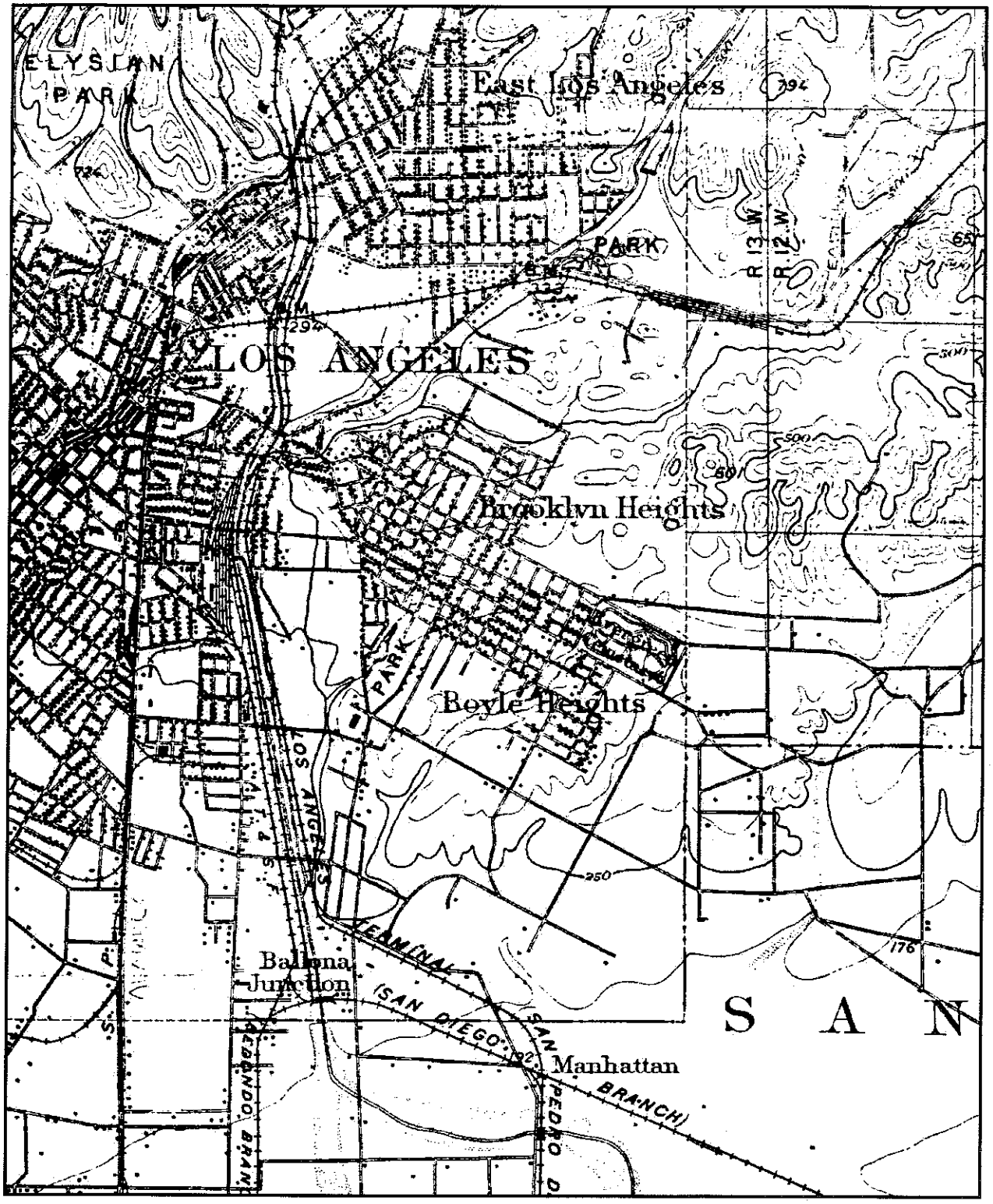


FIGURE 8. 1900 USGS topographic map.

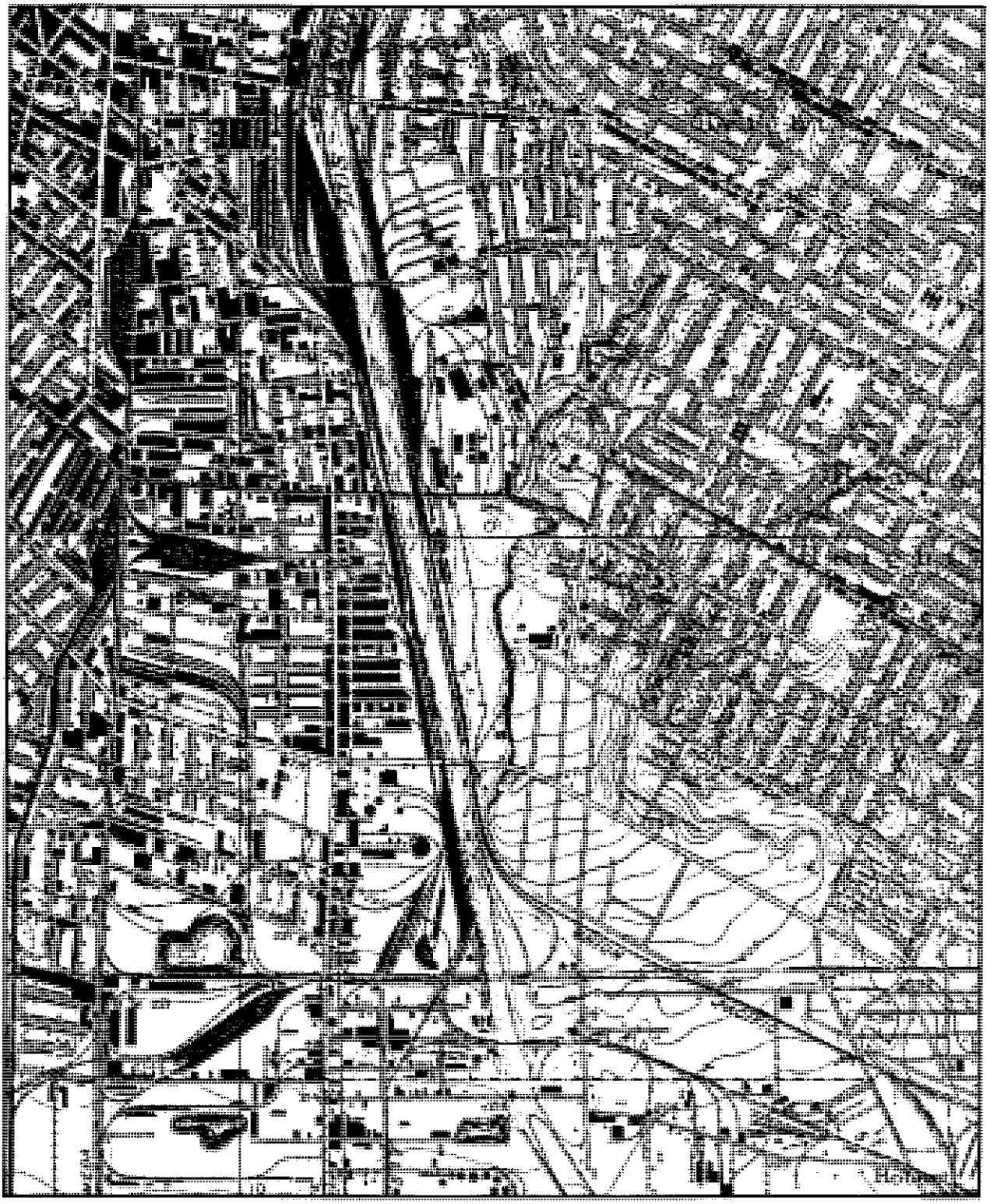


FIGURE 9. 1928 USGS topographic map.

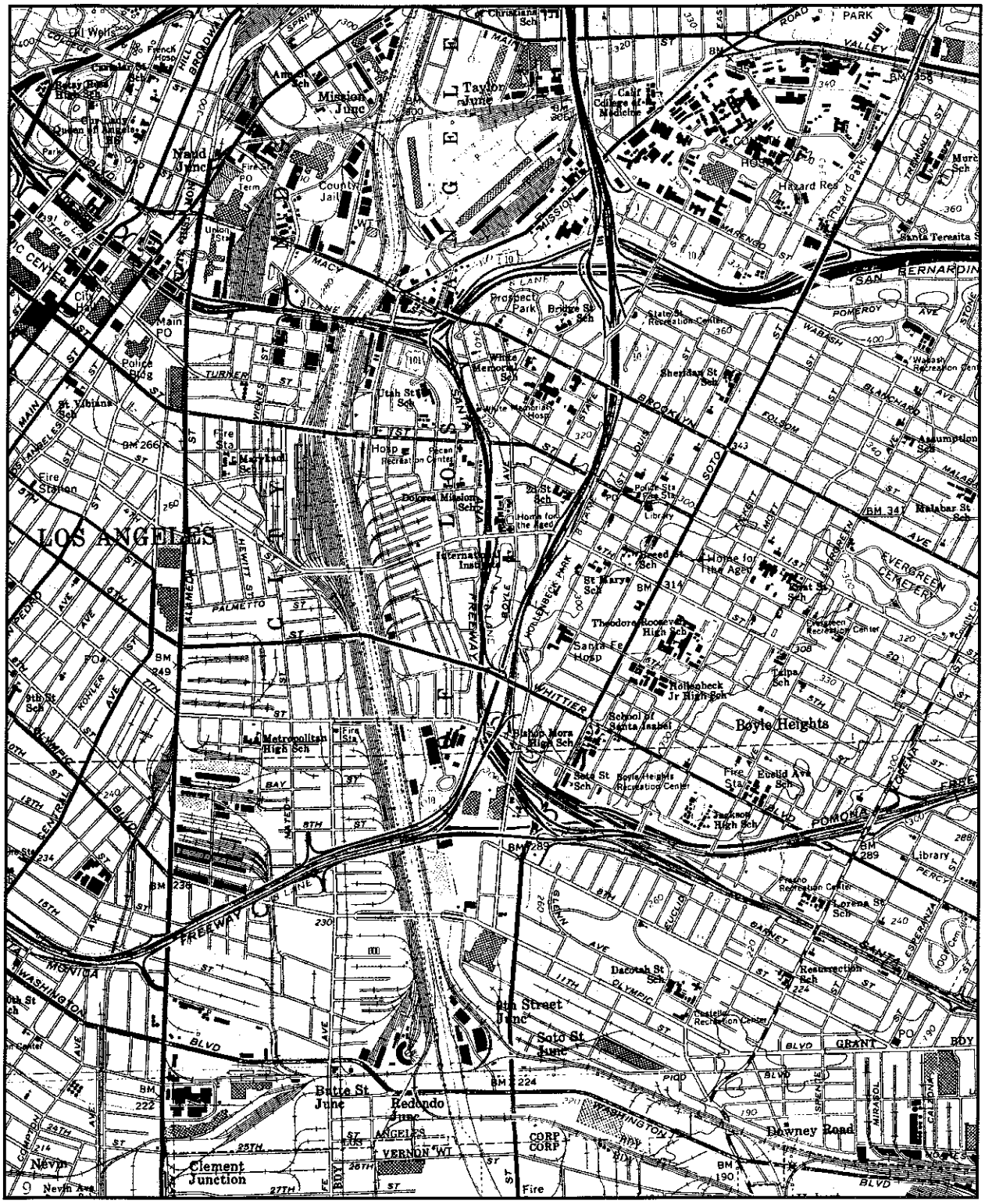


FIGURE 10. 1994-updated 1966 USGS topographic map.

a large lumberyard occupied the area where Jesse Street would later be built and to the north. The map shows emerging streets in the area of the Site. The railroad switching yard occupied a much larger area than it does today, particularly in the area immediately north of the Site. Figure 11 is a copy of that portion of the 1921 Baist's Real Estate Atlas corresponding to the Site.

Sanborn Fire Insurance Maps

EG also reviewed Sanborn maps dated 1930, 1939, 1940, 1952, 1953, 1954, 1955, 1956, and 1969. California State University at Northridge owns the copies of the 1930s through the 1950s maps viewed by EG and does not permit users to copy the maps. However, since the City of Los Angeles owns a collection of Sanborn maps from circa 1969; EG included the 1969 Sanborn maps examined for this ESA in Appendix B.

The 1930 Sanborn map shows scattered development in the area. This map shows Mission Road extending north from 7th Street and terminating at approximately where it meets Jesse Street today. East of Mission Road, on Lot E of Figure 2, is what seems to be the multistory warehouse that exists today. Lot A of Figure 2 is shown to be vacant; however, the handmade base map was "pasted over" with blank paper at this location. This indicates that although in 1930 the parcel was vacant, a building or buildings formerly occupied the site. EG found no earlier map indicating the nature, construction, or uses of the building(s). The 1930 map identified the Lot E building as occupied by "furniture manufacturing."

Viewing the 1939 Sanborn map, EG noted that the area surrounding the Site had become heavily industrialized. These industrial uses include battery manufacturing, lacquer manufacturing, machine shops, foundries and casting facilities, carpet cleaning and repair, automobile repair, automobile painting, and more. By this time, the road that is now Jesse Street existed and Mission Road was contiguous. Figure 12, a current easement map obtained from NaviGate LA!, shows the approximate former alignment of Mission Road. The 1940 Sanborn map suggests little change from the 1939 map.

The 1952 Sanborn map shows buildings on Lot A that appear to be those that exist on that property today and their use is indicated as part of the "Los Angeles Furniture Mart (Display)." This is also the use described in 1952 for the pre-existing building that occupied Lot E. The other maps EG viewed from the 1950s show approximately the same conditions, but with development continuing in the vicinity, including a particular increase in food processing plants. These maps also show reconfiguration of the railroad tracks and surface streets. During this time, the two portions of Mission Road now separated by Jesse Street were confluent and the road crossed over the eastern portion of the Triangular Parcel. Similarly, the railroad spur that supported Lot A and Lot E crossed over the eastern portion of the Triangular Parcel. Additionally, another railroad spur occupied the western portion of the Triangular Parcel and served a now-gone warehouse between Mission Road and the main railroad tracks, south of the Site.

On the 1969 map, the Site appears developed much as it remains today. Most particularly, the street alignments stabilized to the conditions that now exist. Notably, many site uses changed from previous years, yet remained mostly industrial and

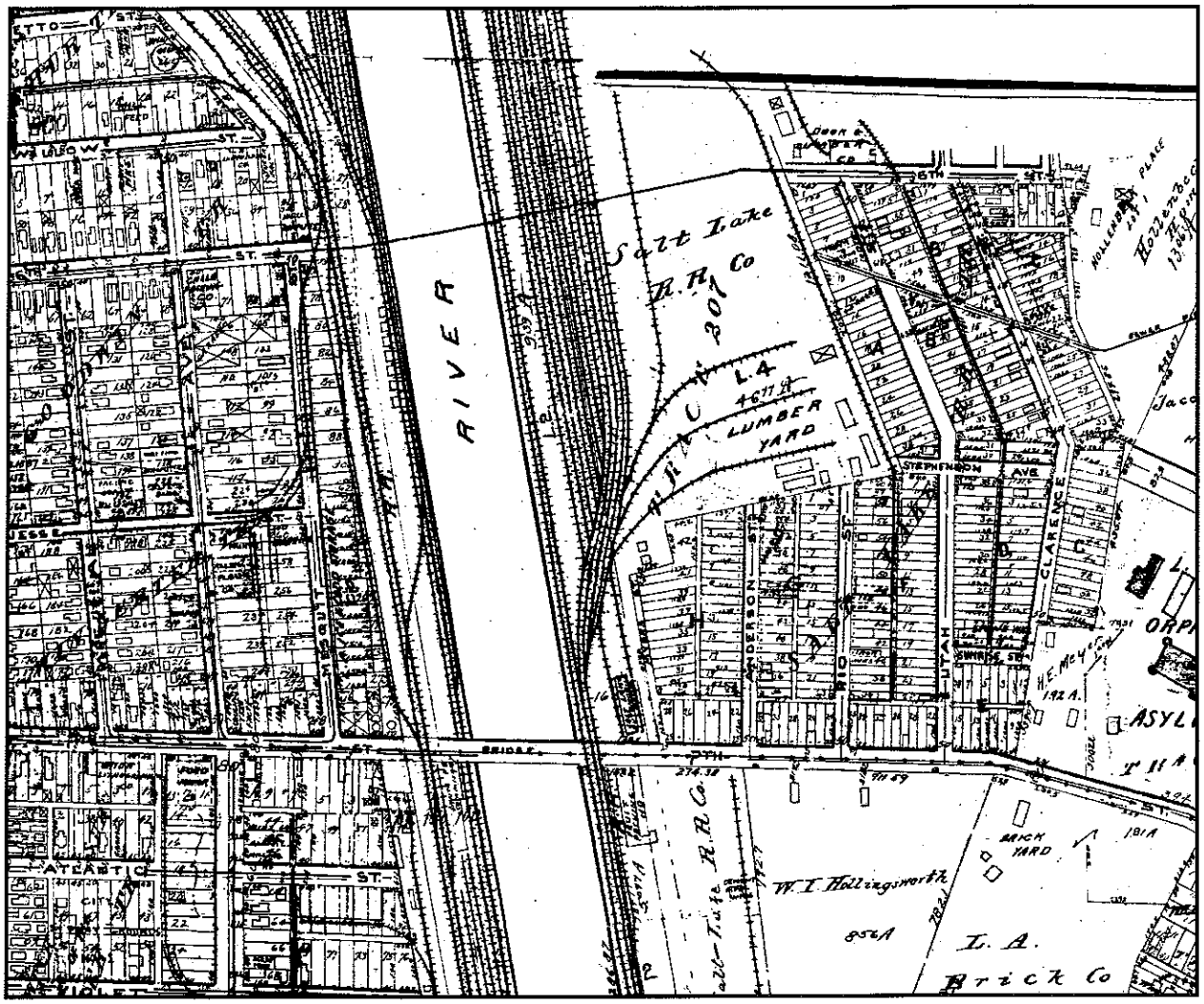


FIGURE 11. 1921 Baist's Real Estate Atlas.

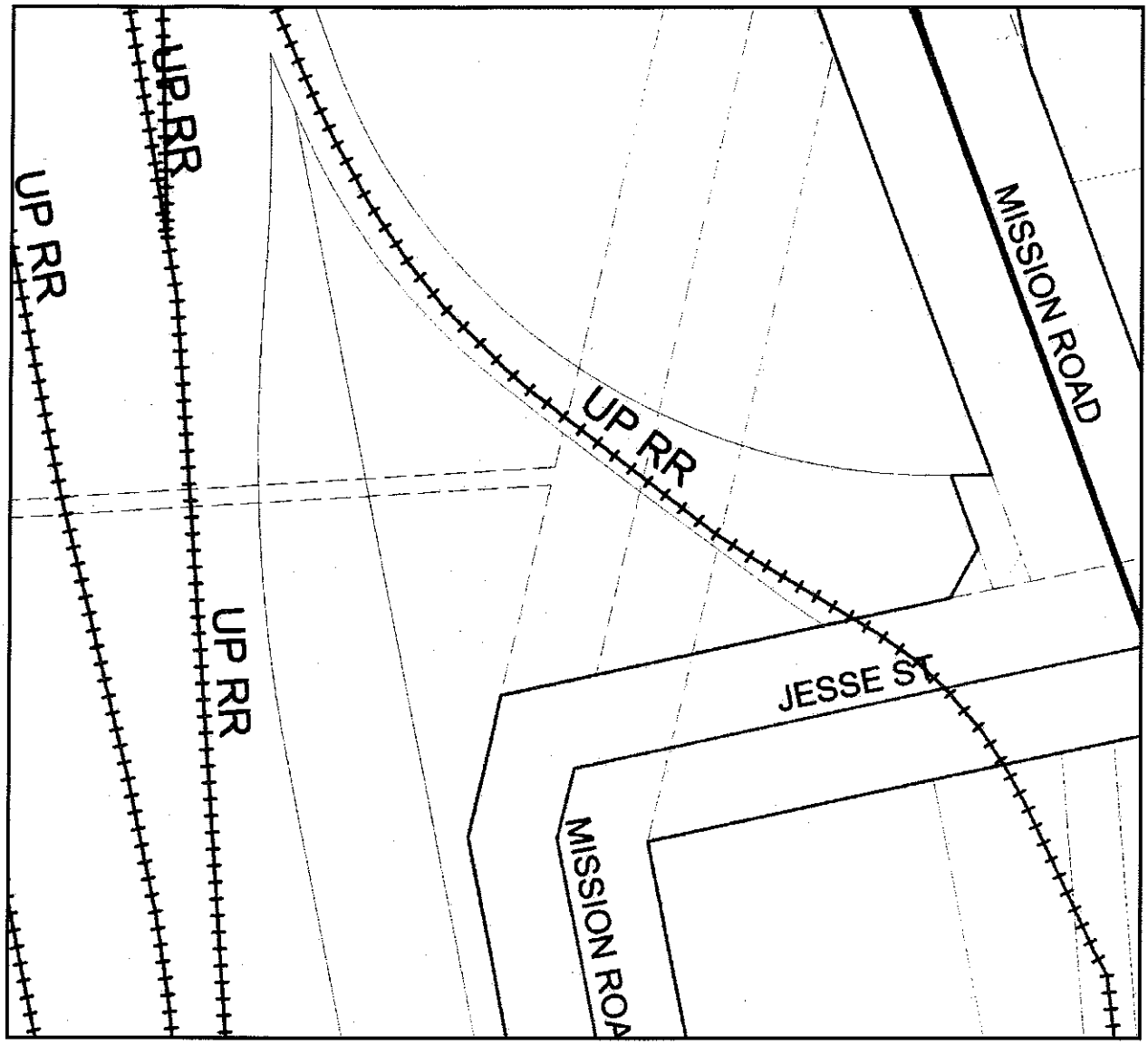


FIGURE 12. Easement map from NaviGate LA! Light-gray, dashed lines show former alignment of Mission Road.

commercial, much as they are to this day. The 1969 map shows railroad alignments generally matching those from the 1950s. Again, Appendix B contains copies of the 1969 Sanborn maps.

3.3. Aerial Photographs

EG reviewed aerial photographs of the Site taken during 1938 and 1990. The 1938 aerial photograph shows several objects or small buildings in three series occupying the Triangular Parcel. However, due to the photographs scale and quality, EG could not identify the objects. The area immediately north of the Site appears undeveloped and the lumberyard identified from historic maps is gone. Buildings occupy all parcels along the east side of Myers Street. At the time of this photograph, Mission Road did not yet continue north directly from Jesse Street. Additional structures surround the building on Lot E, but their use is not readily apparent. Figure 13 is a copy of the 1938 photograph.

The 1990 aerial photograph shows conditions essentially as they exist today.

3.4. Federal Environmental Records

This section includes short descriptions of the databases searched.

Aerometric Information Retrieval System

United States Environmental Protection Agency (USEPA) information on air releases is contained in the Aerometric Information Retrieval System (AIRS), a computer-based repository for information about air pollution in the United States. This information comes from reports regarding various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants that they produce. Air release information specifically relates to industrial plants and their components (stacks, points, and segments, etc.).

Resource Conservation and Recovery Information System

The Resource Conservation and Recovery Information System (RCRIS), a national program management and inventory system about hazardous waste handlers, contains hazardous waste information. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste must provide information about their activities to state environmental agencies. These agencies, in turn, pass on the information to USEPA. RCRIS is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA).

RMP*Info™

RMP*Info™ includes Risk Management Plans (RMPs) submitted by facilities under Section 112(r) of the Clean Air Act. These plans contain information about the Risk Management Programs that facilities must implement to prevent and prepare for chemical accidents. RMPs contain a summary of information about each facility's Risk Management Program. USEPA estimates that it required over 64,000 facilities to submit RMPs by June 21, 1999. Many different industry sectors submit RMPs,

FIGURE 13. 1938 aerial photograph.

including large and small businesses. Facilities must update RMPs at least every 5 years, or more frequently if there are important changes required in their prevention program (such as the introduction of a new regulated chemical into their production process). USEPA stores RMPs in RMP*Info™ for 15 years after receipt.

Superfund

Superfund is a program administered by USEPA to locate, investigate, and clean up the "worst" hazardous waste sites throughout the United States. These sites include abandoned warehouses, manufacturing facilities, processing plants, and landfills. USEPA administers the Superfund program in cooperation with individual states and tribal governments. This Superfund database is commonly known as the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database.

Biennial Reporting System

The Biennial Reporting System (BRS) is a national system that collects data on the generation, management, and minimization of hazardous waste. This system captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage, and disposal facilities. The facilities report data to USEPA on even years about the previous year's hazardous waste activities. USEPA provides reports on hazardous waste generation and management activity that accompany the data files.

Toxics Release Inventory

The Toxics Release Inventory (TRI) contains information about more than 650 toxic chemicals used, manufactured, treated, transported, or released into the environment. Manufacturers must report to the EPA and state and local governments the locations and quantities of chemicals stored onsite. The database provides basic facility information and chemical reports that tabulate air emissions, surface water discharges, releases to land, underground injections, and transfers to offsite locations.

Permit Compliance System

The Permit Compliance System (PCS) provides information on entities with permits to discharge wastewater into rivers. The system includes information on when a permit was issued and expires, how much the entity is permitted to discharge, and the actual monitoring data showing what the entity actually discharged.

Properties within the Site Identified in Federal Records

Searches of the above-listed federal databases discovered no records of listed sites within the Site.

Appendix H contains a summary of sites for which there are federal records reported within Zip Codes 90012, 90013, 90021, 90023, and 90033—the five Zip Codes within a 1-mile radius of the Site.

3.5. California State Records

This section includes a brief description of each data source searched.

California Wildcat Maps

Appendix C contains an oil exploration, or Wildcat, map of the Site vicinity. The map was produced by the California Division of Oil and Gas. No oil wells appear to have been drilled on the Site, but in 1948 one oil well was drilled roughly due west of the Site, apparently on the river's bank, and several wells were drilled within an approximately 1-mile radius of the Site. According to the map, these wells were deemed commercially unproductive and, consequently, plugged and abandoned. Within 1-mile of the Site, the margins of two identified oil fields also exist, including the Boyle Heights Field and the Union Station Field.

California Facility Inventory Database

California Environmental Protection Agency (CalEPA) created the Facility Inventory Database (CalFID) to "facilitate the identification of complete environmental regulatory profiles for facilities." Essentially, it is a compilation of data from various other databases, mostly from CalEPA. The CalFID database listed no sites within the Site. Please refer to Appendix D for the complete CalFID inventory list of identified in the Zip Codes located within one mile of the Site. Appendix D also contains a summary description of the databases searched.

California Regional Water Quality Control Board, Los Angeles Region, LUSTIS Database

The California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) makes available the State Water Resources Control Board Leaking Underground Storage Tank Information System (LUSTIS) database. The LUSTIS database listed no LUST sites within the Site. Appendix E contains all LUSTIS sites identified in the Zip Codes located within one mile of the Site.

3.6. Local Records

Because review of local records require manual searches, EG focused its search of local records to those properties within the Site or identified in other searches as having a possible impact to the Project.

City of Los Angeles Department of Building and Safety, Historic Building Permits

The City of Los Angeles maintains a database of historic building permits obtained from 1905 through 1979. The search identified no properties of concern within the Site. Appendix F contains historic building permit information gathered from this database.

City of Los Angeles, Department of Building and Safety, Historic Certificates of Occupancy

The City maintains a database of historic certificates of occupancy (COFOs) obtained through 1978. EG found no historic COFOs for properties within the Site suggesting

uses likely to have an adverse affect upon the environment. Appendix G contains historic COFO information.

City of Los Angeles Fire Department Fire Prevention Records

The local oversight agency for most environmental concerns near the Site is the Los Angeles Fire Department (LAFD). As part of fire prevention, LAFD maintains files on USTs, including leaking USTs (LUSTs). A search of LAFD's records discovered no records of USTs at the Site.

City of Los Angeles Fire Department Hazardous Materials Records

LAFD maintains the Hazardous Substances Business Plan records for the City. This is an inventory of hazardous materials stored on the premises of businesses and public facilities, reporting quantities greater than 55 gallons, 500 pounds, or 200 cubic feet. A search of these records found no hazardous substances stored on the Site.

4. OTHER HISTORICAL EVENTS

Except for the possible concerns described above, EG found no other evidence of environmental concern during the file reviews described in this document for any of the properties comprising the Site. That is, EG found no evidence of fires, explosions, other onsite hazardous materials releases, and/or environmental compliance fines or enforcement actions.

5. SITE VICINITY DESCRIPTION AND ENVIRONMENTAL CONCERNS

EG observed adjacent properties during the March 2000 site visit. EG made observations by walking and driving on public streets and sidewalks. EG did not enter any property not open to the public nor question nearby business owners. The area is mostly industrial, although some commercial establishments also exist.

East of the Site, on the southeast corner of Jesse Street and Myers Street, a business known as "Environmental Transloading Services" or "ETS" formerly operated at 654 Myers Street. This site did not appear on any databases of environmental information searched by or on behalf of EG, including LAFD's listing of hazardous materials handlers. EG contacted the building's leasing agent, Kenneth E. Horn of Time Commercial, who reported that ETS briefly used the site during 1999 to store vehicles and equipment used in transporting regulated wastes from dental offices to transportation, storage, and disposal (TSD) facilities. Mr. Horn reported that, at most, ETS briefly stored very small quantities of wastes before transporting them to TSD facilities. Mr. Horn further disclosed that previous tenants were mainly in the garment business, including the most recent tenant prior to ETS.

EG observed conditions that cause concern at the neighboring property northeast of the Triangular Parcel, the railroad right-of-way. This spur services many properties, including the food processing plant at 633 Mission Road. Figure 14 illustrates the food processing plant's proximity to the Site. At this location, the food processing plant apparently loads and/or unloads rail tanker cars of various liquids. Housekeeping of these liquids appeared somewhat sloppy, as EG observed staining to the soil and discolored puddles of liquids. Figure 15 shows the liquid transfer area and Figure 16 further illustrates the soil staining and relationship between the transfer area and the above ground storage tanks (ASTs). Although EG did not determine the type of liquids currently transferred at this location, this site is known to have formerly stored diesel fuel in underground storage tanks onsite as discussed further in Section 6.3, below.

West of the Site is what remains of the railroad rights-of-way. Figures 14 and 15 show the current extent of railroad uses immediately adjacent to the Site. Additional rights-of-way also exist on the Los Angeles River's west bank. Although EG noted no particular chemical impacts, railroad uses commonly cause negative environmental impacts to soil and groundwater.

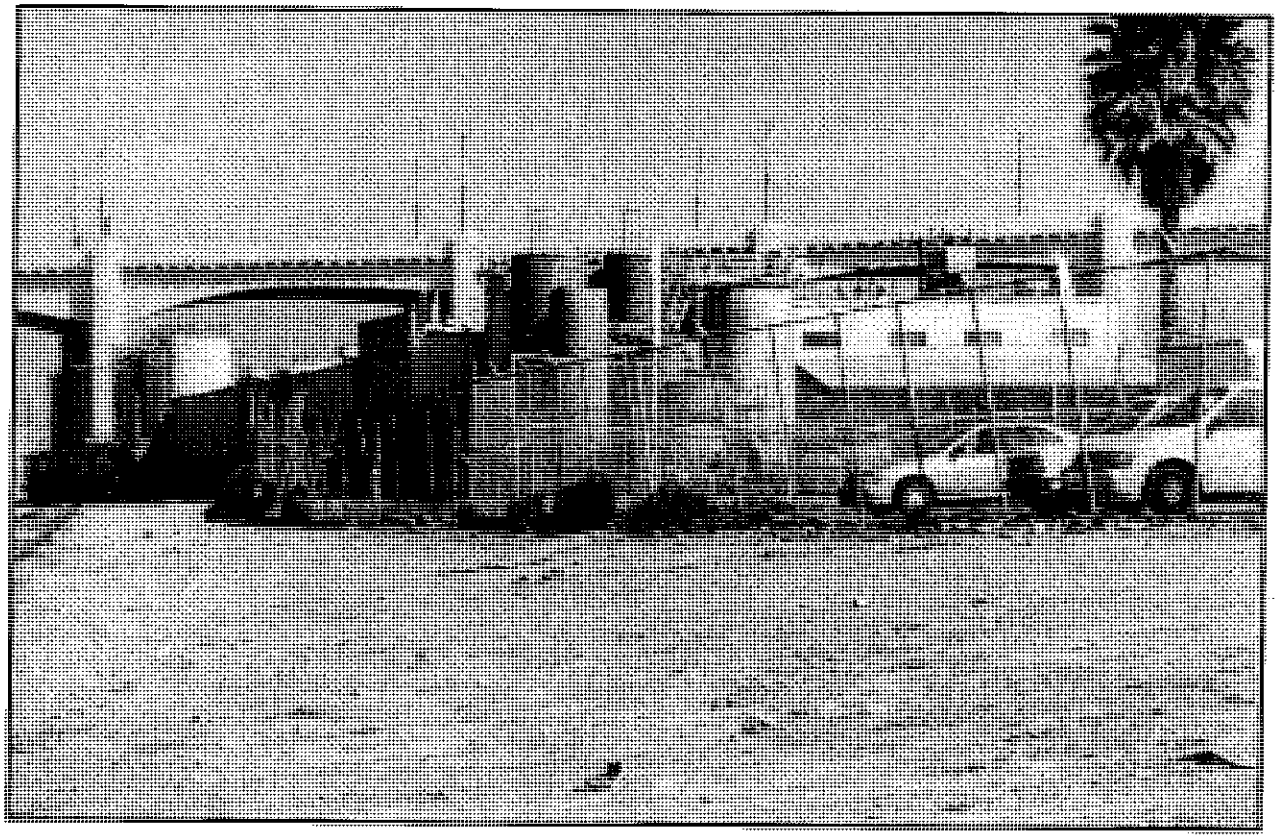


FIGURE 14. Photograph illustrating proximity of Site to the food processing plant at 633 Mission. The parking lot shown is the western limit of the Triangular Lot.

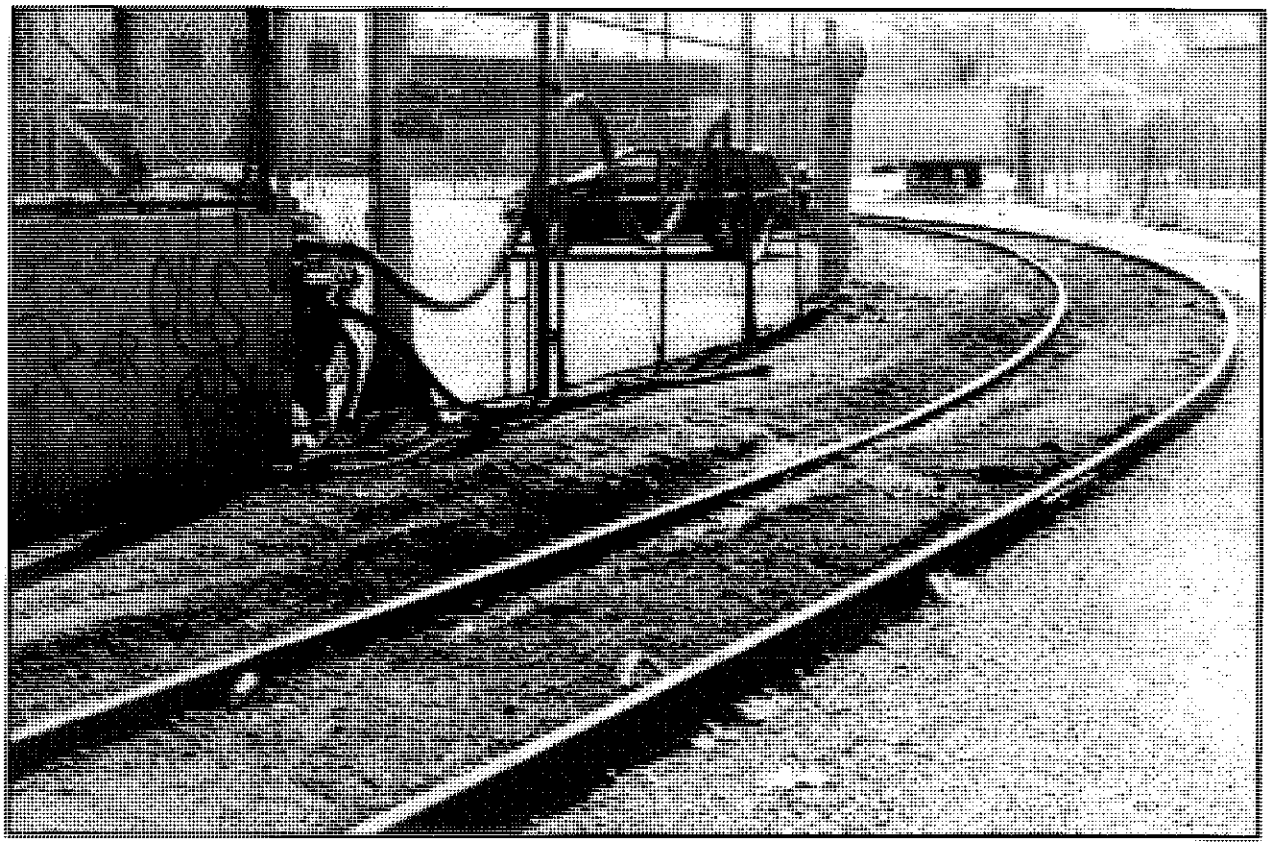


FIGURE 15. Soil staining at rail tanker car loading/unloading area.

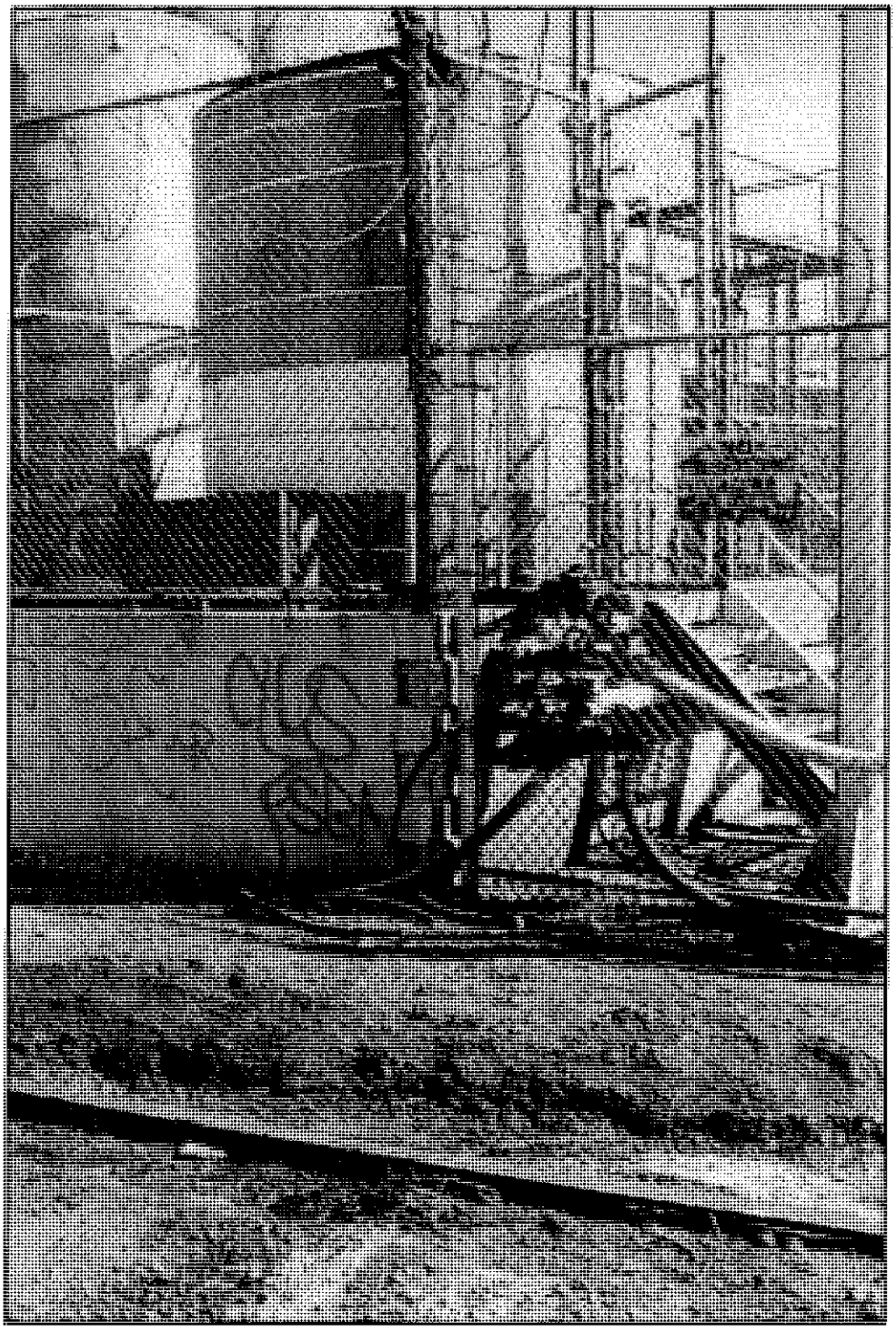


FIGURE 16. Close-up of stained soil.

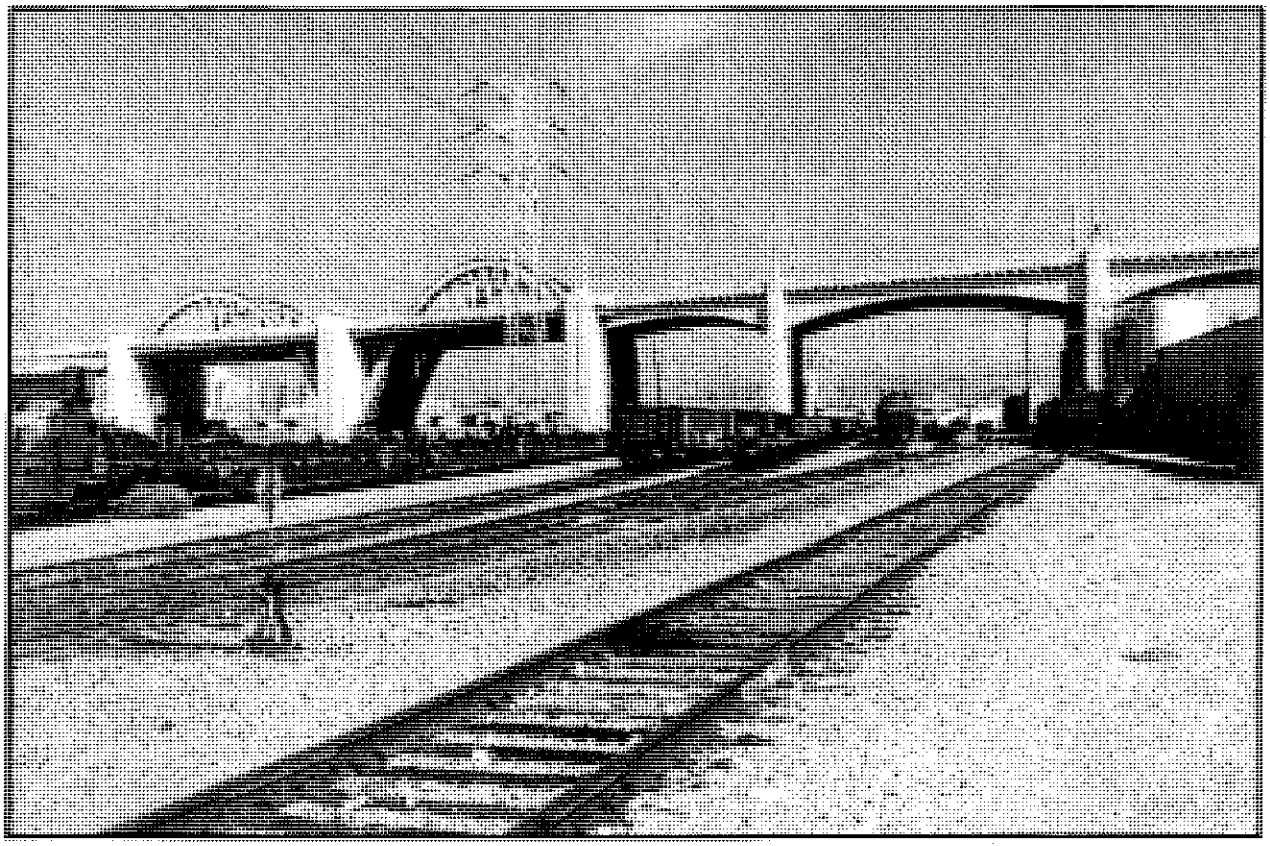


FIGURE 17. View of railroad tracks west of Site, looking north.

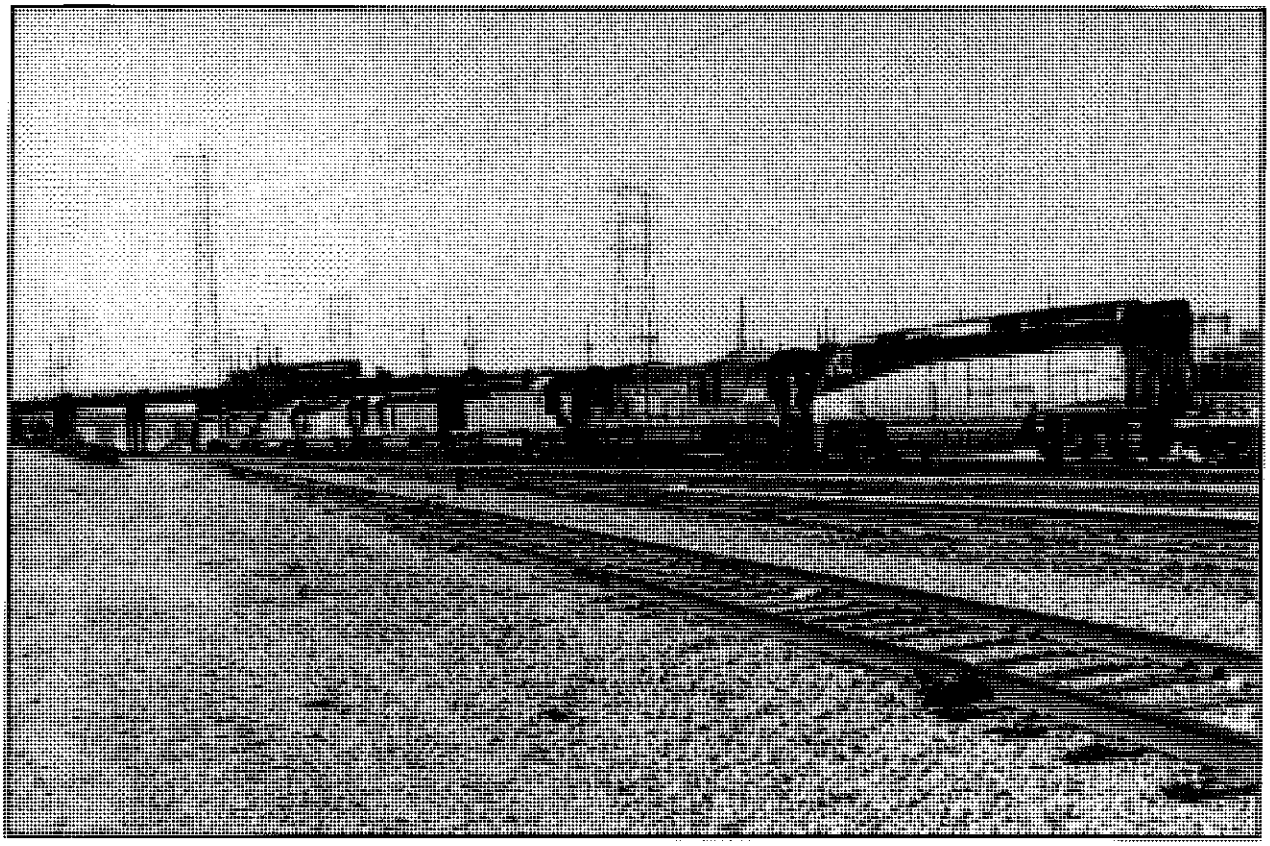


FIGURE 18. View of railroad tracks west of Site, looking south.

6. SITE VICINITY RECORDS REVIEW

EG searched publicly accessible files for past and present vicinity use, reported hazardous material releases, regulatory agency lists and files, and known soil or groundwater impacts. The data sources are broken down as federal, state, and local sources. For descriptions of the data sources, please refer to Section 3 et seq., above. Please also refer to that section for summaries of information obtained from historic topographic maps, historic insurance maps, Wildcat maps, and aerial photographs.

6.1. Federal Records

This section includes a brief summary of sites identified within a 1-mile radius of the Site. The databases searched include the USEPA's Aerometric Information Retrieval System, Resource Conservation and Recovery Information System, RMP*Info™, Superfund (CERCLIS), Biennial Reporting System, Toxics Release Inventory, and Permit Compliance System databases. See Section 3.4, above, for descriptions of the USEPA databases.

Offsite Properties Within a 1-Mile Radius Identified in Federal Records

Appendix H includes complete lists of USEPA tracked sites, together with index maps, for Zip Code areas 90012, 90013, 90021, 90023, and 90233 (the Zip Codes within a 1-mile radius of the Site). EG considered all listed sites in assessing those sites likely to have an impact to the Site. Review of these lists indicates that most properties are listed as hazardous waste handlers, without any reference to actual releases to the environment. Listed below are all facilities for which EG located USEPA records.

963 E. 4th Street—Coca-Cola USA. Located less than 1-mile from the Site, data regarding this site reported only releases to air.

2160 E. 7th Street—American Produce Company. Located approximately 0.3-mile from the Site, this site reported only methanol releases to air.

2200-2201 E. 11th Street—Eastern Smelting and Refining. USEPA reports an "active or archived Superfund report" for this site. Although, limited further database information exists for this site, but its presumed downgradient distance of nearly 1-mile makes it unlikely that this site could have contributed to chemical impact at the Site.

2193 E. 14th Street—Sherwin-Williams Diversified Brands, Inc. Located approximately 1-mile from the Site, data regarding this site reported only releases to air.

2159 Bay Street—Hill Brothers Chemical Company. USEPA reports no data for chemical release to land, surface water, or via underground injection at this site, located approximately 0.7-mile from the Site.

1115 S. Boyle Avenue—GTE Directories Press, Inc. This site is listed on the BRS and is located approximately 0.7-mile from the Site. Although the facility handles various hazardous materials, the database reports no releases to soil or groundwater.

333 S. Central Avenue—Los Angeles Die Casting. Located approximately 1-mile from the Site, reported data for this site indicated no releases to soil or groundwater.

364 S. Central Avenue—Los Angeles Cold Storage Company. Located approximately 1-mile from the Site, reported data for this site indicated no releases to soil or groundwater.

416 S. St. Louis Street—Hollenbeck Park Lake. Located approximately 0.9-mile from the Site, this site reported no releases to soil or groundwater. However, this site does maintain an NPDES permit.

590 S. Santa Fe Avenue—BASF Corporation. USEPA reports no data for chemical releases to land, surface water, or via underground injection at this site, located approximately 0.5-mile from the Site. See also California State Records, below, for more information about this site.

737 Terminal Street—United Signature Foods, LLC. Located approximately 0.7-mile from the Site, this site reported no releases to soil or groundwater.

1335 Willow Street—John Morrel &Company. USEPA reports no data for chemicals release to land, surface water, or via underground injection at this site, located approximately 0.9-mile from the Site.

1441 Boyd Avenue—Gans Ink & Supply Company. This site is listed on the BRS and is located approximately 0.7-mile from the Site. Although the facility handles various hazardous materials, the database reports no releases to soil or groundwater.

150 N. Myers Street—Madison Color Grahics. USEPA reports no data for chemicals release to land, surface water, or via underground injection at this site, located approximately 0.9-mile from the Site.

6.2. California State Records

This section includes a brief summary of state-listed sites identified within a 1-mile radius of the Site.

California Wildcat Maps

Appendix C contains a Wildcat map produced by the California Division of Oil and Gas, of the area near the Site. Please refer to Section 3.5, above, for a discussion of findings related to the Wildcat map.

California Facility Inventory Database (CalFID)

EG searched records in the CalFID database current through 1994. EG also searched hardcopy data from the Hazardous Waste and Substances Site List, which supercedes the CalFID and is current through 1998. The database search focused on sites in the Zip Codes contained within a 1-mile radius of the Site and the hardcopy search was limited to addresses within approximately 0.25-mile of the Site.

Although the database lists multiple sites within a 1-mile radius, most sites listed appear to have little risk of immediate impact to the Site due either to distance and/or location in

an area not likely to be hydrologically relevant (that is, located beyond the opposite bank of the Los Angeles River). One site, the BASF facility at 590 S. Santa Fe Avenue, warrants further investigation and is discussed in the LUSTIS section, below. Please refer to Appendix D for the complete CalFID inventory list of sites within the Zip Codes contained in a 1-mile radius of the Site. Appendix D also contains a summary description of the databases searched. Sites listed for air releases are not likely to have affected soil or groundwater at the Site.

California Regional Water Quality Control Board, Los Angeles Region, LUSTIS Database

A search of the LUSTIS database revealed six active sites within approximately 1-mile of the Site. Two open cases under LARWQCB's oversight are actively undergoing investigation or cleanup and four others are supervised by the LAFD. The individual cases are discussed in the respective sections below. Appendix E contains all LUSTIS sites identified within approximately 1-mile of the Site and an index map for each site showing approximate direction and distance from the Site.

California Regional Water Quality Control Board, Los Angeles Region, Case Files

Although two open cases exist under LARWQCB's oversight, EG reviewed only one open case file; the other case file remained unavailable during the time EG prepared this ESA. The file EG reviewed was for Vega Superior Auto Service, located at 1869 E. 1st Street. Review of this file suggests extremely little likelihood that chemicals from this could affect the Site. Appendix I contains selected pages from the most recent report on file with the LARWQCB.

The LUSTIS database lists an additional open case, the BASF Inmont/Sun Chemical facility located at 590 S. Santa Fe Avenue. Based on the site's inclusion in the Spills, Leaks, Investigations, and Cleanup (SLIC) program at the LARWQCB, a comparatively significant impact to the environment appears to exist. Although the site is located across the Los Angeles River, it is approximately 0.5-mile from the Site and, thus, could potentially impact the Site. However, as stated above, the file remained unavailable during the preparation of this ESA and, therefore, EG cannot adequately evaluate risk from this site.

6.3. Local Records

City of Los Angeles Department of Building and Safety, Historic Building Permits

The City of Los Angeles maintains a database of historic building permits obtained from 1905 through 1979. EG searched the database for historic building permits recorded for selected properties neighboring the Site. Property addresses included in this search were those appurtenant properties not already identified as potential sources of environmental impact. Appendix F contains historic building permit information gathered from this database.

EG identified no historic building permits with use codes that prompted particular concern. However, most records did not have use codes available and, for those

properties with use codes available, most reported "manufacturing" or "warehouse" uses. Thus, the historic building permit data obtained did not confirm nor negate an implication of environmental risk from former uses.

City of Los Angeles, Department of Building and Safety, Historic Certificates of Occupancy

The City maintains a database of historic certificates of occupancy (COFOs) obtained through 1978. Appendix G contains historic COFO information. Because the COFO database allows searches of limited address ranges, EG expanded the study area for this search to approximately 0.25-mile from the Site.

Within this radius, EG found four certificates of occupancy that induce concern. For 633 Mission, a COFO dated 1958 reports construction of an addition to a "safety film vault." Safety film refers to photographic film that does not have a flammable film base and was first introduced for still photography in the early 1900s. The COFO's description suggests that safety film was manufactured, used, and/or stored onsite. Many chemicals associated with manufacturing or using photographic film are hazardous. At 683 Myers Street, a 1974 COFO reports four 9-feet storage silos. Although the COFO does not describe the silos' contents, presence of silos at this location suggests a manufacturing use for the property. The COFO database also references a "50' X 52' laboratory" at 696 Myers Street in 1963, but, again, does not indicate what the laboratory handled. Lastly, the historic COFO database reports a "coal pulverizing plant" at 2144 7th Street in 1962. While none of these uses indicates releases to the environment, there is a risk that releases could have occurred.

City of Los Angeles Fire Department Fire Prevention Records

The local oversight agency for most environmental concerns in the Site's vicinity is the LAFD. As part of fire prevention, LAFD maintains files on USTs, including leaking USTs (LUSTs). Because LAFD's filing system is not computerized and the physical files are often very large, EG limited its search to properties identified in other searches and those appurtenant to the Site.

626 Mission Road. Two USTs containing gasoline were permitted for this site in 1955. In a letter dated 1965, LAFD indicated that the tanks were no longer used and requested their closure. However, no records exist to suggest that the tanks were removed or abandoned. Appendix J contains all records in LAFD's file for this site.

633 Mission Road. Two 1,000-gallon USTs formerly containing diesel were abandoned in-place at this site. Although no evidence indicates that a hydrocarbon release occurred, soil sampling beneath and near the tanks was severely restricted by other structures. Appendix K contains all records in LAFD's file for this site.

680 Myers Street. LAFD issued permits for multiple USTs as this site over many years. Permits from the 1940s and 1950s indicate storage of gasoline, alcohol, and lighter fluid. Additionally, a spray booth was once permitted for this site. Most recently, the property owner applied for a permit to abandon USTs in late 1985 and on March 25, 1986, submitted a "Notification of Underground Tank Abandonment" that identified

removal of one 8,000-gallon tank, two 7,500-gallon tanks, one 5,000-gallon tank, and one 1,000-gallon tank. No records of environmental assessment—before or after tank removal—exist. Appendix L contains all records in LAFD's file for this site.

Additional Sites. EG reviewed LAFD files for additional sites and determined that the conditions reported in the files and the distance to the Site do not indicate a likelihood of environmental impact to the Site from these sources. Appendix M contains selected records in LAFD's file for these sites.

City of Los Angeles Fire Department Hazardous Materials Records

LAFD maintains the Hazardous Substances Business Plan records for the City. This is an inventory of hazardous materials stored on the premises of businesses and public facilities, reporting quantities greater than 55 gallons, 500 pounds, or 200 cubic feet. A search of these records found hazardous substances stored, or previously stored, at two sites near the Site. However, the chemicals stored are gases and pose little risk of contaminating soil and/or groundwater near the Site. Appendix N contains copies of these records.

7. CONCLUSIONS AND RECOMMENDATIONS

EG identified several issues of environmental concern:

1. EG did not view the interiors of warehouses occupying Lots A through E;
2. Extensive current and former railroad uses on and near the Site;
3. General concerns regarding current and former industrial uses of nearby facilities;
4. Observed liquid spill at a site known to have formerly stored diesel fuel;
5. Evidence of apparent illegal dumping on the Site; and
6. At two nearby UST sites, a total of at least seven USTs that formerly contained gasoline and/or other organic compounds were removed, but no environmental assessments were conducted at either site.

Although none of these conditions indicate actual chemical impact to the Site, EG concludes that they warrant further investigation. Based on observed conditions and public records, Environmental Group (EG) finds a risk of chemical impact to the Site. The primary issues of concern include possible chemical impact to soil and groundwater from former railroad uses and/or from offsite sources.

7.1. "Walk Through" Investigation of the Site

Because EG lacked rights-of-entry onto the Site, EG based part of this ESA on a "long distance" view of the parcels. Thus, EG advises a thorough "walk-through" investigation of the Site by a qualified environmental assessor before finalizing acquisition plans.

7.2. Phase II Investigation

EG recommends a Phase II investigation of the Site. At least one sampling event should attempt to determine whether the chemicals apparently spilled at the railroad spur adjacent to the food processing plant at 633 Mission Road may have impacted the Site adversely. The predominance of current and former railroad and industrial uses in the vicinity and the associated risk of environmental impact—particularly from former hazardous materials handling and storage facilities at which no known environmental investigation occurred—further warrant sampling at the Site. Please contact Geotechnical Services at (213) 847-4008 to discuss scope and scheduling of any planned or anticipated Phase II investigation(s).

APPENDICES

METHANE REPORT
PROPOSED AIR TREATMENT FACILITY
651 SOUTH MISSION ROAD AT JESSE STREET
LOS ANGELES, CALIFORNIA

Project No. 53027

March 2, 2005

KLEINFELDER
An employee owned company

March 2, 2005
Project No. 53027

Mr. Michael Mulhern
Project Geologist
City of Los Angeles
Department of Public Works/
Geotechnical Engineering Division
650 South Spring Street, Suite 600
Los Angeles, California 90014-1913

Subject: **Methane Report**
Proposed Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, California

Dear Mr. Mulhern:

Kleinfelder has prepared the attached Methane Report for the Proposed Air Treatment Facility, 651 South Mission Road at Jesse Street, Los Angeles, California. The report provides a description of services, summary of findings, and a summary of the methane mitigation requirements for the site.

We appreciate the opportunity to present this report to you. If you have any questions, or require additional information, please do not hesitate to contact us. Thank you for the opportunity to provide Kleinfelder's professional environmental services.

Respectfully Submitted,

KLEINFELDER, INC.

George E. Johnson, PE
Project Engineer

Juan A. Guerrero, PG, REA II
Manager, Environmental Services

KLEINFELDER 1370 Valley Vista Drive, Suite 150, Diamond Bar, CA 91765-3910 (909) 396-0335 (909) 396-1324 fax

Prepared For:

City of Los Angeles
Department of Public Works/
Geotechnical Engineering Division
650 South Spring Street, Suite 600
Los Angeles, California 90014-1913

METHANE REPORT
PROPOSED AIR TREATMENT FACILITY
651 SOUTH MISSION ROAD AT JESSE STREET
LOS ANGELES, CALIFORNIA

Project No. 53027

George E. Johnson, PE
Project Engineer

Juan A. Guerrero, PG, REA II
Manager, Environmental Services

KLEINFELDER, INC.
1370 Valley Vista Drive, Suite 150
Diamond Bar, California 91765
(909) 396-0335

March 2, 2005

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Kleinfelder was retained by the City of Los Angeles Geotechnical Engineering Division (GED) to perform a methane evaluation for the Proposed Air Treatment Facility, 651 South Mission Road at Jesse Street, Los Angeles, California (Plate 1). The report provides a description of services, summary of findings, and a summary of the methane mitigation requirements for the site. Key findings are provided below:

- On January 21, 2005, Kleinfelder performed a shallow soil gas screening survey at five locations to a depth of 5 feet below ground surface (bgs). Methane was not detected at shallow depths during laboratory analysis of samples collected from the five locations with a reporting limit of 10.00 parts per million by volume (ppmV).

- Based on results of the screening survey, three nested deep soil gas probe sets (VW-1 through VW-3) were installed on January 24, 2005. Screen points were installed at 34, 39, and 44 feet bgs for each probe set. At each screen point, a 2-foot sand pack was placed (1 foot above and below the screen point).

- Deep soil gas probe sets were monitored on February 1 and 3, 2005 using a Landtec GEM 500 monitor and a PhotoVac Micro flame ionization detector (FID). The Landtec GEM 500 was used to measure differential pressure. The FID was used to measure methane concentrations.

- Probe pressure measured in the field ranged from –0.89 to 0.04 inches of water.

- Measured methane concentrations in soil gas probe were less than one ppmV (<1 ppmV) for each sample location.

- Based on the methane concentrations detected in the on-site deep soil gas probe sets, the site in the vicinity of the proposed main structure meets Level I methane mitigation criteria in the Buffer Zone, as specified by the City of Los Angeles Building Code, Chapter 71, Methane Mitigation Standard. Level I criteria for the proposed building within the Buffer Zone requires no methane mitigation.

1 INTRODUCTION

This Methane Report documents Kleinfelder's assessment for the potential presence of methane gas at the Proposed Air Treatment Facility located at 651 South Mission Road at Jesse Street, Los Angeles, California (Plate 1).

1.1 PROJECT DESCRIPTION

The site is currently unpaved and otherwise undeveloped (Plate 2). Planned development of the site consists of an approximately 1,000 square foot structure, which will house blowers and related odor/air treatment facilities. The proposed main structure on the subject site resides within the Methane Zone and Methane Buffer Zone.

A shallow soil methane screening survey was performed on January 21, 2005 to evaluate where deep soil gas probes were to be installed. The deep soil gas probes were installed on January 24, 2005. The deep soil gas probes were monitored during two sampling events performed on February 1 and 3, 2005 to assess the most appropriate approach to on-site methane mitigation.

2 SOIL GAS ASSESSMENT METHODOLOGY

A description of the field activities performed during the soil gas assessment is provided in the following section. Activities performed included health and safety management, utility clearance, shallow soil gas sampling and laboratory analysis, deep soil gas probe set installation, deep soil gas probe set monitoring, and waste handling.

2.1 HEALTH AND SAFETY MANAGEMENT

Prior to the initiation of field activities, Kleinfelder prepared a site-specific project health and safety plan. Before performing the shallow soil gas screening survey and installing the deep soil gas probe sets, Kleinfelder conducted site-specific health and safety meetings with field personnel, including the drilling subcontractors. The meetings included a discussion of possible chemical hazards, physical hazards, and monitoring equipment to be used during the field activities. Field activities were completed without incident.

2.2 UTILITY CLEARANCE

Kleinfelder marked the boring locations and contacted Underground Service Alert a minimum of 48 hours prior to the initiation of field activities. As an additional precaution, Kleinfelder retained the services of Geovision to perform a geophysical clearance survey at each test location. No utilities or subsurface obstructions were encountered at the locations sampled.

2.3 SHALLOW SOIL GAS SCREENING SURVEY

A shallow soil gas screening survey was performed at the site on January 21, 2005 using push-probe sampling methodology (Plate 2).

Hydraulically driven soil gas probes are constructed of either 1.25 or 1.5 inch outside diameter steel and equipped with a hardened drop-off steel tip. The probes are nominally 4 feet long and threaded together to reach multiple depths. The probe is driven into the subsurface with the STRATAPROBE™ system. Once inserted to the desired depth, the probe is retracted slightly to expose the vapor sampling port. Small diameter inert tubing is then inserted through the center of the rod and threaded into a gas tight fitting just above the tip.

Soil gas samples were collected from each drive rod using a syringe. Soil gas is withdrawn from the inert nylaflow tubing using a 20 cubic centimeter (cc) syringe connected via an on/off valve. The probe tip and sampling tubing are purged by drawing and discarding three volumes of gas. A 5-cc sample of soil gas is then withdrawn and transferred to an on-site (mobile) laboratory for analysis within minutes of collection. During sample transfer to the mobile laboratory, the samples were logged on a chain-of-custody form.

Soil gas samples collected at each probe location were analyzed on-site in a Department of Health Services (DOHS) certified mobile laboratory provided by H&P Mobile Geochemisty (CERT # 1745). Soil gas samples were tested for methane using Modified United States Environmental Protection Agency (US EPA) Method 8015B. The mobile laboratory analyzed one duplicate soil gas sample during the testing.

2.4 DEEP SOIL GAS PROBE SET INSTALLATION

On January 24, 2005, Kleinfelder installed three deep soil gas probe sets. Field activities are described below:

- Three triple-nested deep soil gas probe sets, VW-1 through VW-3, were installed at the subject site using a hollow-stem auger drill rig with an 8-inch diameter auger (Plate 2).
- Soil samples were collected at approximately 5-foot intervals and logged by a Kleinfelder Geologist, Mr. Luke Roebuck. The boring logs are provided in Appendix A. Soil samples were collected solely for the purposes of logging the soil types; therefore, no chemical analysis was performed on these samples.
- Soil samples were screened in the field with a RAE Systems MultiRAE Plus gas monitor. The instrument was equipped with a 10.6 electron volt photo-ionization detector (PID). Instrument readings are provided on the boring logs in Appendix A.
- Borings VW-1 through VW-3 were drilled to a total depth of 45 feet bgs. Groundwater was not encountered during drilling.
- Soil cuttings were contained in eleven 55-gallon drums.

- Borings were completed as nested soil gas probes. Well construction details are provided on the boring logs in Appendix A.
- Each of the nested soil gas probes consisted of 3/16-inch inside diameter polyethylene tubing connected to a 3/8-inch diameter by 1.5-inch long porous polypropylene air stone installed within a 2-foot sand pack.
- The sand-pack intervals of the deep soil gas probe sets, VW-1 through VW-3, completed to a total depth of 45 feet, are 33 to 35 feet bgs, 38 to 40 feet bgs and 43 to 45 feet bgs.
- The deep soil gas probe sets were completed with 8-inch diameter flush well boxes.

2.5 DEEP SOIL GAS PROBE MONITORING

Kleinfelder monitored the deep soil gas probe sets on February 1 and 3, 2005. During both monitoring events, deep soil gas probe sets were monitored in the field using a hand-held Landtec GEM 500 monitor and a PhotoVac Micro FID. The Landtec GEM 500 was used to measure differential soil gas pressure, in inches of water. The FID was used to monitor for methane in ppmV.

Following pressure measurements with the Landtec GM 500, the probes were purged at least three well volumes at a flow rate of 5 liters per minute (l/min). Following purging, FID instrument readings for methane were recorded.

2.6 WASTE HANDLING

Prime Environmental Services removed eleven drums of soil cuttings that were generated during drilling activities at the site under a non-hazardous waste manifest on February 9, 2005 for transportation to K-Pure, located at 8910 Rochester Avenue, Rancho Cucamonga, California.

3 FINDINGS

This section provides a summary of findings from the soil gas sampling activities.

3.1 SUMMARY OF FINDINGS

3.1.1 Shallow Soil Gas Screening Survey

As presented in Table 1, laboratory analytical results for methane from each survey point (SG-1 through SG-5) were non-detectable (detection limit of 10 ppmV). Sample locations are provided on Plate 2. The laboratory analytical report and chain-of-custody documents are provided in Appendix B.

3.1.2 Deep Soil Gas Probe Monitoring

Test data for the two deep soil gas probe set monitoring events are provided in Tables 2 and 3. Certificate of compliance for methane test data is presented in Appendix C. Nine probe points installed were monitored; methane concentrations in each probe set were <1 ppmV. The results for the two individual monitoring events are as follows:

- February 1, 2005
  - Differential pressures in the probes ranged from –0.03 inches of water in Probe Set VW-2 to 0.02 inches in the Probe Set VW-3.
  - Detected methane concentrations were <1 ppmV in each of the deep soil gas probe sets.
- February 3, 2005
  - Differential pressures in the probes ranged from –0.89 inches of water in Probe Set VW-3 to 0.04 inches in the Probe Set VW-2.
  - Detected methane concentrations were <1 ppmV in each of the deep soil gas probe sets.

3.2 METHANE MITIGATION REQUIREMENTS

The site resides within the Methane Zone and the Buffer Zone based on the map titled "Methane and Methane Buffer Zones, City of Los Angeles", prepared by GIS Mapping, Bureau of Engineering, Department of Public Works, dated 05/28/04. Mr. Michael Mulhern, GED project manager, corroborated the site location with respect to the Methane and Methane Buffer Zones.

Based on a review of the methane test data at three locations (nine test points), methane concentrations detected in the vicinity of the proposed main structure at the subject site met Level I criteria for the Buffer Zone, as specified by the City of Los Angeles Building Code, Chapter 71, Methane Mitigation Standard. Methane concentrations were less than 100 ppmV and less than 2-inches of water column pressure. Based on the monitored methane levels and pressures, methane mitigation is not required for Level I sites within the Methane Buffer Zone.

4 LIMITATIONS

The scope of services on this project was presented in Kleinfelder's proposal entitled "Proposal for Methane Investigation, and Methane Mitigation Design Plans and Specifications – ECIS/NEIS/NORS/NCOS Air Treatment Facilities, 651 S. Mission Road and Jesse Street; and NCOS, 6000 Jefferson Boulevard, Los Angeles, California", dated January 4, 2005. Please note that Kleinfelder's scope of services was limited to those items specifically identified in the proposal.

This report is based on the following:

- Sampling and Testing 5 shallow soil gas probes.
- Laboratory analytical results by H&P Mobile Geochemistry.
- Installation and monitoring three triple-nested soil gas probe sets.
- Observations made by Kleinfelder field personnel.
- City of Los Angeles Building Code, Chapter 71, Methane Mitigation Standard.

GED is solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials in the future.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance, but in no event later than 3 years from the date of the report. Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold harmless Kleinfelder form any claim or liability associated with such unauthorized use or non-compliance.

The scope of work conducted for this project is not intended to be all-inclusive, identify all potential concerns, or to eliminate the possibility of having some degree of environmental problem. It is possible that variations in the soil or groundwater conditions could exist beyond the points explored in this project. Also, changes in the conditions found could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors. Geologic data are for GED information, and should not be used for geotechnical purposes.

Services performed by Kleinfelder have been conducted in a manner consistent with the level and skill ordinarily exercised by members of our profession currently practicing in southern California. No other representations, expressed or implied, and no warranty or guarantee is included or intended in this report.

TABLES

TABLE 1
SCREENING SURVEY SOIL GAS DATA
PROPOSED AIR TREATMENT FACILITY
651 S. MISSION ROAD AT JESSE STREET, LOS ANGELES, CALIFORNIA

Soil Gas Probe Location	Date Sampled	Methane Concentration (ppmV)
SG1-5	01/21/05	ND (< 10)
SG2-5	01/21/05	ND (< 10)
SG3-5	01/21/05	ND (< 10)
SG4-5	01/21/05	ND (< 10)
SG5-5	01/21/05	ND (< 10)
SG5-5 Dup	01/21/05	ND (< 10)

Notes:
ND - Not Detected (Detection Limit of < 10)
ppmV - parts per million by volume

TABLE 2
SOIL GAS PROBE SET TEST DATA
PROPOSED AIR TREATMENT FACILITY
651 S. MISSION ROAD AT JESSE STREET, LOS ANGELES, CALIFORNIA
FEBRUARY 1, 2005

Date	Time	Probe Set #	Methane Concentration (ppmV)	Pressure (inches water column)	Sensor Depth (feet)	Description / Sensor Location
02/01/05	14:03	VW-1	<1	-0.01	34	See Plate 2
	13:58		<1	0.00	39	
	13:52		<1	0.01	44	
02/01/05	13:44	VW-2	<1	-0.03	34	See Plate 2
	13:40		<1	-0.03	39	
	13:36		<1	-0.02	44	
02/01/05	14:25	VW-3	<1	-0.01	34	See Plate 2
	14:19		<1	-0.01	39	
	14:13		<1	0.02	44	

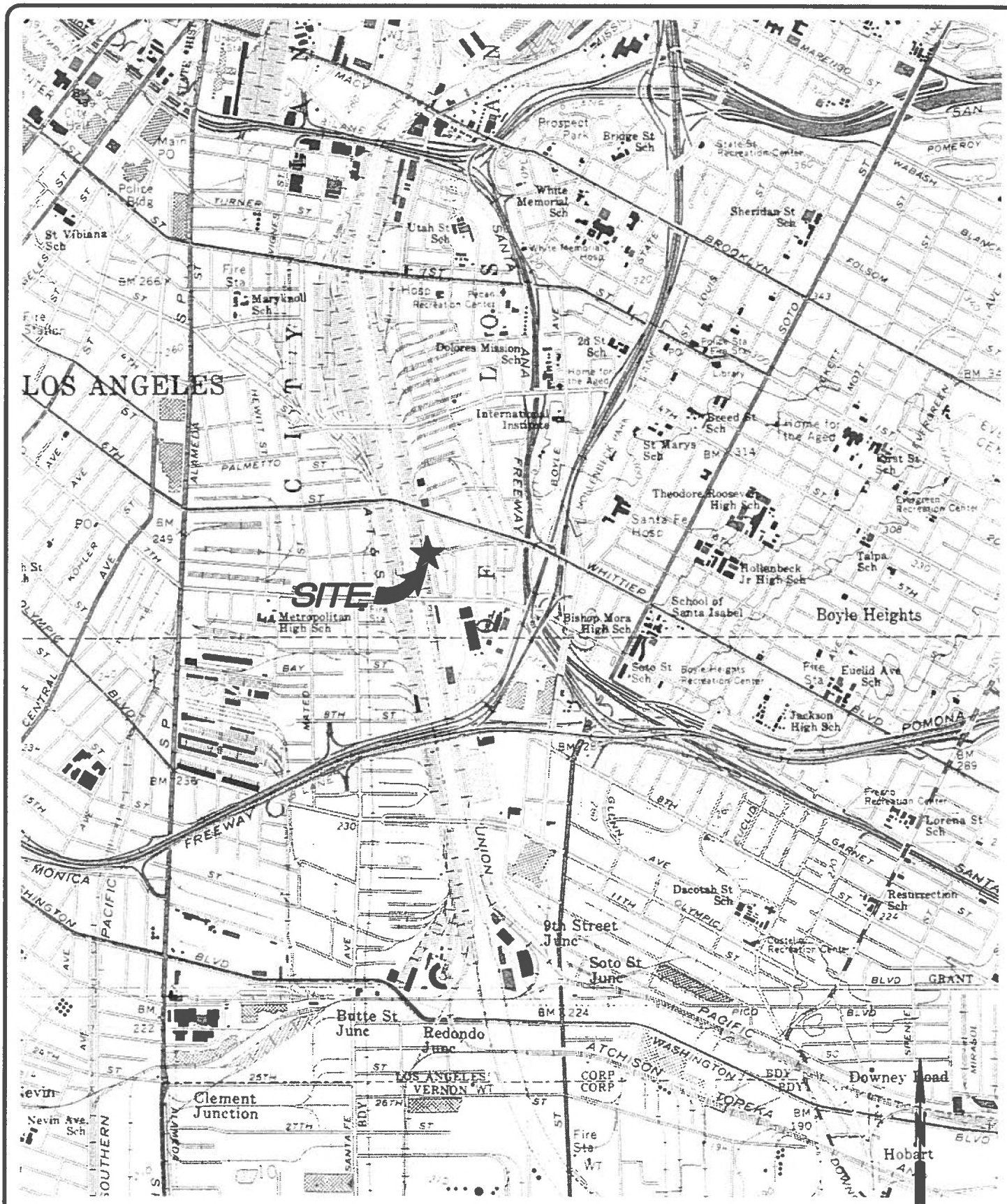
Notes:
Instrument used for methane readings was PhotoVac Micro FID.
Instrument used for differential pressure readings was a Landtec GEM 500.
ppmV - parts per million by volume

TABLE 3
SOIL GAS PROBE SET TEST DATA
PROPOSED AIR TREATMENT FACILITY
651 S. MISSION ROAD AT JESSE STREET, LOS ANGELES, CALIFORNIA
FEBRUARY 3, 2005

Date	Time	Probe Set #	Methane Concentration (ppmV)	Pressure (inches water column)	Sensor Depth (feet)	Description / Sensor Location
02/03/05	13:12	VW-1	<1	0.00	34	See Plate 2
	13:07		<1	0.00	39	
	13:01		<1	0.00	44	
02/03/05	13:32	VW-2	<1	0.00	34	See Plate 2
	13:26		<1	0.03	39	
	13:20		<1	0.04	44	
02/03/05	13:54	VW-3	<1	-0.89	34	See Plate 2
	13:48		<1	0.00	39	
	13:41		<1	0.03	44	

Notes:
Instrument used for methane readings was PhotoVac Micro FID.
Instrument used for differential pressure readings was a Landtec GEM 500.
ppmV - parts per million by volume

PLATES



SOURCE: U.S.G.S. 7.5' topographic series, Los Angeles, California quadrangle dated 1966, photorevised 1981.

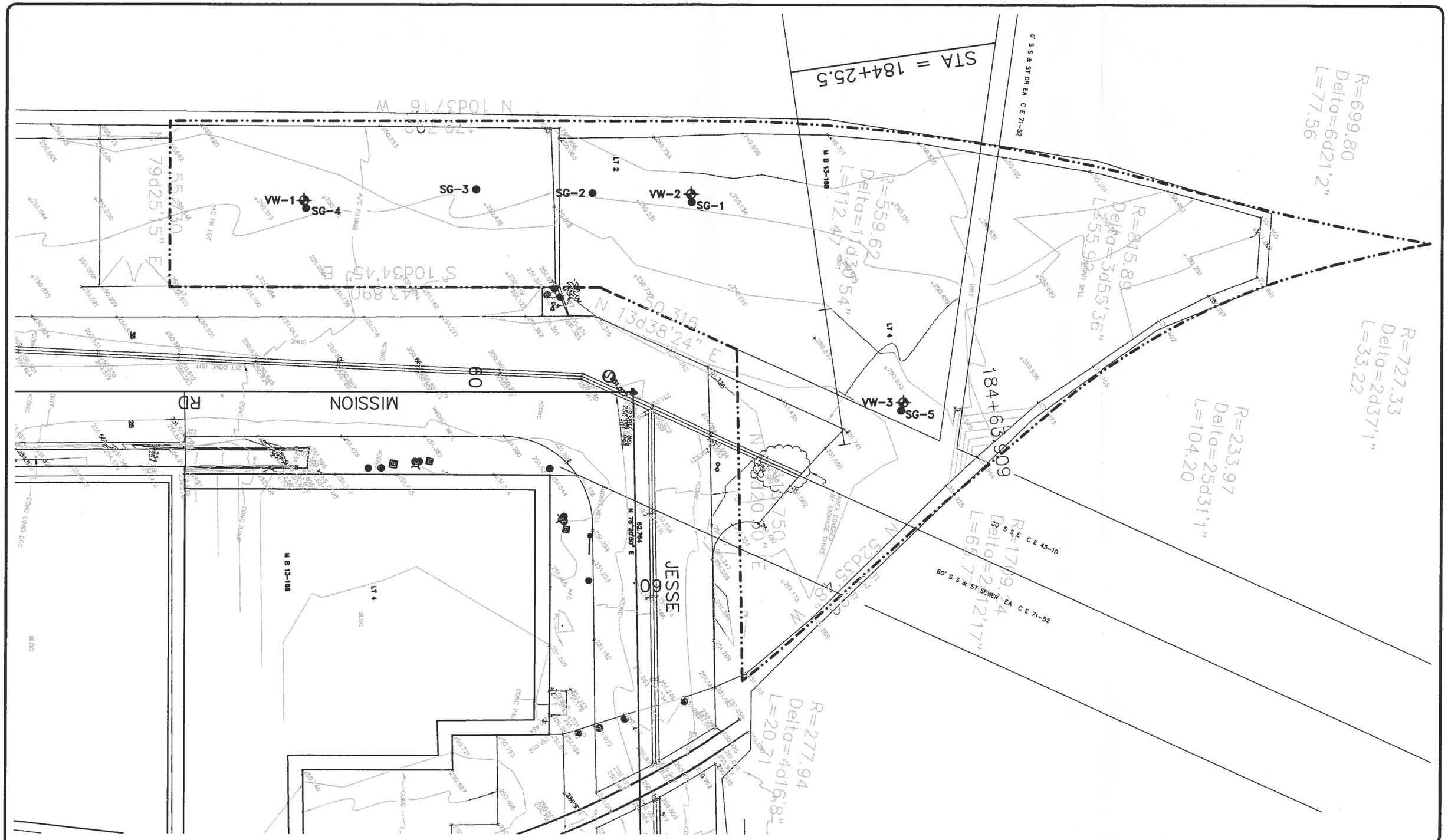
KLEINFELDER

PROPOSED AIR TREATMENT FACILITY
651 South Mission Rd. at Jesse St.
Los Angeles, California

Project: 53027 March 2005

SITE VICINITY MAP

PLATE
1



EXPLANATION

VW-3 ⊕ APPROXIMATE DEEP MULTI-LEVEL SOIL GAS PROBE LOCATION

SG-5 ● APPROXIMATE SHALLOW SCREENING SURVEY LOCATION

0 FEET 30

KLEINFELDER

PROPOSED AIR TREATMENT FACILITY
651 South Mission Rd. at Jesse St.
Los Angeles, California

Project: 53027 March 2005

SITE PLAN WITH SAMPLE LOCATIONS

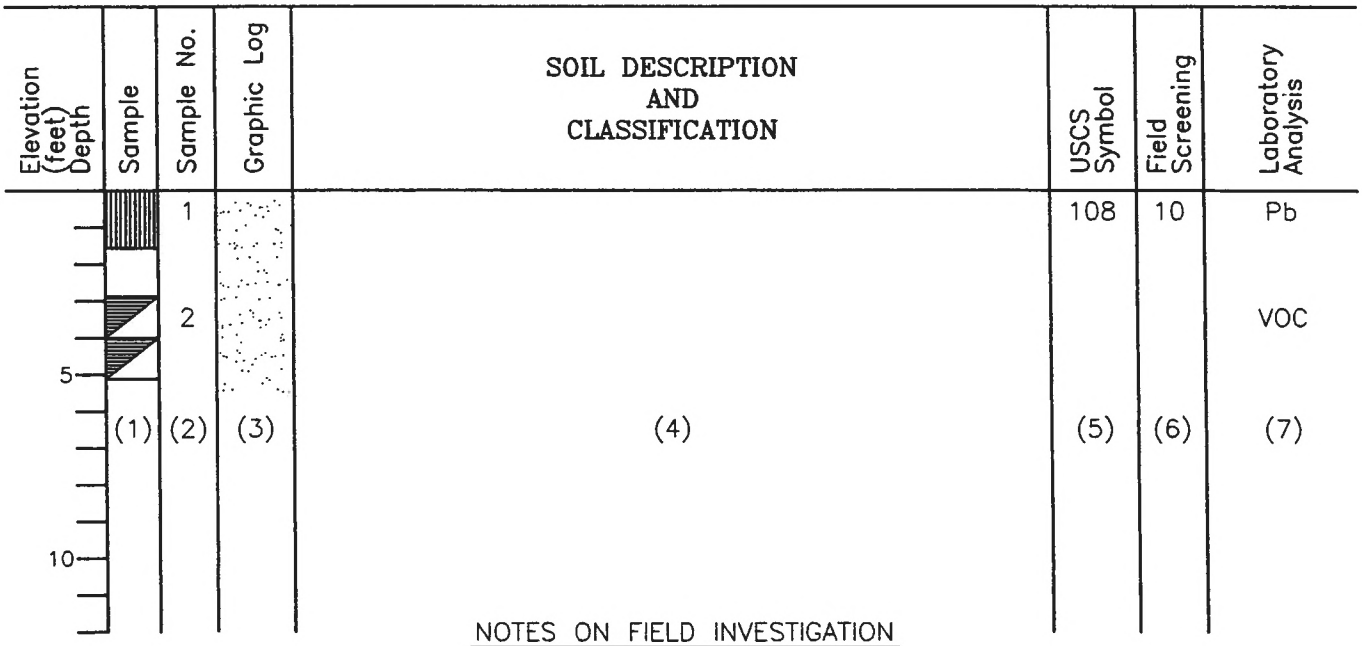
PLATE 2

APPENDIX A

BORING LOGS AND PROBE CONSTRUCTION DETAILS

Date Drilled:
Drilled By:
Drilling Method:
Logged By:

Water Depth:
Date Measured:
Reference Elevation:
Datum:



NOTES ON FIELD INVESTIGATION

1. SAMPLE – Graphical representation of sample type as shown below.
   - Split Spoon – Standard Penetration Test Sample (SPT)
   - Drive Sample – Modified California Sample (Cal) 2" I.D., 2.5" O.D.
   - Bulk Sample – Obtained by collecting cuttings in a plastic bag
   - Tube Sample – Shelby/Pitcher Tube Sample

2. SAMPLE NO. – Sample Number

3. GRAPHIC LOG – Standard symbols for soil and rock types, as shown on plate B–1b.

4. SOIL DESCRIPTION AND CLASSIFICATION

   Soil – Soil classifications are based on the Unified Soil Classification System per ASTM D–2487, and designations include consistency, moisture, color and other modifiers. Field descriptions have been modified to reflect results of laboratory analyses where deemed appropriate.

   Rock – Rock classifications generally include a rock type, color, moisture, mineral constituents, degree of weathering, alteration, and the mechanical properties of the rock. Fabric, lineations, bedding spacing, foliations, and degree of cementation are also presented where appropriate.

   Description of soil origin or rock formation is placed in brackets at the beginning of the description where applicable, for example, Residual Soil.

5. USCS SYMBOL: As estimated by laboratory or field testing.

6. FIELD SCREENING – PID reading in parts per million (ppm) of Volatile Organic Hydrocarbons (VOCs)

7. LABORATORY ANALYSIS – (Indicates sample tested for properties other than the above):

ARCHIVE – Hold sample under preservation
METALS – California Title 22 metals
Pb – Total Lead test
SVOC – Semi–Volatile Organic Hydrocarbons
VOC – Volatile Organic Hydrocarbons
BTEX – Benzene, Toluene, Ethyl benzene, and Xylenes
TPH – Total Petroleum Hydrocarbons
CCID – Carbon Chain Identification analysis
PCBs – Polychlorinated Biphenyl
OCPs – Organochlorine Pesticides
FO – Fuel Oxygenates
TPHg – Total Petroleum Hydrocarbons as gasoline
TPHd – Total Petroleum Hydrocarbons as diesel
PH – Measure of acidity / alkalinity
PAHs – Polynuclear Aromatic Hydrocarbons
MTBE – Methyl–Tert–Butyl–Ether
NI – No Information
M/E – Methanol / Ethanol

BC – Blows/ft – Number of blows required to advance sampler 1 foot (unless a lesser distance is specified). Samplers in general were driven into the soil at the bottom of the hole with a standard (140 lb) hammer dropping a standard 30 inches. Drive samples collected in bucket auger borings may be obtained by dropping non–standard weight from variable heights. When a SPT sampler is used the blow count conforms to ASTM D–1586.

KLEINFELDER

EXPLANATION OF LOGS

PLATE
A–1a

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)

PRIMARY DIVISIONS			GROUP SYMBOLS		SECONDARY DIVISIONS
COARSE GRAINED SOILS — MORE THAN HALF OF MATERIALS IS LARGER THAN #200 SIEVE SIZE	GRAVELS — MORE THAN HALF OF COARSE FRACTION IS LARGER THAN #4 SIEVE	CLEAN GRAVELS (LESS THAN) 5% FINES	GW		WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP		POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVEL WITH FINES	GM		SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS — MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN #4 SIEVE	CLEAN SANDS (LESS THAN) 5% FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP		POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM		SILTY SANDS, SAND-SILT MIXTURES
			SC		CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN HALF OF MATERIALS IS SMALLER THAN #200 SIEVE SIZE	SILTS AND CLAYS — LIQUID LIMIT IS LESS THAN 50		ML		INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL		ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS — LIQUID LIMIT IS GREATER THAN 50		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
	HIGHLY ORGANIC SOILS		PT		PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS
TYPICAL FORMATIONAL MATERIALS	SANDSTONES		SS		
	SILTSTONES		SH		
	CLAYSTONES		CS		
	LIMESTONES		LS		
	SHALE		SL		
	TERTIARY GLENDORA VOLCANICS		Tgv		UNDIFFERENTIATED SILTSTONES, SANDSTONES, BRECCIA, MUDSTONES

CONSISTENCY CRITERIA BASED ON FIELD TESTS

RELATIVE DENSITY - COARSE - GRAIN SOIL

RELATIVE DENSITY	SPT * (# blows/ft)	MODIFIED CAL (# blows/ft)	RELATIVE DENSITY (%)
Very Loose	<4	<4	0 - 15
Loose	4 - 10	5 - 12	15 - 35
Medium Dense	10 - 30	12 - 35	35 - 65
Dense	30 - 50	35 - 60	65 - 85
Very Dense	>50	>60	85 - 100

CONSISTENCY - FINE-GRAIN SOIL

CONSISTENCY	SPT (# blows/ft)	TORVANE UNDRAINED SHEAR STRENGTH (tsf)	POCKET ** PENETROMETER UNCONFINED COMPRESSIVE STRENGTH (tsf)
Very Soft	<2	<0.13	<0.25
Soft	2 - 4	0.13 - 0.25	0.25 - 0.5
Medium Stiff	4 - 8	0.25 - 0.5	0.5 - 1.0
Stiff	8 - 15	0.5 - 1.0	1.0 - 2.0
Very Stiff	15 - 30	1.0 - 2.0	2.0 - 4.0
Hard	>30	>2.0	>4.0

* NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1 3/8 INCH I.D.) SPLIT BARREL SAMPLER (ASTM-1586 STANDARD PENETRATION TEST)

** UNCONFINED COMPRESSIVE STRENGTH IN TONS/SQ.FT. READ FROM POCKET PENETROMETER

MOISTURE CONTENT

DESCRIPTION	FIELD TEST
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

CEMENTATION

DESCRIPTION	FIELD TEST
Weakly	Crumbles or breaks with handling or slight finger pressure
Moderately	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumble or break with finger pressure

KLEINFELDER

EXPLANATION OF LOGS

PLATE A-1b

Well Construction	Chemical Analyses: Lab.	Chemical Analyses: Field PID (ppm)	Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Lithology Symbol	U.S.C.S. Designation	SOIL DESCRIPTION AND CLASSIFICATION
3XSch 40 PVC Labcock valves 2' to 33' - Bentonite Seal			250						**Asphalt Concrete [AC]:** pavement 3 inches thick **Sand with Silt [SP]:** light olive brown, moist, medium dense , fine-grained, non-cohesive
		0.0	5 / 245			19		SP	**Sand[SP]:** light brown, moist, medium-dense, fine-grained to medium-grained, trace fines, non-cohesive
3/16" Polyethelyne tubing		0.0	10 / 240			39		SP	
		0.0	15 / 235			37		GM	**Poorly Graded Gravel with Sand [GM]:** brown, moist, dense, fine-grained to coarse-grained gravel with approximately 30-40% sand, trace fines
		0.0	20 / 230			>50		SP	**Sand [SP]:** pale brown, moist, very dense, fine-grained to medium-grained with coarse-grained sand, some fine-grained gravel, trace fines, non-cohesive
		0.0	25 / 225			55		SP	
		0.0	30 / 220			58		SP	...same as above but increasing fine-grained to medium-grained gravels
Filter Pack 34'- Porous Tip									

SURFACE ELEVATION (feet): 250.8
TOTAL DEPTH (feet): 45.0
DATE DRILLED: 1-24-05

LOGGED BY: L Roebuck
DIAMETER OF BORING (inches): 8"
DEPTH TO STATIC WATER (feet): not encountered

KLEINFELDER

PROJECT NO. 53027-1

Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, CA

LOG OF BORING VW-1

PLATE
A-2a

ENVIRONMENTAL VW1TOVW-3.GPJ KA_RDLND.GDT 2/23/05

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Well Construction	Chemical Analyses: Lab.	Chemical Analyses: Field PID (ppm)	Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Lithology Symbol	U.S.C.S. Designation	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*
35' to 38' - Bentonite Seal		0.0	215			>50		SP	...same as above
Filter Pack 39'- Porous Tip		0.0	40			-		GM	**Poorly Graded Gravel with Sand [GM]:** brown, moist, very dense, fine-grained to coarse-grained gravel with approximately 30-40% sand, trace fines
40' to 43'- Bentonite Seal			210						
Filter Pack 44'- Porous Tip		0.0	45			>50		GM	
									End of boring at 45 feet bgs Groundwater not encountered Boring converted to a triple nested vapor well Latitude: N34°02'09.6" Longitude: W118°22'31.9"

SURFACE ELEVATION (feet): 250.8
TOTAL DEPTH (feet): 45.0
DATE DRILLED: 1-24-05

LOGGED BY: L Roebuck
DIAMETER OF BORING (inches): 8"
DEPTH TO STATIC WATER (feet): not encountered

KLEINFELDER

PROJECT NO. 53027-1

Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, CA

LOG OF BORING VW-1

PLATE
A-2b

ENVIRONMENTAL VW1TOVW-3.GPJ KA RDLND.GDT 2/23/05

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Well Construction	Chemical Analyses: Lab.	Chemical Analyses: Field PID (ppm)	Elevation (feet)	Depth	Sample Type	Sample Number	Blows per Foot	Lithology Symbol	U.S.C.S. Designation	SOIL DESCRIPTION AND CLASSIFICATION
3XSch 40 PVC Labcock valves 2' to 33' - Bentonite Seal										**Asphalt Concrete [AC]:** pavement 3 inches thick **Sand with Silt [SP]:** brown, very moist, loose , fine-grained, non-cohesive
		0.0	245	5			12		SP	
3/16" Polyethelyne tubing		0.0	240	10			21		SP	...same as above, medium dense
		0.0	235	15			40		SP	...same as above but pale brown, dense
		0.0	230	20			45		SP	...same as above, pale brown, dense
		0.0	225	25			>50		SP	...light brown, moist, very dense, fine-grained sand, trace medium-grained sand, trace fines, non-cohesive
		0.0	220	30			55		GM	**Sandy Gravel [GM]:** light gray, moist, very dense, fine-grained to coarse-grained gravel, some sand (12%)
Filter Pack 34'- Porous Tip										

SURFACE ELEVATION (feet): 250.2
TOTAL DEPTH (feet): 45.0
DATE DRILLED: 1-24-05

LOGGED BY: L Roebuck
DIAMETER OF BORING (inches): 8"
DEPTH TO STATIC WATER (feet): not encountered

KLEINFELDER

PROJECT NO. 53027-1

Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, CA

LOG OF BORING VW-2

PLATE
A-3a

ENVIRONMENTAL VW1TOVW-3.GPJ KA RDLND.GDT 2/23/05

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Well Construction	Chemical Analyses: Lab.	Chemical Analyses: Field PID (ppm)	Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Lithology Symbol	U.S.C.S. Designation	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*
35' to 38' - Bentonite Seal		0.0				58		GP	**Poorly Graded Gravel [GP]:** white, dry, very dense, fine-grained to coarse-grained gravel to 3" diameter, trace fines *(continued)*
Filter Pack 39'- Porous Tip		0.0	210 40			-		GP	...same as above
40' to 43'- Bentonite Seal									
Filter Pack 44'- Porous Tip		0.0	45			-		GM	**Sandy Gravel [GM]:** light brown, moist, very dense, fine-grained trace coarse-grained gravel, with fine-grained to coarse-grained sand (30%) End of boring at 45 feet bgs Groundwater not encountered Boring converted to a triple nested vapor well Latitude: N34°02'10.8" Longitude: W118°13'32.4"

SURFACE ELEVATION (feet): 250.2
TOTAL DEPTH (feet): 45.0
DATE DRILLED: 1-24-05

LOGGED BY: L Roebuck
DIAMETER OF BORING (inches): 8"
DEPTH TO STATIC WATER (feet): not encountered

KLEINFELDER

PROJECT NO. 53027-1

Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, CA

LOG OF BORING VW-2

PLATE
A-3b

ENVIRONMENTAL VW1TOVW-3.GPJ KA RDLND.GDT 2/23/05

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Well Construction	Chemical Analyses: Lab.	Chemical Analyses: Field PID (ppm)	Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Lithology Symbol	U.S.C.S. Designation	SOIL DESCRIPTION AND CLASSIFICATION
3XSch 40 PVC Labcock valves 2' to 33' - Bentonite Seal			250						**Asphalt Concrete [AC]:** pavement 3 inches thick **Sand [SP]:** pale brown, moist, medium dense, fine-grained to medium-grained with coarse-grained sand, some fine-grained gravel, trace fines, non-cohesive
		0.0	5			27		SP	
			245						
3/16" Polyethelyne tubing		0.0	10			27		SP	...same as above, brown
			240						
		0.0	15			>50		GM	...yellowish brown, very dense, fine-grained to medium-grained sand, some coarse-grained sand
			235						
		0.0	20			>50		SW	...same as above, trace fine-grained gravel
			230						
		0.0	25			60		SP	pale brown, moist, very dense, fine-grained to medium-grained, some coarse-grained sand, trace fines, non-cohesive
			225						
		0.0	30			>50		SP	...fine-grained, non-cohesive
			220						
Filter Pack 34'- Porous Tip									

SURFACE ELEVATION (feet): 251.6
TOTAL DEPTH (feet): 45.0
DATE DRILLED: 1-24-05

LOGGED BY: L Roebuck
DIAMETER OF BORING (inches): 8"
DEPTH TO STATIC WATER (feet): not encountered

KLEINFELDER

PROJECT NO. 53027-1

Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, CA

LOG OF BORING VW-3

PLATE
A-4a

ENVIRONMENTAL VW.TOVW-3.GPJ KA RDLND.GDT 2/23/05

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Well Construction	Chemical Analyses: Lab.	Chemical Analyses: Field PID (ppm)	Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Lithology Symbol	U.S.C.S. Designation	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*
35' to 38' - Bentonite Seal		0.0	215			>50		GM	**Poorly Graded Gravel with Sand [GM]:** brown, moist, very dense, fine-grained to coarse-grained gravel with approximately 30-40% sand, trace fines *(continued)*
Filter Pack 39'- Porous Tip		0.0	40			>50		GM	
40' to 43'- Bentonite Seal			210						...gravelly hard drilling
Filter Pack 44'- Porous Tip		0.0	45			>50		GM	
									End of boring at 45 feet bgs Groundwater not encountered Boring converted to a triple nested vapor well Latitude: N34°02'11.8" Longitude: W118°13'31.7"

SURFACE ELEVATION (feet): 251.6
TOTAL DEPTH (feet): 45.0
DATE DRILLED: 1-24-05

LOGGED BY: L Roebuck
DIAMETER OF BORING (inches): 8"
DEPTH TO STATIC WATER (feet): not encountered

KLEINFELDER

PROJECT NO. 53027-1

Air Treatment Facility
651 South Mission Road at Jesse Street
Los Angeles, CA

LOG OF BORING VW-3

PLATE
A-4b

ENVIRONMENTAL VW1TOVW-3.GPJ KA RDLND.GDT 2/23/05

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

APPENDIX B

LABORATORY ANALYTICAL REPORT

MOBILE GEOCHEMISTRY
H&P

25-Jan-2005

Mr. George Johnson
Kleinfelder - Diamond Bar
1370 Valley Vista Drive, Suite 150
Diamond Bar, CA 91765

RE: KL012105-L6A

Enclosed are the results of analyses for samples received by the laboratory on 21-Jan-05 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tamara Davis
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 1839, 2088, 2278, 2530 and 2543.

432 North Cedros Avenue, Solana Beach, California 92075 | 858 793.0401 — Fax 858 793.0404
148 South Vinewood Street, Escondido, California 92029 | 760 735.3208 — Fax 760 735.2469
3825 Industry Avenue, Lakewood, California 90712 | 562 426.6991 — Fax 562 426.6995
www.HandPmg.com | 1-800-834-9888

MOBILE GEOCHEMISTRY
H&P

Kleinfelder - Diamond Bar	Project:	KL012105-L6A	
1370 Valley Vista Drive, Suite 150	Project Number:	530271-1, 651 S. Mission Rd, LA	Reported:
Diamond Bar CA, 91765	Project Manager:	Mr. George Johnson	25-Jan-05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SG5-5, 90cc Purge Volume	6501007-01	Vapor	21-Jan-05	21-Jan-05
SG4-5, 90cc Purge Volume	6501007-02	Vapor	21-Jan-05	21-Jan-05
SG1-5, 90cc Purge Volume	6501007-03	Vapor	21-Jan-05	21-Jan-05
SG2-5, 90cc Purge Volume	6501007-04	Vapor	21-Jan-05	21-Jan-05
SG3-5, 90cc Purge Volume	6501007-05	Vapor	21-Jan-05	21-Jan-05
SG3-5 Dup, 150cc Purge Volume	6501007-06	Vapor	21-Jan-05	21-Jan-05

MOBILE GEOCHEMISTRY
H&P

Kleinfelder - Diamond Bar	Project: KL012105-L6A	
1370 Valley Vista Drive, Suite 150	Project Number: 530271-1, 651 S. Mission Rd, LA	Reported:
Diamond Bar CA, 91765	Project Manager: Mr. George Johnson	25-Jan-05

Methane by FID

H & P Mobile Geochemistry Lab 6

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SG5-5, 90cc Purge Volume (6501007-01) Vapor Sampled: 21-Jan-05 Received: 21-Jan-05									
Methane	ND	10	ppmv	1	6A52102	21-Jan-05	21-Jan-05	EPA 8015B mod	
SG4-5, 90cc Purge Volume (6501007-02) Vapor Sampled: 21-Jan-05 Received: 21-Jan-05									
Methane	ND	10	ppmv	1	6A52102	21-Jan-05	21-Jan-05	EPA 8015B mod	
SG1-5, 90cc Purge Volume (6501007-03) Vapor Sampled: 21-Jan-05 Received: 21-Jan-05									
Methane	ND	10	ppmv	1	6A52102	21-Jan-05	21-Jan-05	EPA 8015B mod	
SG2-5, 90cc Purge Volume (6501007-04) Vapor Sampled: 21-Jan-05 Received: 21-Jan-05									
Methane	ND	10	ppmv	1	6A52102	21-Jan-05	21-Jan-05	EPA 8015B mod	
SG3-5, 90cc Purge Volume (6501007-05) Vapor Sampled: 21-Jan-05 Received: 21-Jan-05									
Methane	ND	10	ppmv	1	6A52102	21-Jan-05	21-Jan-05	EPA 8015B mod	
SG3-5 Dup, 150cc Purge Volume (6501007-06) Vapor Sampled: 21-Jan-05 Received: 21-Jan-05									
Methane	ND	10	ppmv	1	6A52102	21-Jan-05	21-Jan-05	EPA 8015B mod	

MOBILE GEOCHEMISTRY
H&P

Kleinfelder - Diamond Bar	Project: KL012105-L6A	
1370 Valley Vista Drive, Suite 150	Project Number: 530271-1, 651 S. Mission Rd, LA	Reported:
Diamond Bar CA, 91765	Project Manager: Mr. George Johnson	25-Jan-05

Methane by FID - Quality Control
H & P Mobile Geochemistry Lab 6

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6A52102 - GC										
Blank (6A52102-BLK1)				Prepared & Analyzed: 21-Jan-05						
Methane	ND	10	ppmv							

MOBILE GEOCHEMISTRY
H&P

Kleinfelder - Diamond Bar	Project: KL012105-L6A	
1370 Valley Vista Drive, Suite 150	Project Number: 530271-1, 651 S. Mission Rd, LA	Reported:
Diamond Bar CA, 91765	Project Manager: Mr. George Johnson	25-Jan-05

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

148 S. Vinewood St., Escondido, CA 92029 • ph 760.735.3208 • fax 760.735.2469
432 N. Cedros Ave., Solana Beach, CA 92075 • ph 858.793.0401 • fax 858.793.0404
2373 208th Street Unit F-1, Torrance, CA 90501 • ph 310.782.2929 • fax 310.782.2798 6501007

Date: 1-21-05
H&P Project # KL012105-L6A
Outside Lab:

Client: Kleinfelder
Address: 1370 Valley Vista drive, suite 150
Diamond Bar, CA. 91765
Phone: 909 396 0335 Fax: 909 396 0324

Collector: Vince Venolia
Client Project # 53027-1
Location: vacant lot, 651 S. mission rd, Los Angeles
Turn around time: on-site

Page: 1 Of 1
Project Manager George Johnson

Global ID: EDF: Yes / No

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No
N/A (Received on Site)

	Sample Name	Field Point Name	Depth	Time	Date	Sample Type	Container Type	TPH gasoline / diesel	TPH extended	8021 for BTEX/MTBE	8021 for Halogenated compounds	418.1 TRPH	8260B: BTEX / Oxygenates	8260B: Oxygenates	8260B: VOC's	8260B: VOC's and Oxygenates	Methane	Fixed Gases						cc purge Volume	Total # of containers
01	SG5-5		5	1143	1/21	SV	syringe										X							90	1
02	SG4-5		5	1150													X							90	1
03	SG1-5		5	1201													X							90	1
04	SG2-5		5	1208													X							90	1
05	SG3-5		5	1216													X							90	1
06	SG3-5 Dup		5	1217													X							150	1

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: 1-21-05 Time: 1545
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

APPENDIX C
FORM 1 – CERTIFICATION OF COMPLIANCE FOR METHANE TEST DATA

FORM 1 - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 1: Certification Sheet

Site Address: 651 S. Mission Road at Jesse Street, Los Angeles, California

Legal Description: Tract: 207 Lot: 3 & 4 (por) Block: ---

Building Use: Air Treatment Facility

Name:
Kleinfelder, Inc.
Mailing Address:
1370 Valley Vista Drive, Suite 150
Diamond Bar, California 91765
Telephone: (909) 396-0335

Name of Testing Laboratory:

Telephone:

Architect's, Engineer's or Geologist's Stamp:

REGISTERED PROFESSIONAL ENGINEER
GEORGE E. JOHNSON
No. C 056641
Exp. 6/30/05
CIVIL
STATE OF CALIFORNIA

I hereby certify that I have tested the above site for the purpose of methane mitigation and that all procedures were conducted in conformity with the requirements of the LADBS Information Bulletin IB-BC 2002-101. Where the inspection and testing of all or part of the work above is delegated, full responsibility shall be assumed by the architect, engineer or geologist whose signature is affixed thereon.

Signed: _____ date 2/24/05

Required Data:

- Project is in the Methane Zone or (Methane Buffer Zone.)
- Depth of ground water: ≥15 feet below the Impervious Membrane.
- Design Methane Concentration: 0-100 parts per million in volume (ppmv)
- Design Methane Pressure: ≤2 inches of water column.
- Site Design Level: (Level I, Level II, Level III, Level IV, Level V) with ≤2 inches of water column.

De-watering:

- De-watering (is) (is not) required per Section 91.7104.3.7.
- Pump discharge rate _____ cubic feet per minute per reference geology or soil report: _____ dated _____

Additional Investigation:

- Additional investigation (was) (was not) conducted.

Latest Grading on Site:

- Date of last grading on site (was) (was not) more than 30 days before Site Testing.
- See Attached explanation of the effect on soil gas survey results by grading operations.

SOIL GAS PROBE SET TEST DATA
PROPOSED AIR TREATMENT FACILITY
651 S. MISSION ROAD AT JESSE STREET, LOS ANGELES, CALIFORNIA

Date	Time	Probe Set #	Methane Concentration (ppmV)	Pressure (inches water column)	Sensor Depth (feet)	Description / Sensor Location
02/01/05	14:03	VW-1	<1	-0.01	34	See Plate 2
	13:58		<1	0.00	39	
	13:52		<1	0.01	44	
02/01/05	13:44	VW-2	<1	-0.03	34	See Plate 2
	13:40		<1	-0.03	39	
	13:36		<1	-0.02	44	
02/01/05	14:25	VW-3	<1	-0.01	34	See Plate 2
	14:19		<1	-0.01	39	
	14:13		<1	0.02	44	

Date	Time	Probe Set #	Methane Concentration (ppmV)	Pressure (inches water column)	Sensor Depth (feet)	Description / Sensor Location
02/03/05	13:12	VW-1	<1	0.00	34	See Plate 2
	13:07		<1	0.00	39	
	13:01		<1	0.00	44	
02/03/05	13:32	VW-2	<1	0.00	34	See Plate 2
	13:26		<1	0.03	39	
	13:20		<1	0.04	44	
02/03/05	13:54	VW-3	<1	-0.89	34	See Plate 2
	13:48		<1	0.00	39	
	13:41		<1	0.03	44	

Notes:
Instrument used for methane readings was Foxboro FID.
Instrument used for differential pressure readings was a Landtec GEM 500.
ppmV - parts per million by volume

TABLE 1B – MITIGATION REQUIREMENTS FOR METHANE BUFFER ZONE

Site Design Level			LEVEL I		LEVEL II		LEVEL III		LEVEL IV		LEVEL V
Design Methane Concentration (ppmv)			0 – 100		101 – 1,000		1,001 – 5,000		5,001 –12,500		> 12,500
Design Methane Pressure (inches of water column)			≤ 2"	> 2"	≤ 2"	> 2"	≤ 2"	> 2"	≤ 2"	> 2"	All Pressures
PASSIVE SYSTEM	De-watering System (See note 1)			X		X		X	X	X	X
	Sub-Slab Vent System	Perforated Horizontal Pipes		X		X		X	X	X	X
		Gravel Blanket Thickness Under Impervious Membrane		2"		3"		3"	2"	4"	4"
		Gravel Thickness Surrounding Perforated Horizontal Pipes		2"		3"		3"	2"	4"	4"
		Vent Risers		X		X		X	X	X	X
	Impervious Membrane			X		X		X	X	X	X
ACTIVE SYSTEM	Sub-Slab Vent System	Pressure Sensors Below Impervious Membrane								X	X
		Mechanical Extraction System								X	X
	Lowest Occupied Space System (See note 6)	Gas Detection System (See note 2)		X		X		X	X	X	X
		Mechanical Ventilation (See note 2 and 3)		X		X		X	X	X	X
		Alarm System		X		X		X	X	X	X
	Control Panel			X		X		X	X	X	X
MISC. SYSTEM	Trench Dam			X		X	X	X	X	X	X
	Conduit or Cable Seal Fitting			X		X	X	X	X	X	X
	Deep Vent Well (See note 4)										X

SCAQMD
Air Permit Application
Health Risk Assessment

Mission & Jesse Air Treatment Facility

Prepared by
Black & Veatch Corporation

For

City of Los Angeles
Department of Public Works
Bureau of Engineering

July 2011

Table of Contents

List of Appendices

1.0 INTRODUCTION

To ventilate the sewer headspace and mitigate emissions, the City of Los Angeles plans to operate a permanent air treatment facility (ATF) at Mission Road and Jesse Street. Since the ATF would have the potential to emit/control air pollutants, an air permit is required by the South Coast Air Quality Management District (SCAQMD) under Rule 201- Permit to Construct and Rule 203 – Permit to Operate. The permitting process mandates compliance with stringent public health requirements set forth in SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants.

This analysis provides a Tier 4 detailed risk assessment in accordance with Version 7.0 of the "SCAQMD Risk Assessment Procedures for Rules 1401 and 212, July 1, 2005" utilizing the latest Attachment L cancer potency factors and reference exposure levels (RELs) for applications deemed complete on or after July 1, 2005, Revised September 10, 2010.

Emissions of several toxic air contaminants (TACs) were analyzed.

2.0 AIR DISPERSION MODELING

Consistent with previously accepted air dispersion modeling methodology, the Industrial Source Complex Short-Term (ISCST3 Version 02035) computer model was used to estimate the ground level concentrations of air pollutants from the PATFs. The ISCST3 model is a USEPA-approved, steady state, straight-line Gaussian plume model used to predict the impact of stack emissions on the surrounding community. While Appendix W of 40 CFR 51, Guideline on Air Quality Models, now recommends the use of AERMOD for typical air dispersion modeling applications (effective December 9, 2005), the ISCST3 air dispersion model remains an acceptable model that may be used to assess pollutant concentrations from a wide variety of sources associated with an industrial facility. In fact, the SCAQMD continues to provide ISCST3-ready meteorological datasets (available for download on their website) for modeling purposes.

Modeling data, which consisted of on-site building dimensions, emission source parameters, and property boundary locations, were configured to run with the BREEZE interface to the ISCST3 dispersion model.

2.1 Emission Source Parameters

The site contains only one emissions source, and as such was modeled as a single point source stack. Table 2-1 presents the ISCST3 source parameters used for modeling. Since model-predicted impacts are directly proportional to exhaust mass emission rates, all modeling was performed using a nominal 1 gram/second emission rate, to simplify the estimation of multiple pollutant impacts.

2.2 Air Dispersion Model Options

The following standard USEPA default regulatory modeling options were used in the ISCST3 model:

- Final plume rise.
- Stack-tip downwash.
- Buoyancy induced dispersion.
- Default vertical wind profile exponents and vertical potential temperature gradient values.
- Terrain elevations.

The processing of calm wind speeds (i.e., those less than 1 m/s) was bypassed, in accordance with South Coast Air Quality Management District (SCAQMD) modeling requirements.

2.3 Receptor Grids and Terrain Considerations

The air dispersion modeling receptor locations were established at appropriate distances from the sources and in a sufficiently dense manner to adequately characterize the pattern of pollutant impacts in the area. Specifically, a nested rectangular grid network was generated that placed receptors at 100 meter increments out to 1 kilometer (km), 250

Table 2-1
Physical Parameters Used in ISCST3 Modeling

Site	UTM Location of Stack		Site Base Elevation	Point Source Stack Parameters			
	(X) Easting (m)	(Y) Northing (m)	(m)	Stack Height (m)	Temperature (^{o}K)	Diameter (m)	Exit Velocity (m/s)
Mission & Jesse	386,867.1	3,766,618.9	73	7.62	294.26	0.76	12.42

Note:
Coordinates are in Universal Transverse Mercator (UTM), Zone 11, meters.
The emission rate at each site was a nominal 1 gram per second.

meter increments out to 2 kilometers, and 500-meter increments out to 4 km from the center of the site. The maximum interval between receptors along the fenceline was set at 5 m. According to SCAQMD guidelines, when identifying receptor locations to calculate acute hazard index, all off-site locations where there is the potential for acute exposure should be considered. As such the maximum 1-hr model-predicted concentration occurring anywhere on the grid was used in the acute hazard index calculations. In fact, where possible, the maximum model-predicted concentration occurring anywhere on the grid was used to estimate the Maximum Individual Cancer Risk (MICR), Chronic Hazard Index (CHI), and Acute Hazard Index (AHI). This conservative assumption, made to simplify the analysis, assumes that an individual residence was located at the maximally exposed receptor from the network described above. The MICR for workers continued to use the maximum model predicted concentration anywhere on the previously discussed receptor grid.

Receptor elevations were assigned using elevations from USGS 7.5-minute digital quadrangle, Digital Elevation Model (DEM), terrain data. The elevations were determined via a method that ensures the most accurate possible terrain elevation is assigned to each receptor. The receptor elevations were compared with actual USGS 7.5-minute quadrangle maps to ensure accuracy.

2.4 Meteorological Data

The ISCST3 air dispersion model requires hourly input of specific surface and upper-air meteorological data. These data include the wind flow vector, wind speed, ambient temperature, stability category, and the mixing height. Model-ready data sets, representative of each site, were downloaded from the SCAQMD website. The data was chosen by selecting the meteorological surface station nearest each of the sites. Table 2-2 lists the meteorological data sets used for each of the sites and the distances from the sites to the surface station selected for modeling.

2.5 Land Use Dispersion Coefficients

The USEPA's Auer land use method was utilized to determine whether rural or urban dispersion coefficients would be used in the ISCST3 air dispersion model. In this procedure, land circumscribed within a 3-km radius of the facility was classified as rural or urban using the Auer land use classification method. If rural land use types account for more than 50 percent of the land use area within the 3-km radius, then the rural dispersion coefficient option is used. Otherwise, the urban coefficient option is used.

Based on visual inspection of the USGS 7.5-minute topographic map of the proposed facility locations and aerial photographs, it was conservatively concluded that over 50 percent of the area surrounding the facility can be classified as urban. Accordingly, the urban dispersion modeling option was used.

Table 2-2
Meteorological Data Stations Used in ISCST3 Modeling

Site	Surface station*	Distance from site (km)	Corresponding Upper air station
Mission & Jesse	Downtown LA #52075	3.54	LAX (Loyola Marymount) #91919

Note:
* The anemometer height for modeling was set at 10 meters per SCAQMD guidelines.

3.0 Specific Methodologies for Toxics

The toxic air contaminants (TACs) of concern were modeled collectively by assuming a single, nominal 1 gram/second emission rate in the ISCST3 air dispersion model. Both short-term (1-hour) and long-term (annual) model-predicted ground-level impacts were output from the model.

With the exception of hydrogen sulfide, mass emission rates for TACs were estimated based on unmitigated, worst-case results of sampling performed in February 2005 and April 2010. To be conservative, where concentrations of the same TACs were available from 2005 and 2010, the higher concentration was used. Since ISCST3 impacts vary directly with exhaust mass emission rates, the emission rate for each TAC in grams/second was then multiplied by the maximum, model-predicted, ground-level impact resulting from the nominal 1 gram/second emission rate to arrive at ground-level, air quality impacts for each TAC.

A health risk assessment (HRA) was performed in accordance with Version 7.0 of the, "SCAQMD Risk Assessment Procedures for Rules 1401 and 212, July 1, 2005," using the latest Attachment L cancer potency factors and reference exposure levels (RELs) for applications deemed complete on or after July 1, 2005, Revised September 10, 2010.

Model-predicted, annual impacts were used with estimated average emission rates for each TAC to calculate the carcinogenic risks and non-carcinogenic chronic hazard indices (CHIs). The annual average impact for each TAC was multiplied, per SCAQMD guidance, by a cancer potency factor, an annual concentration adjustment factor, a daily breathing rate, an exposure value factor, and a multipathway factor when applicable, to determine the carcinogenic risk for each TAC. The individual carcinogenic risks were then summed to yield a total cancer risk at each receptor location from the operation of the site. To calculate individual TAC CHIs, the annual average impact for each TAC was divided by its chronic relative exposure level (REL), and multiplied by a multipathway factor when applicable. The CHIs for each TAC were summed for each target organ system to determine the maximum overall CHI.

The maximum, model-predicted, 1-hour impact at any receptor was used with the estimated peak emission rates for each TAC of concern to calculate the total non-carcinogenic acute hazard index (AHIs) at each location on the receptor grid. The maximum impact for each TAC was divided by its acute REL to calculate individual TAC AHIs. The individual AHIs were summed for each target organ system to determine the maximum overall AHI.

4.0 Health Risk Assessment Results

Table 4-1 provides the results of the HRA analyses. The results presented in the table are below the required ten in one million cancer risk threshold established in the SCAQMD guidance document as well as the 1.0 hazard index for non-carcinogenic chronic and acute impacts. However, the estimated MICR is above the one in a million Best Available Control Technology for Toxics (T-BACT) installation cancer risk threshold. Therefore, under SCAQMD regulations, the ATF would comply with MICR requirements provided T-BACT is utilized. The ATF will incorporate the use of a carbon filtration system, which represents T-BACT based on discussions with SCAQMD staff. It should also be noted that these risk estimates are based on unmitigated exhaust concentrations for all compounds except for H_2S, for which a mitigated, 1 ppmv exhaust concentration was used. The H_2S concentration is based on permitted levels for similar equipment. Appendix A presents figures showing cancer risk isopleths overlaid on aerial photographs. Spreadsheets containing the calculations of all HRA analyses are provided in Appendix B.

Since the model-predicted MICRs shown in Table 4-1 are above one in a million, cancer burden calculations, per SCAQMD guidance, must be performed. Cancer burden is a theoretical estimate of the increased number of cancer cases in a population exposed to a risk of greater than or equal to one in a million. The cancer burden for a given population is the product of the number of persons in the population and the estimated individual risk from TACs.

To calculate cancer burden, a radius surrounding the facility extending out a distance equal to the furthest location where the cancer risk falls below one in a million is determined. The population within this radius of impact is based on a worst-case estimate (7,000 persons/km^2) provided in the SCAQMD guidance document. Cancer burden is then calculated by multiplying the population residing within the determined radius by the MICR. Table 4-2 provides the results of the cancer burden calculations demonstrating that the operation of the ATF site will be below the SCAQMD cancer burden threshold of no more than a 0.5 increase in cancer cases in the given population.

Table 4-1
Unmitigated Health Risk Assessment Results

Site	Maximum Individual Cancer Risk[a] (in one million)		Maximum Chronic Hazard Index[b] (CHI)	Maximum Acute Hazard Index[b] (AHI)
	Offsite Worker[b,c]	Residential[b]		
Mission & Jesse	0.26	1.31	0.015	0.091

[a] Based on the conservative assumption that continued exposure occurs at the location of maximum impact. Cancer Burden calculations, per SCAQMD guidance, were also performed and are given in Table 4-2.

[b] The maximum impact for each toxic compound from the entire grid of receptors, including the facility's property boundary, was used to determine Residential and Offsite Worker-MICR, CHI, and AHI.

[c] SCAQMD guidelines allow for the application of a Exposure Value Factor (EVF) for workers since their lifetime in a particular location is less than that of a resident. The EVF for an offsite worker is assumed to be 240 days/yr, for 40 years (out of a life span of 70 years). This gives an EVF of 0.38, which is conservatively multiplied by the maximum 70-year residential cancer risk to yield an estimate of the maximum cancer risk to an offsite worker.

Table 4-2
Unmitigated Cancer Burden Results

Site	Maximum Downwind Distance[a] (km)	Zone of Impact[b] (km^2)	Population Density[c] (persons/km^2)	Zone of Impact Population[d] (persons)	MICR[e] (in a million)	Cancer Burden[f]
Mission & Jesse	0.34	0.36	7,000	2,542	1.31	0.003

[a] The furthest downwind distance at which a modeled receptor indicated a MICR greater than one in a million.

[b] The area of a circle surrounding the stack whose radius is the maximum downwind distance.

[c] According to the SCAQMD guidelines, where there is no census data, 7,000 persons/km2 should be used for areas with high population densities. As a conservative estimate, it was assumed that the site was located in an area with high population density.

[d] The population residing within the ZOI. Calculated by multiplying the zone of impact area by the assumed population density.

[e] The maximum MICR from Table 4-1.

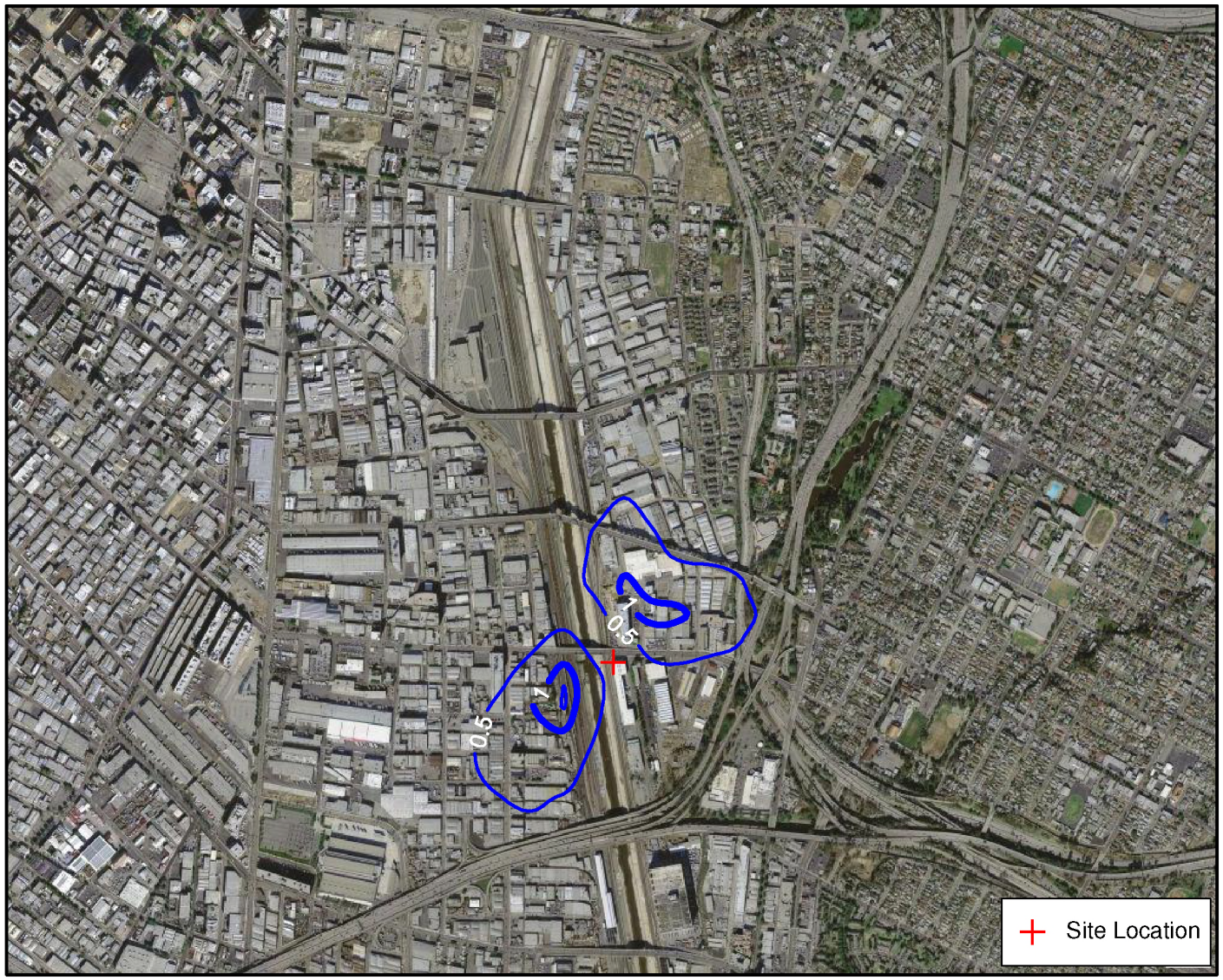
[f] Calculated by multiplying the population residing within the zone of impact by the MICR. According to SCAQMD guidelines, cancer burden calculations must be below 0.5.

5.0 Conclusions

Based on discussions with SCAQMD permitting staff indicating that carbon adsorption is considered T-BACT for this application, the project results in carcinogenic and non-carcinogenic health risk impacts that comply with SCAQMD Regulation 1401 - New Source Review of Toxic Air Contaminants.

APPENDIX A

Aerial Photographs with Maximum Individual Cancer Risk Isopleths



Mission & Jesse
Permanent Air Treatment Facility

Maximum Individual Cancer Risk Contours
(contour values represent risks in a million)

APPENDIX B

Emission Rates & Health Risk Assessment Spreadsheets

CARCINOGENIC RISK - Mission & Jesse (Sensitive and Residential)

Exhaust Flow (scfm)	12,000
Maximum Annual X/Q (ug/m3)/(g/s)	17.18

COMPOUND	CAS	MOLECULAR WEIGHT (g/gmol)	AVERAGE EXHAUST CONCENTRATION (ppbv)	AVERAGE EMISSION RATE (lb/hr)	AVERAGE EMISSION RATE (g/s)	MAXIMUM IMPACT (ug/m^3)	ANNUAL CONC. ADJUSTMENT FACTOR (unitless)	CANCER POTENCY (mg/kg-dy)-1	DAILY BREATHING RATE (Sens. & Res.) (L/kg-day)	EXPOSURE VALUE FACTOR (Sens. & Res.) (unitless)	CARCINOGENIC RISK (Inhalation)	MULTIPATHWAY FACTOR	CARCINOGENIC RISK (Total)
Vinyl chloride	75-01-4	62.50	0.40	4.66E-05	5.87E-06	1.01E-04	1.00E+00	2.70E-01	3.02E+02	9.60E-01	7.89E-09	1.0	7.89E-09
Methyl bromide (Bromomethane)	74-83-9	94.95	0.40	7.07E-05	8.91E-06	1.53E-04	1.00E+00		3.02E+02	9.60E-01			
Ethyl chloride	75-00-3	64.52	0.40	4.81E-05	6.06E-06	1.04E-04	1.00E+00		3.02E+02	9.60E-01			
1,1-dichloroethylene (Vinylidene Chloride)	75-35-4	96.95	0.40	7.22E-05	9.10E-06	1.56E-04	1.00E+00		3.02E+02	9.60E-01			
1,1-dichloroethane (Ethylidene Chloride)	75-34-3	98.96	0.40	7.37E-05	9.29E-06	1.60E-04	1.00E+00	5.70E-03	3.02E+02	9.60E-01	2.64E-10	1.0	2.64E-10
Chloroform/Trichloromethane	67-66-3	119.39	115.50	2.57E-02	3.24E-03	5.56E-02	1.00E+00	1.90E-02	3.02E+02	9.60E-01	3.06E-07	1.0	3.06E-07
1,2-dichloroethane (Ethylene Dichloride)	107-06-2	98.96	0.40	7.37E-05	9.29E-06	1.60E-04	1.00E+00	7.20E-02	3.02E+02	9.60E-01	3.33E-09	1.0	3.33E-09
1,1,1-trichloroethane (Methyl Chloroform)	71-55-6	133.42	0.40	9.94E-05	1.25E-05	2.15E-04	1.00E+00		3.02E+02	9.60E-01			
Benzene	71-43-2	78.11	2.50	3.63E-04	4.58E-05	7.86E-04	1.00E+00	1.00E-01	3.02E+02	9.60E-01	2.28E-08	1.0	2.28E-08
Carbon Tetrachloride	56-23-5	153.84	0.40	1.15E-04	1.44E-05	2.48E-04	1.00E+00	1.50E-01	3.02E+02	9.60E-01	1.08E-08	1.0	1.08E-08
Trichloroethene (Trichloroethylene)	79-01-6	131.38	14.86	3.63E-03	4.58E-04	7.87E-03	1.00E+00	7.00E-03	3.02E+02	9.60E-01	1.60E-08	1.0	1.60E-08
1,1,2-trichloroethane	79-00-5	133.42	0.40	9.94E-05	1.25E-05	2.15E-04	1.00E+00	5.70E-02	3.02E+02	9.60E-01	3.55E-09	1.0	3.55E-09
Toluene/Methyl Benzene	108-88-3	92.13	837.00	1.44E-01	1.81E-02	3.11E-01	1.00E+00		3.02E+02	9.60E-01			
Chlorobenzene	108-90-7	112.56	3.39	7.11E-04	8.96E-05	1.54E-03	1.00E+00		3.02E+02	9.60E-01			
Ethyl benzene	100-41-4	106.16	38.90	7.69E-03	9.69E-04	1.66E-02	1.00E+00	8.70E-03	3.02E+02	9.60E-01	4.20E-08	1.0	4.20E-08
m + p-xylenes	1330-20-7	106.16	159.00	3.14E-02	3.96E-03	6.80E-02	1.00E+00		3.02E+02	9.60E-01			
Styrene/Vinyl Benzene	100-42-5	104.14	5.40	1.05E-03	1.32E-04	2.27E-03	1.00E+00		3.02E+02	9.60E-01			
1,1,2,2-tetrachloroethane	79-34-5	167.86	1.04	3.24E-04	4.08E-05	7.01E-04	1.00E+00	2.00E-01	3.02E+02	9.60E-01	4.07E-08	1.0	4.07E-08
o-xylene	1330-20-7	106.16	35.60	7.04E-03	8.87E-04	1.52E-02	1.00E+00		3.02E+02	9.60E-01			
p-dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	147.01	42.04	1.15E-02	1.45E-03	2.49E-02	1.00E+00	4.00E-02	3.02E+02	9.60E-01	2.89E-07	1.0	2.89E-07
Hydrogen Sulfide	7783-06-4	34.08	1000.00	6.35E-02	8.00E-03	1.37E-01	1.00E+00		3.02E+02	9.60E-01			
Carbon Disulfide	75-15-0	76.14	30.00	4.25E-03	5.36E-04	9.21E-03	1.00E+00		3.02E+02	9.60E-01			
1,3-Butadiene	106-99-0	54.09	0.40	4.03E-05	5.08E-06	8.72E-05	1.00E+00	6.00E-01	3.02E+02	9.60E-01	1.52E-08	1.0	1.52E-08
Methylene Chloride/Dichloromethane	75-09-2	84.94	28.47	4.50E-03	5.67E-04	9.75E-03	1.00E+00	3.50E-03	3.02E+02	9.60E-01	9.89E-09	1.0	9.89E-09
1,4-Dioxan	123-91-1	88.10	0.40	6.56E-05	8.27E-06	1.42E-04	1.00E+00	2.70E-02	3.02E+02	9.60E-01	1.11E-09	1.0	1.11E-09
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	187.88	0.40	1.40E-04	1.76E-05	3.03E-04	1.00E+00	2.50E-01	3.02E+02	9.60E-01	2.20E-08	1.0	2.20E-08
Tetrachloroethylene (Perchloroethylene)	127-18-4	165.85	127.63	3.94E-02	4.97E-03	8.53E-02	1.00E+00	2.10E-02	3.02E+02	9.60E-01	5.19E-07	1.0	5.19E-07
Isoproply Alcohol	67-63-0	60.10	15.50	1.73E-03	2.19E-04	3.75E-03	1.00E+00		3.02E+02	9.60E-01			
Methyl Ethyl Keytone (MEK)/2-Butanone	78-93-3	72.11	9.30	1.25E-03	1.57E-04	2.70E-03	1.00E+00		3.02E+02	9.60E-01			
Hexane	110-54-3	86.18	4.10	6.58E-04	8.29E-05	1.42E-03	1.00E+00		3.02E+02	9.60E-01			
Total Carcinogenic Risk											**1.31E-06**		**1.31E-06**

Notes:
Exhaust Concentrations are unmitigated (i.e., a control efficiency of 0.0% is assumed for permitting) and are the higher of the average of three inlet concentration air sampling events performed on February 2, 2005 by URS or a single inlet concentration air sampling event performed by HDR i
Hydrogen Sulfide concentration is based on the outlet permit limit of 1 ppm.
Compounds shown in bold type were Non-Detected in at least one of the three sampling events. As such, 1/2 of the ND value was used as the sampled concentration per SCAQMD guidance.

Annual Concentration Adjustment, Cancer Potency, Daily Breathing, Exposure Value, and Multipathway Factors were obtained from Attachment L of SCAQMD's Risk Assessment Procedures for Rules 1401 & 212 (for applications deemed complete on or after July 1, 2005, Revised September 10, 2010).

CARCINOGENIC RISK - Mission & Jesse (Worker)

Exhaust Flow (scfm)	12,000
Maximum Annual X/Q (ug/m3)/(g/s)	17.18

COMPOUND	CAS	MOLECULAR WEIGHT (g/gmol)	AVERAGE EXHAUST CONCENTRATION (ppbv)	AVERAGE EMISSION RATE (lb/hr)	AVERAGE EMISSION RATE (g/s)	MAXIMUM IMPACT (ug/m^3)	ANNUAL CONC. ADJUSTMENT FACTOR (unitless)	CANCER POTENCY (mg/kg-dy)-1	DAILY BREATHING RATE (off-site worker) (L/kg-day)	EXPOSURE VALUE FACTOR (off-site worker) (unitless)	CARCINOGENIC RISK (Inhalation)	MULTIPATHWAY FACTOR	CARCINOGENIC RISK (Total)
Vinyl chloride	75-01-4	62.50	0.40	4.66E-05	5.87E-06	1.01E-04	1.00E+00	2.70E-01	1.49E+02	3.80E-01	1.54E-09	1.0	1.54E-09
Methyl bromide (Bromomethane)	74-83-9	94.95	0.40	7.07E-05	8.91E-06	1.53E-04	1.00E+00		1.49E+02	3.80E-01			
Ethyl chloride	75-00-3	64.52	0.40	4.81E-05	6.06E-06	1.04E-04	1.00E+00		1.49E+02	3.80E-01			
1,1-dichloroethylene (Vinylidene Chloride)	75-35-4	96.95	0.40	7.22E-05	9.10E-06	1.56E-04	1.00E+00		1.49E+02	3.80E-01			
1,1-dichloroethane (Ethylidene Chloride)	75-34-3	98.96	0.40	7.37E-05	9.29E-06	1.60E-04	1.00E+00	5.70E-03	1.49E+02	3.80E-01	5.15E-11	1.0	5.15E-11
Chloroform/Trichloromethane	67-66-3	119.39	115.50	2.57E-02	3.24E-03	5.56E-02	1.00E+00	1.90E-02	1.49E+02	3.80E-01	5.98E-08	1.0	5.98E-08
1,2-dichloroethane (Ethylene Dichloride)	107-06-2	98.96	0.40	7.37E-05	9.29E-06	1.60E-04	1.00E+00	7.20E-02	1.49E+02	3.80E-01	6.51E-10	1.0	6.51E-10
1,1,1-trichloroethane (Methyl Chloroform)	71-55-6	133.42	0.40	9.94E-05	1.25E-05	2.15E-04	1.00E+00		1.49E+02	3.80E-01			
Benzene	71-43-2	78.11	2.50	3.63E-04	4.58E-05	7.86E-04	1.00E+00	1.00E-01	1.49E+02	3.80E-01	4.45E-09	1.0	4.45E-09
Carbon Tetrachloride	56-23-5	153.84	0.40	1.15E-04	1.44E-05	2.48E-04	1.00E+00	1.50E-01	1.49E+02	3.80E-01	2.11E-09	1.0	2.11E-09
Trichloroethene (Trichloroethylene)	79-01-6	131.38	14.86	3.63E-03	4.58E-04	7.87E-03	1.00E+00	7.00E-03	1.49E+02	3.80E-01	3.12E-09	1.0	3.12E-09
1,1,2-trichloroethane	79-00-5	133.42	0.40	9.94E-05	1.25E-05	2.15E-04	1.00E+00	5.70E-02	1.49E+02	3.80E-01	6.94E-10	1.0	6.94E-10
Toluene/Methyl Benzene	108-88-3	92.13	837.00	1.44E-01	1.81E-02	3.11E-01	1.00E+00		1.49E+02	3.80E-01			
Chlorobenzene	108-90-7	112.56	3.39	7.11E-04	8.96E-05	1.54E-03	1.00E+00		1.49E+02	3.80E-01			
Ethyl benzene	100-41-4	106.16	38.90	7.69E-03	9.69E-04	1.66E-02	1.00E+00	8.70E-03	1.49E+02	3.80E-01	8.20E-09	1.0	8.20E-09
m + p-xylenes	1330-20-7	106.16	159.00	3.14E-02	3.96E-03	6.80E-02	1.00E+00		1.49E+02	3.80E-01			
Styrene/Vinyl Benzene	100-42-5	104.14	5.40	1.05E-03	1.32E-04	2.27E-03	1.00E+00		1.49E+02	3.80E-01			
1,1,2,2-tetrachloroethane	79-34-5	167.86	1.04	3.24E-04	4.08E-05	7.02E-04	1.00E+00	2.00E-01	1.49E+02	3.80E-01	7.94E-09	1.0	7.94E-09
o-xylene	1330-20-7	106.16	35.60	7.04E-03	8.87E-04	1.52E-02	1.00E+00		1.49E+02	3.80E-01			
p-dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	147.01	42.04	1.15E-02	1.45E-03	2.49E-02	1.00E+00	4.00E-02	1.49E+02	3.80E-01	5.64E-08	1.0	5.64E-08
Hydrogen Sulfide	7783-06-4	34.08	1000.00	6.35E-02	8.00E-03	1.37E-01	1.00E+00		1.49E+02	3.80E-01			
Carbon Disulfide	75-15-0	76.14	30.00	4.25E-03	5.36E-04	9.21E-03	1.00E+00		1.49E+02	3.80E-01			
1,3-Butadiene	106-99-0	54.09	0.40	4.03E-05	5.08E-06	8.72E-05	1.00E+00	6.00E-01	1.49E+02	3.80E-01	2.96E-09	1.0	2.96E-09
Methylene Chloride/Dichloromethane	75-09-2	84.94	28.47	4.50E-03	5.67E-04	9.75E-03	1.00E+00	3.50E-03	1.49E+02	3.80E-01	1.93E-09	1.0	1.93E-09
1,4-Dioxan	123-91-1	88.10	0.40	6.56E-05	8.27E-06	1.42E-04	1.00E+00	2.70E-02	1.49E+02	3.80E-01	2.17E-10	1.0	2.17E-10
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	187.88	0.40	1.40E-04	1.76E-05	3.03E-04	1.00E+00	2.50E-01	1.49E+02	3.80E-01	4.29E-09	1.0	4.29E-09
Tetrachloroethylene (Perchloroethylene)	127-18-4	165.85	127.63	3.94E-02	4.97E-03	8.53E-02	1.00E+00	2.10E-02	1.49E+02	3.80E-01	1.01E-07	1.0	1.01E-07
Isoproply Alcohol	67-63-0	60.10	15.50	1.73E-03	2.19E-04	3.76E-03	1.00E+00		1.49E+02	3.80E-01			
Methyl Ethyl Keytone (MEK)/2-Butanone	78-93-3	72.11	9.30	1.25E-03	1.57E-04	2.70E-03	1.00E+00		1.49E+02	3.80E-01			
Hexane	110-54-3	86.18	4.10	6.58E-04	8.29E-05	1.42E-03	1.00E+00		1.49E+02	3.80E-01			
Total Carcinogenic Risk											2.56E-07		**2.56E-07**

Notes:

Exhaust Concentrations are unmitigated (i.e., a control efficiency of 0.0% is assumed for permitting) and are the higher of the average of three inlet concentration air sampling events performed on February 2, 2005 by URS or a single inlet concentration air sampling event performed by HDR in 2

Hydrogen Sulfide concentration is based on the outlet permit limit of 1 ppm.

Compounds shown in bold type were Non-Detected in at least one of the three sampling events. As such, 1/2 of the ND value was used as the sampled concentration per SCAQMD guidance.

Annual Concentration Adjustment, Cancer Potency, Daily Breathing, Exposure Value, and Multipathway Factors were obtained from Attachment L of SCAQMD's Risk Assessment Procedures for Rules 1401 & 212 (for applications deemed complete on or after July 1, 2005, Revised September 10, 2010).

CHRONIC HAZARD INDEX - Mission & Jesse

Exhaust Flow (scfm)	12,000
Maximum Annual X/Q (ug/m3)/(g/s)	17.18

COMPOUND	CAS	MOLECULAR WEIGHT (g/gmol)	AVG EXHAUST CONCENTRATION (ppbv)	AVG EMISSION RATE (lb/hr)	AVG EMISSION RATE (g/s)	MAXIMUM IMPACT (ug/m3)	CHRONIC INHALATION REL (ug/m^3)	MULTI PATHWAY ADJUSTMENT FACTOR	Maximum	Alimentary System (Gastrointestinal & Liver)	Bones & Teeth	Cardiovascular	Developmental	Endocrine	Eye	Hematopoietic (Blood)	Immune	Kidney	Nervous System	Reproductive	Respiratory	Skin
Vinyl chloride	75-01-4	62.50	0.40	4.66E-05	5.87E-06	1.01E-04																
Methyl bromide (Bromomethane)	74-83-9	94.95	0.40	7.07E-05	8.91E-06	1.53E-04	5.00E+00	1.0					3.06E-05						3.06E-05		3.06E-05	
Ethyl chloride	75-00-3	64.52	0.40	4.81E-05	6.06E-06	1.04E-04	3.00E+04	1.0		3.47E-09			3.47E-09									
1,1-dichloroethylene (Vinylidene Chloride)	75-35-4	96.95	0.40	7.22E-05	9.10E-06	1.56E-04	7.00E+01	1.0		2.23E-06												
1,1-dichloroethane (Ethylidene Chloride)	75-34-3	98.96	0.40	7.37E-05	9.29E-06	1.60E-04																
Chloroform/Trichloromethane	67-66-3	119.39	115.50	2.57E-02	3.24E-03	5.56E-02	3.00E+02	1.0		1.85E-04			1.85E-04					1.85E-04				
1,2-dichloroethane (Ethylene Dichloride)	107-06-2	98.96	0.40	7.37E-05	9.29E-06	1.60E-04	4.00E+02	1.0		3.99E-07												
1,1,1-trichloroethane (Methyl Chloroform)	71-55-6	133.42	0.40	9.94E-05	1.25E-05	2.15E-04	1.00E+03	1.0											2.15E-07			
Benzene	71-43-2	78.11	2.50	3.63E-04	4.58E-05	7.86E-04	6.00E+01	1.0					1.31E-05			1.31E-05			1.31E-05			
Carbon Tetrachloride	56-23-5	153.84	0.40	1.15E-04	1.44E-05	2.48E-04	4.00E+01	1.0		6.20E-06			6.20E-06						6.20E-06			
Trichloroethene (Trichloroethylene)	79-01-6	131.38	14.86	3.63E-03	4.58E-04	7.87E-03	6.00E+02	1.0							1.31E-05				1.31E-05			
1,1,2-trichloroethane	79-00-5	133.42	0.40	9.94E-05	1.25E-05	2.15E-04																
Toluene/Methyl Benzene	108-88-3	92.13	837.00	1.44E-01	1.81E-02	3.11E-01	3.00E+02	1.0					1.04E-03						1.04E-03		1.04E-03	
Chlorobenzene	108-90-7	112.56	3.39	7.11E-04	8.96E-05	1.54E-03	1.00E+03	1.0		1.54E-06								1.54E-06		1.54E-06		
Ethyl benzene	100-41-4	106.16	38.90	7.69E-03	9.69E-04	1.66E-02	2.00E+03	1.0		8.32E-06			8.32E-06	8.32E-06				8.32E-06				
m + p-xylenes	1330-20-7	106.16	159.00	3.14E-02	3.96E-03	6.80E-02	7.00E+02	1.0											9.72E-05		9.72E-05	
Styrene/Vinyl Benzene	100-42-5	104.14	5.40	1.05E-03	1.32E-04	2.27E-03	9.00E+02	1.0											2.52E-06			
1,1,2,2-tetrachloroethane	79-34-5	167.86	1.04	3.24E-04	4.08E-05	7.01E-04																
o-xylene	1330-20-7	106.16	35.60	7.04E-03	8.87E-04	1.52E-02	7.00E+02	1.0											2.18E-05		2.18E-05	
p-dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	147.01	42.04	1.15E-02	1.45E-03	2.49E-02	8.00E+02	1.0		3.11E-05								3.11E-05	3.11E-05		3.11E-05	
Hydrogen Sulfide	7783-06-4	34.08	1000.00	6.35E-02	8.00E-03	1.37E-01	1.00E+01	1.0													1.37E-02	
Carbon Disulfide	75-15-0	76.14	30.00	4.25E-03	5.36E-04	9.21E-03	8.00E+02	1.0											1.15E-05	1.15E-05		
1,3-Butadiene	106-99-0	54.09	0.40	4.03E-05	5.08E-06	8.72E-05	2.00E+01	1.0												4.36E-06		
Methylene Chloride/Dichloromethane	75-09-2	84.94	28.47	4.50E-03	5.67E-04	9.75E-03	4.00E+02	1.0				2.44E-05							2.44E-05			
1,4-Dioxan	123-91-1	88.10	0.40	6.56E-05	8.27E-06	1.42E-04	3.00E+03	1.0		4.73E-08		4.73E-08						4.73E-08				
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	187.88	0.40	1.40E-04	1.76E-05	3.03E-04	8.00E-01	1.0												3.79E-04		
Tetrachloroethylene (Perchloroethylene)	127-18-4	165.85	127.63	3.94E-02	4.97E-03	8.53E-02	3.50E+01	1.0		2.44E-03								2.44E-03				
Isoproply Alcohol	67-63-0	60.10	15.50	1.73E-03	2.19E-04	3.75E-03	7.00E+03	1.0					5.36E-07					5.36E-07				
Methyl Ethyl Keytone (MEK)/2-Butanone	78-93-3	72.11	9.30	1.25E-03	1.57E-04	2.70E-03																
Hexane	110-54-3	86.18	4.10	6.58E-04	8.29E-05	1.42E-03	7.00E+03	1.0										2.03E-07				
								Total	0.015	2.67E-03	0.00E+00	2.44E-05	1.28E-03	8.32E-06	1.31E-05	1.31E-05	0.00E+00	2.66E-03	1.29E-03	3.96E-04	1.50E-02	0.00E+00

Notes:
Exhaust Concentrations are unmitigated (i.e., a control efficiency of 0.0% is assumed for permitting) and are the higher of the average of three inlet concentration air sampling events performed on February 2, 2005 by URS or a single inlet concentration air sampling event performed by HDR in 2010.
Hydrogen Sulfide concentration is based on the outlet permit limit of 1 ppm.
Compounds shown in bold type were Non-Detected in at least one of the three sampling events. As such, 1/2 of the ND value was used as the sampled concentration per SCAQMD guidance.
Chronic Inhalation RELs, Mulitpathway Factors, and target specific system were obtained from Attachment L of SCAQMD's Risk Assessment Procedures for Rules 1401 & 212 (for applications deemed complete on or after July 1, 2005, Revised September 10, 2010)

ACUTE HAZARD INDEX - Mission & Jesse

Exhaust Flow (scfm)	12,000
Maximum 1-hr X/Q (ug/m^3)/(g/s)	445.9341

COMPOUND	CAS	MOLECULAR WEIGHT (g/gmol)	MAX EXHAUST CONCENTRATION (ppbv)	EMISSION RATE (lb/hr)	EMISSION RATE (g/s)	MAXIMUM IMPACT (ug/m3)	ACUTE INHALATION REL (ug/m3)	REL Averaging Time (hours)	Adjustmet Factor (Vernon Met Station)	Maximum	Alimentary System (Gastrointestinal & Liver)	Cardiovascular	Developmental	Eye	Hematopoietic (Blood)	Immune	Nervous System	Reproductive	Respiratory	Skin
Vinyl chloride	75-01-4	62.50	0.40	4.66E-05	5.87E-06	2.62E-03	1.80E+05	1	1.00					1.45E-08			1.45E-08		1.45E-08	
Methyl bromide (Bromomethane)	74-83-9	94.95	0.40	7.07E-05	8.91E-06	3.97E-03	3.90E+03	1	1.00				1.02E-06				1.02E-06	1.02E-06	1.02E-06	
Ethyl chloride	75-00-3	64.52	0.40	4.81E-05	6.06E-06	2.70E-03														
1,1-dichloroethylene (Vinylidene Chloride)	75-35-4	96.95	0.40	7.22E-05	9.10E-06	4.06E-03														
1,1-dichloroethane (Ethylidene Chloride)	75-34-3	98.96	0.40	7.37E-05	9.29E-06	4.14E-03														
Chloroform/Trichloromethane	67-66-3	119.39	119.31	2.65E-02	3.34E-03	1.49E+00	1.50E+02	7	0.61				6.06E-03				6.06E-03	6.06E-03		
1,2-dichloroethane (Ethylene Dichloride)	107-06-2	98.96	0.40	7.37E-05	9.29E-06	4.14E-03														
1,1,1-trichloroethane (Methyl Chloroform)	71-55-6	133.42	0.40	9.94E-05	1.25E-05	5.58E-03	6.80E+04	1	1.00								8.21E-08			
Benzene	71-43-2	78.11	2.57	3.74E-04	4.71E-05	2.10E-02	1.30E+03	6	0.61				9.86E-06		9.86E-06	9.86E-06		9.86E-06		
Carbon Tetrachloride	56-23-5	153.84	0.40	1.15E-04	1.44E-05	6.44E-03	1.90E+03	7	0.61		2.07E-06		2.07E-06				2.07E-06	2.07E-06		
Trichloroethene (Trichloroethylene)	79-01-6	131.38	22.10	5.41E-03	6.81E-04	3.04E-01														
1,1,2-trichloroethane	79-00-5	133.42	0.40	9.94E-05	1.25E-05	5.58E-03														
Toluene/Methyl Benzene	108-88-3	92.13	837.00	1.44E-01	1.81E-02	8.07E+00	3.70E+04	1	1.00				2.18E-04	2.18E-04			2.18E-04	2.18E-04	2.18E-04	
Chlorobenzene	108-90-7	112.56	4.10	8.59E-04	1.08E-04	4.83E-02														
Ethyl benzene	100-41-4	106.16	38.90	7.69E-03	9.69E-04	4.32E-01														
m + p-xylenes	1330-20-7	106.16	159.00	3.14E-02	3.96E-03	1.77E+00	2.20E+04	1	1.00					8.03E-05					8.03E-05	
Styrene/Vinyl Benzene	100-42-5	104.14	5.71	1.11E-03	1.40E-04	6.22E-02	2.10E+04	1	1.00					2.96E-06					2.96E-06	
1,1,2,2-tetrachloroethane	79-34-5	167.86	2.31	7.22E-04	9.10E-05	4.06E-02														
o-xylene	1330-20-7	106.16	35.60	7.04E-03	8.87E-04	3.95E-01	2.20E+04	1	1.00					1.80E-05					1.80E-05	
p-dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	147.01	51.78	1.42E-02	1.79E-03	7.96E-01														
Hydrogen Sulfide	7783-06-4	34.08	1000.00	6.35E-02	8.00E-03	3.57E+00	4.20E+01	1	1.00								8.49E-02			
Carbon Disulfide	75-15-0	76.14	30.00	4.25E-03	5.36E-04	2.39E-01	6.20E+03	6	0.61				2.35E-05				2.35E-05	2.35E-05		
1,3-Butadiene	106-99-0	54.09	0.40	4.03E-05	5.08E-06	2.26E-03														
Methylene Chloride/Dichloromethane	75-09-2	84.94	32.59	5.15E-03	6.49E-04	2.90E-01	1.40E+04	1	1.00								2.07E-05			
1,4-Dioxan	123-91-1	88.10	0.40	6.56E-05	8.27E-06	3.69E-03	3.00E+03	1	1.00					1.23E-06					1.23E-06	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	187.88	0.40	1.40E-04	1.76E-05	7.86E-03														
Tetrachloroethylene (Perchloroethylene)	127-18-4	165.85	172.20	5.32E-02	6.70E-03	2.99E+00	2.00E+04	1	1.00					1.49E-04			1.49E-04		1.49E-04	
Isoproply Alcohol	67-63-0	60.10	15.50	1.73E-03	2.19E-04	9.75E-02	3.20E+03	1	1.00					3.05E-05					3.05E-05	
Methyl Ethyl Keytone (MEK)/2-Butanone	78-93-3	72.11	9.30	1.25E-03	1.57E-04	7.02E-02	1.30E+04	1	1.00					5.40E-06					5.40E-06	
Hexane	110-54-3	86.18	4.10	6.58E-04	8.29E-05	3.70E-02														
									Total	**0.091**	**2.07E-06**	**0.00E+00**	**6.32E-03**	**5.06E-04**	**9.86E-06**	**9.86E-06**	**9.14E-02**	**6.32E-03**	**5.07E-04**	**0.00E+00**

Notes:
Exhaust Concentrations are unmitigated (i.e., a control efficiency of 0.0% is assumed for permitting) and are the maximum of three inlet concentration air sampling events performed on February 2, 2005 by URS and a single inlet concentration air sampling event performed by HDR in 2010.
Hydrogen Sulfide concentration is based on the outlet permit limit of 1 ppm.
Compounds shown in bold type were Non-Detected in at least one of the three sampling events. As such, 1/2 of the ND value was used as the sampled concentration per SCAQMD guidance.
Acute Inhalation RELs, Mulitpathway Factors, and target specific system were obtained from Attachment L of SCAQMD's Risk Assessment Procedures for Rules 1401 & 212 (for applications deemed complete on or after July 1, 2005, Revised September 10, 2010)

Toxics Data Mission Jesse

			Sampling Event 1[a]				Sampling Event 2[b]				
Sample Location:			**Inlet**	**Inlet**	**Inlet**	**Average**	**Inlet**	**Average Inlet Concentration**		**Maximum Concentration**	
Test No.:			**1**	**2**	**3**			(highest value of 3-run average		(over all samples taken)	
Time:								of sampling event#1 and single value			
Flow Rate, dscfm:			**7516**				**5150**	from event#2)			
Species[c]	**CAS**	**Molecular Weight**	**ppb[d]**	**ppb[d]**	**ppb[d]**	**ppb[d]**	**ppb_v**	**ppb**	**lb/hr**	**ppb**	**lb/hr**
Vinyl chloride	75-01-4	62.50	**0.4**	**0.4**	**0.4**	0.40		0.40	2.97E-05	0.40	2.97E-05
Methyl bromide (Bromomethane)	74-83-9	94.95	**0.4**	**0.4**	**0.4**	0.40		0.40	4.51E-05	0.40	4.51E-05
Ethyl chloride	75-00-3	64.52	**0.4**	**0.4**	**0.4**	0.40		0.40	3.07E-05	0.40	3.07E-05
1,1-dichloroethylene (Vinylidene Chloride)	75-35-4	96.95	**0.4**	**0.4**	**0.4**	0.40		0.40	4.61E-05	0.40	4.61E-05
1,1-dichloroethane (Ethylidene Chloride)	75-34-3	98.96	**0.4**	**0.4**	**0.4**	0.40		0.40	4.70E-05	0.40	4.70E-05
Chloroform/Trichloromethane	67-66-3	119.39	119.31	115.77	111.43	115.50	80.2	115.50	1.64E-02	119.31	1.69E-02
1,2-dichloroethane (Ethylene Dichloride)	107-06-2	98.96	**0.4**	**0.4**	**0.4**	0.40		0.40	4.70E-05	0.40	4.70E-05
1,1,1-trichloroethane (Methyl Chloroform)	71-55-6	133.42	**0.4**	**0.4**	**0.4**	0.40		0.40	6.34E-05	0.40	6.34E-05
Benzene	71-43-2	78.11	2.36	2.56	2.57	2.50	1.8	2.50	2.32E-04	2.57	2.39E-04
Carbon Tetrachloride	56-23-5	153.84	**0.4**	**0.4**	**0.4**	0.40		0.40	7.31E-05	0.40	7.31E-05
Trichloroethene (Trichloroethylene)	79-01-6	131.38	22.1	17.81	4.66	14.86	8.7	14.86	2.32E-03	22.10	3.45E-03
1,1,2-trichloroethane	79-00-5	133.42	**0.4**	**0.4**	**0.4**	0.40		0.40	6.34E-05	0.40	6.34E-05
Toluene/Methyl Benzene	108-88-3	92.13	81.6	87	191.92	120.17	837	837.00	6.28E-02	837.00	6.28E-02
Chlorobenzene	108-90-7	112.56	4.1	3.68	2.4	3.39		3.39	4.54E-04	4.10	5.48E-04
Ethyl benzene	100-41-4	106.16	6.7	5.25	8.65	6.87	38.9	38.90	3.36E-03	38.90	3.36E-03
m + p-xylenes	1330-20-7	106.16	10.88	8.47	17.39	12.25	159	159.00	1.37E-02	159.00	1.37E-02
Styrene/Vinyl Benzene	100-42-5	104.14	3.25	1.92	5.71	3.63	5.4	5.40	4.58E-04	5.71	7.07E-04
1,1,2,2-tetrachloroethane	79-34-5	167.86	2.31	**0.4**	**0.4**	1.04		1.04	2.07E-04	2.31	4.61E-04
o-xylene	1330-20-7	106.16	11.82	8.37	17.96	12.72	35.6	35.60	3.08E-03	35.60	3.08E-03
p-dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	147.01	51	23.33	51.78	42.04	17	42.04	7.34E-03	51.78	9.05E-03
Hydrogen Sulfide	7783-06-4	34.08	-	-	1000	1000.00		1,000.00	4.05E-02	1,000.00	4.05E-02
Carbon Disulfide	75-15-0	76.14	-	-	**30**	30.00	14.6	30.00	2.71E-03	30.00	2.71E-03
1,3-Butadiene	106-99-0	54.09	**0.4**	**0.4**	**0.4**	0.40		0.40	2.57E-05	0.40	2.57E-05
Methylene Chloride/Dichloromethane	75-09-2	84.94	22.93	32.59	29.89	28.47	8.4	28.47	2.87E-03	32.59	3.29E-03
1,4-Dioxan	123-91-1	88.10	**0.4**	**0.4**	**0.4**	0.40		0.40	4.19E-05	0.40	4.19E-05
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	187.88	**0.4**	**0.4**	**0.4**	0.40		0.40	8.93E-05	0.40	8.93E-05
Tetrachloroethylene (Perchloroethylene)	127-18-4	165.85	119.73	90.97	172.2	127.63	68.4	127.63	2.52E-02	172.20	3.39E-02
Isoproply Alcohol	67-63-0	60.10	-	-	-	-	15.5	15.50	7.58E-04	15.50	7.58E-04
Methyl Ethyl Keytone (MEK)/2-Butanone	78-93-3	72.11	-	-	-	-	9.3	9.30	5.46E-04	9.30	5.46E-04
Hexane	110-54-3	86.18	-	-	-	-	4.1	4.10	2.88E-04	4.10	2.88E-04
Total:									0.18		0.20

Notes:

[a]This data is from the URS February 2, 2005 Sampling Event as provided by Connie Leonard (B&V) in email on June 13, 2005 from a URS report dated March 15, 2005.

[b]This data is from the HDR 2010 Sampling Event as provided by Jeffrey Mohr (B&V) in email on July 7, 2011 from an HRD report dated November 2010.

[c]These compounds are those that appear in Attachment L of SCAQMD's Risk Assessment Procedures for Rules 1401 and 212 as having some health hazard characteristics

[d]Bold values indicate that the compound was not detected in a particular sampling event and as such, half of the method detection limit value was used as the compound's concentration per SCAQMD guidelines.

Emissions Information

With the exception of hydrogen sulfide (H_2S), concentrations of the Toxic Air Contaminants (TACs) of concern were based on the unmitigated, inlet numbers obtained during sampling of air pollution control equipment ventilation at the site, performed in February 2005 and April 2010.

It was assumed that the maximum and average controlled emission rate for H_2S would be 1 ppmv, which was used in the health risk assessment and is based on similar permit limitations of the pollutant.

Emission rates were estimated for all compounds using concentrations in ppbv, the ideal gas law at 70°F, and the stack exhaust flow rate of 12,000 scfm.