San Jose State University

Interdisciplinary Science Building Project

Final

Initial Study - Mitigated Negative Declaration

December 2017

rincon

Environmental Scientists Planners Engineers

FINAL
INITIAL STUDY –
MITIGATED NEGATIVE DECLARATOIN

SAN JOSE STATE UNIVERSITY
INTERDISCIPLINARY SCIENCE BUILDING PROJECT

Prepared by:

The Trustees of the California State University
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December 2017

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1.0 INTRODUCTION

This Initial Study and Mitigated Negative Declaration (IS-MND) analyzes the potential environmental effects of constructing an Interdisciplinary Science Building (ISB) located on the SJSU Campus on a site north of Duncan Hall facing Paseo de San Carlos between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include development of a 215,000 gross square feet (GSF) science building that is up to ten stories high with a basement. The new building would house laboratories, faculty offices, and interdisciplinary spaces. The project includes the relocation of the Associated Students House. The project would also remove and replace an existing botanic garden.

1.1 PURPOSE AND LEGAL AUTHORITY

This document has been prepared to satisfy the requirements of the California Environmental Quality Act (CEQA) (Pub. Res. Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects for which they have discretionary authority before they approve or implement such projects.

The Initial Study (IS) is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. In the case of the proposed project, the Board of Trustees of the California State University are the lead agency and would use the IS to determine whether the project has a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either alone or in combination with other projects, may have a significant effect on the environment, that agency is required to prepare an Environmental Impact Report (EIR), a supplement to a previously prepared EIR, or a subsequent EIR to analyze the project. If the lead agency finds no substantial evidence that the project or any of its aspects may cause a significant impact on the environment, a Negative Declaration shall be prepared. If, over the course of the analysis, the project is found to have a significant impact on the environment that, with specific mitigation measures, can be reduced to a less-than-significant level, a Mitigated Negative Declaration (MND) shall be prepared.

1.2 INITIAL STUDY FORMAT AND CONTENTS

In addition to Section 1.0 - Introduction, this IS-MND is organized into the following sections:

- **Section 2.0 - Project Description:** Includes a detailed description of the proposed project.

- **Section 3.0 - Environmental Checklist:** Contains the Environmental Checklist Form together with an impact discussion for each of the checklist questions. The Checklist Form is used to determine the following for the proposed project:

    1) *"Potentially Significant Impacts" that may not be mitigated even with the inclusion of mitigation measures;*

2) *"Potentially Significant Impacts Unless Mitigated" which could be mitigated with incorporation of mitigation measures; and,*

3) *"Less Than Significant Impacts" which would be less than significant and do not require the implementation of mitigation measures.*

Section 3.0 addresses the following environmental issues:

1. *Aesthetics*
2. *Agriculture and Forestry Resources*
3. *Air Quality*
4. *Biological Resources*
5. *Cultural and Historic Resources*
6. *Greenhouse Gas Emissions*
7. *Geology and Soils*
8. *Hazards and Hazardous Materials*
9. *Hydrology and Water Quality*
10. *Land Use and Planning*
11. *Mineral Resources*
12. *Noise*
13. *Population and Housing*
14. *Public Services*
15. *Recreation*
16. *Transportation/Traffic*
17. *Utilities and Service Systems*

- **Section 4.0 - References:** Identifies the printed and on-line references.

1.3 DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the attached Initial Study have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (1) have been analyzed in an earlier EIR pursuant to applicable standards and (2) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.	

San Jose State University
Ashraf Fouad
Senior Director, Planning Design and Construction

12/20/17
Date

Pursuant to section 21082.1 of the California Environmental Quality Act, the Board of Trustees of the California State University (CSU Board) has independently reviewed and analyzed the Initial Study and Mitigated Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of the CSU Board. The CSU Board, as the lead agency, also confirms that the project mitigation measures detailed in these documents are feasible and will be implemented as stated in the Mitigated Negative Declaration.

Prepared by:
Rincon Consultants, Inc.
Richard Daulton
Principal in Charge

Prepared for:
San Jose State University
Ashraf Fouad
Senior Director, Planning Design and Construction

2.0 PROJECT DESCRIPTION

2.1 PROJECT TITLE

Interdisciplinary Science Building (ISB) Project

2.2 LEAD AGENCY AND LOCAL REPRESENTATIVE

The Trustees of the California State University
400 Golden Shore
Long Beach, California 90802-4275

Locally represented by:

Ashraf Fouad, Senior Director
San Jose State University, Facilities Development and Operations
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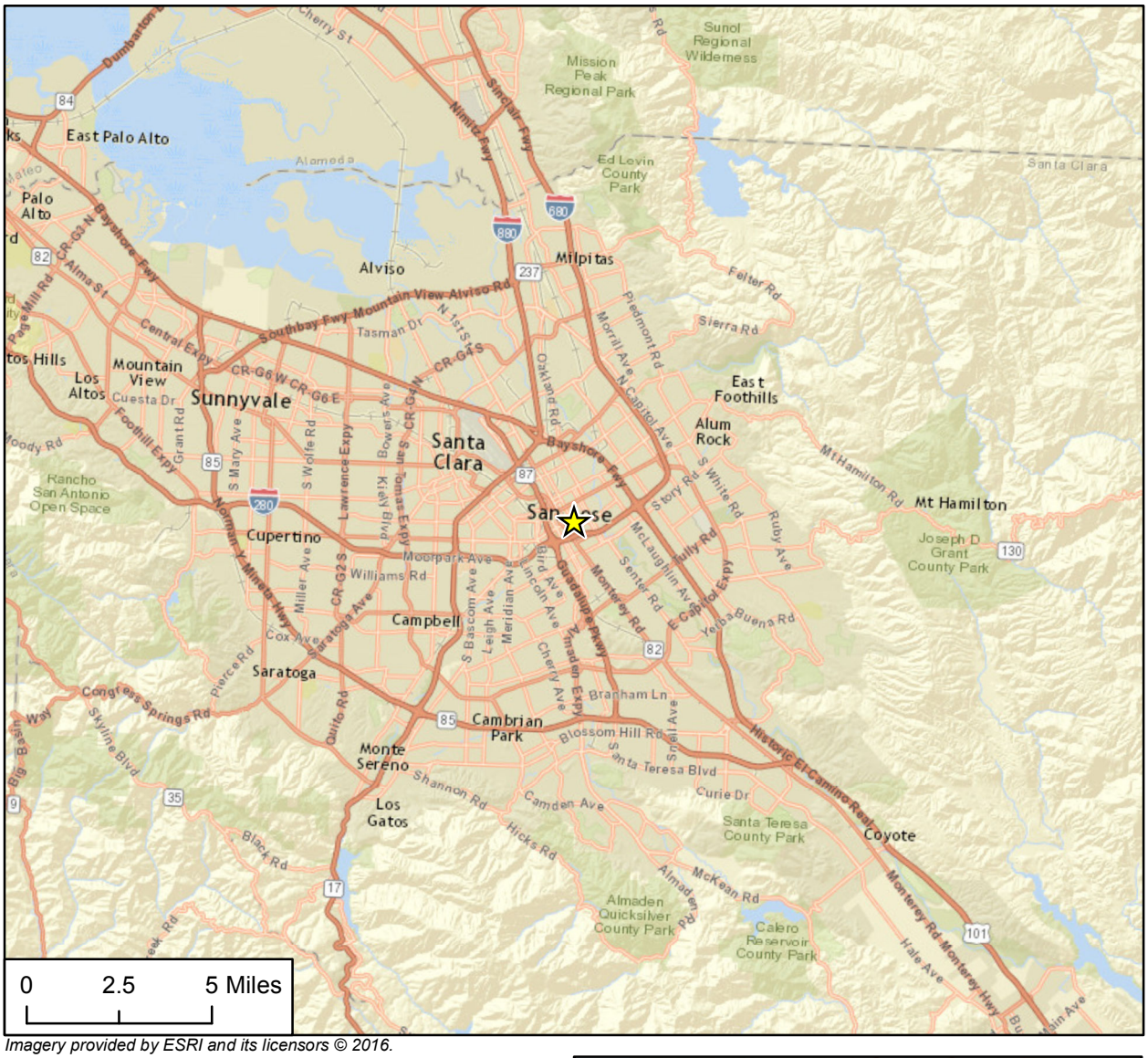
2.3 PROJECT LOCATION

The project site is located entirely within the main campus of San Jose State University (SJSU) in the center of the City of San Jose, California (Figure 1). The SJSU campus is located to the east of the Guadalupe Freeway and to the north of Interstate 280/Junipero Serra Freeway. The Main Campus occupies a square-shaped property of 88.5 acres bordered by San Fernando Street on the north, San Salvador Street on the south, 10th Street on the east, and 4th Street on the west. The proposed ISB would be located north of Duncan Hall facing Paseo de San Carlos between 4th Street and 7th Street, in the southwest quadrant of campus, adjacent to MacQuarrie Hall (Figure 2). The ISB project site is the current location of the Associated Students House, parking lots 11 and 13, and a small botanic garden.

2.4 SURROUNDING LAND USES AND SETTING

Buildings cover approximately 42% of the SJSU Campus land area. The remaining 58% is composed of open space, service zones, and surface parking. The neighborhoods that immediately surround the campus are mixed residential and commercial. North of the campus along San Fernando Street, land use is largely residential, including student housing, multi-story retirement residences, and the campus-owned North Parking Facility. West of the campus, along 4th Street, land uses include medium-density residential, which includes condominiums and rental apartments. Low-density single-family residential currently borders the south side of the campus. Land use on the eastern side of the campus is composed of medium-density residential apartments and low-density single-family residential, including sorority and fraternity houses, apartments, and rooming houses.



Imagery provided by ESRI and its licensors © 2016.

Project Location

N

Regional Location

Figure 1

Imagery provided by Google and its licensors © 2016.

Project Site Location

Figure 2

Existing campus uses surrounding the project site include Duncan Hall to the south and MacQuarrie Hall to the east. To the north of the proposed project site, across Paseo de San Carlos, which is open to pedestrians only, is the Yoshihiro Uchida Hall and Spartan Complex Central. West of the site is the West Parking Garage, adjacent to 4th Street, between San Salvador Street and Paseo de San Carlos. Duncan and MacQuarrie Halls currently house the College of Sciences (COS). By co-locating the proposed ISB near the existing buildings occupied by the COS, this project aims to consolidate the COS departments into a Science "neighborhood" on the SJSU main campus.

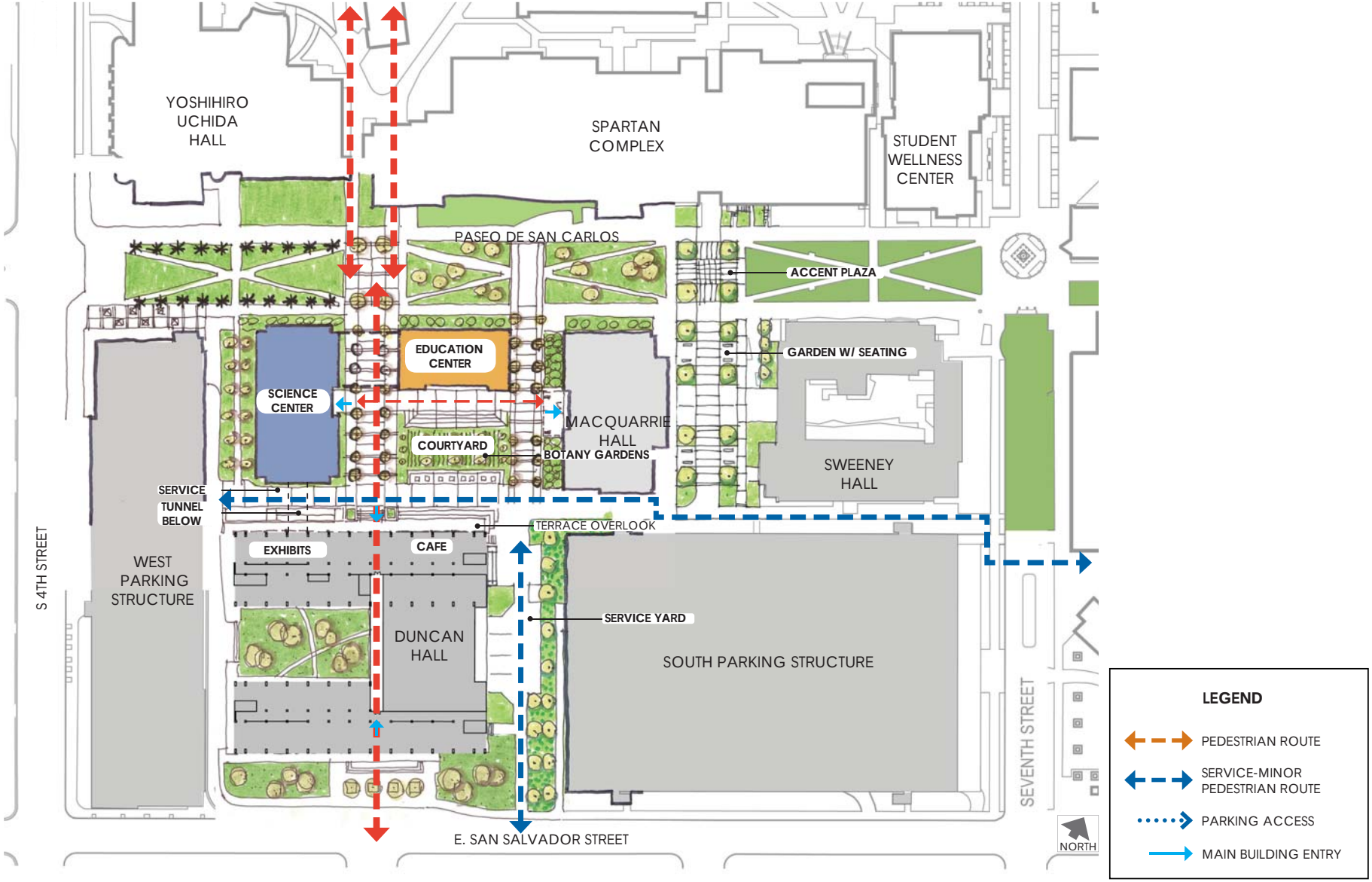
The ISB project site is approximately 1.9 acres and is currently developed with the Associated Students House, parking lots 11 and 13, and a small botanic garden. Vegetation is limited to the existing botanic garden and approximately 29 trees surrounding disbursed throughout the site. Removed trees would be replaced elsewhere on the SJSU campus at a rate of two native trees planted for every one mature tree removed.

2.5 PROJECT CHARACTERISTICS

The project would include development of an interdisciplinary science building (ISB) that is approximately eight to ten stories high with a basement. The new building would house laboratories, faculty offices, and interdisciplinary spaces. The project is divided into two components: the ISB Base Program and the ISB Aspirational Program. The ISB Base Program consists of spaces for teaching, research, other instruction and their respective support areas. The ISB Aspirational Program, which would be constructed if non-state external funding is secured, consists of specialty spaces to foster collaboration and innovation within the COS and the University.

The ISB Base Program would be comprised of approximately 161,000 GSF with spaces for teaching, research laboratories, and lab support areas that would be primarily for the Biology and Chemistry departments. This component of the project would also include administrative and other instructional areas, informal faculty-student collaboration areas, shared amenities, such as conference rooms, and space for high performance computing. The ISB Aspirational Program would comprise of approximately 54,000 GSF and would include an innovation design center/makerspace, a science museum, a visualization theatre for large-scale illustration and display of scientific research, specialty labs and offices, a cybersecurity work spaces, a large tiered classroom for formal lectures, and a student success and advising center. Both components would be designed with an emphasis on daylight, collaborative areas, private offices for faculty, flexible learning spaces, and technology-enabled smart laboratories and classrooms that support multiple devices/learning modes. The project would also include a 10-foot wide and approximately 185-foot long underground utility corridor between Duncan Hall and the proposed ISB. A conceptual site plan is shown in Figure 3. As shown therein, a future education center with rooftop garden is contemplated adjacent to the proposed project. The education center is conceptual at this point and not part of the current project analyzed in this IS-MND.

The entire project would total up to 215,000 GSF. The basement and ground floor would include a lobby/atrium and components of the ISB Aspirational Program, including a science museum, visualization theater, tiered classroom, and innovation design center/makerspace. Floors two



Source: SJSU, 2017.

Conceptual Site Plan

Figure 3

through ten would include components of the ISB Base Program, including classrooms and offices. The top two floors would house additional specialty programs for the ISB Aspirational Program.

With both project components, the total building height would be approximately 148 feet, which is 28 feet taller than the adjacent Duncan Hall (as measured from the top of the observatory railing). This IS-MND evaluates the total project with both the Base and Aspirational components. The conceptual building height sections are shown in Figure 4 and an aerial view showing building massing is in Figure 5.

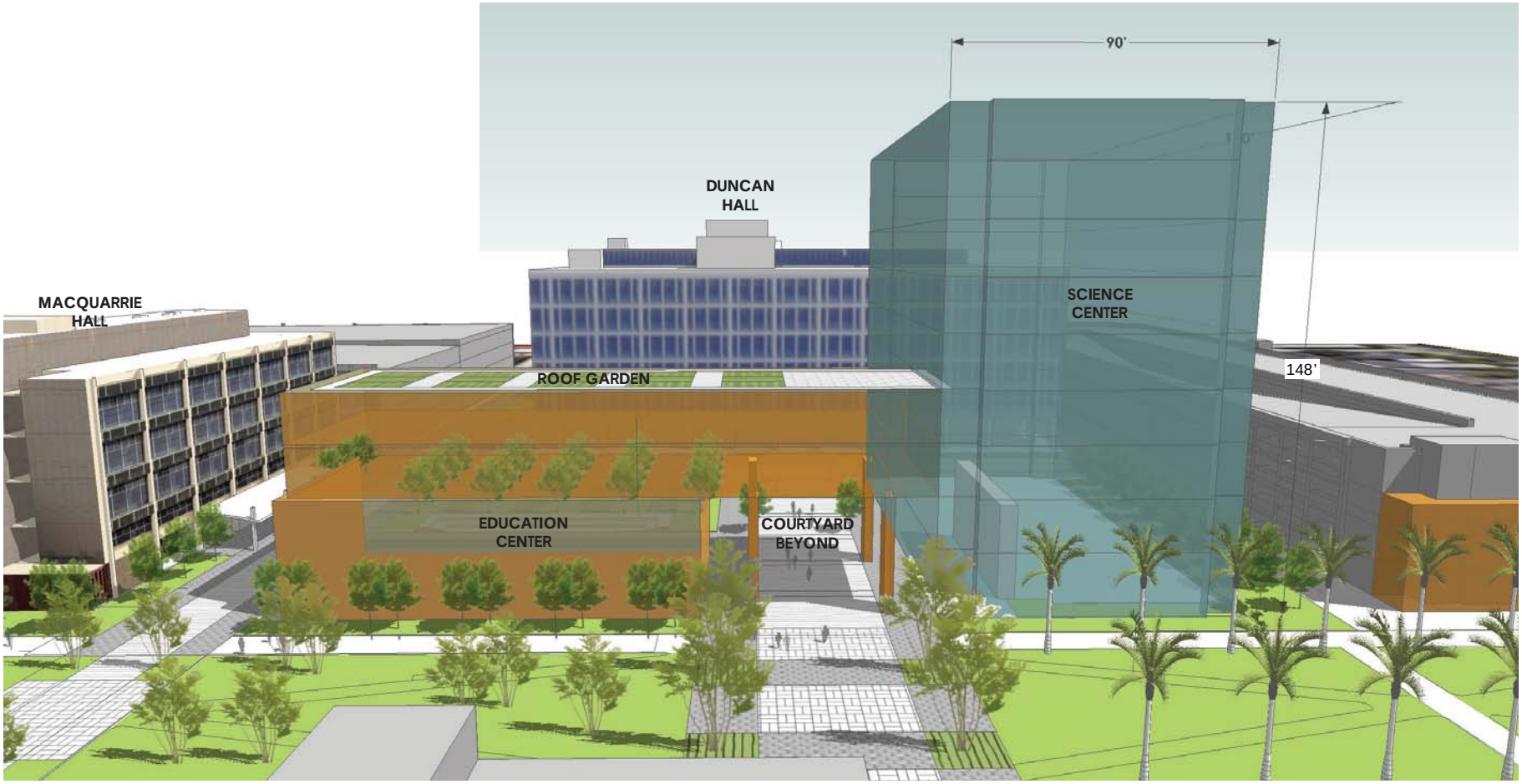
The ISB project is scheduled to start construction in June 2019 and estimated to be complete by December 2021 for the Base Program. If the Aspirational Program is included, the project completion would be extended by approximately six months. Construction would include the relocation of the Associated Students House, vegetation removal (including the existing botanic garden), removal of existing surface parking lots, trenching for the proposed utility corridor, and construction of the proposed building. Existing meteorology observation equipment in Duncan Hall and the Observatory would also relocate to the ISB.

Consistent with SJSU Campus Sustainability Standards, the ISB project would aim to achieve a minimum Leadership in Energy and Environmental Design (LEED) Silver certification from the United States Green Building Council (USGBC) or equivalent.

2.6 REQUIRED APPROVALS

The Trustees of the California State University Approvals

- *Schematic Plan Approval*



Source: SJSU, 2017.

Conceptual Building Height

Figure 4

Source: SJSU, 2017.

Conceptual Aerial View with Building Massing

Figure 5

3.0 ENVIRONMENTAL CHECKLIST

The following checklist was developed as a tool to screen potential environmental impacts and is consistent with that contained in the *State CEQA Guidelines*. A discussion, including an environmental impact analysis and a requirement for mitigation measures, is included after each issue area.

Aesthetics - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

a, b. Development of the proposed project would occur within the SJSU campus. The main campus is not designated as a scenic vista, nor is the project site visible from a designated scenic highway. Therefore, **no impacts** to scenic vistas or highways would occur as a result of this project.

c. The character of buildings on the SJSU campus is varied, and the proposed ISB would be compatible with surrounding buildings The ISB would have a distinct character and identity, appropriate for its use, but would blend with the visual character of the campus.

Additionally, the Campus Master Plan 2001 proposes a campus interior that remains roughly the same in terms of height and mass, to that of surrounding structures, and a more densely developed campus perimeter. The proposed structure would be up to 148 feet tall, with ten stories, and would be visible from several viewpoints on and off campus; however, the scale and height of the proposed facility are compatible with buildings on campus, which include other structures up to 12 stories in height. The buildings surrounding the proposed facility range from five to seven stories.

The Campus Master Plan 2001 also discusses building up rather than out to conserve open space with a minimum ground coverage area of 42% for the campus. The project would be located within site 2C, as described in the *Guidelines for Campus Change* section of the Master Plan. This section has allowable building floor area of 95,000 square feet. The proposed ISB would have an approximate 71,200 square feet building footprint. This would use 75% of the allowable building floor area of the section; allowing for more open space area. Moreover, the campus has a total of approximately 26 acres of open space. The addition of the ISB would convert approximately 0.5 acre from open space to developed area, leaving 25.5 acres of open space for the campus.

The proposed ISB would be visually compatible with the surrounding development, and would not result in a significant impact to the visual character of the campus. The project would be located within an existing developed area adjacent to other campus structures, including the West Parking Facility to the west of the site and Duncan Hall to the east. The project site is currently occupied by the Associated Students House, parking lots 11 and 13, and a botanic garden.

The site is within the southwest quadrant of campus, or Science District, that has a collection of trees and plans considered Botanical/Arboretum within the SJSU's 2013 Landscape Master Plan. Within this area there is a botanical garden that would be removed. It is anticipated that the botanical garden would be replaced elsewhere on the project site, and that the new botanical garden would be similar in size if not larger than the current garden. The project area also currently has large open lawn areas that would be removed by the project. However, the project proposal includes open space areas that incorporate shaded seating, large open lawns, botanical gardens, and water features. Given these improvements, the project would not substantially degrade the existing visual character or quality of the site.

Construction associated with the underground utility infrastructure would occur along walkways and right-of-ways in the vicinity of the ISB. The re-routing, rehabilitating and reinforcing of the underground utility infrastructure would only have a visual component during construction, as the utilities would be located underground. During construction activities for all portions of the project, views of staging and construction areas would include equipment, construction materials, and debris. However, staging areas would be screened to the extent possible, and such adverse aesthetic effects during the construction period would be temporary and minor.

Overall, impacts on visual character and quality would be **less than significant.**

d. Existing lighting on the project site includes pole-mounted, downcast lighting in the two parking lots and at each of the four corners of the grass area, as well as four pole-mounted bulb light structures in front of Duncan Hall. Adjacent structures also have night lighting. The overall existing lighting in the project area is appropriate to a college campus within an urban area.

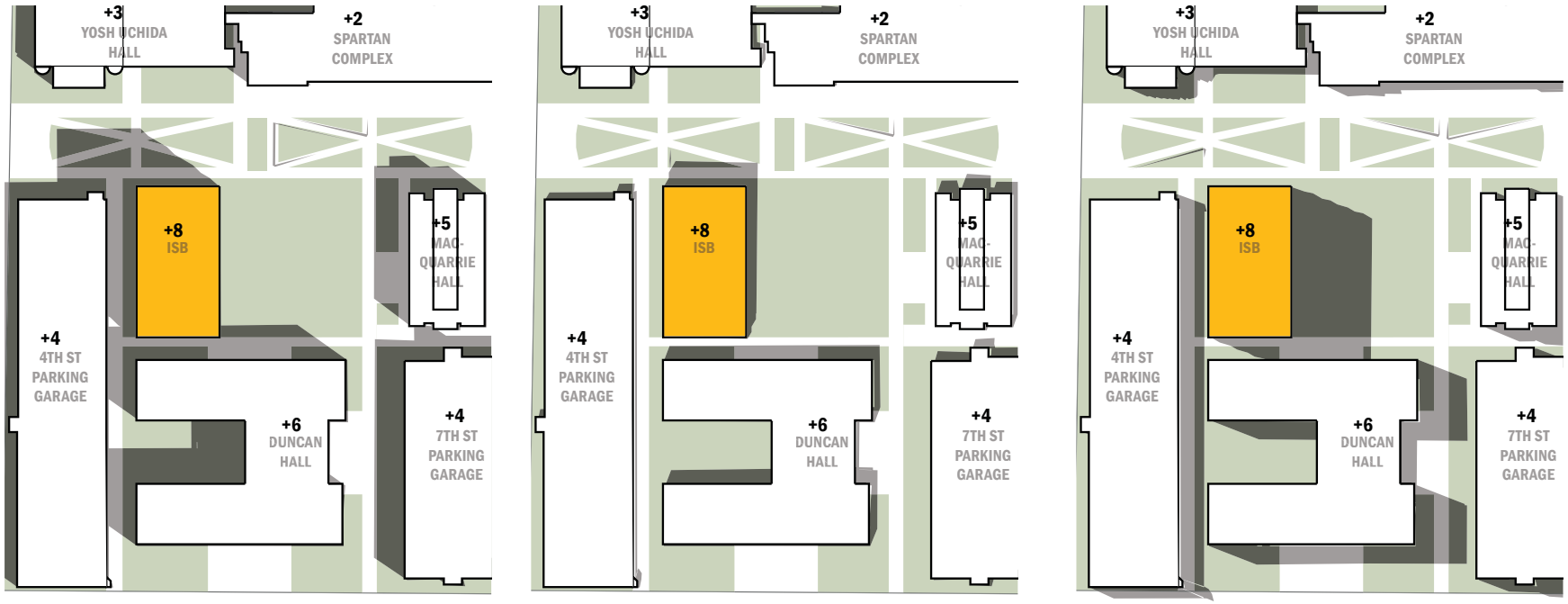
The proposed project would include lighting. However, given the extent of existing lighting on the site, a substantial change in lighting would not occur. Furthermore, the SJSU Exterior Lighting Master Plan (Strata, 2016) contains specific requirements for outdoor lighting to ensure that lighting integrates with campus aesthetics, is low-maintenance and energy efficient, results in minimal light trespass and reduced light pollution while providing good nighttime visibility. Compliance with these existing development standards would ensure that impacts would be **less than significant.**

The proposed project would result in new sources of glare that may affect daytime visibility for off-site land uses. However, although reflective materials are anticipated to be used in the construction of the proposed building, the new structure would be internal to the campus, and levels of glare would be similar to existing conditions. Therefore,

impacts to the area surrounding the campus related to glare would be **less than significant**.

Shading Effects. In the built environment, shadows are an important aspect of a site's aesthetics. Daytime shadows form based on the sun's position in the sky, relative to the ground, and a given structure's location and dimensions. The sun's position in the sky varies substantially depending on the time of year. On June 20 (summer solstice), the sun is the highest in the sky and shadows are the shortest. As winter approaches, the sun's angle relative to the earth's horizon changes and shadow lengths become longer. On December 21 (winter solstice), the sun is lowest in the sky and shadows are greatest. The spring (vernal) and fall (autumnal) equinoxes represent midpoints in this progression between solstices. The length and direction of shadows also vary based on the time of day. At approximately 12 noon, the sun is closest to a vertical position relative to the ground surface, creating the shortest shadows during a given day. By contrast, shadows are longest near sunrise and sunset due to the sun's position near the horizon. The term "shading" refers to the effect of shadows cast upon adjacent areas by proposed structures.

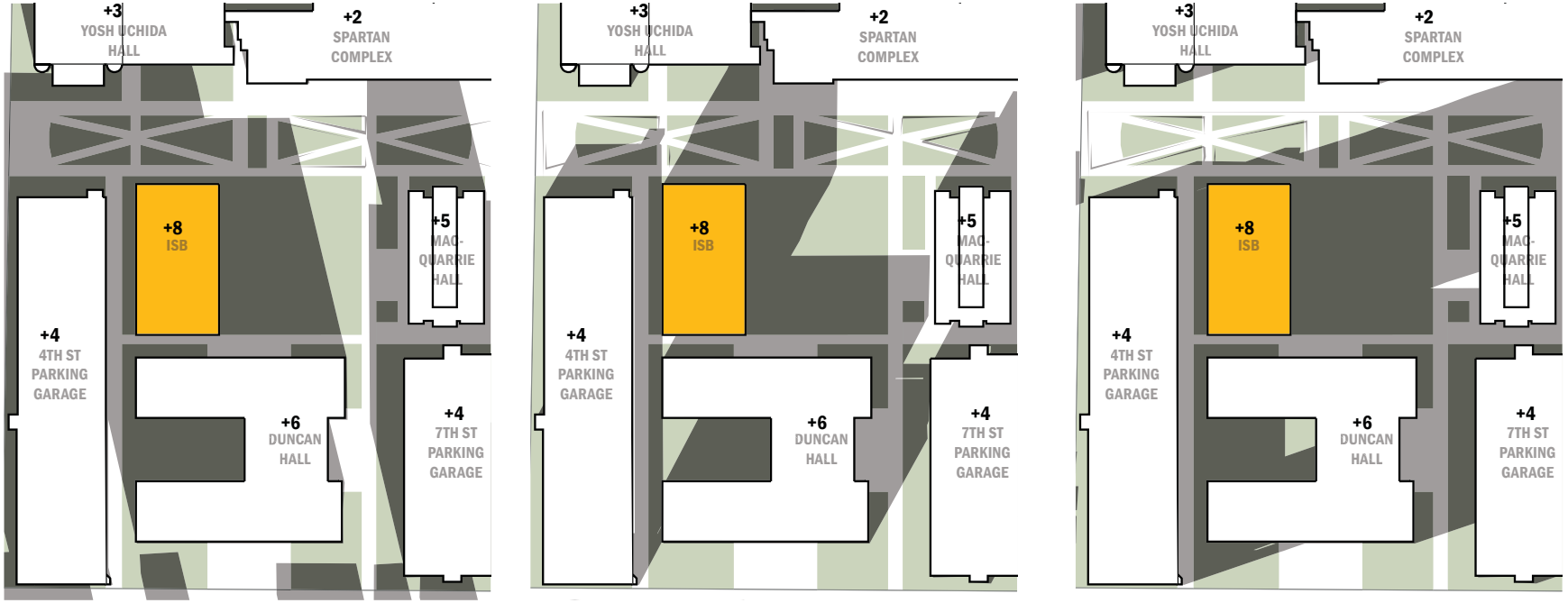
The shading that would occur as a result of the proposed ISB structure can be seen in Figures 6a and 6b. As shown in Figure 6a, during the summer solstice, the proposed ISB building would cast shadows over the walkways to the north and west of the project site, as well as the 4th Street Parking Garage west of the site in the morning. In the afternoon, shadows would extend onto the lawn area east of the site, as well as onto the walkway in front of Duncan Hall south of the site. As shown in Figure 6b, during the winter solstice, shadows would extend farther to the north, west, and east of the project site. Morning shadows would add to existing shadows from Duncan Hall, shading part of Yoshihiro Uchida Hall to the north. Mid-day winter shadows would shade the walkways to the north and portions of Yoshihiro Uchida Hall and Spartan Complex. In the afternoon, shadows would cover the lawn area to the east, as well as walkways and portions of MacQuarrie Hall. Specific outdoor uses such as large open lawns and already-shaded seating would be shaded as a result of the project. However, the project-generated shadows would contribute to an existing shaded condition, rather than resulting in substantial new shadows. Visual impacts associated with shading effects from the proposed ISB would be **less than significant**.



Source: Gensler, June 2017.

Summer Shadows

Figure 6a



Source: Gensler, June 2017.

Winter Shadows

Figure 6b

Agricultural Resources - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

a-e. The project site lies within the urban core of the City of San Jose and no agricultural use of this land has occurred for many decades. The proposed project would involve the construction of an approximate 215,000 GSF ISB on a 210,000 square foot infill site located on the SJSU campus, as associated 10-foot wide and approximately 185-foot long underground utility corridor between Duncan Hall and the proposed ISB. The project does not involve any development that would convert agricultural land to a non-agricultural use, conflict with the existing zoning of forest land or timberland, result in the loss or conversion of forest land to non-forest uses, or interrupt ongoing agricultural activity. Therefore, the proposed project would not adversely affect agricultural, forest land, or timberland resources. **No impacts** would occur.

Air Quality - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

Background Information

Federal and state standards have been established for six criteria pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$), and lead (Pb). California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Table 1 lists the current federal and state standards for criteria pollutants.

Table 1
Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.07 ppm (8-hr avg)
Carbon Monoxide	35.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)	20.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)
Nitrogen Dioxide	0.10 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg) 0.14 ppm (24-hr avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	1.5 $\mu g/m^3$ (calendar quarter)	0.15 $\mu g/m^3$ (3-month avg)
Particulate Matter (PM_{10})	150 $\mu g/m^3$ (24-hr avg)	50 $\mu g/m^3$ (24-hr avg) 20 $\mu g/m^3$ (annual avg)
Particulate Matter ($PM_{2.5}$)	35 $\mu g/m^3$ (24-hr avg) 12 $\mu g/m^3$ (annual avg)	12 $\mu g/m^3$ (annual avg)

ppm= parts per million
$\mu g/m^3$ = micrograms per cubic meter
Source: California Air Resources Board, www.arb.ca.gov/research/aaqs/aaqs2.pdf, *May 4, 2016*

The project site is located within the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the

local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether the standards are met or exceeded, the air basin is classified as being in "attainment" or "nonattainment." The SFBAAB is in nonattainment for both the federal and state standards for ozone, as well as the state standard for particulate matter (PM_{10} and $PM_{2.5}$) and the federal standard for 24 hour $PM_{2.5}$. The BAAQMD has adopted the 2017 Bay Area Clean Air Plan (CAP) that provides a strategy for the attainment of state and federal air quality standards. To comply with the California Clean Air Act, the BAAQMD and its cooperating partners adopted the Bay Area 2010 CAP. The BAAQMD has made updates to the 2010 CAP and included those updates in the 2017 CAP.

On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds contained in the BAAQMD's 2010 Updated CEQA Guidelines. In August 2013, the First District Court of Appeal overturned the trial court and held that the thresholds of significance adopted by the BAAQMD were not subject to CEQA review. The California Supreme Court granted review of the Court of Appeal decision limited to the question whether CEQA encompasses impacts of the environment on the project. On December 17, 2015, the court issued its opinion, concluding that that, subject to certain enumerated statutory exceptions, agencies subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. The result of this litigation is that BAAQMD's thresholds have been upheld, with the exception of thresholds that seek to evaluate the impact of the environment on the project (unless one of the enumerated exceptions applies). The thresholds have never been ruled inadequate or lacking in evidentiary support.

For the purpose of this analysis, the Trustees of the California State University has determined that the BAAQMD's significance thresholds in the updated May 2017 CEQA Guidelines for project operations within the SFBAAB are the most appropriate thresholds for use to determine air quality impacts of the project. These thresholds are lower than the 1999 BAAQMD thresholds, and thus use of the thresholds in the May 2017 CEQA Guidelines is more conservative. Therefore, these thresholds are considered reasonable for use in this IS-MND. The project would result in a significant impact if operational emissions would exceed any of the following thresholds:

- *54 pounds per day or 10 tons per year of ROG*
- *54 pounds per day or 10 tons per year of NO_x*
- *82 pounds per day or 15 tons per year of PM_{10}*
- *54 pounds per day or 10 pounds per year of $PM_{2.5}$*

The following significance thresholds for construction emissions within the SFBAAB are also based on the BAAQMD May 2017 CEQA Guidelines:

- *54 pounds per day of ROG*
- *54 pounds per day of NO_x*
- *82 pounds per day of PM_{10} (exhaust only)*
- *54 pounds per day of $PM_{2.5}$ (exhaust only)*

According to the *BAAQMD CEQA Guidelines* (May 2017), localized CO concentrations are often associated with heavy traffic congestion, which most frequently occur at signalized intersections of high-volume roadways. The proposed project would not permanently impact any roadways or generate any permanent increases in traffic and would therefore not contribute to localized CO concentrations on roadways.

Certain population groups are considered more sensitive to air pollution than others. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential uses are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. The nearest sensitive receptors would be the off-campus Colonnade Apartments, approximately 300 feet to the west of the project site.

Project emissions for both construction and operation of the project were modeled using the CalEEMod air quality modeling program (version 2016.3.1), based on the total square footage of the proposed project. Since the project would not result in a substantial change in overall vehicle trips to and from campus (refer to checklist items b. through d., below, for additional discussion), the estimate of operational emissions is primarily related to energy use.

Discussion of Checklist Questions

a. The ISB is intended to house laboratories, faculty offices, and interdisciplinary spaces. It would replace existing facilities and would generate an estimated 294 new full time equivalent students (FTES). The project would generate approximately 500 vehicle trips to and from campus on weekdays and approximately 380 vehicle trips on to and from campus on Saturdays, which would not be considered a substantial increase (refer to *Transportation/Traffic)*. The relocation of the Associated Student House and underground utility corridor would also serve the existing SJSU population. Therefore, the proposed project would not conflict with or prevent attainment of the BAAQMD's existing CAP (2017). Impacts would be **less than significant.**

b-d. An evaluation of both short-term and long-term air pollutant emissions is provided in the paragraphs below.

Construction Impacts

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction vehicles, in addition to reactive organic gases (ROG) that would be released during the drying phase upon application of architectural coatings. Construction would generally consist of site preparation, grading, construction of the proposed building, paving, and architectural coating, as well as trenching activities associated with the utility infrastructure and relocation of the Associated Student House. PM_{10} emitted during construction activities varies greatly, depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, and weather conditions.

The construction phase would begin in June 2019 and conclude in December 2021. This analysis assumes site preparation and grading activities would occur over approximately two months, from mid-June 2019 to mid-August 2019, and would include excavation for the building basement. The Associated Student House relocation would occur over two weeks at the beginning of the construction phase in June 2019. Calculation of emissions from the Associated Student House relocation in CalEEMod assume that two cranes would be used for the duration of the activity to account for the typical use of hydraulic caddies to relocate buildings. Construction would include the utility trenching which is included in the CalEEMod calculations. The CalEEMod calculations are available in Appendix A.

Table 2 summarizes the estimated maximum daily construction emissions of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ relative to the significance thresholds. As shown in Table 2, construction emissions would not exceed the established thresholds for ROG and NO_x.

Table 2
Estimated Construction Maximum Daily Air Pollutant Emissions (lbs/day)

Construction Year	Maximum Emissions (lbs/day)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2019	3.2	37.4	19.0	4.1	2.3
2020	2.5	19.1	16.5	1.8	1.1
2021	20.3	17.5	15.9	1.7	0.9
Maximum total lbs/day	**20.3**	**37.4**	**19.0**	**4.1**	**2.3**
Threshold	*54*	*54*	*None*	*82 (exhaust only)*	*54 (exhaust only)*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***

Notes: All calculations were made using CalEEMod winter mitigated construction emissions data, which is generally higher than summer mitigated construction emissions data. See Appendix A for calculations. Site Preparation, Grading, Paving, Building Construction and Architectural Coating totals include worker trips, construction vehicle emissions and fugitive dust.

** Site Preparation and Grading phases includes adherence to the conditions listed above that are required by BAAQMD to reduce fugitive dust.*

For all proposed projects, BAAQMD recommends implementing all the *Basic Construction Mitigation Measures,* listed in Table 8-2 of the *BAAQMD CEQA Air Quality Guidelines,* to meet the best management practices threshold for fugitive dust, whether or not construction-related emissions exceed applicable thresholds. Compliance with the BAAQMD standard dust control measures outlined below would reduce construction-related air quality impacts, and these measures are incorporated, as feasible, into the calculations. With incorporation of the BAAQMD standard dust control measures, air quality impacts during construction would be less than significant.

Construction Dust Control Measures

1. *All exposed surfaces (e.g. parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day;*

2. *All haul trucks transporting soil, sand, or other loose material off-site shall be covered;*

3. *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;*

4. *All vehicle speeds on unpaved roads shall be limited to 15 mph;*

5. *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used;*

6. *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points;*

7. *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator; and*

8. *Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.*

Operational Impacts

The project would result in the addition of 294 full time equivalent students (FTES). The proposed ISB would primarily meet the needs of the existing student, faculty, and staff population at SJSU, but would generate a net increase in instructional space, thus allowing for a slight increase in FTES. The new building would house laboratories, faculty offices, and interdisciplinary spaces. The project would replace the existing Science 1 building and accommodate functions currently housed in Duncan Hall. Due to the increase in student population, operation of the proposed facilities would result in additional vehicle trips and associated emissions.

Table 3 summarizes projected emissions associated with operation of the proposed building. Project-related operational air pollutant emissions would be due to vehicle trips associated with the increase in FTES, energy use (natural gas), and long-term, low-level architectural coating emissions as the proposed structures are repainted over the life of the project (area sources). The proposed project would aim to obtain a minimum of LEED Silver certification or equivalent. In order to present a reasonable worst-case scenario, the energy efficient reductions that the proposed project would implement were not accounted for in the emissions modeling. However, because CalEEMod version 2016.3.1

uses 2008 Title 24 standards, a 25% exceedance of Title 24 standards was assumed in the emissions modeling to account for compliance with 2013 Title 24 (Sacramento Metropolitan Air Quality Management District 2015). As such, the emissions estimates provided in Table 3 are conservative estimates for energy emissions. Emissions calculations also take into consideration water conservation efforts proposed for the project such as the use of reclaimed water for landscaping water use as well as water used in toilets and urinals. This analysis assumes that toilets account for 10% of indoor water use (Laporte 2005).

Table 3
Project Operational Emissions (lbs/day)

Emission Source	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Area (Consumer Products and Architectural Coating)	5.2	<0.1	<0.1	<0.1	<0.1
Energy (Natural Gas)	0.1	1.1	1.0	0.1	0.1
Mobile (Vehicle Trips)	0.8	4.2	10.1	2.8	0.8
Total Emissions	**6.2**	**5.3**	**11.1**	**2.8**	**0.8**
Threshold	*54*	*54*	*None*	*82*	*54*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***

Notes: All calculations were made using CalEEMod winter mitigated operational emissions data. See Appendix A for calculations.

Operational emissions from the project would be relatively low, as shown in Table 3. In addition, the proposed project would result in a less than significant impact to localized CO concentrations as it would not result in a substantial increase in traffic volumes beyond existing conditions or degrade acceptable levels of service for surrounding roadways.

Overall emissions would not exceed the BAAQMD thresholds for any criteria pollutant (see Table 2). Consequently, the project's regional air quality impacts would be **less than significant**.

e. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. As a proposed science building, the proposed project may involve the use of small quantities solvents and reagents associated with chemistry and biology classes. However, the quantities would not be sizeable enough to create a substantial odor outside the building. Further, academic facilities are not listed on Table 3-3 of the May 2017 BAAQMD CEQA Guidelines as uses that should be screened for the generation of odors. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people. **A less than significant impact** would result.

Biological Resources - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				**X**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				**X**
c) Have a substantial effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		**X**		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			**X**	

a-c. The proposed ISB building would be located in the southwest quadrant of the SJSU campus. The project site lies within the urban core of the City of San Jose in an area that has already been disturbed from its natural state and the proposed project would not significantly affect biological resources. A review of the Biogeographic Information and Observation System (BIOS) and the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal indicates that no listed species are known to be located or anticipated to be found in this area. No riparian or other sensitive resource habitat is present within the Main SJSU Campus. A review of the USFWS National Wetlands Inventory indicates that no federally protected wetlands are present within the vicinity of the SJSU Campus. **No impact** would result with respect to these issues.

d. The project site is not located within any wildlife movement corridors or native wildlife nursery sites. Therefore, implementation of the proposed project would not result in any impacts in this regard.

The site contains an existing botanical garden, which is identified as Botanical/Arboretum within SJSU's 2013 Landscape Master Plan. This garden, which is planted with a variety of

native plant species, would be removed as a result of the proposed project. This removal of the botanic, native plant garden is not anticipated to result in significant impacts on habitat. The botanical garden is planted and does not comprise a native or sensitive habitat for special status species. In addition, a new botanical garden would be placed elsewhere on the site, and is anticipated to be similar in size if not larger than the current botanical garden.

There are approximately 29 trees on the project site that would be removed by the proposed project. In addition, several mature trees are located in close proximity to the site, which could be indirectly impacted by construction activities. Removed trees would be replanted elsewhere on campus at a 2:1 ratio. Regardless, construction of the project may cause significant impacts to migratory birds. This impact would be **potentially significant unless mitigation is incorporated**. Implementation of mitigation measure BIO-1 and BIO-2 would reduce the potential impacts to native bird habitat and migratory pathways possibly provided by trees affected by this project to a less than significant level.

e. Development of the proposed project would require the removal of approximately 29 trees. As described above, trees would be replaced at a 2:1 ratio elsewhere on campus. Neither California State University (CSU) nor SJSU have a tree protection and replacement ordinance or policy. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **No impact** would result**.**

f. The City of San Jose has entered into a regional partnership with five Local Partners (the cities of Gilroy, Morgan Hill, County of Santa Clara, the Santa Clara Valley Transportation Authority, and the Santa Clara Valley Water District) and two Wildlife Agencies (the U.S. Fish and Wildlife Service, and California Department of Fish and Game) to develop Habitat Conservation Plan and Natural Communities Conservation Plan for Santa Clara Valley. The Final Santa Clara Valley Habitat Plan (HP) was released in August 2012. In January 2013, the Plan was adopted by the City of San Jose.

Although the HP would not directly apply to SJSU lands, much of the HP, as discussed in the San Jose 2040 General Plan, focuses on urban development being contained within urban areas, a goal with which the proposed project is aligned.

The HP requires that projects avoid direct impacts on legally protected plant and wildlife species; the proposed project has no direct impacts on protected species other than those discussed above regarding native/breeding native birds. Impacts would be **less than significant**.

Mitigation Measures

BIO-1 **Native/Breeding Native Bird Protection.** To avoid impacts to nesting birds, including birds protected under the Migratory Bird Treaty Act, all initial ground disturbing activities including tree removal should be limited to the time period between August 16 and January 31 (i.e., outside the nesting season) if feasible. If initial site disturbance, grading, and

vegetation removal cannot be conducted during this time period, a pre-construction survey for active nests within the project site shall be conducted by a qualified biologist at the site no more than two weeks prior to any construction activities. If an active bird nest is located, the nest site shall be fenced at a distance commensurate with the particular species and in consultation with the California Department of Fish and Wildlife (CDFW) until juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The project proponent shall record the results of the recommended protective measures described above to document compliance with applicable state and federal laws pertaining to protection of native birds.

BIO-2 **Tree Protection.** Existing trees on and adjacent to the project site shall be avoided through setbacks and installation of protective fencing to the extent feasible during demolition and construction. All fencing must be installed prior to the beginning of construction activities.

Significance After Mitigation. Implementation of the above mitigation measure would reduce impacts to the native bird habitat provided by specific trees to a **less than significant** level.

Cultural Resources - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

This analysis is based on the Cultural Resources Study conducted for the project (refer to Appendix B.1). On July 29, 2016, Rincon requested a search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) located at Sonoma State University. The search was conducted to identify any previously recorded cultural resources and previously conducted cultural resources studies within the project site and a 0.5-mile radius around it. The CHRIS search included a review of the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The

records search also included a review of all available historic USGS 7.5- and 15-minute quadrangle maps.

No previously recorded archaeological resources were identified within the project area. The NWIC records search identified four previously recorded cultural resources within a 0.25-mile radius of the project area. In addition, the NWIC also provided the records for three sites located outside of the 0.25-mile buffer that were identified by campus personnel on behalf of the Muwekma Tribal Administration, in conjunction with Native American scoping (see Section 4.2). The CHRIS records search also identified three previously conducted cultural resources studies within the project area, and thirty-five additional previously conducted cultural resources studies within a 0.25-mile radius of the project area. Details regarding these previous studies are provided in Appendix B.1.

a. A *historical resource* is a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (Section 21084.1), a resource included in a local register of historical resources (Section 15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Section 15064.5[a][3]).

PRC Section 5024.1, Section 15064.5 of the CEQA Guidelines, and PRC Sections 21083.2 and 21084.1 were used as the basic guidelines for this evaluation. PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below.

According to PRC Section 5024.1(c)(1–4), a resource is considered *historically significant* if it: 1) retains substantial integrity, and 2) meets at least one of the following California Register criteria.

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2. It is associated with the lives of persons important in our past.

3. It embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values.

4. It has yielded or may be likely to yield information important in prehistory or history.

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (CEQA Guidelines, Section 15064.5 [b][1], 2000). Material impairment is defined as

demolition or alteration in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register… (CEQA Guidelines, Section 15064.5[b][2][A]).

On August 11, 2016, a Rincon Consultants Architectural Historian conducted an intensive-level cultural resources survey of the project area. Archival research regarding the project site was completed in August 2016. The project site contains one building; the Scheller (Associated Students) House, which is a former single-family residence that has been converted to offices. Constructed in 1904, it was designed as a Colonial Revival style home and is two stories in height.

The subject building was found eligible for the California Register of Historical Resources (CRHR) in the San Jose State University Historic Resources Survey completed in 2005. It was not found to be a contributor to a CRHR-eligible district nor eligible for the National Register of Historic Places.

The current evaluation corroborated that the Scheller (Associated Students) House continues to be eligible for listing in the California Register of Historical Resources under Criterion 2 for its associations with Victor Scheller, as well as under Criterion 3 as a good example of a California Colonial Revival residence designed by noted local architect Theodore Lenzen, who can be considered a master architect at the local level. It is therefore considered a historical resource in accordance with CEQA. The subject building's period of significance is 1904-1915, coinciding with its construction and Scheller's occupancy of the house. The residence features many character-defining features of its style such as its semi-circular tower; asymmetrical massing and floor plan; shiplap siding; wrap-around porch; hipped roof with dormers; wide boxed eaves with exposed rafter tails; modillions, dentils, classical frieze; rounded columns; spindle-post balustrade; bay windows; double-hung wood windows; and art glass window.

While eligible for the CRHR, the subject building was previously relocated and reoriented in 2000 from its relocation approximately 80 feet to the west, and has been absorbed into the campus of San Jose State University. As a result of these changes, its integrity of location, setting, feeling and association has diminished so that it does not meet eligibility standards for the National Register of Historic Places under any of the significance criteria (A-D). The California Office of Historic Preservation recognizes that properties that no longer retain sufficient integrity for NRHP listing may still be eligible for the CRHR (California Office of Historic Preservation 2001). In consideration of this guidance, the historic structure remains eligible for CRHR listing because it retains many of its character-defining features as defined above.

Relocation of an historical resource may constitute an adverse impact to the resource. However, in situations where relocation is the only feasible alternative to demolition, relocation may mitigate the impact below a level of significance provided that the new location is compatible with the original character and use of the historical resource and the resource retains its eligibility for listing on the California Register (14 CCR Section 4852(d)(1)).

In May 2017, a Historical Resource Relocation Feasibility Study was completed to determine the feasibility of relocating the Scheller (Associated Students) House from its current location to a

proposed Receiver Site on the SJSU campus across from the Student Union building and adjacent to South 10th Street to the east. The purpose of the study was to provide SJSU with substantial environmental and technological evidence that can be used to assess the feasibility of relocating and restoring the historic structure. Methods of the study included background research, client meetings, a field survey, and a relocation analysis. The study was divided into four sections: Existing Conditions; Historic Context and Character Analysis; Relocation Analysis; and Proposed Receiver Site Analysis, including a preliminary cost estimate. The building was found to be in good overall condition and the study provided recommendations for completing a successful relocation to the proposed receiver site.

The historic residence was moved to its current location in 2000 and no longer retains integrity of location as a result. Integrity of setting has also been affected due to the extensive growth and development of the surrounding SJSU campus. Nonetheless, the building retains sufficient integrity of design, materials, workmanship, feeling, and association, to convey its significance as a property directly associated with Victor Scheller and as a good example of California Colonial Revival style architecture designed by notable local architect Theodore Lenzen. The physical features that convey this significance are embodied primarily in the building itself and less its setting or location.

Because the property no longer retains integrity of location and setting, these aspects are not considered a character-defining feature and the building could be moved to a new location where it would still be able to convey its historic significance.

Relocating the Scheller (Associated Students) House to the proposed receiver site within the SJSU campus would allow the building to retain integrity of association and avoid the material impairment of the physical characteristics that convey its historical significance. According to the Historical Resource Relocation Feasibility Study, the historic structure is in good overall condition and it is physically feasible to relocate the building. Implementation of the relocation plan that follows the recommendations presented in the Historical Resource Relocation Feasibility Study (Appendix B) would not result in the loss or negative impact of the historic structure's character-defining features and would ensure that the potential impacts generated by the project would be reduced to a less-than-significant level. Potential impacts to the historic structure would be **potentially significant unless mitigation is incorporated**.

b,d. The proposed project involves the construction of new science building on a currently disturbed infill site located on the SJSU main campus. The surface of the project site has been previously graded, disturbed, and developed and no archaeological resources are known to have been discovered within the project site. Thus, no archaeological survey was warranted.

Archival research indicates that the project vicinity is moderately to highly sensitive for buried archaeological resources. Four previously recorded resources are located within 0.25 mile of the project: CA-SCL-39H, CA-SCL-563H, CA-SCL-894H, and CA-SCL-948. Two of these yielded intact buried archaeological deposits: CA-SCL-948, a Native American burial; and CA-SCL-563H, three historic trash pits. The remaining two are historic in age, and may potentially have buried archaeological deposits associated with them: CA-SCL-39H, the original Plaza de San Jose de Guadalupe which was established in 1777; and CA-SCL-894H, the Fox California Theater which was built in 1927. In addition, three previously recorded archaeological resources located within approximately 1 mile of the project site are known to have included intact,

buried cultural deposits, including Native American burials: CA-SCL-4/H, CA-SCL-128, and CA-SCL-690. The prehistoric component of CA-SCL-4/H consists of a Native American village site with an unknown number of burials, which was reportedly identified up to 10 feet below the ground surface. Site CA-SCL-128, located within 0.5 mile of the project, is a Native American burial ground with 57 burials and other cultural materials. Site CA-SCL-690 is also a Native American burial ground with 125 burials.

Although the project site has been previously developed and disturbed and no known archaeological resources have been recorded within the project boundary, the level of previous disturbance is unknown. In addition, numerous sites in the vicinity have yielded intact, buried deposits, including a large village site with Native American burials (CA-SCL-4/H) and multiple other Native American burials (CA-SCL-128, CA-SCL-690, and CA-SCL-948). Further, the village site (CA-SCL-4/H) was buried up to 10 feet below the ground surface. Thus, there is some potential for intact, archaeological deposits present within the project site that could be disturbed by project construction. Impacts would be **potentially significant unless mitigation is incorporated**.

c. The proposed project is located within an area that has already undergone substantial ground disturbance during construction of existing facilities; thus, the likelihood of encountering unknown paleontological or geological resources is unlikely. Thus, the proposed project would result in **less than significant impacts** with respect to paleontological resources.

Mitigation Measures

CUL-1 **Scheller (Associated Students) House Relocation Implementation Plan.** SJSU shall develop a relocation implementation plan in accordance with the recommendations of San Jose State University Associated Students House Relocation, San Jose, California: Feasibility Study and Appendices (included in Appendix B.2). This will be accomplished through coordination with a qualified Historic Preservation Architectural Consultant Team, which will finalize the relocation strategy based on the recommendations of the 2017 feasibility study, coordinate the relocation and provide for subsequent restoration work as required to minimize displacement of the Associated Students staff during the relocation. The Consultant Team shall include architectural historians, preservation architects, structural engineers, the building mover, and other consultants, such as Landscape, Civil and Mechanical, Electrical, and Plumbing Engineering. If necessary, a geotechnical report and civil survey of the Receiver Site shall be completed prior to beginning the relocation work. Should the historic structure be damaged during the relocation the Consultant Team shall ensure that any repairs are consistent with the Secretary's Standards for Rehabilitation.

CUL-2 **Historic Building Documentation**. Impacts resulting from the relocation of the Scheller (Associated Students) House shall be minimized through archival documentation of as-built and as-found condition. Prior to the building's relocation, SJSU shall ensure that documentation of the residence is completed in accordance with the general guidelines of Historic American Building Survey

(HABS) documentation. The documentation shall include high-resolution, digital photographic recordation, a historic narrative report and a compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be offered as donated material to repositories that will make it available for current and future generations. Archival copies of the documentation also shall be submitted to the History|San Jose Library and Archives and the SJSU Special Collection and Archives at the Dr. Martin Luther King Library where it would be available to local researchers.

CUL-3 **Interpretive Display.** A historic preservation professional qualified in accordance with the Secretary of the Interior's Standards shall be selected to prepare an onsite interpretive display to be located at the new location of the building. The interpretive display shall include a brief history of the building and its significance within SJSU and the community. The interpretive plan shall be installed within one year of the building's relocation.

CUL-4 **Retain a Qualified Principal Investigator.** A qualified principal investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, shall be retained to carry out all mitigation measures related to archaeological resources (hereafter principal investigator).

CUL-5 **Preconstruction Worker Training.** At the project kickoff and before construction activities begin, the principal investigator or his/her designee will provide training to construction personnel on information regarding regulatory requirements for the protection of cultural resources. As part of this training, construction personnel will be briefed on proper procedures to follow should unanticipated cultural resources discoveries be made during construction. Workers will be provided contact information and protocols to follow in the event that inadvertent discoveries are made. If necessary, the project archaeologist can create a training video, PowerPoint presentation, or printed literature that can be shown to new workers and contractors to avoid continuous training throughout project construction.

CUL-6 **Archaeological Construction Monitoring.** A qualified archaeological monitor will be retained to conduct archaeological monitoring of initial ground disturbing activities within the project site. The archaeological monitor will work under the supervision of the principal investigator. The duration and timing of the monitoring will be determined by the principal investigator. If the principal investigator determines that monitoring is no longer warranted, he or she may recommend that monitoring cease entirely or be reduced to periodic spot-checking. In addition, if the principal investigator determines that an increase in the level of monitoring is warranted, he or she may recommend that monitoring continue beyond initial ground disturbance.

CUL-7 **Procedure for Treatment of Previously Unidentified Cultural Resources.** If previously unidentified cultural resources are encountered during construction,

all work will be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the cultural resource. In the event that any artifact or an unusual amount of bone, or shell is encountered during construction, work will be immediately stopped and relocated to another area. Construction will be stopped within 100 feet of the exposed resource until a qualified archaeologist/ paleontologist can evaluate the find (see 36 CFR 800.11.1 and CCR, Title 14, Section 15064.5[f]). Examples of such cultural materials might include: ground stone tools such as mortars, bowls, pestles, and manos; chipped stone tools such as projectile points or choppers; flakes of stone not consistent with the immediate geology such as obsidian or fused shale; historic trash pits containing bottles and/or ceramics; or structural remains. If the resources are found to be significant, they should be avoided. If avoidance is not feasible, they should be mitigated to less than significant levels. If the resources are determined to be Native American, consultation with tribes may be necessary.

CUL-8 **Procedure for Unanticipated Discovery of Human Remains.** In the event of an unanticipated discovery of any human remains, the steps and procedures specified in Health and Safety Code Section 7050.5, California Environmental Quality Act (CEQA) Section 15064.5(e), and Public Resources Code Section 5097.98 will be implemented. No further excavation or disturbance of the area where the remains are discovered and a 50 foot radius until the coroner is contacted and the appropriate steps taken pursuant to Health and Safety Code §7050.5 and Public Resource Code §5097.98. If the coroner determines the remains to be Native American in origin, the coroner will contact the Native American Heritage Commission (NAHC) within 24 hours. For remains of Native American origin, no further excavation or disturbance will take place in the area where the remains are discovered and a 50 foot radius until the NAHC appointed Most Likely Descendant, the project archaeologist and the CSU SJSU determine a course of action regarding preservation or excavation of Native American human remains. If a Most Likely Descendent cannot be located or does not make a recommendation, the project archaeologist and the CSU SJSU will determine a course of action regarding preservation or excavation of Native American human remains, which will be submitted to the NAHC for review prior to implementation.

Significance After Mitigation. Implementation of the above mitigation measure would reduce impacts to the currently unknown cultural resources to a **less than significant** level.

Geology and Soils – Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?		X		
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

a (i). According to the Official Maps of Earthquake Fault Zones delineated by the California Geological Survey, San Jose East Quadrangle map, the project area is not located within an earthquake fault zone (Alquist-Priolo Special Studies Zones) for surface fault rupture. No active faults are located on the project area or the SJSU campus; therefore, impacts related to surface rupture would be **less than significant**.

a (ii). The closest known fault to the project area, with a mappable surface expression, is the Hayward Fault (Southwest Branch) located approximately four miles northeast of the project site. Other nearby seismic sources include the Evergreen fault, located approximately five miles northeast; the Hayward Fault (Northwest Branch), located approximately six miles northeast; the Calaveras Fault, located approximately eight miles northeast; and the San Andreas Fault, located approximately 12 miles southwest.

The project is located in an area subject to seismic shaking, liquefaction, and expansive soils. New construction in areas with such hazards can expose structures and occupants to geotechnical hazards. However, the CSU Board of Trustees has enacted stringent requirements for structural assessment of seismic performance of buildings within CSU campus locations than the current edition of the California Building Code (CBC 2010) as adopted by the California Building Standards Commission. According to CSU Seismic

Requirements (January 2016), seismic ground parameters are required to be reported for CSU campus locations. This policy applies to all construction activity undertaken by CSU for new and existing buildings, where university operations and activities occur. Adherence to the CSU Seismic Design Parameters and the requirements of the California Building Code would reduce impacts associated with strong seismic ground shaking to a **less than significant** level.

a (iii). The State of California Seismic Hazard Zone Map for the San Jose East Quadrangle (February 7, 2002) shows the project site is located within an area of historic occurrence or potential for liquefaction. The Geotechnical Evaluation Report completed for the ISB (Ninyo & Moore, 2016) also indicates a moderate liquefaction potential. Liquefaction could lead to dynamic settlement during intense seismic events and potentially static settlement in the soft silts and clays if the building loads were to be supported on relatively shallow spread foundations. Risks to the utility improvements component of the project associated with liquefaction would be reduced to a less than significant level through standard engineering practices.

Impacts on the ISB project related to liquefaction would be **potentially significant, but mitigable**. Implementation of Mitigation Measure GEO-1 would be required to reduce impacts to a less than significant level.

a (iv). The project area is not located within a landslide hazard zone as defined by Santa Clara County Geologic Hazards Zones (2012). Furthermore, the project area is not located within any earthquake-induced landslide areas due to the relatively flat condition of the site topography. There would be **no impact** with respect to landslides.

b. Construction of the proposed project would involve grading, trenching, and other ground disturbing activities that could result in soil erosion or loss of top soil. This is a **potentially significant but mitigable** impact. Implementation of Mitigation Measure GEO-1 would be required to reduce impacts to a less than significant level.

c. Based on the Santa Clara County Geologic Hazards Zones (2012), Geotechnical Evaluation Report (Ninyo & Moore, 2016), and the topography of the project area and immediate vicinity, the project area is not in a landslide hazard zone. However, the project area is within a State of California-defined Liquefaction Hazard Zone. In addition, subsidence could occur if the ISB was built on low-strength unconsolidated foundation materials, two different types of foundation materials, tectonic movement, hydro-compaction, oxidation or dewatering of organic-rich soil materials, and withdrawal of subsurface fluids. Although subsidence generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause significant building damage over time. Portions of the project site that contain loose or uncontrolled (non-engineered) fill may be susceptible to subsidence. Therefore, Impacts to soil stability would be **potentially significant, but mitigable**. Implementation of Mitigation Measure GEO-1 would be required to reduce impacts to a less than significant level.

Seismically induced lateral spreading involves primarily lateral movement of earth materials due to ground shaking. It differs from slope failure in that complete ground failure involving

large movement does not occur due to the relatively smaller gradient of the initial ground surface. Lateral spreading is demonstrated by near-vertical cracks with predominantly horizontal movement of the soil mass involved. The topography of the project area and in the immediate vicinity of the area is flat. The Geotechnical Evaluation Report described the ground conditions of the ISB site to be level and liquefiable soil encountered to be relatively thin and discontinuous. Therefore, the potential for lateral spreading at the proposed project area is considered relatively low. Impacts related to liquefaction, subsidence, or collapse would be **potentially significant but mitigable** for the ISB project**.**

d. According to the site-specific Geotechnical Evaluation (Ninyo & Moore, 2016), soil of the project site has a low expansion characteristic. Typical engineering controls, including compliance with the CBC, would ensure the safety of structures and inhabitants. Impacts related to expansive soils would be **less than significant.**

e. The project does not propose to utilize septic tanks or septic systems. The proposed ISB would be connected to the City of San Jose sewer system via a new sewer line, which is included in this project and would replace the existing sewer line on the site. **No impacts** pertaining to septic systems would occur.

Mitigation Measure.

GEO-1 **ISB Geotechnical Measures.** Grading, foundation design, and construction of the proposed ISB shall comply with recommendations in the site specific Geotechnical Evaluation by Ninyo & Moore (2016), including but not limited to: materials to be used, moistening of subgrade, fill placement and compaction, stabilization of excavations, dewatering, utilities, seismic design, avoidance of site drainage, as well as all applicable earthwork recommendations. The measures are described in more detail in the Geotechnical Evaluation (2016) in Appendix C.

Significance After Mitigation. Compliance with the recommendations provided by the Geotechnical Evaluation Report (Ninyo & Moore, 2016) would reduce geologic impacts pertaining to subsidence, collapse, liquefaction, and expansive soils to the extent feasible. It is acknowledged that seismic hazards cannot be completely eliminated even with site specific geotechnical investigation and advanced building practices described above. However, exposure to seismic hazards is a generally accepted part of living in the San Francisco Bay Area and the building and design practices described above reduces the potential hazards associated with seismic activity to a less than significant level.

Greenhouse Gas Emissions - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Local Regulations and CEQA Requirements

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The BAAQMD adopted significance thresholds for GHGs in June 2010, which considers operational emissions of over 1,100 metric tons (MT) carbon dioxide equivalent (CO_2e)/year to be significant. As discussed under *Air Quality* above, on March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the air quality and greenhouse gas emissions thresholds contained in the BAAQMD's Draft CEQA Guidelines (BAAQMD, May 2010). The court did not determine whether the thresholds were valid on the merits, but found that the adoption of the thresholds was a project under CEQA and therefore determined that the BAAQMD was required to do CEQA analysis on the thresholds. On August 13, 2013, California's First District Court of Appeal determined that the adoption of air quality and greenhouse gas thresholds was not a project under CEQA and that BAAQMD's adoption of these numeric thresholds was not a failure to comply with CEQA. Furthermore, the Court of Appeal ruled that the thresholds were not invalid based on the merits. However, BAAQMD has not reinstated its thresholds as of August 2016. Therefore, in light of the most recent court's order, lead agencies need to determine appropriate air quality and GHG thresholds of significance based on substantial evidence in the record.

In the absence of other local GHG thresholds of significance, for this analysis, the proposed project is evaluated based on the project-level threshold of 1,100 MT of CO_{2e}/year. This threshold was adopted by the BAAQMD as a quantitative GHG emissions threshold for project-level analysis (BAAQMD, 2010). Other air pollution control districts have also adopted similar thresholds. For example, the San Luis Obispo County Air Pollution Control District (SLOAPCD) has adopted a project-level threshold of 1,150 MT of CO_2e/year (SLOAPCD, 2012). As such, the threshold of 1,100 MT of CO_2e/year was considered the most reasonable for use in this IS-MND.

Assembly Bill (AB) 32, signed in September 2006, requires the State's global warming emissions to be reduced to 1990 levels by 2020. After completing a comprehensive review and update process, the ARB-approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_{2e} (California Air Resources Board, 2007).

In 2005, the BAAQMD initiated a Climate Protection Program. On June 1, 2005, the Air District Board of Directors adopted a resolution establishing a Climate Protection Program and acknowledging the link between climate protection and programs to reduce air pollution in the Bay Area. On March 25, 2014, the Board of Directors of the BAAQMD adopted the 10-Point Climate Action Work Program which includes policy approaches and a technical program focused on reducing GHG emissions.

Discussion of Checklist Questions

a. The proposed project would result in an increase of 294 FTES within the College of Science. This student generation would be below the BAAQMD's operational GHG screening size of 320 students for University/college uses. As described in the BAAQMD CEQA Guidelines (2010), projects below the applicable screening criteria would not exceed the 1,100 MT of CO_2e/yr GHG threshold of significance. As such, impacts resulting from operational GHG emissions would be **less than significant**.

b. CalEPA's Climate Action Team (CAT) published the 2006 CAT Report which includes GHG emissions reduction strategies intended for projects emitting less than 10,000 tons CO_2e/year. In addition, the California Attorney General's Office has developed Global Warming Measures (2008) and OPR's CEQA and Climate Change (CAPCOA, 2008) document includes greenhouse gas reduction measures intended to reduce GHG emissions in order to achieve statewide emissions reduction goals. All of these measures aim to curb the GHG emissions through suggestions pertaining to land use, transportation, renewable energy, and energy efficiency. Several of these actions are already required by California regulations, such as:

   - AB 1493 (Pavley) requires the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks.
   - In 2004, ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.
   - The Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989) established a 50% waste diversion mandate for California.
   - Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).
   - California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 33%of retail electricity sales from renewable energy sources by 2020, within certain cost constraints.
   - Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20%by the year 2015, as compared with 2003 levels.

   The project is pursuing a LEED Silver certification. Therefore, the project would be consistent with State and local regulations intended to reduce GHG emissions from new development. Consistency with these State regulations and goals illustrates that the project would not conflict with the State's greenhouse gas-related legislation and would not contribute to the inability to meet reduction goals. Impacts would be **less than significant**.

Hazards and Hazardous Materials - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4-mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project in the vicinity of a municipal airstrip, would the project result in a safety hazard for people residing or working in the area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Environmental Records Source Review

Review of environmental records included a database search from Environmental Data Resources, Inc. (EDR), and the online GeoTracker and EnviroStor databases maintained by the State Water Resources Control Board and Department of Toxic Substances Control, respectively. A report summarizing the environmental records review is included in Appendix D.

Off-Site Contamination

Nearby Properties Located within a One-Quarter Mile Radius of the Project site

Twenty nearby properties with environmental listings are reported to be present within one-quarter mile of the project site. Nineteen of these listings are closed cases and are therefore not expected to impact the project site.

The remaining listing is an open leaking underground storage tank (LUST) case located at the Spartan Gas Station, 498 South 4th Street, approximately 1,050 feet southwest of the project site. This case is currently being assessed for a low-risk case closure of a TPHg plume with MTBE that has been detected up-gradient to the southeast. However, an evaluation of the site, described on the GeoTracker database, explains that groundwater monitoring data has indicated that there is a clear decreasing trend for all petroleum constituents indicating plume stability and substation natural attenuation. Residual contamination from the site poses an insignificant risk to human health (Allterra Environmental, Inc., 2011).

As a result of the recent site evaluation of the former gas station and the distance from the project site, the chemical plume would not be anticipated to result in contamination of groundwater at the project site that would pose a significant risk to human health, and would have no impact on the proposed project.

Properties Located between One-Quarter and One-Half Mile of the Project site

110 nearby properties with environmental listings are reported to be present within one-quarter to one-half mile of the project site. 103 of the 110 properties are closed cases and are therefore not expected to impact the project site.

The remaining eight sites were reviewed to evaluate their potential to impact the subject property, based on the following factors:

- Reported distance of the listing from the project site
- The nature of the database on which the facility is listed, and/or whether the facility was listed on a database reported unauthorized releases of hazardous materials, petroleum products, or hazardous wastes
- Reported case type (e.g., soil only, failed UST test only)
- Reported substance released (e.g., chlorinated solvents, gasoline, metals)
- Reported regulatory agency status (e.g., case closed, "no further action")
- Location of the facility with respect to the reported groundwater flow direction to the north, northeast.

A summary of this evaluation is summarized in Table 4 and further discussed below.

Table 4
EDR Listed Properties Between One-Quarter and One-Half Mile of the Project Site

Property Name and Location	Environmental Category	Approximate Property Distance from Project Site	Reported Case Type	Reported Regulatory Agency Status	Reported Substance Released
Pete's Stop Inc. 447 East William Street	Reported unauthorized release of hazardous substances	0.35 miles	LUST Cleanup Site	Remediation	Benzene, Toluene, Xylene, MTBE/TBA/Other Fuel Oxygenates, Gasoline
Former Texaco Station 598 South First Street	Reported unauthorized release of hazardous substances	0.41 miles	LUST Cleanup Site	Site Assessment	MTBE/TBA/Other Fuel Oxygenates, Gasoline
San Jose Convention Center South Market Street	Discovered unauthorized release of hazardous substances	0.37 miles	Cleanup Program Site	Site Assessment	Solvents, Lead, Gasoline
Heart of the City – Block 3 100 South Second Street	Discovered unauthorized release of hazardous substances	0.32 miles	Cleanup Program Site	Inactive	Petroleum – Automotive gasolines, Solvents, Stoddard solvent, Mineral Spriits, Distillates
San Jose New City Hall 200 East Santa Clara Street	Discovered unauthorized release of hazardous substances	0.37 miles	Cleanup Program Site	Remediation	Other petroleum, Stoddard solvent/Mineral Spirits/Distillates
Art Cleaners – San Jose 400 East Santa Clara Street	Discovered unauthorized release of hazardous substances	0.47 miles	Cleanup Program Site	Site Assessment	Tetrachloro-ethylene (PCE), Gasoline
Dr. Eu Building 35 & 43 Santa Clara Street	Discovered unauthorized release of hazardous substances	0.49 miles	Cleanup Program Site	Site Assessment	Chlorinated Solvents - PCE

Sources: SJSU ISB Building EDR Report, GeoTracker database, and EnviroStor database

Pete's Stop Inc., located at 447 East William Street approximately 2,000 feet to the southeast of the project site is listed as a LUST site and is currently undergoing remediation. The Pete's Stop Inc. site formerly had USTs which had releases of petroleum hydrocarbons that caused soil and groundwater contamination in the immediate vicinity of the former USTs. However, based on a GeoTracker review, the contamination plume from the USTs does not extend to the proposed project site, nor is it expected to reach the proposed site based on groundwater flow direction to the north, northeast. Therefore the site is not expected to impact the project site.

A Former Texaco Station, located at 598 South First Street approximately 2,000 feet to the southwest of the project site is a LUST site and is currently undergoing site assessment. A recent groundwater monitoring report, found on GeoTracker indicates that the groundwater gradient at the site is northeast. The plume, containing petroleum hydrocarbons, from the site has

commingled with a potential off-site source to the south; however, the plume is generally stable or decreasing in overall size and concentration. Therefore, the combination of the groundwater flow downgradient from the project site and decreasing size and concentration of the plume, this site is not expected to impact the project site.

The San Jose Convention Center, located at South Market Street approximately 2,100 feet to the east of the project site, is a cleanup program site that is currently undergoing site assessment. This site is a city block which consisted of multiple parcels and that has been redeveloped into an annex of the San Jose Convention Center. There is groundwater contaminated with gasoline and diesel beneath a portion of the site. Nonetheless, due to the distance between the site and the proposed project site, as well as groundwater flow direction being to the north, northeast, there is not an anticipated impact from the Convention Center site on the proposed project.

Heart of the City – Block 3, located at 100 South Second Street, approximately 1,500 feet to the northwest of the project site, is currently an inactive cleanup program site. The Phase I environmental investigation and remedial actions that included removal of USTs and contaminated soil, has been completed at the site. Sampling of the groundwater for petroleum hydrocarbons, volatile organic compounds, and metals was performed. Low levels of contaminants were found; however, the levels were below the RWQCB Environmental Screening Levels, except for one slight exceedance for chromium. Because of the distance between the site and the proposed project site, there is not an anticipated impact from this site.

San Jose New City Hall, located at 200 East Santa Clara Street, is approximately 2,000 feet to the south of the project site. Remediation involving excavation of the soil was conducted in 2002 when construction of the Civic Plaza Parking Garage took place. The site was a dry cleaning facility that released solvents into the subsurface; however, the dry cleaning facility site's case was closed as of April 1997. Because of the distance from the project site and remediation of the contamination, there is not an anticipated impact from the site.

Art Cleaners – San Jose, located at 400 East Santa Clara Street, is approximately 2,500 feet to the northeast of the project site. It is a cleanup program site that is currently undergoing site assessment. The site is an inactive dry cleaner. Based on a groundwater monitoring report on GeoTracker, the groundwater flow from the site is west, northwest. Based on the location of the site and project site and groundwater flow, away from the project site, the site is not anticipated to impact the project site.

The Dr. Eu Building, located at 35 and 43 Santa Clara Street, approximately 2,400 feet to the northwest of the project site, is a cleanup program site that is currently undergoing site assessment. This site is an historical building in downtown San Jose. It was formerly a hotel that had a dry cleaning facility in the basement. There has been a release of tetrachloroethene (PCE), a solvent used in dry cleaning, to soil and groundwater. However, due to the distance between the site and the proposed project site as well as the location in respect to the groundwater flow, there is not an anticipated impact from this site.

On-site Contamination

The project site was not listed in the hazardous materials records search as having or storing potential hazardous contaminants. However, the address of SJSU is listed within the EDR report as being a Large Quantity Generator (LQG) of hazardous waste. The wastes generated are spent solvents likely from the chemistry department, among others, of the university. There have also been closed cases of LUST Cleanup Sites being on the campus grounds. However, with the case being closed, the potential for contamination is not anticipated.

Discussion of Checklist Questions

a,c. The proposed project would involve the construction of an approximately 215,000 GSF ISB, located on the SJSU main campus. The proposed project may involve the transport, use, or disposal of small quantities of hazardous materials such as solvents and reagents, associated with chemistry and biology classes. However, proper handling, transportation, and disposal in accordance with federal, state, and local laws and regulations would avoid significant exposure and hazards to people and the environment from potential hazardous materials contamination. Impacts would be **less than significant**.

b. Operational use of the proposed project would not emit or handle substantial quantities of hazardous materials. Activities at the facility may involve the use of small amounts of hazardous materials such as solvents and reagents, and could generate small amounts of hazardous waste. Chemicals frequently used for chemistry or biology classes may be handled or transported to the facility for delivery. All chemicals would be stored within containment areas as required per the California Fire Code. Proper handling, transportation, and disposal in accordance with federal, state, and local laws and regulations would limit exposure and hazards to people and the environment from potential hazardous materials contamination. With compliance with these existing regulations, impacts would be **less than significant**.

d. The proposed project is not located on a site which has been included on a list of hazardous material sites. As described above, the project area is located within ½ mile of 130 environmental database listings. However, because of the distance between these listings and the project site, as well as the specific conditions from each of the sites as described above, the listings would not be anticipated to result in contamination of soil or groundwater at the project site. Therefore, impacts would be **less than significant.**

e, f. The project area is located approximately three miles southeast of the Norman Y. Mineta San Jose International Airport, and is outside the safety zones and flight path of the airport (Santa Clara County Airport Land Use Commission 2011). Therefore, significant airport safety hazards are not anticipated. **No impacts** would result.

g. The proposed project would not interfere with any emergency response plan or evacuation route (San Jose State University, Police Department). Currently, the Duncan Hall building evacuation assembly point is on the project site. However, an alternate assembly point – potentially within the open space portions of the developed project site – would be identified. No permanent changes to off-site circulation would occur and the

trenching required for underground utility infrastructure would not be located along an evacuation route. Impacts would be **less than significant**.

h. The SJSU campus is in an urbanized area of the city of San Jose. Therefore, the project is not subject to wildland fire hazards. **No impacts** would result.

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

a, f. The proposed project would involve the construction of a ten-story building located on an infill site in the southwestern quadrant of the SJSU campus, as well as construction of an underground utility corridor between Duncan Hall and the proposed ISB. The campus is already developed, and is surrounded by urbanized areas of the City of San Jose. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is responsible for issuing

construction stormwater permits on behalf of the State Water Resources Control Board (SWRCB). Construction of the ISB would disturb approximately 1.9 acres of land. Therefore, the project would require a National Pollutant Discharge Elimination System (NPDES) Phase 2 Construction General Permit, including preparation of a Storm Water Pollution Prevention Plan (SWPPP) identifying construction Best Management Practices (BMPs). Design and implementation of such a plan, as required, would ensure that the project would not substantially degrade water quality or violate any water quality standards or waste discharge requirements. Impacts would be **less than significant**.

b. The proposed project would not adversely affect groundwater supplies. The overall ratio of developed to open space areas on the SJSU campus would be similar to existing conditions, and would not significantly interfere with groundwater recharge. Impacts would be **less than significant.**

c-e. The proposed project would involve the removal of existing features on the site, including two parking lots, a grass area and botanical garden, and the existing ASH building, which would be relocated. The project would construct a ten-story structure and would incorporate shaded seating, large open lawns, water features, and botanical gardens in the outside areas. Overall, the amount of impervious surface on the site would be expected to be similar under both existing conditions and post-project conditions. In addition, development of the proposed project would not alter the existing drainage pattern or create a significant change in runoff conditions. Impacts would be **less than significant.**

g, h. The proposed project does not involve construction of any housing. It would not place housing in a 100-year flood hazard area as mapped on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map; therefore, it would not expose people to risks from flooding nor would the building or utilities impede or redirect flood flows. **No impacts** would occur.

i, j. The SJSU campus is not located within a dam inundation area and is not subject to flooding risks from dam failure. According to the Santa Clara County Geologic Hazard Zones Map, the project area is not located within the dike failure hazard zone. The campus is located inland from the coast and is not subject to tsunami hazards, and it is not located near any impounded bodies of water that could present hazards from seiches. **No impacts** would occur.

Land Use and Planning - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with an applicable habitat conservation plan or natural community conservation plan?				X

a-c. The proposed ISB project would be internal to the SJSU main campus. The proposed ISB is intended to offer laboratories, faculty offices, and interdisciplinary spaces to the student, faculty, and staff population, and would not generate additional on-campus growth that would have the potential to affect adjacent City land uses. The project would not physically divide an established community, nor would it conflict with any land use plans or policies or any habitat conservation plans, the latter of which is described in more detail in the *Biological Resources* section above. **No impacts** would result.

The project conforms to the 2001 Master Plan for SJSU with respect to campus growth. The 2001 Master Plan states that SJSU sits on 88.5 acres in the middle of downtown San Jose. A well-defined open space system organizes the campus and gives it breathing room. To sacrifice this space to development would radically alter the quality and character of the campus. The University cannot build outward, and, internally, there are no vacant sites left. The only way to meet the demand for space is to build up. The proposed project aligns with the campus development need to build up and not out, as it would relocate the Associated Students House and replace it with a ten-story structure. In addition, the project would be located on a site that is currently occupied by other structural development.

Other 2001 Master Plan goals include:

Maintaining Campus Character. The proposed ISB would be compatible with other campus buildings in terms of architectural style. See *Aesthetics* section for further description.

Identifying Logical Sites that Fit Within the Existing Open Space Framework, Yet Offer Replacement Options for Inefficient Campus Facilities. ISB would replace the existing Science 1 building and accommodate functions currently housed in Duncan Hall.

Open Space Framework from 1995 Campus Landscape Master Plan (and subsequent 2013 Landscape Master Plan). The 2001 Master Plan reiterates the University's desire to maintain the 7th, 9th, and San Carlos Street rights-of-way to conserve open space and protect the mall boundaries and widths from encroachment by new buildings. The proposed project would reinforce the boundaries of the mall space and edges along the San Carlos Street Mall.

Mineral Resources - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

a-b. The project area is not currently used or otherwise identified for mineral resource extraction. **No impact** to mineral resources is anticipated.

Noise- Would the project result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?				X

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is

not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically decrease (or drop off) at a rate of 6 dBA per doubling of the distance from point sources (such as industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 20 dBA (FTA, 2006).

The land use compatibility guidelines for community noise for the City of San Jose are described in the Envision San Jose 2040 General Plan. Table EC-1 within the general plan explains noise thresholds for schools as 50-60 dBA as normally acceptable, 60-75 dBA as conditionally acceptable, and 75-85 dBA as unacceptable. An ambient noise level survey was completed in 2001 as part of the EIR for the 2001 San Jose State University Campus Master Plan. The levels recorded over a 24-hour period were 66 dBA and 69 dBA. Both measurements fall under the conditionally acceptable ambient noise levels for a school.

a, c. The proposed project would involve the construction of a ten-story building located on the SJSU main campus. The project would also include the relocation of the Associated Students House, vegetation removal, removal of existing surface parking lots, and trenching for the proposed utility corridor. Operation of this facility would not generate any substantial long-term, or permanent, noise levels beyond existing levels. The underground utility infrastructure would not generate any perceivable operational noise. The proposed ISB is intended to replace the existing Science 1 building and provide enhanced services to the existing campus population. The anticipated increase in FTES would generate a relatively minor amount of new vehicle trips, as described under *Transportation/Traffic*. Therefore, the project would not result in substantial traffic-related noise or other operational noise that would result in significant noise level increases. Impacts would be **less than significant**.

b. Equipment used in the ISB, such as chemical fume hoods and scientific instrumentation, would be similar to other science buildings on campus. Any vibration would be localized within the ISB and would be part of an expected environment for this type of use. The utility infrastructure would not generate substantial levels of vibration.

Heavy equipment would be required for site-preparation and construction of the proposed project. Construction vibration sources have a wide range of energy and velocity, as a function of time, transmitted on the ground. The ground motion caused by

vibration is measured as particle velocity in inches per second and, in the U.S., is referenced as vibration decibels (VdB).

The Federal Transit Administration (FTA) has identified vibration impact criteria for sensitive buildings, residences, and institutional land uses near rail transit and railroads. Because construction thresholds are based on single events, they do not apply narrowly to railway operations, but can be used for most construction activities. According to the FTA, groundborne vibration impact criteria for high sensitivity buildings, such as Duncan Hall, a potential university research operation location, is 65 vibration decibels (VdB) for all types of events (frequent, occasional, and infrequent). For residential receptors the criteria is 72 vibration decibels (VdB) for frequent events, 75 VdB for occasional events, and 80 VdB for infrequent events (FTA 2006). As construction would be temporary and infrequent, a threshold of 80 VdB is used for off-site residences.

The nearest noise-sensitive receptors to the project site are the classroom and lab facilities within Duncan Hall, located approximately 150 feet south of the project site; and the off-campus Colonnade Apartments, located approximately 300 feet west of the project site. Over the 32 to 38 months of construction of the proposed ISB, these nearby sensitive receptors would be in use. The proposed ISB is internal to the campus, and existing buildings would help to shield off-campus residences from exposure to excessive noise levels during construction activities; however, the vibration levels that would occur at off-campus residences as a result of the construction activities for the proposed project are also considered.

Table 5 identifies vibration velocity levels for the types of construction equipment that would operate at the project site during construction at a distance of 150 feet (the distance to Duncan Hall classrooms) and 300 feet (the distance to the Colonnade Apartments). Piles would be drilled and cast in concrete, so conventional pile driving equipment, which generate high levels of vibration, would not be used for the proposed project.

Table 5
Vibration Source Levels for Construction Equipment

	Approximate VdB	
Equipment	**150 feet**	**300 feet**
Loaded Trucks	62	53
Jackhammer	55	46
Bulldozer	64	55

Source: Federal Railroad Administration, 2012

As illustrated in Table 5, vibration levels could reach approximately 64 VdB at the nearest classroom and laboratory facilities in Duncan Hall, located approximately 150 feet south of the project site. The nearest off-site residences, located roughly 300 feet to the west of the project site, could experience vibration levels of up to 55 VdB during construction. These vibration levels would not exceed the groundborne vibration threshold level of 65 VdB for Duncan Hall or 80 VdB for the off-site residences. Impacts resulting from temporary construction vibration levels would therefore be **less than significant**.

d. The construction of the proposed ISB would involve the use of heavy construction equipment. Noise levels as a result of project construction activities could impact classroom and laboratory facilities in Duncan Hall, located 150 feet south of the site, as well as at off-campus residences located 300 feet west of the site.

Table 6 demonstrates the typical noise levels associated with heavy construction equipment. As shown therein, noise levels range from 49 to 81 dBA at a distance of 150 feet from the construction site and 43 to 75 dBA at a distance of 300 feet from the construction site (FTA 2006).

Table 6
Typical Noise Levels at Construction Sites

Equipment	Typical Level (dBA)	
	150 Feet	300 Feet
Air Compressor	60	54
Backhoe	59	53
Concrete Mixer	64	58
Crane	74	68
Dozer	81	75
Forklift	58	52
Generator	71	65
Grader	76	70
Paver	68	62
Saw	49	43
Scraper	68	62
Truck	67	61

Source: FTA, May 2006. Noise levels at 150 feet and 300 feet were extrapolated using a 6 dBA attenuation rate for the doubling of distance. Numbers were rounded to the nearest whole number.

Equipment used during construction would include equipment such as: a back hoe, graders, tractors, a crane, forklifts, welders, cement mixers, loaders, rollers, an air compressor during the architectural coating phase, and a paving machine. The primary source of construction noise would be generated during site preparation, grading and building construction. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources such as construction equipment. As previously mentioned, the closest sensitive receptors are located approximately 150 feet south of where proposed construction activities would occur. At this distance, temporary noise generated by construction activities could be as high as 81 dBA. At off-campus residences, located approximately 300 feet west of the site, noise levels could reach up to 75 dBA. Impacts resulting from temporary construction noise would be **significant, but mitigable**. Mitigation Measure N-1 would be required to reduce construction and demolition noise impacts to a less than significant level.

e, f. The project area is located approximately three miles southeast of the Norman Y. Mineta San Jose International Airport, and the proposed project does not involve the development of new noise-sensitive uses. Thus, **no impacts** relating to aircraft noise are anticipated.

Mitigation Measure

NOISE-1 **Construction Noise Reduction.** The following requirements shall be implemented during construction of the project:

- Limit construction activities to between the hours of 7:00 AM and 4:00 PM except for construction activities that do not generate substantial noise.
- To ensure that noise emissions from construction vehicles and other equipment are limited to the minimum feasible levels, equip all noise-producing equipment and vehicles using internal combustion engines with mufflers, and air-inlet silencers where appropriate, that meet or exceed original factory specification. Equip mobile or fixed "package" equipment (e.g., arc-welders, air compressors) with shrouds and noise-control features that are readily available for that type of equipment.
- Install a temporary sound barrier, such as a temporary sound wall panel system or screened fence, around the active construction work area or adjacent housing uses during construction, during operation of heavy construction equipment.
- Stage asphalt/concrete crushing operation and equipment away from residences and adjacent uses that are sensitive to noise and vibration.
- The construction manager/contractor shall act as a noise disturbance coordinator. The noise disturbance coordinator shall be responsible for coordinating construction activities so as to not impact noise-sensitive uses. The noise disturbance coordinator shall also respond to any local complaints about construction noise, determine the cause of the noise complaint, and institute reasonable measures warranted to correct the problem. The telephone number of the noise disturbance coordinator shall be posted at the project site and provided to adjacent neighbors.

Significance after Mitigation. Implementation of the required mitigation measure would reduce noise impacts from construction to a less than significant level.

Population and Housing - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

a. The proposed project would not induce population growth in the area or growth in the enrollment numbers for SJSU. The proposed ISB would serve the existing campus community. It would not impact housing availability or demand. Thus, **no impact** relating to population and housing would occur.

b-c. The proposed project consists of construction of a ten-story building; an underground utility corridor; relocation of the Associated Students House; vegetation removal; and removal of existing surface parking lots. All of this construction would be within an infill site located on the SJSU main campus. The ISB facility would house laboratories, faculty offices, and interdisciplinary spaces. The proposed project would not displace any housing or people. Therefore, **no impact** to population or housing would occur.

Public Services - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?				X
d) Other public facilities?				X

a. The City of San Jose Fire Department (SJFD) provides emergency response and public safety services on the SJSU campus. Response times to the campus are within the four-minute response time called for in the San Jose 2040 General Plan (Campus Master Plan 2001 Environmental Impact Report, URS, 2001). Emergency access throughout the campus is facilitated by the campus design, incorporation of fire lanes, and access to fire

hydrants. Future buildings would be required to comply with applicable building and fire codes and therefore could be served by SJFD in the event of an emergency. Implementation of the proposed project would not require SJFD to provide new facilities or services that could result in an environmental impact. Impacts would be **less than significant.**

b. The SJSU campus has its own on-campus police department, which is located approximately 800 feet from the proposed project site. The City of San Jose 2040 Envision General Plan set a goal of a response time for the police department of 11 minutes or less to any emergency call. According to Captain Cavallo of the University Police Department, the proposed project would require an alarm system, cameras, potentially create a need for additional staff, and could potentially affect the response times due to the high-rise nature of the building. However, the proposed building would not create a need of new facilities (Captain Alan Cavallo, personal communication, August 2016). **Less than significant impacts** would occur.

c-d. The proposed ISB on the SJSU campus is intended to accommodate the existing campus population. The proposed project would not generate population growth and therefore would not increase the demand for schools or other public facilities. **No impacts** would occur.

Recreation	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

a, b. The proposed project consists of construction of ten-story building on an infill site within the SJSU main campus. The proposed project would not increase population and therefore would not affect existing recreational facilities nor create demand for new recreational facilities.

During construction of the proposed ISB, there would be no physical deterioration of other existing facilities, nor would it require the construction or expansion of recreational facilities. **Less than significant impacts** would occur.

Transportation/Traffic - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible use (e.g. farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

a, b. The proposed ISB would replace the existing Science 1 Building and accommodate functions currently housed within Duncan Hall. The project is anticipated to increase enrollment within the College of Science from 4,354 full-time equivalent students (FTES) to 4,648 FTES. This represents an increase of 294 FTES, or an approximately 6.7 percent increase. This level of increase would not result in a substantial permanent change to daily, AM peak hour, and PM peak hour traffic volumes, nor would there be any effects on the level of service at intersections and on roadways in the vicinity, as described below. In addition, although the proposed ISB would be operational approximately three years prior to demolition of the existing Science 1 Building, this temporary overlap in building operations would not result in increased enrollment. Although additional space would be available for teaching, research, and other instruction, the campus would not admit additional students to fill this space for a three-year time frame. As such, this analysis considers the long-term increase of 294 FTES resulting from the net increase in space after demolition of the Science 1 Building.

The City of San Jose's *Traffic Impact Analysis Handbook: Volume I – Methodologies & Requirements* (November 2009) explains that a transportation impact analysis is needed based on the number of peak-hour trips generated by the project using City of San Jose approved trip generation rates. The Santa Clara Valley Transportation Authority (VTA), which is designated as Santa Clara County's congestion management agency, provides guidelines for when a development project must complete a Transportation Impact Analysis to assess the impact at Congestion Management Plan intersections. The VTA

Transportation Impact Analysis Guidelines (October 2014) require a transportation impact analysis if a land use generates more than 100 AM or PM peak hour trips. Projects that generate less than 100 AM or PM peak hour trips are considered to have a less than significant effect on the roadway network within VTA's authority.

As stated earlier, the proposed project would result in an increase of 294 FTES within the College of Science. Based on average trip generation rates from the Institute of Transportation Engineers (ITE) of 1.71 weekday trips with 0.17 peak hour trips per student and 1.30 Saturday trips, this increase would generate 503 average daily trips (ADT) on weekdays, including 50 trips in both the AM and PM peak hours, and 382 ADT on Saturdays (ITE, 2012). This peak hour trip generation would be less than the VTA's guidelines for requiring a transportation impact analysis. As such, project circulation performance and congestion management impacts would be **less than significant**.

Temporary impacts to the circulation system may occur as a result of worker and truck trips during construction. However, off-site construction trips typically occur during off-peak traffic periods, when intersections and roadways operate well within acceptable levels of service. Therefore, impacts to the circulation system during the construction or operational period would also be **less than significant.**

c-f. The proposed project would not generate any air traffic, create any traffic hazards, conflict with emergency access patterns, or conflict with any adopted transportation plans or policies. The project would not permanently change vehicular, transit, pedestrian, or bicycle access to SJSU or other parcels. The project would not introduce incompatible uses or hazards related to a roadway design feature. **No impacts** would occur.

Tribal Cultural Resources - Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as sites, features, places, cultural landscapes, sacred place, or objects with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			**X**	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			**X**	

a, b. To date, no Native American tribes have formally requested government to government consultation as required under AB 52. As part of the Cultural Resources Study conducted for this project (Appendix B.1), Rincon conducted Native American scoping to identify cultural resources of interest to Native Americans within the project area. Rincon contacted the Native American Heritage Commission (NAHC) to request a Sacred Lands File (SLF) search of the project area and a 0.25-mile radius surrounding it. Rincon submitted the request on July 29, 2016. The NAHC responded on August 11, 2016 stating that "site(s) were found," and provided the contact information for an individual to be contacted with more information about the site. Rincon attempted to contact this individual and was unsuccessful. Rincon additionally prepared and mailed letters to seven Native American contacts provided by the NAHC on August 12, 2016 requesting information regarding cultural resources within or immediately adjacent to the project area. On August 19, 2016, Rincon received a response from Alan Leventhal, a tribal archaeologist on behalf of the Muwekma Tribal Administration. Mr. Leventhal asked for results from the cultural resources records search, and provided Rincon with information regarding ancestral heritage sites within the vicinity of the project area and two tribal publications concerning cultural resources. Mr. Leventhal did not identify any tribal cultural resources within the project area. Rincon sent follow-up emails to Native American contacts on August 29, 2016. On August 30, 2016, Irene Zwierlein, Chairperson for the Amah Mutsun Tribal Band of Mission San Juan Bautista, emailed Rincon stating that they were not going to make a comment on the project and to direct communication to Mr. Leventhal, representative of the Muwekma people. As of May 2017, no additional responses have been received. Thus, no known tribal cultural resources have been identified within the project area and SJSU has satisfied the requirements of AB 52 for the project. Therefore, the proposed project would not result in a substantial adverse change to a tribal cultural resource. Impacts would be **less than significant.**

Utilities and Service Systems - Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			**X**	
b) Require or result in the construction of new water or wastewater treatment facilities of expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			**X**	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	

Utilities and Service Systems - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	
h) Result in a Substantial increase in demand of existing sources of energy or require the development of new sources of energy?			X	

a, b. The San Francisco Bay RWQCB regulates wastewater treatment for the City of San Jose. Sewage generation rates for a typical university or college provided by the Los Angeles CEQA Thresholds Guide for utilities were used as the most similar type of use and sewage generation rate to the proposed project. Based on these rates, the project would generate 18 gallons per day (gpd) of wastewater per student. SJSU has approximately 30,000 students enrolled, with approximately 4,350 enrolled with the College of Science (SJSU IEA 2016). Conservatively assuming that all 4,350 College of Science students use the ISB each day, the maximum wastewater discharged from the proposed ISB would be 78,300 gpd. This wastewater would be discharged into a campus sewer line and delivered to the San Jose-Santa Clara Regional Wastewater Facility. The San Jose-Santa Clara Regional Wastewater Facility is currently treating an average of 110 million gallons per day, with the capacity to treat 167 million gallons per day (San Jose-Santa Clara Regional Wastewater Facility 2016). Therefore, the San Jose-Santa Clara Regional Wastewater Facility has excess capacity of 57 million gpd. The proposed project would generate less than 1% of this excess capacity. The proposed project would not cause the wastewater facility to exceed its wastewater treatment capacity. No off-site improvements would be necessary. Therefore, the project would not cause a significant increase in wastewater or exceed wastewater treatment requirements. Impacts would be **less than significant.**

c. Storm water drainage facilities on the SJSU campus would not be substantially altered as a result of the proposed project. As the project site contains existing impervious surfaces, including two parking lots, the developed surface area would not substantially increase as a result of the proposed project. The proposed project would be engineered to address storm water drainage and flooding standards by connecting to existing storm water drainage utilities on the SJSU campus. Therefore, there would be no additional off-site disturbance as a result of the proposed project. In addition, SJSU would be required to comply with regulations and policies set forth by the SWRCB and the San Francisco Bay Area RWQCB to meet storm water quality regulations. Therefore, the proposed project would not cause significant environmental effects by adding or expanding storm water drainage facilities. Impacts would be **less than significant.**

d. The proposed project would aim to achieve a minimum of LEED Silver certification or equivalent. As such, the project would contain sustainable design principles, including the protection and conservation of water. The proposed project would accommodate the needs of the existing student, staff, and faculty population, and would not generate additional students. Therefore, existing water entitlements would be sufficient for the

campus population upon completion of the proposed project. Impacts would be **less than significant.**

e. Wastewater generated at SJSU is discharged into City wastewater mains that range in size from six inch diameter to 72 inch diameter. As previously mentioned, the small amount of wastewater flow on existing infrastructure would be anticipated to be minimal. As such, there would be adequate capacity in these mains and at the City Water Pollution Control Plant to accommodate flows from the proposed project. Impacts associated with the utility infrastructure improvements included as part of this project are analyzed throughout this IS-MND. Therefore, **less than significant** impacts would result.

f, g. The SJSU campus disposes of solid waste through a contract with Republic Services, independent of the City of San Jose. Solid waste is disposed of at Newby Island Landfill, which has a permitted capacity of 4,000 tons/day. The landfill has a remaining capacity of 37%, or 21,200,000 cubic yards as of October 31, 2014 (California Department of Resources Recycling and Recovery 2016). Demolition waste from the existing parking lots and from trenching for the utilities improvements would be transported to the landfill. The proposed project would not be anticipated to generate additional solid waste beyond the capacity of the landfill. Additionally, the campus promotes an effective recycling program, and approximately 83% of waste is diverted, and recycled (Annual Sustainability Report 2014). Therefore, impacts would be **less than significant.**

h. Gas lines on the SJSU campus are owned and operated by the Pacific Gas & Electric Company (PG&E). The Central Plant on campus provides electricity, chilled water for cooling, and steam for heating campus buildings. The existing campus central cooling plant has insufficient capacity to accommodate construction and operation of the ISB. Construction of a satellite plant to be connected to the main distribution center is recommended to meet anticipated demands of the campus over the next 20 years (Salas O'Brien 2014). However, this has already been determined when construction of the Campus Village Phase 2 and Recreation and Aquatics Center was evaluated (SJSU Southeast Quadrant Phasing Study 2013).

As mentioned, the proposed ISB would apply for LEED Gold or Platinum certification. As such, sustainable design principles would be used in the construction of the proposed project, which would reduce energy consumption to the extent feasible. Energy saving features would improve building efficiency, such as heating, ventilation, and air conditioning efficiency measures, low flow water fixtures, and solar/thermal hot water. The facility would be served by the existing Central Plant operated by SJSU on the main campus and would not require the development of any new sources of energy, nor would it increase the demand on Central Plant. With implementation of these sustainable design principles, impacts related to energy demand would be **less than significant.**

Mandatory Findings of Significance	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

a. The project is located in an existing developed area that does not contain known wildlife habitat. Therefore, the project would not impact fish or wildlife populations, or eliminate or reduce the number or restrict the range of a plant or animal community. As noted above in *Cultural Resources*, the project would result in potential impacts to the historic Scheller (Associated Students) House, which is eligible for listing in the California Register of Historic Resources (CRHR), and is proposed for relocation. In addition, although no known archaeological resources are located on the project site, the site is located in an area of archaeological sensitivity, and could potentially disturb previously unidentified archaeological resources. With implementation of mitigation measures, the project would not eliminate important examples of the major periods or California history of prehistory. Impacts would be **significant, but mitigable.**

b. The project would not create any significant impacts that cannot be mitigated. The project would accommodate the needs of the student, staff and faculty population by providing expanded spaces for teaching, research laboratories, and lab support areas; and would not generate substantial additional off-site vehicle trips that could impact the City's circulation system, existing level of service standards, regional operation air contaminant emissions or greenhouse gas emissions standards, or noise standards, on a cumulative basis. Therefore, the project's contribution to cumulative impacts would be **less than significant**.

c. The proposed project could result in **potentially significant** direct or indirect impacts to humans. Refer to the *Geology and Soil* and *Noise* sections in the above analysis. However, as described in these sections, **all impacts would be mitigated to a less than significant level**. Therefore, with implementation of the required measures, no substantial adverse effects on human beings would occur as a result of the proposed project.

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Persons Contacted

Captain Alan Cavallo, University Police Department. August 2016.

5.0 RESPONSES TO COMMENTS ON THE DRAFT IS-MND

This section includes the comments received during circulation of the Draft Initial Study and Mitigated Negative Declaration (IS-MND) prepared for the SJSU Interdisciplinary Science Building (ISB) Project and responses to those comments. The Draft IS-MND was circulated for a 30-day public review period that began on November 13, 2017 and concluded on December 12, 2017. The City received one comment letter on the Draft IS-MND. The commenter and the page number on which the comments and responses appear are listed below. No changes to the Draft IS-MND were necessary based on comments received.

Commenter	Date	Page No.
1. Harold (Bud) Duke, PG, Senior Engineering Geologist, Northern California Schools Unit, Brownfields and Environmental Restoration Program, Department of Toxic Substances Control	November 16, 2017	69

Comment Letter 1

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Edmund G. Brown Jr.
Governor

November 16, 2017

Mr. Ashraf Fouad
Senior Director, Facilities Development and Operations
San Jose State University
One Washington Square
San Jose, California 95192

REVIEW OF DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE SAN JOSE STATE UNIVERSITY INTERDISCIPLINARY SCIENCE BUILDING PROJECT, NORTH OF DUNCAN HALL FACING PASEO DE SAN CARLOS BETWEEN 4TH STREET AND 7TH STREET, SAN JOSE, SANTA CLARA COUNTY (SCH #2017112035)

Dear Mr. Fouad:

The Northern California Schools Unit of the Department of Toxic Substances Control (DTSC) has reviewed the draft Initial Study and Proposed Mitigated Negative Declaration (IS/MND) for the San Jose State University Interdisciplinary Science Building Project proposed by the Trustees of California State University (CSU). The due date to submit comments is December 12, 2017.

As reported in the draft IS/MND, CSU is proposing the development of an interdisciplinary science building (ISB) at the existing San Jose State University campus that would be eight to ten stories high with a basement. The new building would house laboratories, faculty offices, and interdisciplinary spaces. The project is divided into two components; the ISB Base Program and the ISB Aspirational Program. The ISB Base Program consists of spaces for teaching, research, other instruction as well as their respective support areas. The ISB Aspirational Program, which will be constructed if non-state external funding is secured, consists of specialty spaces to foster collaboration and innovation within the College of Sciences and the University. The entire project would total up to 215,000 gross square feet.

Based on a review of the draft IS/MND, DTSC would like to provide the following comment:

1. Because the project is school site related, DTSC recommends that an environmental review, such as a Phase I Environmental Site Assessment and/or Preliminary Endangerment Assessment (PEA), be conducted to determine whether there has been or may have been a release or threatened release of a hazardous material, or whether a naturally occurring hazardous material (e.g., radon, mercury, naturally occurring asbestos [NOA]) is present based on reasonably available information about the property and the area in its vicinity. Such an environmental review should generally be conducted as part of the California Environmental Quality Act (CEQA) process. If CSU elects to proceed and conduct an environmental assessment at the site under DTSC oversight, it should enter into a Voluntary Cleanup Agreement with DTSC. Alternatively, DTSC recommends CSU investigate, and clean up if necessary, the site under the oversight of the County of Santa Clara and in concurrence with all applicable DTSC guidance documents.

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

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

4. The site appears to be located within 10-miles of a geological unit potentially containing NOA. Pursuant to DTSC's "*Interim Guidance – Naturally Occurring Asbestos at School Sites, Revised September 24, 2004*", further action should be considered and conducted to determine whether a naturally occurring hazardous

material (i.e., NOA) is present, based on reasonably available information about the properties and the areas in their vicinity, and a soil assessment pursuant to the DTSC's NOA guidance.

5. If a response action is required based on the results of the above investigations, and/or other information, the IS/MND will require an analysis of the potential public health and environmental impacts associated with any proposed response action, pursuant to requirements of the CEQA (Pub. Resources Code, Division 13, section 21000 et seq.), and its implementing Guidelines (California Code of Regulations, Title 14, section 15000 et seq.), prior to approval or adoption of an MND for the Project. A discussion of the mitigation and/or removal actions, if necessary, and associated cumulative impacts to the Project properties and the surrounding environment, should be included in the MND. If sufficient information to discuss the proposed mitigation and/or removal actions, and their associated impacts to the Project properties and the surrounding environment, are not available for inclusion in the MND, then an Addendum or Supplement to the MND may be required.

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

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

Sincerely,

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

cc: (see next page)

cc: (via email)

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

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Jose Salcedo (Jose.Salcedo@dtsc.ca.gov)
DTSC Schools Unit – Sacramento, CA

Comment Letter 1: Harold (Bud) Duke, PG, Senior Engineering Geologist, Northern California Schools Unit, Brownfields and Environmental Restoration Program, Department of Toxic Substances Control (DTSC)

Date: November 16, 2017

Comment 1: The commenter recommends that a Phase I Environmental Assessment and/or Preliminary Endangerment Assessment be conducted to determine if hazardous materials are present on or in the vicinity of the project site because the project is school site related. The commenter recommends that such assessment be conducted under a Voluntary Cleanup Agreement with DTSC or under the oversight of the County of Santa Clara in concurrence with applicable DTSC guidance documents.

Response 1: The ISB project site is the current location of the Associated Students House, parking lots 11 and 13, and a small botanic garden on the main SJSU campus. The project would not involve development of a new school site or expansion of an existing school site. Therefore, a Phase I Environmental Assessment and/or Preliminary Endangerment Assessment, with oversight by DTSC, would not be required for the project. As discussed in further detail in Response to Comment 2, the IS-MND included a hazardous materials evaluation and concluded the project would result in less than significant impacts.

Comment 2: The commenter recommends that the presence of lead, organochlorine pesticides, and polychlorinated biphenyls as a result of former and existing structural development on the project site be investigated and mitigated for, if necessary, in accordance with DTSC and U.S. Environmental Protection Agency (EPA) guidance.

Response 2: As described in the discussion of potential Hazards and Hazardous Materials impacts in the IS-MND, a review of environmental records was performed for the project site, including a database search from Environmental Data Resources, Inc. (EDR) and the online GeoTracker and EnviroStor databases maintained by the State Water Resources Control Board and DTSC, respectively. The project site was not listed in the hazardous materials records search as having or storing potential hazardous contaminants. The project area is located within ½ mile of 130 environmental database listings. However, because of the distance between these listings and the project site, as well as the specific conditions from each of the sites as described in the IS-MND, the listings would not be anticipated to result in contamination at the project site.

Comment 3: The commenter recommends that the presence of pesticides and fertilizers be investigated and mitigated for, if necessary, in accordance with DTSC guidance if the site was previously used for agricultural purposes.

Response 3: The project site lies within the urban core of the City of San Jose and no agricultural use of this land has occurred for many decades. Also, refer to Response 2 for a discussion of the evaluation of potential hazards and hazardous materials on the project site and results of that evaluation, as summarized in the IS-MND.

Comment 4: The commenter states that the project site is located within 10 miles of a geological unit potentially containing Naturally Occurring Asbestos (NOA). The commenter recommends that the presence of NOA be investigated and a soil assessment be conducted in accordance with DTSC NOA guidance.

Response 4: Relocation of the Associated Students House, removal of existing surface parking lots, and trenching for the proposed utility corridor for the project would result in soil disturbance on the project site. According to Figure 2, Areas of Definite and Likely Natural Asbestos Occurrence, in the *Current Conditions Report*, prepared by Cornerstone Earth Group in October 2010 to identify issues related to soils, geology and geologic hazard conditions in the City of San Jose's sphere of influence for the *Envision San José 2040 General Plan Update*, the project site is not located in any identified NOA occurrence or buffer area. Additionally, as described in the Air Quality section of the IS-MND, with regard to project construction activities, the project would be required to comply with all *Basic Construction Mitigation Measures* listed in Table 8-2 of the BAAQMD *CEQA Air Quality Guidelines*, including standard dust-control measures to reduce construction-related air quality impacts. Compliance with these measures during construction and development of a new building on the project site would preclude the exposure of persons or the environment to hazards associated with the potential presence of hazardous materials in area soils.

Comment 5: The commenter states that the IS-MND will require analysis of potential public health and environmental impacts associated with any response action required as a result of the investigation recommended in Comments 1 through 4. The commenter also states that the IS-MND should include a discussion of the mitigation and/or removal actions, if necessary, and cumulative impacts to the project site and surrounding environment.

Response 5: As discussed in Responses 1 through 4, no significant public health hazard impacts were identified for the project. Therefore, further analysis of potential public health and environmental impacts associated with any response actions for such investigations is not warranted in the IS-MND.

Appendix A

Air Quality and Greenhouse Gas Emissions Calculations

SJSU Interdisciplinary Science Building Project

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	215.00	1000sqft	1.90	215,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project construction - June 2019 to Dec 2021

Land Use - Lot acreage = area of disturbance on project plans.

Construction Phase - Project construction-June 2019 to Dec. 2021, w/ ASH relocation in early 2019.

Off-road Equipment -

Off-road Equipment - Assumes two cranes to account for hydraulic trolleys typically used in building construction.

Off-road Equipment -

Off-road Equipment - Assume excavator to account for basement excavation.

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - Disturbance area limited to project site and utility trenching areas. Site prep = botanical garden and lawn area. Excavation would be 18' by 25,000SF = 450,000CF or 16,600CY.

Vehicle Trips - 294 students*1.71 ITE weekday trip rate for Land Use 550=503 ADT; 294 students*1.3 ITE Sat. trip rate=382 ADT; ADT for # of students then used to calculate trip rate per 1,000 SF.

Construction Off-road Equipment Mitigation - Standard BAAQMD construction mitigation measure.

Area Mitigation - Low VOC paint assumed for LEED certification.

Energy Mitigation - 25% exceedance to account for compliance with Title 24 2013.

Water Mitigation - Assumes reclaimed water used for irrigation, and indoor toilets that account for 10% of indoor use.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	112.00
tblConstructionPhase	NumDays	200.00	10.00
tblConstructionPhase	NumDays	200.00	495.00
tblConstructionPhase	NumDays	4.00	35.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	2.00	10.00

tblConstructionPhase	PhaseEndDate	1/26/2022	12/31/2021
tblConstructionPhase	PhaseEndDate	8/16/2019	6/14/2019
tblConstructionPhase	PhaseEndDate	7/16/2021	7/9/2021
tblConstructionPhase	PhaseEndDate	8/2/2019	8/16/2019
tblConstructionPhase	PhaseEndDate	8/11/2021	7/28/2021
tblConstructionPhase	PhaseEndDate	6/14/2019	6/28/2019
tblConstructionPhase	PhaseStartDate	8/12/2021	7/29/2021
tblConstructionPhase	PhaseStartDate	8/3/2019	6/1/2019
tblConstructionPhase	PhaseStartDate	6/15/2019	6/29/2019
tblConstructionPhase	PhaseStartDate	7/17/2021	7/10/2021
tblConstructionPhase	PhaseStartDate	6/1/2019	6/15/2019
tblGrading	AcresOfGrading	13.13	1.90
tblGrading	AcresOfGrading	5.00	0.50
tblGrading	MaterialExported	0.00	16,600.00
tblLandUse	LotAcreage	4.94	1.90
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	OperationalYear	2018	2022
tblVehicleTrips	ST_TR	11.23	1.78
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	2.34

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1980	1.8779	1.2044	3.3700e-003	0.1772	0.0727	0.2498	0.0772	0.0692	0.1464	0.0000	303.5597	303.5597	0.0394	0.0000	304.5448
2020	0.3228	2.4942	2.1502	5.0400e-003	0.1232	0.1075	0.2307	0.0335	0.1038	0.1372	0.0000	439.4843	439.4843	0.0523	0.0000	440.7922
2021	1.2913	1.3269	1.2603	2.9300e-003	0.0726	0.0554	0.1280	0.0197	0.0536	0.0732	0.0000	255.3005	255.3005	0.0296	0.0000	256.0395
Maximum	**1.2913**	**2.4942**	**2.1502**	**5.0400e-003**	**0.1772**	**0.1075**	**0.2498**	**0.0772**	**0.1038**	**0.1464**	**0.0000**	**439.4843**	**439.4843**	**0.0523**	**0.0000**	**440.7922**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1980	1.8779	1.2044	3.3700e-003	0.1180	0.0727	0.1906	0.0451	0.0692	0.1143	0.0000	303.5595	303.5595	0.0394	0.0000	304.5446
2020	0.3228	2.4942	2.1502	5.0400e-003	0.1232	0.1075	0.2307	0.0335	0.1038	0.1372	0.0000	439.4840	439.4840	0.0523	0.0000	440.7919
2021	1.2913	1.3269	1.2603	2.9300e-003	0.0726	0.0554	0.1280	0.0197	0.0536	0.0732	0.0000	255.3003	255.3003	0.0296	0.0000	256.0393
Maximum	**1.2913**	**2.4942**	**2.1502**	**5.0400e-003**	**0.1232**	**0.1075**	**0.2307**	**0.0451**	**0.1038**	**0.1372**	**0.0000**	**439.4840**	**439.4840**	**0.0523**	**0.0000**	**440.7919**

SJSU Interdisciplinary Science Building Project - Bay Area AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.87**	**0.00**	**9.73**	**24.56**	**0.00**	**8.97**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2019**	**8-31-2019**	0.9168	0.9168
2	**9-1-2019**	**11-30-2019**	0.7616	0.7616
3	**12-1-2019**	**2-29-2020**	0.7219	0.7219
4	**3-1-2020**	**5-31-2020**	0.7058	0.7058
5	**6-1-2020**	**8-31-2020**	0.7045	0.7045
6	**9-1-2020**	**11-30-2020**	0.6994	0.6994
7	**12-1-2020**	**2-28-2021**	0.6543	0.6543
8	**3-1-2021**	**5-31-2021**	0.6461	0.6461
9	**6-1-2021**	**8-31-2021**	0.5971	0.5971
10	**9-1-2021**	**9-30-2021**	0.2342	0.2342
		Highest	0.9168	0.9168

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9520	2.0000e-005	1.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.8400e-003	3.8400e-003	1.0000e-005	0.0000	4.1000e-003
Energy	0.0281	0.2554	0.2145	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	786.4948	786.4948	0.0283	9.8500e-003	790.1392
Mobile	0.1241	0.6230	1.4492	4.7800e-003	0.3914	5.2900e-003	0.3967	0.1051	4.9800e-003	0.1100	0.0000	437.9040	437.9040	0.0169	0.0000	438.3271
Waste						0.0000	0.0000		0.0000	0.0000	56.7360	0.0000	56.7360	3.3530	0.0000	140.5610
Water						0.0000	0.0000		0.0000	0.0000	3.3456	33.3943	36.7399	0.3451	8.4300e-003	47.8793
Total	**1.1041**	**0.8784**	**1.6657**	**6.3100e-003**	**0.3914**	**0.0247**	**0.4161**	**0.1051**	**0.0244**	**0.1295**	**60.0816**	**1,257.7969**	**1,317.8785**	**3.7434**	**0.0183**	**1,416.9108**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9520	2.0000e-005	1.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.8400e-003	3.8400e-003	1.0000e-005	0.0000	4.1000e-003
Energy	0.0220	0.2002	0.1682	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	681.5844	681.5844	0.0251	8.3300e-003	684.6963
Mobile	0.1241	0.6230	1.4492	4.7800e-003	0.3914	5.2900e-003	0.3967	0.1051	4.9800e-003	0.1100	0.0000	437.9040	437.9040	0.0169	0.0000	438.3271
Waste						0.0000	0.0000		0.0000	0.0000	56.7360	0.0000	56.7360	3.3530	0.0000	140.5610
Water						0.0000	0.0000		0.0000	0.0000	2.8148	24.0429	26.8577	0.2902	7.0500e-003	36.2139
Total	**1.0981**	**0.8232**	**1.6193**	**5.9800e-003**	**0.3914**	**0.0205**	**0.4119**	**0.1051**	**0.0202**	**0.1253**	**59.5508**	**1,143.5351**	**1,203.0859**	**3.6853**	**0.0154**	**1,299.8024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.55**	**6.28**	**2.78**	**5.23**	**0.00**	**16.96**	**1.01**	**0.00**	**17.17**	**3.24**	**0.88**	**9.08**	**8.71**	**1.55**	**15.86**	**8.27**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/15/2019	6/28/2019	5	10	
2	Grading	Grading	6/29/2019	8/16/2019	5	35	
3	ASH Relocation	Building Construction	6/1/2019	6/14/2019	5	10	
4	Building Construction	Building Construction	8/17/2019	7/9/2021	5	495	
5	Paving	Paving	7/10/2021	7/28/2021	5	13	
6	Architectural Coating	Architectural Coating	7/29/2021	12/31/2021	5	112	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.9

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 322,500; Non-Residential Outdoor: 107,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
ASH Relocation	Cranes	2	6.00	231	0.29
ASH Relocation	Forklifts	1	6.00	89	0.20
ASH Relocation	Generator Sets	1	8.00	84	0.74
ASH Relocation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
ASH Relocation	Welders	3	8.00	46	0.45
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,075.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
ASH Relocation	8	90.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	90.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0266	0.0000	0.0266	0.0145	0.0000	0.0145	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0974	0.0395	9.0000e-005		4.4100e-003	4.4100e-003		4.0600e-003	4.0600e-003	0.0000	7.7334	7.7334	2.4500e-003	0.0000	7.7946
Total	**8.5600e-003**	**0.0974**	**0.0395**	**9.0000e-005**	**0.0266**	**4.4100e-003**	**0.0310**	**0.0145**	**4.0600e-003**	**0.0186**	**0.0000**	**7.7334**	**7.7334**	**2.4500e-003**	**0.0000**	**7.7946**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1000e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2859	0.2859	1.0000e-005	0.0000	0.2861
Total	**1.5000e-004**	**1.1000e-004**	**1.1000e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2859**	**0.2859**	**1.0000e-005**	**0.0000**	**0.2861**

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					0.0120	0.0000	0.0120	6.5300e-003	0.0000	6.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0974	0.0395	9.0000e-005		4.4100e-003	4.4100e-003		4.0600e-003	4.0600e-003	0.0000	7.7334	7.7334	2.4500e-003	0.0000	7.7945
Total	**8.5600e-003**	**0.0974**	**0.0395**	**9.0000e-005**	**0.0120**	**4.4100e-003**	**0.0164**	**6.5300e-003**	**4.0600e-003**	**0.0106**	**0.0000**	**7.7334**	**7.7334**	**2.4500e-003**	**0.0000**	**7.7945**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1000e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2859	0.2859	1.0000e-005	0.0000	0.2861
Total	**1.5000e-004**	**1.1000e-004**	**1.1000e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2859**	**0.2859**	**1.0000e-005**	**0.0000**	**0.2861**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0810	0.0000	0.0810	0.0437	0.0000	0.0437	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0294	0.3276	0.1727	3.4000e-004		0.0152	0.0152		0.0139	0.0139	0.0000	30.2832	30.2832	9.5800e-003	0.0000	30.5228
Total	**0.0294**	**0.3276**	**0.1727**	**3.4000e-004**	**0.0810**	**0.0152**	**0.0961**	**0.0437**	**0.0139**	**0.0576**	**0.0000**	**30.2832**	**30.2832**	**9.5800e-003**	**0.0000**	**30.5228**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4700e-003	0.3249	0.0635	8.3000e-004	0.0175	1.2400e-003	0.0188	4.8200e-003	1.1800e-003	6.0000e-003	0.0000	80.3584	80.3584	4.2400e-003	0.0000	80.4643
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.7000e-004	4.7900e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2509	1.2509	3.0000e-005	0.0000	1.2517
Total	**0.0101**	**0.3253**	**0.0683**	**8.4000e-004**	**0.0189**	**1.2500e-003**	**0.0202**	**5.1900e-003**	**1.1900e-003**	**6.3800e-003**	**0.0000**	**81.6093**	**81.6093**	**4.2700e-003**	**0.0000**	**81.7160**

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					0.0364	0.0000	0.0364	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0294	0.3276	0.1727	3.4000e-004		0.0152	0.0152		0.0139	0.0139	0.0000	30.2832	30.2832	9.5800e-003	0.0000	30.5227
Total	**0.0294**	**0.3276**	**0.1727**	**3.4000e-004**	**0.0364**	**0.0152**	**0.0516**	**0.0197**	**0.0139**	**0.0336**	**0.0000**	**30.2832**	**30.2832**	**9.5800e-003**	**0.0000**	**30.5227**

3.3 Grading - 2019

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	9.4700e-003	0.3249	0.0635	8.3000e-004	0.0175	1.2400e-003	0.0188	4.8200e-003	1.1800e-003	6.0000e-003	0.0000	80.3584	80.3584	4.2400e-003	0.0000	80.4643
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.7000e-004	4.7900e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2509	1.2509	3.0000e-005	0.0000	1.2517
Total	**0.0101**	**0.3253**	**0.0683**	**8.4000e-004**	**0.0189**	**1.2500e-003**	**0.0202**	**5.1900e-003**	**1.1900e-003**	**6.3800e-003**	**0.0000**	**81.6093**	**81.6093**	**4.2700e-003**	**0.0000**	**81.7160**

3.4 ASH Relocation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0133	0.1024	0.0760	1.3000e-004		5.5300e-003	5.5300e-003		5.3000e-003	5.3000e-003	0.0000	11.0968	11.0968	2.3700e-003	0.0000	11.1562
Total	**0.0133**	**0.1024**	**0.0760**	**1.3000e-004**		**5.5300e-003**	**5.5300e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**11.0968**	**11.0968**	**2.3700e-003**	**0.0000**	**11.1562**

3.4 ASH Relocation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3000e-004	0.0222	5.6900e-003	5.0000e-005	1.1500e-003	1.5000e-004	1.3000e-003	3.3000e-004	1.5000e-004	4.8000e-004	0.0000	4.6117	4.6117	2.6000e-004	0.0000	4.6181
Worker	1.6300e-003	1.2100e-003	0.0123	4.0000e-005	3.5600e-003	2.0000e-005	3.5800e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	3.2165	3.2165	9.0000e-005	0.0000	3.2186
Total	**2.4600e-003**	**0.0234**	**0.0180**	**9.0000e-005**	**4.7100e-003**	**1.7000e-004**	**4.8800e-003**	**1.2800e-003**	**1.7000e-004**	**1.4500e-003**	**0.0000**	**7.8282**	**7.8282**	**3.5000e-004**	**0.0000**	**7.8367**

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	0.0133	0.1024	0.0760	1.3000e-004		5.5300e-003	5.5300e-003		5.3000e-003	5.3000e-003	0.0000	11.0968	11.0968	2.3700e-003	0.0000	11.1562
Total	**0.0133**	**0.1024**	**0.0760**	**1.3000e-004**		**5.5300e-003**	**5.5300e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**11.0968**	**11.0968**	**2.3700e-003**	**0.0000**	**11.1562**

3.4 ASH Relocation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3000e-004	0.0222	5.6900e-003	5.0000e-005	1.1500e-003	1.5000e-004	1.3000e-003	3.3000e-004	1.5000e-004	4.8000e-004	0.0000	4.6117	4.6117	2.6000e-004	0.0000	4.6181
Worker	1.6300e-003	1.2100e-003	0.0123	4.0000e-005	3.5600e-003	2.0000e-005	3.5800e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	3.2165	3.2165	9.0000e-005	0.0000	3.2186
Total	**2.4600e-003**	**0.0234**	**0.0180**	**9.0000e-005**	**4.7100e-003**	**1.7000e-004**	**4.8800e-003**	**1.2800e-003**	**1.7000e-004**	**1.4500e-003**	**0.0000**	**7.8282**	**7.8282**	**3.5000e-004**	**0.0000**	**7.8367**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1102	0.7750	0.6541	1.0700e-003		0.0444	0.0444		0.0429	0.0429	0.0000	88.7899	88.7899	0.0171	0.0000	89.2166
Total	**0.1102**	**0.7750**	**0.6541**	**1.0700e-003**		**0.0444**	**0.0444**		**0.0429**	**0.0429**	**0.0000**	**88.7899**	**88.7899**	**0.0171**	**0.0000**	**89.2166**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0200e-003	0.2150	0.0552	4.7000e-004	0.0111	1.4800e-003	0.0126	3.2200e-003	1.4100e-003	4.6300e-003	0.0000	44.7333	44.7333	2.4800e-003	0.0000	44.7953
Worker	0.0158	0.0117	0.1196	3.5000e-004	0.0345	2.4000e-004	0.0347	9.1800e-003	2.2000e-004	9.3900e-003	0.0000	31.1997	31.1997	8.4000e-004	0.0000	31.2206
Total	**0.0238**	**0.2267**	**0.1747**	**8.2000e-004**	**0.0456**	**1.7200e-003**	**0.0473**	**0.0124**	**1.6300e-003**	**0.0140**	**0.0000**	**75.9330**	**75.9330**	**3.3200e-003**	**0.0000**	**76.0159**

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	0.1102	0.7750	0.6541	1.0700e-003		0.0444	0.0444		0.0429	0.0429	0.0000	88.7898	88.7898	0.0171	0.0000	89.2165
Total	**0.1102**	**0.7750**	**0.6541**	**1.0700e-003**		**0.0444**	**0.0444**		**0.0429**	**0.0429**	**0.0000**	**88.7898**	**88.7898**	**0.0171**	**0.0000**	**89.2165**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0200e-003	0.2150	0.0552	4.7000e-004	0.0111	1.4800e-003	0.0126	3.2200e-003	1.4100e-003	4.6300e-003	0.0000	44.7333	44.7333	2.4800e-003	0.0000	44.7953
Worker	0.0158	0.0117	0.1196	3.5000e-004	0.0345	2.4000e-004	0.0347	9.1800e-003	2.2000e-004	9.3900e-003	0.0000	31.1997	31.1997	8.4000e-004	0.0000	31.2206
Total	**0.0238**	**0.2267**	**0.1747**	**8.2000e-004**	**0.0456**	**1.7200e-003**	**0.0473**	**0.0124**	**1.6300e-003**	**0.0140**	**0.0000**	**75.9330**	**75.9330**	**3.3200e-003**	**0.0000**	**76.0159**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2660	1.9373	1.7276	2.8900e-003		0.1043	0.1043		0.1007	0.1007	0.0000	237.8202	237.8202	0.0442	0.0000	238.9239
Total	**0.2660**	**1.9373**	**1.7276**	**2.8900e-003**		**0.1043**	**0.1043**		**0.1007**	**0.1007**	**0.0000**	**237.8202**	**237.8202**	**0.0442**	**0.0000**	**238.9239**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0177	0.5290	0.1330	1.2500e-003	0.0301	2.5800e-003	0.0327	8.7000e-003	2.4700e-003	0.0112	0.0000	120.0442	120.0442	6.1900e-003	0.0000	120.1990
Worker	0.0391	0.0280	0.2896	9.0000e-004	0.0932	6.3000e-004	0.0938	0.0248	5.8000e-004	0.0254	0.0000	81.6199	81.6199	1.9800e-003	0.0000	81.6693
Total	**0.0568**	**0.5570**	**0.4226**	**2.1500e-003**	**0.1232**	**3.2100e-003**	**0.1264**	**0.0335**	**3.0500e-003**	**0.0365**	**0.0000**	**201.6641**	**201.6641**	**8.1700e-003**	**0.0000**	**201.8683**

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	0.2660	1.9373	1.7276	2.8900e-003		0.1043	0.1043		0.1007	0.1007	0.0000	237.8199	237.8199	0.0442	0.0000	238.9236
Total	**0.2660**	**1.9373**	**1.7276**	**2.8900e-003**		**0.1043**	**0.1043**		**0.1007**	**0.1007**	**0.0000**	**237.8199**	**237.8199**	**0.0442**	**0.0000**	**238.9236**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0177	0.5290	0.1330	1.2500e-003	0.0301	2.5800e-003	0.0327	8.7000e-003	2.4700e-003	0.0112	0.0000	120.0442	120.0442	6.1900e-003	0.0000	120.1990
Worker	0.0391	0.0280	0.2896	9.0000e-004	0.0932	6.3000e-004	0.0938	0.0248	5.8000e-004	0.0254	0.0000	81.6199	81.6199	1.9800e-003	0.0000	81.6693
Total	**0.0568**	**0.5570**	**0.4226**	**2.1500e-003**	**0.1232**	**3.2100e-003**	**0.1264**	**0.0335**	**3.0500e-003**	**0.0365**	**0.0000**	**201.6641**	**201.6641**	**8.1700e-003**	**0.0000**	**201.8683**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1233	0.9273	0.8772	1.5000e-003		0.0465	0.0465		0.0449	0.0449	0.0000	123.4524	123.4524	0.0220	0.0000	124.0034
Total	**0.1233**	**0.9273**	**0.8772**	**1.5000e-003**		**0.0465**	**0.0465**		**0.0449**	**0.0449**	**0.0000**	**123.4524**	**123.4524**	**0.0220**	**0.0000**	**124.0034**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5600e-003	0.2486	0.0621	6.4000e-004	0.0156	5.4000e-004	0.0162	4.5100e-003	5.2000e-004	5.0300e-003	0.0000	61.7239	61.7239	3.0300e-003	0.0000	61.7997
Worker	0.0188	0.0130	0.1373	4.5000e-004	0.0484	3.2000e-004	0.0487	0.0129	2.9000e-004	0.0132	0.0000	40.8810	40.8810	9.2000e-004	0.0000	40.9039
Total	**0.0263**	**0.2616**	**0.1993**	**1.0900e-003**	**0.0640**	**8.6000e-004**	**0.0648**	**0.0174**	**8.1000e-004**	**0.0182**	**0.0000**	**102.6049**	**102.6049**	**3.9500e-003**	**0.0000**	**102.7036**

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	0.1233	0.9273	0.8772	1.5000e-003		0.0465	0.0465		0.0449	0.0449	0.0000	123.4522	123.4522	0.0220	0.0000	124.0032
Total	**0.1233**	**0.9273**	**0.8772**	**1.5000e-003**		**0.0465**	**0.0465**		**0.0449**	**0.0449**	**0.0000**	**123.4522**	**123.4522**	**0.0220**	**0.0000**	**124.0032**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5600e-003	0.2486	0.0621	6.4000e-004	0.0156	5.4000e-004	0.0162	4.5100e-003	5.2000e-004	5.0300e-003	0.0000	61.7239	61.7239	3.0300e-003	0.0000	61.7997
Worker	0.0188	0.0130	0.1373	4.5000e-004	0.0484	3.2000e-004	0.0487	0.0129	2.9000e-004	0.0132	0.0000	40.8810	40.8810	9.2000e-004	0.0000	40.9039
Total	**0.0263**	**0.2616**	**0.1993**	**1.0900e-003**	**0.0640**	**8.6000e-004**	**0.0648**	**0.0174**	**8.1000e-004**	**0.0182**	**0.0000**	**102.6049**	**102.6049**	**3.9500e-003**	**0.0000**	**102.7036**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0300e-003	0.0503	0.0576	9.0000e-005		2.7000e-003	2.7000e-003		2.4900e-003	2.4900e-003	0.0000	7.6472	7.6472	2.4200e-003	0.0000	7.7078
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0300e-003**	**0.0503**	**0.0576**	**9.0000e-005**		**2.7000e-003**	**2.7000e-003**		**2.4900e-003**	**2.4900e-003**	**0.0000**	**7.6472**	**7.6472**	**2.4200e-003**	**0.0000**	**7.7078**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.8000e-004	1.9000e-003	1.0000e-005	6.7000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5645	0.5645	1.0000e-005	0.0000	0.5648
Total	**2.6000e-004**	**1.8000e-004**	**1.9000e-003**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5645**	**0.5645**	**1.0000e-005**	**0.0000**	**0.5648**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0300e-003	0.0503	0.0576	9.0000e-005		2.7000e-003	2.7000e-003		2.4900e-003	2.4900e-003	0.0000	7.6472	7.6472	2.4200e-003	0.0000	7.7078
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0300e-003**	**0.0503**	**0.0576**	**9.0000e-005**		**2.7000e-003**	**2.7000e-003**		**2.4900e-003**	**2.4900e-003**	**0.0000**	**7.6472**	**7.6472**	**2.4200e-003**	**0.0000**	**7.7078**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.8000e-004	1.9000e-003	1.0000e-005	6.7000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5645	0.5645	1.0000e-005	0.0000	0.5648
Total	**2.6000e-004**	**1.8000e-004**	**1.9000e-003**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5645**	**0.5645**	**1.0000e-005**	**0.0000**	**0.5648**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.0855	0.1018	1.7000e-004		5.2700e-003	5.2700e-003		5.2700e-003	5.2700e-003	0.0000	14.2982	14.2982	9.8000e-004	0.0000	14.3228
Total	**1.1334**	**0.0855**	**0.1018**	**1.7000e-004**		**5.2700e-003**	**5.2700e-003**		**5.2700e-003**	**5.2700e-003**	**0.0000**	**14.2982**	**14.2982**	**9.8000e-004**	**0.0000**	**14.3228**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0900e-003	2.1300e-003	0.0226	7.0000e-005	7.9700e-003	5.0000e-005	8.0200e-003	2.1200e-003	5.0000e-005	2.1700e-003	0.0000	6.7333	6.7333	1.5000e-004	0.0000	6.7371
Total	**3.0900e-003**	**2.1300e-003**	**0.0226**	**7.0000e-005**	**7.9700e-003**	**5.0000e-005**	**8.0200e-003**	**2.1200e-003**	**5.0000e-005**	**2.1700e-003**	**0.0000**	**6.7333**	**6.7333**	**1.5000e-004**	**0.0000**	**6.7371**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.0855	0.1018	1.7000e-004		5.2700e-003	5.2700e-003		5.2700e-003	5.2700e-003	0.0000	14.2982	14.2982	9.8000e-004	0.0000	14.3227
Total	**1.1334**	**0.0855**	**0.1018**	**1.7000e-004**		**5.2700e-003**	**5.2700e-003**		**5.2700e-003**	**5.2700e-003**	**0.0000**	**14.2982**	**14.2982**	**9.8000e-004**	**0.0000**	**14.3227**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0900e-003	2.1300e-003	0.0226	7.0000e-005	7.9700e-003	5.0000e-005	8.0200e-003	2.1200e-003	5.0000e-005	2.1700e-003	0.0000	6.7333	6.7333	1.5000e-004	0.0000	6.7371
Total	**3.0900e-003**	**2.1300e-003**	**0.0226**	**7.0000e-005**	**7.9700e-003**	**5.0000e-005**	**8.0200e-003**	**2.1200e-003**	**5.0000e-005**	**2.1700e-003**	**0.0000**	**6.7333**	**6.7333**	**1.5000e-004**	**0.0000**	**6.7371**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1241	0.6230	1.4492	4.7800e-003	0.3914	5.2900e-003	0.3967	0.1051	4.9800e-003	0.1100	0.0000	437.9040	437.9040	0.0169	0.0000	438.3271
Unmitigated	0.1241	0.6230	1.4492	4.7800e-003	0.3914	5.2900e-003	0.3967	0.1051	4.9800e-003	0.1100	0.0000	437.9040	437.9040	0.0169	0.0000	438.3271

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	503.10	382.70	0.00	1,051,441	1,051,441
Total	503.10	382.70	0.00	1,051,441	1,051,441

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	463.6220	463.6220	0.0210	4.3400e-003	465.4386
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	508.4987	508.4987	0.0230	4.7600e-003	510.4912
NaturalGas Mitigated	0.0220	0.2002	0.1682	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.9625	217.9625	4.1800e-003	4.0000e-003	219.2577
NaturalGas Unmitigated	0.0281	0.2554	0.2145	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	277.9961	277.9961	5.3300e-003	5.1000e-003	279.6481

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	5.20945e+006	0.0281	0.2554	0.2145	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	277.9961	277.9961	5.3300e-003	5.1000e-003	279.6481
Total		**0.0281**	**0.2554**	**0.2145**	**1.5300e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**277.9961**	**277.9961**	**5.3300e-003**	**5.1000e-003**	**279.6481**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	4.08446e+006	0.0220	0.2002	0.1682	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.9625	217.9625	4.1800e-003	4.0000e-003	219.2577
Total		**0.0220**	**0.2002**	**0.1682**	**1.2000e-003**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**0.0000**	**217.9625**	**217.9625**	**4.1800e-003**	**4.0000e-003**	**219.2577**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.74795e+006	508.4987	0.0230	4.7600e-003	510.4912
Total		**508.4987**	**0.0230**	**4.7600e-003**	**510.4912**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.59369e+006	463.6220	0.0210	4.3400e-003	465.4386
Total		**463.6220**	**0.0210**	**4.3400e-003**	**465.4386**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9520	2.0000e-005	1.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.8400e-003	3.8400e-003	1.0000e-005	0.0000	4.1000e-003
Unmitigated	0.9520	2.0000e-005	1.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.8400e-003	3.8400e-003	1.0000e-005	0.0000	4.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.8400e-003	3.8400e-003	1.0000e-005	0.0000	4.1000e-003
Total	**0.9520**	**2.0000e-005**	**1.9800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.8400e-003**	**3.8400e-003**	**1.0000e-005**	**0.0000**	**4.1000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.8400e-003	3.8400e-003	1.0000e-005	0.0000	4.1000e-003
Total	**0.9520**	**2.0000e-005**	**1.9800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.8400e-003**	**3.8400e-003**	**1.0000e-005**	**0.0000**	**4.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.8577	0.2902	7.0500e-003	36.2139
Unmitigated	36.7399	0.3451	8.4300e-003	47.8793

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	10.5455 / 16.4943	36.7399	0.3451	8.4300e-003	47.8793
Total		**36.7399**	**0.3451**	**8.4300e-003**	**47.8793**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	8.87243 / 9.89659	26.8577	0.2902	7.0500e-003	36.2139
Total		**26.8577**	**0.2902**	**7.0500e-003**	**36.2139**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	56.7360	3.3530	0.0000	140.5610
Unmitigated	56.7360	3.3530	0.0000	140.5610

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	279.5	56.7360	3.3530	0.0000	140.5610
Total		**56.7360**	**3.3530**	**0.0000**	**140.5610**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	279.5	56.7360	3.3530	0.0000	140.5610
Total		**56.7360**	**3.3530**	**0.0000**	**140.5610**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SJSU Interdisciplinary Science Building Project

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	215.00	1000sqft	1.90	215,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

SJSU Interdisciplinary Science Building Project - Bay Area AQMD Air District, Summer

Project Characteristics - Project construction - June 2019 to Dec 2021

Land Use - Lot acreage = area of disturbance on project plans.

Construction Phase - Project construction-June 2019 to Dec. 2021, w/ ASH relocation in early 2019.

Off-road Equipment -

Off-road Equipment - Assumes two cranes to account for hydraulic trolleys typically used in building construction.

Off-road Equipment -

Off-road Equipment - Assume excavator to account for basement excavation.

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - Disturbance area limited to project site and utility trenching areas. Site prep = botanical garden and lawn area. Excavation would be 18' by 25,000SF = 450,000CF or 16,600CY.

Vehicle Trips - 294 students*1.71 ITE weekday trip rate for Land Use 550=503 ADT; 294 students*1.3 ITE Sat. trip rate=382 ADT; ADT for # of students then used to calculate trip rate per 1,000 SF.

Construction Off-road Equipment Mitigation - Standard BAAQMD construction mitigation measure.

Area Mitigation - Low VOC paint assumed for LEED certification.

Energy Mitigation - 25% exceedance to account for compliance with Title 24 2013.

Water Mitigation - Assumes reclaimed water used for irrigation, and indoor toilets that account for 10% of indoor use.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	112.00
tblConstructionPhase	NumDays	200.00	10.00
tblConstructionPhase	NumDays	200.00	495.00
tblConstructionPhase	NumDays	4.00	35.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	2.00	10.00

tblConstructionPhase	PhaseEndDate	1/26/2022	12/31/2021
tblConstructionPhase	PhaseEndDate	8/16/2019	6/14/2019
tblConstructionPhase	PhaseEndDate	7/16/2021	7/9/2021
tblConstructionPhase	PhaseEndDate	8/2/2019	8/16/2019
tblConstructionPhase	PhaseEndDate	8/11/2021	7/28/2021
tblConstructionPhase	PhaseEndDate	6/14/2019	6/28/2019
tblConstructionPhase	PhaseStartDate	8/12/2021	7/29/2021
tblConstructionPhase	PhaseStartDate	8/3/2019	6/1/2019
tblConstructionPhase	PhaseStartDate	6/15/2019	6/29/2019
tblConstructionPhase	PhaseStartDate	7/17/2021	7/10/2021
tblConstructionPhase	PhaseStartDate	6/1/2019	6/15/2019
tblGrading	AcresOfGrading	13.13	1.90
tblGrading	AcresOfGrading	5.00	0.50
tblGrading	MaterialExported	0.00	16,600.00
tblLandUse	LotAcreage	4.94	1.90
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	OperationalYear	2018	2022
tblVehicleTrips	ST_TR	11.23	1.78
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	2.34

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1547	36.9204	18.9579	0.0678	5.7456	1.1420	6.6820	2.9196	1.0937	3.7318	0.0000	7,089.1577	7,089.1577	0.8665	0.0000	7,110.8192
2020	2.4760	18.9663	16.5543	0.0391	0.9762	0.8203	1.7965	0.2643	0.7919	1.0562	0.0000	3,760.8366	3,760.8366	0.4396	0.0000	3,771.8258
2021	20.2963	17.4221	15.9630	0.0387	0.9763	0.6968	1.6731	0.2643	0.6726	0.9369	0.0000	3,725.3385	3,725.3385	0.4207	0.0000	3,735.8552
Maximum	**20.2963**	**36.9204**	**18.9579**	**0.0678**	**5.7456**	**1.1420**	**6.6820**	**2.9196**	**1.0937**	**3.7318**	**0.0000**	**7,089.1577**	**7,089.1577**	**0.8665**	**0.0000**	**7,110.8192**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1547	36.9204	18.9579	0.0678	3.2003	1.1420	4.1368	1.4293	1.0937	2.2934	0.0000	7,089.1577	7,089.1577	0.8665	0.0000	7,110.8192
2020	2.4760	18.9663	16.5543	0.0391	0.9762	0.8203	1.7965	0.2643	0.7919	1.0562	0.0000	3,760.8366	3,760.8366	0.4396	0.0000	3,771.8258
2021	20.2963	17.4221	15.9630	0.0387	0.9763	0.6968	1.6731	0.2643	0.6726	0.9369	0.0000	3,725.3385	3,725.3385	0.4207	0.0000	3,735.8552
Maximum	**20.2963**	**36.9204**	**18.9579**	**0.0678**	**3.2003**	**1.1420**	**4.1368**	**1.4293**	**1.0937**	**2.2934**	**0.0000**	**7,089.1577**	**7,089.1577**	**0.8665**	**0.0000**	**7,110.8192**

SJSU Interdisciplinary Science Building Project - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	33.06	0.00	25.07	43.22	0.00	25.13	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Energy	0.1539	1.3993	1.1754	8.4000e-003		0.1063	0.1063		0.1063	0.1063		1,679.1136	1,679.1136	0.0322	0.0308	1,689.0918
Mobile	0.9416	4.0196	10.0739	0.0338	2.7148	0.0353	2.7500	0.7264	0.0332	0.7596		3,412.8519	3,412.8519	0.1257		3,415.9941
Total	**6.3128**	**5.4190**	**11.2713**	**0.0422**	**2.7148**	**0.1417**	**2.8564**	**0.7264**	**0.1396**	**0.8660**		**5,092.0126**	**5,092.0126**	**0.1580**	**0.0308**	**5,105.1360**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Energy	0.1207	1.0971	0.9216	6.5800e-003		0.0834	0.0834		0.0834	0.0834		1,316.5069	1,316.5069	0.0252	0.0241	1,324.3302
Mobile	0.9416	4.0196	10.0739	0.0338	2.7148	0.0353	2.7500	0.7264	0.0332	0.7596		3,412.8519	3,412.8519	0.1257		3,415.9941
Total	**6.2796**	**5.1168**	**11.0175**	**0.0404**	**2.7148**	**0.1187**	**2.8335**	**0.7264**	**0.1166**	**0.8430**		**4,729.4058**	**4,729.4058**	**0.1510**	**0.0241**	**4,740.3744**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.53**	**5.58**	**2.25**	**4.31**	**0.00**	**16.21**	**0.80**	**0.00**	**16.45**	**2.65**	**0.00**	**7.12**	**7.12**	**4.40**	**21.57**	**7.14**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/15/2019	6/28/2019	5	10	
2	Grading	Grading	6/29/2019	8/16/2019	5	35	
3	ASH Relocation	Building Construction	6/1/2019	6/14/2019	5	10	
4	Building Construction	Building Construction	8/17/2019	7/9/2021	5	495	
5	Paving	Paving	7/10/2021	7/28/2021	5	13	
6	Architectural Coating	Architectural Coating	7/29/2021	12/31/2021	5	112	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.9

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 322,500; Non-Residential Outdoor: 107,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
ASH Relocation	Cranes	2	6.00	231	0.29
ASH Relocation	Forklifts	1	6.00	89	0.20
ASH Relocation	Generator Sets	1	8.00	84	0.74
ASH Relocation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
ASH Relocation	Welders	3	8.00	46	0.45
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,075.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
ASH Relocation	8	90.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	90.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3224	0.0000	5.3224	2.9022	0.0000	2.9022			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.3224**	**0.8824**	**6.2047**	**2.9022**	**0.8118**	**3.7139**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0304	0.0191	0.2386	6.8000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.0000e-004	0.0178		67.7934	67.7934	1.8000e-003		67.8385
Total	**0.0304**	**0.0191**	**0.2386**	**6.8000e-004**	**0.0657**	**4.4000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**67.7934**	**67.7934**	**1.8000e-003**		**67.8385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3951	0.0000	2.3951	1.3060	0.0000	1.3060			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**2.3951**	**0.8824**	**3.2774**	**1.3060**	**0.8118**	**2.1177**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0304	0.0191	0.2386	6.8000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.0000e-004	0.0178		67.7934	67.7934	1.8000e-003		67.8385
Total	**0.0304**	**0.0191**	**0.2386**	**6.8000e-004**	**0.0657**	**4.4000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**67.7934**	**67.7934**	**1.8000e-003**		**67.8385**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6278	0.0000	4.6278	2.4970	0.0000	2.4970			0.0000			0.0000
Off-Road	1.6804	18.7176	9.8697	0.0193		0.8658	0.8658		0.7965	0.7965		1,907.5164	1,907.5164	0.6035		1,922.6044
Total	**1.6804**	**18.7176**	**9.8697**	**0.0193**	**4.6278**	**0.8658**	**5.4936**	**2.4970**	**0.7965**	**3.2935**		**1,907.5164**	**1,907.5164**	**0.6035**		**1,922.6044**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5348	18.1790	3.5049	0.0477	1.0357	0.0701	1.1058	0.2838	0.0671	0.3509		5,096.8995	5,096.8995	0.2607		5,103.4167
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0380	0.0238	0.2982	8.5000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		84.7418	84.7418	2.2500e-003		84.7981
Total	**0.5728**	**18.2028**	**3.8031**	**0.0486**	**1.1178**	**0.0706**	**1.1885**	**0.3056**	**0.0676**	**0.3732**		**5,181.6413**	**5,181.6413**	**0.2629**		**5,188.2148**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0825	0.0000	2.0825	1.1237	0.0000	1.1237			0.0000			0.0000
Off-Road	1.6804	18.7176	9.8697	0.0193		0.8658	0.8658		0.7965	0.7965	0.0000	1,907.5164	1,907.5164	0.6035		1,922.6044
Total	**1.6804**	**18.7176**	**9.8697**	**0.0193**	**2.0825**	**0.8658**	**2.9483**	**1.1237**	**0.7965**	**1.9202**	**0.0000**	**1,907.5164**	**1,907.5164**	**0.6035**		**1,922.6044**

3.3 Grading - 2019

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	0.5348	18.1790	3.5049	0.0477	1.0357	0.0701	1.1058	0.2838	0.0671	0.3509		5,096.8995	5,096.8995	0.2607		5,103.4167
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0380	0.0238	0.2982	8.5000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		84.7418	84.7418	2.2500e-003		84.7981
Total	**0.5728**	**18.2028**	**3.8031**	**0.0486**	**1.1178**	**0.0706**	**1.1885**	**0.3056**	**0.0676**	**0.3732**		**5,181.6413**	**5,181.6413**	**0.2629**		**5,188.2148**

3.4 ASH Relocation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6501	20.4854	15.2068	0.0264		1.1068	1.1068		1.0603	1.0603		2,446.4303	2,446.4303	0.5235		2,459.5175
Total	**2.6501**	**20.4854**	**15.2068**	**0.0264**		**1.1068**	**1.1068**		**1.0603**	**1.0603**		**2,446.4303**	**2,446.4303**	**0.5235**		**2,459.5175**

3.4 ASH Relocation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1623	4.3713	1.0674	9.7100e-003	0.2369	0.0302	0.2672	0.0682	0.0289	0.0971		1,027.4428	1,027.4428	0.0543		1,028.8010
Worker	0.3423	0.2144	2.6837	7.6600e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		762.6761	762.6761	0.0203		763.1830
Total	**0.5046**	**4.5856**	**3.7510**	**0.0174**	**0.9762**	**0.0351**	**1.0114**	**0.2643**	**0.0334**	**0.2978**		**1,790.1188**	**1,790.1188**	**0.0746**		**1,791.9840**

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	2.6501	20.4854	15.2068	0.0264		1.1068	1.1068		1.0603	1.0603	0.0000	2,446.4303	2,446.4303	0.5235		2,459.5175
Total	**2.6501**	**20.4854**	**15.2068**	**0.0264**		**1.1068**	**1.1068**		**1.0603**	**1.0603**	**0.0000**	**2,446.4303**	**2,446.4303**	**0.5235**		**2,459.5175**

3.4 ASH Relocation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1623	4.3713	1.0674	9.7100e-003	0.2369	0.0302	0.2672	0.0682	0.0289	0.0971		1,027.4428	1,027.4428	0.0543		1,028.8010
Worker	0.3423	0.2144	2.6837	7.6600e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		762.6761	762.6761	0.0203		763.1830
Total	**0.5046**	**4.5856**	**3.7510**	**0.0174**	**0.9762**	**0.0351**	**1.0114**	**0.2643**	**0.0334**	**0.2978**		**1,790.1188**	**1,790.1188**	**0.0746**		**1,791.9840**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1623	4.3713	1.0674	9.7100e-003	0.2369	0.0302	0.2672	0.0682	0.0289	0.0971		1,027.4428	1,027.4428	0.0543		1,028.8010
Worker	0.3423	0.2144	2.6837	7.6600e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		762.6761	762.6761	0.0203		763.1830
Total	**0.5046**	**4.5856**	**3.7510**	**0.0174**	**0.9762**	**0.0351**	**1.0114**	**0.2643**	**0.0334**	**0.2978**		**1,790.1188**	**1,790.1188**	**0.0746**		**1,791.9840**

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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1623	4.3713	1.0674	9.7100e-003	0.2369	0.0302	0.2672	0.0682	0.0289	0.0971		1,027.4428	1,027.4428	0.0543		1,028.8010
Worker	0.3423	0.2144	2.6837	7.6600e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		762.6761	762.6761	0.0203		763.1830
Total	**0.5046**	**4.5856**	**3.7510**	**0.0174**	**0.9762**	**0.0351**	**1.0114**	**0.2643**	**0.0334**	**0.2978**		**1,790.1188**	**1,790.1188**	**0.0746**		**1,791.9840**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1327	3.9887	0.9515	9.6400e-003	0.2369	0.0196	0.2565	0.0682	0.0187	0.0869		1,020.9782	1,020.9782	0.0503		1,022.2351
Worker	0.3128	0.1894	2.4147	7.4100e-003	0.7393	4.7900e-003	0.7441	0.1961	4.4100e-003	0.2005		738.6989	738.6989	0.0178		739.1439
Total	**0.4455**	**4.1781**	**3.3662**	**0.0171**	**0.9762**	**0.0243**	**1.0006**	**0.2643**	**0.0231**	**0.2874**		**1,759.6771**	**1,759.6771**	**0.0681**		**1,761.3790**

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	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1327	3.9887	0.9515	9.6400e-003	0.2369	0.0196	0.2565	0.0682	0.0187	0.0869		1,020.9782	1,020.9782	0.0503		1,022.2351
Worker	0.3128	0.1894	2.4147	7.4100e-003	0.7393	4.7900e-003	0.7441	0.1961	4.4100e-003	0.2005		738.6989	738.6989	0.0178		739.1439
Total	**0.4455**	**4.1781**	**3.3662**	**0.0171**	**0.9762**	**0.0243**	**1.0006**	**0.2643**	**0.0231**	**0.2874**		**1,759.6771**	**1,759.6771**	**0.0681**		**1,761.3790**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1086	3.6169	0.8529	9.5400e-003	0.2369	7.8400e-003	0.2448	0.0682	7.4900e-003	0.0757		1,011.3549	1,011.3549	0.0475		1,012.5416
Worker	0.2894	0.1691	2.2107	7.1500e-003	0.7393	4.6500e-003	0.7440	0.1961	4.2800e-003	0.2004		712.7636	712.7636	0.0159		713.1619
Total	**0.3979**	**3.7861**	**3.0636**	**0.0167**	**0.9763**	**0.0125**	**0.9887**	**0.2643**	**0.0118**	**0.2761**		**1,724.1185**	**1,724.1185**	**0.0634**		**1,725.7035**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1086	3.6169	0.8529	9.5400e-003	0.2369	7.8400e-003	0.2448	0.0682	7.4900e-003	0.0757		1,011.3549	1,011.3549	0.0475		1,012.5416
Worker	0.2894	0.1691	2.2107	7.1500e-003	0.7393	4.6500e-003	0.7440	0.1961	4.2800e-003	0.2004		712.7636	712.7636	0.0159		713.1619
Total	**0.3979**	**3.7861**	**3.0636**	**0.0167**	**0.9763**	**0.0125**	**0.9887**	**0.2643**	**0.0118**	**0.2761**		**1,724.1185**	**1,724.1185**	**0.0634**		**1,725.7035**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7739**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0418	0.0244	0.3193	1.0300e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		102.9547	102.9547	2.3000e-003		103.0123
Total	**0.0418**	**0.0244**	**0.3193**	**1.0300e-003**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**102.9547**	**102.9547**	**2.3000e-003**		**103.0123**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7739**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0418	0.0244	0.3193	1.0300e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		102.9547	102.9547	2.3000e-003		103.0123
Total	**0.0418**	**0.0244**	**0.3193**	**1.0300e-003**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**102.9547**	**102.9547**	**2.3000e-003**		**103.0123**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**20.2384**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

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	20.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**20.2384**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9416	4.0196	10.0739	0.0338	2.7148	0.0353	2.7500	0.7264	0.0332	0.7596		3,412.8519	3,412.8519	0.1257		3,415.9941
Unmitigated	0.9416	4.0196	10.0739	0.0338	2.7148	0.0353	2.7500	0.7264	0.0332	0.7596		3,412.8519	3,412.8519	0.1257		3,415.9941

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	503.10	382.70	0.00	1,051,441	1,051,441
Total	503.10	382.70	0.00	1,051,441	1,051,441

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1207	1.0971	0.9216	6.5800e-003		0.0834	0.0834		0.0834	0.0834		1,316.5069	1,316.5069	0.0252	0.0241	1,324.3302
NaturalGas Unmitigated	0.1539	1.3993	1.1754	8.4000e-003		0.1063	0.1063		0.1063	0.1063		1,679.1136	1,679.1136	0.0322	0.0308	1,689.0918

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	14272.5	0.1539	1.3993	1.1754	8.4000e-003		0.1063	0.1063		0.1063	0.1063		1,679.1136	1,679.1136	0.0322	0.0308	1,689.0918
Total		**0.1539**	**1.3993**	**1.1754**	**8.4000e-003**		**0.1063**	**0.1063**		**0.1063**	**0.1063**		**1,679.1136**	**1,679.1136**	**0.0322**	**0.0308**	**1,689.0918**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	11.1903	0.1207	1.0971	0.9216	6.5800e-003		0.0834	0.0834		0.0834	0.0834		1,316.5069	1,316.5069	0.0252	0.0241	1,324.3302
Total		**0.1207**	**1.0971**	**0.9216**	**6.5800e-003**		**0.0834**	**0.0834**		**0.0834**	**0.0834**		**1,316.5069**	**1,316.5069**	**0.0252**	**0.0241**	**1,324.3302**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Unmitigated	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6010					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0400e-003	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Total	**5.2173**	**2.0000e-004**	**0.0220**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0471**	**0.0471**	**1.2000e-004**		**0.0502**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6010					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0400e-003	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Total	**5.2173**	**2.0000e-004**	**0.0220**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0471**	**0.0471**	**1.2000e-004**		**0.0502**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SJSU Interdisciplinary Science Building Project

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	215.00	1000sqft	1.90	215,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

SJSU Interdisciplinary Science Building Project - Bay Area AQMD Air District, Winter

Project Characteristics - Project construction - June 2019 to Dec 2021

Land Use - Lot acreage = area of disturbance on project plans.

Construction Phase - Project construction-June 2019 to Dec. 2021, w/ ASH relocation in early 2019.

Off-road Equipment -

Off-road Equipment - Assumes two cranes to account for hydraulic trolleys typically used in building construction.

Off-road Equipment -

Off-road Equipment - Assume excavator to account for basement excavation.

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - Disturbance area limited to project site and utility trenching areas. Site prep = botanical garden and lawn area. Excavation would be 18' by 25,000SF = 450,000CF or 16,600CY.

Vehicle Trips - 294 students*1.71 ITE weekday trip rate for Land Use 550=503 ADT; 294 students*1.3 ITE Sat. trip rate=382 ADT; ADT for # of students then used to calculate trip rate per 1,000 SF.

Construction Off-road Equipment Mitigation - Standard BAAQMD construction mitigation measure.

Area Mitigation - Low VOC paint assumed for LEED certification.

Energy Mitigation - 25% exceedance to account for compliance with Title 24 2013.

Water Mitigation - Assumes reclaimed water used for irrigation, and indoor toilets that account for 10% of indoor use.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	112.00
tblConstructionPhase	NumDays	200.00	10.00
tblConstructionPhase	NumDays	200.00	495.00
tblConstructionPhase	NumDays	4.00	35.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	2.00	10.00

tblConstructionPhase	PhaseEndDate	1/26/2022	12/31/2021
tblConstructionPhase	PhaseEndDate	8/16/2019	6/14/2019
tblConstructionPhase	PhaseEndDate	7/16/2021	7/9/2021
tblConstructionPhase	PhaseEndDate	8/2/2019	8/16/2019
tblConstructionPhase	PhaseEndDate	8/11/2021	7/28/2021
tblConstructionPhase	PhaseEndDate	6/14/2019	6/28/2019
tblConstructionPhase	PhaseStartDate	8/12/2021	7/29/2021
tblConstructionPhase	PhaseStartDate	8/3/2019	6/1/2019
tblConstructionPhase	PhaseStartDate	6/15/2019	6/29/2019
tblConstructionPhase	PhaseStartDate	7/17/2021	7/10/2021
tblConstructionPhase	PhaseStartDate	6/1/2019	6/15/2019
tblGrading	AcresOfGrading	13.13	1.90
tblGrading	AcresOfGrading	5.00	0.50
tblGrading	MaterialExported	0.00	16,600.00
tblLandUse	LotAcreage	4.94	1.90
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	OperationalYear	2018	2022
tblVehicleTrips	ST_TR	11.23	1.78
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	2.34

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1821	37.3865	18.9592	0.0670	5.7456	1.1424	6.6835	2.9196	1.0942	3.7318	0.0000	6,998.7020	6,998.7020	0.8803	0.0000	7,020.7099
2020	2.5010	19.0555	16.5444	0.0383	0.9762	0.8206	1.7969	0.2643	0.7923	1.0566	0.0000	3,676.7637	3,676.7637	0.4425	0.0000	3,687.8266
2021	20.2997	17.4930	15.9480	0.0380	0.9763	0.6971	1.6734	0.2643	0.6728	0.9371	0.0000	3,643.4980	3,643.4980	0.4235	0.0000	3,654.0850
Maximum	**20.2997**	**37.3865**	**18.9592**	**0.0670**	**5.7456**	**1.1424**	**6.6835**	**2.9196**	**1.0942**	**3.7318**	**0.0000**	**6,998.7020**	**6,998.7020**	**0.8803**	**0.0000**	**7,020.7099**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1821	37.3865	18.9592	0.0670	3.2003	1.1424	4.1382	1.4293	1.0942	2.2947	0.0000	6,998.7020	6,998.7020	0.8803	0.0000	7,020.7099
2020	2.5010	19.0555	16.5444	0.0383	0.9762	0.8206	1.7969	0.2643	0.7923	1.0566	0.0000	3,676.7637	3,676.7637	0.4425	0.0000	3,687.8266
2021	20.2997	17.4930	15.9480	0.0380	0.9763	0.6971	1.6734	0.2643	0.6728	0.9371	0.0000	3,643.4980	3,643.4980	0.4235	0.0000	3,654.0850
Maximum	**20.2997**	**37.3865**	**18.9592**	**0.0670**	**3.2003**	**1.1424**	**4.1382**	**1.4293**	**1.0942**	**2.2947**	**0.0000**	**6,998.7020**	**6,998.7020**	**0.8803**	**0.0000**	**7,020.7099**

SJSU Interdisciplinary Science Building Project - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	33.06	0.00	25.07	43.22	0.00	25.10	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Energy	0.1539	1.3993	1.1754	8.4000e-003		0.1063	0.1063		0.1063	0.1063		1,679.1136	1,679.1136	0.0322	0.0308	1,689.0918
Mobile	0.8250	4.2437	10.1382	0.0316	2.7148	0.0355	2.7503	0.7264	0.0334	0.7598		3,193.6276	3,193.6276	0.1278		3,196.8220
Total	**6.1963**	**5.6431**	**11.3355**	**0.0400**	**2.7148**	**0.1419**	**2.8567**	**0.7264**	**0.1398**	**0.8662**		**4,872.7883**	**4,872.7883**	**0.1601**	**0.0308**	**4,885.9639**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Energy	0.1207	1.0971	0.9216	6.5800e-003		0.0834	0.0834		0.0834	0.0834		1,316.5069	1,316.5069	0.0252	0.0241	1,324.3302
Mobile	0.8250	4.2437	10.1382	0.0316	2.7148	0.0355	2.7503	0.7264	0.0334	0.7598		3,193.6276	3,193.6276	0.1278		3,196.8220
Total	**6.1631**	**5.3410**	**11.0817**	**0.0382**	**2.7148**	**0.1190**	**2.8337**	**0.7264**	**0.1169**	**0.8432**		**4,510.1815**	**4,510.1815**	**0.1531**	**0.0241**	**4,521.2023**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.54**	**5.35**	**2.24**	**4.55**	**0.00**	**16.18**	**0.80**	**0.00**	**16.42**	**2.65**	**0.00**	**7.44**	**7.44**	**4.34**	**21.57**	**7.47**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/15/2019	6/28/2019	5	10	
2	Grading	Grading	6/29/2019	8/16/2019	5	35	
3	ASH Relocation	Building Construction	6/1/2019	6/14/2019	5	10	
4	Building Construction	Building Construction	8/17/2019	7/9/2021	5	495	
5	Paving	Paving	7/10/2021	7/28/2021	5	13	
6	Architectural Coating	Architectural Coating	7/29/2021	12/31/2021	5	112	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.9

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 322,500; Non-Residential Outdoor: 107,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

SJSU Interdisciplinary Science Building Project - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
ASH Relocation	Cranes	2	6.00	231	0.29
ASH Relocation	Forklifts	1	6.00	89	0.20
ASH Relocation	Generator Sets	1	8.00	84	0.74
ASH Relocation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
ASH Relocation	Welders	3	8.00	46	0.45
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,075.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
ASH Relocation	8	90.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	90.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3224	0.0000	5.3224	2.9022	0.0000	2.9022			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.3224**	**0.8824**	**6.2047**	**2.9022**	**0.8118**	**3.7139**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0236	0.2252	6.3000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.0000e-004	0.0178		62.4506	62.4506	1.7000e-003		62.4930
Total	**0.0322**	**0.0236**	**0.2252**	**6.3000e-004**	**0.0657**	**4.4000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**62.4506**	**62.4506**	**1.7000e-003**		**62.4930**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3951	0.0000	2.3951	1.3060	0.0000	1.3060			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**2.3951**	**0.8824**	**3.2774**	**1.3060**	**0.8118**	**2.1177**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0236	0.2252	6.3000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.0000e-004	0.0178		62.4506	62.4506	1.7000e-003		62.4930
Total	**0.0322**	**0.0236**	**0.2252**	**6.3000e-004**	**0.0657**	**4.4000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**62.4506**	**62.4506**	**1.7000e-003**		**62.4930**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6278	0.0000	4.6278	2.4970	0.0000	2.4970			0.0000			0.0000
Off-Road	1.6804	18.7176	9.8697	0.0193		0.8658	0.8658		0.7965	0.7965		1,907.5164	1,907.5164	0.6035		1,922.6044
Total	**1.6804**	**18.7176**	**9.8697**	**0.0193**	**4.6278**	**0.8658**	**5.4936**	**2.4970**	**0.7965**	**3.2935**		**1,907.5164**	**1,907.5164**	**0.6035**		**1,922.6044**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5501	18.6394	3.7955	0.0469	1.0357	0.0715	1.1072	0.2838	0.0684	0.3523		5,013.1224	5,013.1224	0.2747		5,019.9894
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0402	0.0294	0.2815	7.8000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		78.0632	78.0632	2.1200e-003		78.1162
Total	**0.5903**	**18.6689**	**4.0771**	**0.0477**	**1.1178**	**0.0721**	**1.1899**	**0.3056**	**0.0689**	**0.3745**		**5,091.1856**	**5,091.1856**	**0.2768**		**5,098.1056**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0825	0.0000	2.0825	1.1237	0.0000	1.1237			0.0000			0.0000
Off-Road	1.6804	18.7176	9.8697	0.0193		0.8658	0.8658		0.7965	0.7965	0.0000	1,907.5164	1,907.5164	0.6035		1,922.6044
Total	**1.6804**	**18.7176**	**9.8697**	**0.0193**	**2.0825**	**0.8658**	**2.9483**	**1.1237**	**0.7965**	**1.9202**	**0.0000**	**1,907.5164**	**1,907.5164**	**0.6035**		**1,922.6044**

3.3 Grading - 2019

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	0.5501	18.6394	3.7955	0.0469	1.0357	0.0715	1.1072	0.2838	0.0684	0.3523		5,013.1224	5,013.1224	0.2747		5,019.9894
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0402	0.0294	0.2815	7.8000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		78.0632	78.0632	2.1200e-003		78.1162
Total	**0.5903**	**18.6689**	**4.0771**	**0.0477**	**1.1178**	**0.0721**	**1.1899**	**0.3056**	**0.0689**	**0.3745**		**5,091.1856**	**5,091.1856**	**0.2768**		**5,098.1056**

3.4 ASH Relocation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6501	20.4854	15.2068	0.0264		1.1068	1.1068		1.0603	1.0603		2,446.4303	2,446.4303	0.5235		2,459.5175
Total	**2.6501**	**20.4854**	**15.2068**	**0.0264**		**1.1068**	**1.1068**		**1.0603**	**1.0603**		**2,446.4303**	**2,446.4303**	**0.5235**		**2,459.5175**

3.4 ASH Relocation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1701	4.4304	1.2185	9.4700e-003	0.2369	0.0307	0.2676	0.0682	0.0294	0.0976		1,001.8821	1,001.8821	0.0588		1,003.3532
Worker	0.3618	0.2650	2.5339	7.0500e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		702.5687	702.5687	0.0191		703.0457
Total	**0.5320**	**4.6954**	**3.7524**	**0.0165**	**0.9762**	**0.0356**	**1.0119**	**0.2643**	**0.0339**	**0.2982**		**1,704.4508**	**1,704.4508**	**0.0779**		**1,706.3989**

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	2.6501	20.4854	15.2068	0.0264		1.1068	1.1068		1.0603	1.0603	0.0000	2,446.4303	2,446.4303	0.5235		2,459.5175
Total	**2.6501**	**20.4854**	**15.2068**	**0.0264**		**1.1068**	**1.1068**		**1.0603**	**1.0603**	**0.0000**	**2,446.4303**	**2,446.4303**	**0.5235**		**2,459.5175**

3.4 ASH Relocation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1701	4.4304	1.2185	9.4700e-003	0.2369	0.0307	0.2676	0.0682	0.0294	0.0976		1,001.8821	1,001.8821	0.0588		1,003.3532
Worker	0.3618	0.2650	2.5339	7.0500e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		702.5687	702.5687	0.0191		703.0457
Total	**0.5320**	**4.6954**	**3.7524**	**0.0165**	**0.9762**	**0.0356**	**1.0119**	**0.2643**	**0.0339**	**0.2982**		**1,704.4508**	**1,704.4508**	**0.0779**		**1,706.3989**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1701	4.4304	1.2185	9.4700e-003	0.2369	0.0307	0.2676	0.0682	0.0294	0.0976		1,001.8821	1,001.8821	0.0588		1,003.3532
Worker	0.3618	0.2650	2.5339	7.0500e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		702.5687	702.5687	0.0191		703.0457
Total	**0.5320**	**4.6954**	**3.7524**	**0.0165**	**0.9762**	**0.0356**	**1.0119**	**0.2643**	**0.0339**	**0.2982**		**1,704.4508**	**1,704.4508**	**0.0779**		**1,706.3989**

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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1701	4.4304	1.2185	9.4700e-003	0.2369	0.0307	0.2676	0.0682	0.0294	0.0976		1,001.8821	1,001.8821	0.0588		1,003.3532
Worker	0.3618	0.2650	2.5339	7.0500e-003	0.7393	4.9000e-003	0.7442	0.1961	4.5100e-003	0.2006		702.5687	702.5687	0.0191		703.0457
Total	**0.5320**	**4.6954**	**3.7524**	**0.0165**	**0.9762**	**0.0356**	**1.0119**	**0.2643**	**0.0339**	**0.2982**		**1,704.4508**	**1,704.4508**	**0.0779**		**1,706.3989**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1396	4.0333	1.0885	9.4000e-003	0.2369	0.0199	0.2568	0.0682	0.0190	0.0872		995.1454	995.1454	0.0544		996.5049
Worker	0.3309	0.2340	2.2679	6.8300e-003	0.7393	4.7900e-003	0.7441	0.1961	4.4100e-003	0.2005		680.4589	680.4589	0.0166		680.8750
Total	**0.4705**	**4.2673**	**3.3564**	**0.0162**	**0.9762**	**0.0247**	**1.0009**	**0.2643**	**0.0234**	**0.2877**		**1,675.6042**	**1,675.6042**	**0.0710**		**1,677.3799**

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	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1396	4.0333	1.0885	9.4000e-003	0.2369	0.0199	0.2568	0.0682	0.0190	0.0872		995.1454	995.1454	0.0544		996.5049
Worker	0.3309	0.2340	2.2679	6.8300e-003	0.7393	4.7900e-003	0.7441	0.1961	4.4100e-003	0.2005		680.4589	680.4589	0.0166		680.8750
Total	**0.4705**	**4.2673**	**3.3564**	**0.0162**	**0.9762**	**0.0247**	**1.0009**	**0.2643**	**0.0234**	**0.2877**		**1,675.6042**	**1,675.6042**	**0.0710**		**1,677.3799**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1150	3.6480	0.9803	9.3100e-003	0.2369	8.1100e-003	0.2450	0.0682	7.7500e-003	0.0760		985.6950	985.6950	0.0514		986.9789
Worker	0.3066	0.2089	2.0683	6.5900e-003	0.7393	4.6500e-003	0.7440	0.1961	4.2800e-003	0.2004		656.5830	656.5830	0.0149		656.9544
Total	**0.4215**	**3.8569**	**3.0486**	**0.0159**	**0.9763**	**0.0128**	**0.9890**	**0.2643**	**0.0120**	**0.2763**		**1,642.2780**	**1,642.2780**	**0.0662**		**1,643.9333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1150	3.6480	0.9803	9.3100e-003	0.2369	8.1100e-003	0.2450	0.0682	7.7500e-003	0.0760		985.6950	985.6950	0.0514		986.9789
Worker	0.3066	0.2089	2.0683	6.5900e-003	0.7393	4.6500e-003	0.7440	0.1961	4.2800e-003	0.2004		656.5830	656.5830	0.0149		656.9544
Total	**0.4215**	**3.8569**	**3.0486**	**0.0159**	**0.9763**	**0.0128**	**0.9890**	**0.2643**	**0.0120**	**0.2763**		**1,642.2780**	**1,642.2780**	**0.0662**		**1,643.9333**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7739**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0302	0.2988	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		94.8398	94.8398	2.1500e-003		94.8934
Total	**0.0443**	**0.0302**	**0.2988**	**9.5000e-004**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**94.8398**	**94.8398**	**2.1500e-003**		**94.8934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7739**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0302	0.2988	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		94.8398	94.8398	2.1500e-003		94.8934
Total	**0.0443**	**0.0302**	**0.2988**	**9.5000e-004**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**94.8398**	**94.8398**	**2.1500e-003**		**94.8934**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**20.2384**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

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	20.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**20.2384**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8250	4.2437	10.1382	0.0316	2.7148	0.0355	2.7503	0.7264	0.0334	0.7598		3,193.6276	3,193.6276	0.1278		3,196.8220
Unmitigated	0.8250	4.2437	10.1382	0.0316	2.7148	0.0355	2.7503	0.7264	0.0334	0.7598		3,193.6276	3,193.6276	0.1278		3,196.8220

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	503.10	382.70	0.00	1,051,441	1,051,441
Total	503.10	382.70	0.00	1,051,441	1,051,441

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1207	1.0971	0.9216	6.5800e-003		0.0834	0.0834		0.0834	0.0834		1,316.5069	1,316.5069	0.0252	0.0241	1,324.3302
NaturalGas Unmitigated	0.1539	1.3993	1.1754	8.4000e-003		0.1063	0.1063		0.1063	0.1063		1,679.1136	1,679.1136	0.0322	0.0308	1,689.0918

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	14272.5	0.1539	1.3993	1.1754	8.4000e-003		0.1063	0.1063		0.1063	0.1063		1,679.1136	1,679.1136	0.0322	0.0308	1,689.0918
Total		**0.1539**	**1.3993**	**1.1754**	**8.4000e-003**		**0.1063**	**0.1063**		**0.1063**	**0.1063**		**1,679.1136**	**1,679.1136**	**0.0322**	**0.0308**	**1,689.0918**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	11.1903	0.1207	1.0971	0.9216	6.5800e-003		0.0834	0.0834		0.0834	0.0834		1,316.5069	1,316.5069	0.0252	0.0241	1,324.3302
Total		**0.1207**	**1.0971**	**0.9216**	**6.5800e-003**		**0.0834**	**0.0834**		**0.0834**	**0.0834**		**1,316.5069**	**1,316.5069**	**0.0252**	**0.0241**	**1,324.3302**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Unmitigated	5.2173	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6010					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0400e-003	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Total	**5.2173**	**2.0000e-004**	**0.0220**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0471**	**0.0471**	**1.2000e-004**		**0.0502**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6010					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0400e-003	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0471	0.0471	1.2000e-004		0.0502
Total	**5.2173**	**2.0000e-004**	**0.0220**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0471**	**0.0471**	**1.2000e-004**		**0.0502**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SJSU Interdisciplinary Science Building Project

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASH Relocation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	3	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Generator Sets	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00
Welders	Diesel	No Change	0	6	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.22600E-002	8.55000E-002	1.01780E-001	1.70000E-004	5.27000E-003	5.27000E-003	0.00000E+000	1.42982E+001	1.42982E+001	9.80000E-004	0.00000E+000	1.43228E+001
Cement and Mortar Mixers	2.90000E-004	1.79000E-003	1.50000E-003	0.00000E+000	7.00000E-005	7.00000E-005	0.00000E+000	2.23410E-001	2.23410E-001	2.00000E-005	0.00000E+000	2.23990E-001
Cranes	8.77200E-002	1.04059E+000	4.09570E-001	1.11000E-003	4.30500E-002	3.96100E-002	0.00000E+000	9.83920E+001	9.83920E+001	3.16600E-002	0.00000E+000	9.91836E+001
Excavators	4.56000E-003	4.69300E-002	5.71100E-002	9.00000E-005	2.26000E-003	2.08000E-003	0.00000E+000	8.11449E+000	8.11449E+000	2.57000E-003	0.00000E+000	8.17868E+000
Forklifts	2.71600E-002	2.44930E-001	2.23440E-001	2.90000E-004	1.82100E-002	1.67500E-002	0.00000E+000	2.55512E+001	2.55512E+001	8.23000E-003	0.00000E+000	2.57568E+001
Generator Sets	1.00330E-001	8.73110E-001	9.35170E-001	1.66000E-003	4.92000E-002	4.92000E-002	0.00000E+000	1.42715E+002	1.42715E+002	8.05000E-003	0.00000E+000	1.42916E+002
Graders	8.82000E-003	1.19260E-001	3.33100E-002	1.20000E-004	3.83000E-003	3.52000E-003	0.00000E+000	1.08132E+001	1.08132E+001	3.42000E-003	0.00000E+000	1.08987E+001
Pavers	1.20000E-003	1.26500E-002	1.41600E-002	2.00000E-005	6.10000E-004	5.60000E-004	0.00000E+000	2.01252E+000	2.01252E+000	6.50000E-004	0.00000E+000	2.02879E+000
Paving Equipment	1.25000E-003	1.26100E-002	1.65200E-002	3.00000E-005	6.20000E-004	5.70000E-004	0.00000E+000	2.32599E+000	2.32599E+000	7.50000E-004	0.00000E+000	2.34479E+000
Rollers	1.08000E-003	1.09400E-002	1.06900E-002	1.00000E-005	6.70000E-004	6.20000E-004	0.00000E+000	1.31100E+000	1.31100E+000	4.20000E-004	0.00000E+000	1.32160E+000
Rubber Tired Dozers	1.98600E-002	2.11300E-001	7.49700E-002	1.50000E-004	1.03000E-002	9.48000E-003	0.00000E+000	1.34218E+001	1.34218E+001	4.25000E-003	0.00000E+000	1.35280E+001
Tractors/Loaders/ Backhoes	4.54200E-002	4.57100E-001	4.93110E-001	6.70000E-004	2.89400E-002	2.66200E-002	0.00000E+000	5.93656E+001	5.93656E+001	1.90800E-002	0.00000E+000	5.98426E+001
Welders	2.58000E-001	1.18604E+000	1.33513E+000	1.94000E-003	6.52600E-002	6.52600E-002	0.00000E+000	1.42577E+002	1.42577E+002	2.09800E-002	0.00000E+000	1.43102E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.22600E-002	8.55000E-002	1.01780E-001	1.70000E-004	5.27000E-003	5.27000E-003	0.00000E+000	1.42982E+001	1.42982E+001	9.80000E-004	0.00000E+000	1.43227E+001
Cement and Mortar Mixers	2.90000E-004	1.79000E-003	1.50000E-003	0.00000E+000	7.00000E-005	7.00000E-005	0.00000E+000	2.23410E-001	2.23410E-001	2.00000E-005	0.00000E+000	2.23990E-001
Cranes	8.77200E-002	1.04059E+000	4.09570E-001	1.11000E-003	4.30500E-002	3.96100E-002	0.00000E+000	9.83919E+001	9.83919E+001	3.16600E-002	0.00000E+000	9.91834E+001
Excavators	4.56000E-003	4.69300E-002	5.71100E-002	9.00000E-005	2.26000E-003	2.08000E-003	0.00000E+000	8.11448E+000	8.11448E+000	2.57000E-003	0.00000E+000	8.17867E+000
Forklifts	2.71600E-002	2.44930E-001	2.23440E-001	2.90000E-004	1.82100E-002	1.67500E-002	0.00000E+000	2.55511E+001	2.55511E+001	8.23000E-003	0.00000E+000	2.57568E+001
Generator Sets	1.00330E-001	8.73110E-001	9.35170E-001	1.66000E-003	4.92000E-002	4.92000E-002	0.00000E+000	1.42715E+002	1.42715E+002	8.05000E-003	0.00000E+000	1.42916E+002
Graders	8.82000E-003	1.19250E-001	3.33100E-002	1.20000E-004	3.83000E-003	3.52000E-003	0.00000E+000	1.08132E+001	1.08132E+001	3.42000E-003	0.00000E+000	1.08987E+001
Pavers	1.20000E-003	1.26500E-002	1.41600E-002	2.00000E-005	6.10000E-004	5.60000E-004	0.00000E+000	2.01252E+000	2.01252E+000	6.50000E-004	0.00000E+000	2.02879E+000
Paving Equipment	1.25000E-003	1.26100E-002	1.65200E-002	3.00000E-005	6.20000E-004	5.70000E-004	0.00000E+000	2.32598E+000	2.32598E+000	7.50000E-004	0.00000E+000	2.34479E+000
Rollers	1.08000E-003	1.09400E-002	1.06900E-002	1.00000E-005	6.70000E-004	6.20000E-004	0.00000E+000	1.31100E+000	1.31100E+000	4.20000E-004	0.00000E+000	1.32160E+000
Rubber Tired Dozers	1.98600E-002	2.11300E-001	7.49700E-002	1.50000E-004	1.03000E-002	9.48000E-003	0.00000E+000	1.34218E+001	1.34218E+001	4.25000E-003	0.00000E+000	1.35279E+001
Tractors/Loaders/Backhoes	4.54200E-002	4.57100E-001	4.93110E-001	6.70000E-004	2.89400E-002	2.66200E-002	0.00000E+000	5.93655E+001	5.93655E+001	1.90800E-002	0.00000E+000	5.98425E+001
Welders	2.58000E-001	1.18604E+000	1.33513E+000	1.94000E-003	6.52600E-002	6.52600E-002	0.00000E+000	1.42577E+002	1.42577E+002	2.09800E-002	0.00000E+000	1.43102E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.39878E-006	1.39878E-006	0.00000E+000	0.00000E+000	1.39638E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21961E-006	1.21961E-006	0.00000E+000	0.00000E+000	1.20988E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23236E-006	1.23236E-006	0.00000E+000	0.00000E+000	1.22269E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17411E-006	1.17411E-006	0.00000E+000	0.00000E+000	1.16474E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19119E-006	1.19119E-006	0.00000E+000	0.00000E+000	1.18951E-006
Graders	0.00000E+000	8.38504E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.24797E-007	9.24797E-007	0.00000E+000	0.00000E+000	9.17540E-007
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.29924E-006	4.29924E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.49011E-006	1.49011E-006	0.00000E+000	0.00000E+000	1.47842E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17914E-006	1.17914E-006	0.00000E+000	0.00000E+000	1.16974E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19234E-006	1.19234E-006	0.00000E+000	0.00000E+000	1.18797E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.00	0.00
ASH Relocation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
ASH Relocation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.23	0.06	0.23	0.06	0.00	0.00
Grading	Fugitive Dust	0.08	0.04	0.04	0.02	0.55	0.55
Grading	Roads	0.02	0.01	0.02	0.01	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.03	0.01	0.01	0.01	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.83	8.83	8.83	8.82	8.83
Hearth	0.00	0.00	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
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	21.61	21.60	21.60	21.57	21.59	21.59	0.00	21.60	21.60	21.58	21.57	21.60
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	15.87	28.00	26.90	15.92	16.37	24.36
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
Yes	Use Low VOC Paint (Residential Interior)	100.00
Yes	Use Low VOC Paint (Residential Exterior)	150.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
Yes	Use Reclaimed Water	10.00	100.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Appendix B

Cultural and Historic Resources Studies

Appendix B.1

Cultural Resources Study

San Jose State University Interdisciplinary Science Building Project

Cultural Resources Study

U.S.G.S. *San Jose West* quadrangle

Prepared for:
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Planning Design and Construction
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San Jose, California 95192-0010

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August 2017

Keywords: San Jose West, CA quadrangle; Santa Clara County; intensive pedestrian survey; CEQA; Historical resources present, Potential Impacts

Zamudio-Gurrola, S., S. Carmack, S. Treffers, M. Szromba and L. Hoffman
2017 *Cultural Resources Study for the San Jose State University Interdisciplinary Science Building Project, Santa Clara County, California*. Rincon Consultants Project No. 16-02813. Report on file at the Northwest Information Center, Rohnert Park, California.

San Jose State University Interdisciplinary Science Building Project

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EXECUTIVE SUMMARY

Rincon Consultants, Inc. (Rincon) was retained by San Jose State University to complete a Cultural Resources Study for the proposed Interdisciplinary Science Building Project (project) located within the City of San Jose, Santa Clara County, California. The project site is located on the main campus of San Jose State University. The proposed Interdisciplinary Science Building (ISB) would be located north of Duncan Hall facing Paseo de San Carlos between 4th Street and 7th Street, in the southwest quadrant of campus, adjacent to MacQuarrie Hall. The ISB project site is the current location of the Associated Students House, parking lots 11 and 13, and a small botanic garden. The project includes the relocation of the Associated Students House to accommodate construction of the new building. This study was prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines; and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998).

A search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) located at Sonoma State University was completed on August 25, 2016. No previously recorded archaeological resources were identified within the project area, however four previously recorded cultural resources are located within a 0.25-mile radius of the project area. The project site contains one building, the Scheller (Associated Students) House, which was previously recorded in the project area. The building was resurveyed and evaluated and recorded on California Department of Parks and Recreation (DPR) forms. The Scheller (Associated Students) House appears eligible for listing in the California Register of Historical Resources under Criterion 2 for its associations with Victor Scheller, as well as under Criterion 3 as a good example of a California Colonial Revival residence designed by noted local architect Theodore Lenzen; it is therefore is considered a historical resource in accordance with CEQA.

In May 2017, Rincon retained Page & Turnbull to complete a Historical Resource Relocation Feasibility Study to determine the feasibility of relocating the Scheller (Associated Students) House from its current location to a proposed Receiver Site on the SJSU campus. The purpose of the study was to provide SJSU with substantial environmental and technological evidence that can be used to assess the feasibility of relocating and restoring the historic residence. The building was found to be in good overall condition and provided recommendations for completing a successful relocation to the proposed receiver site.

In accordance with CEQA, in situations where relocation is the only feasible alternative to demolition, relocation may mitigate below a level of significance provided that the new location is compatible with the original character and use of the historical resource and the resource retains its eligibility for listing on the California Register (14 CCR Section 4852(d)(1)). Rincon assessed the potential impacts of the project in accordance with CEQA and determined that the relocation of the Scheller (Associated Students) House, which has been previously relocated and is not in its original setting, has the potential to be mitigated to a less than significant level on the condition that the proposed new location is compatible with the existing site and that the relocation can be accomplished in a way that retains the essential character-defining features that convey its historic significance.

Four mitigation measures are recommended to reduce potential impacts to historical resources to less than significant. These include 1) analysis of the receiver site for the Scheller (Associated Students) House; 2) implementation of the relocation plan in accordance with the recommendations of *San Jose State University Associated Students House Relocation, San Jose, California: Feasibility Study and Appendices* (Page & Turnbull 2017); 3) Historic building documentation in accordance with the general guidelines of the Historic American Building Survey (HABS) prior to the issuance of project permits; and 4) an interpretive display to be installed at the new location of the building.

No archaeological resources were identified within the project site. The study area is in a highly urbanized area; the entire ground surface within the project area is covered by buildings, landscaping and paved surfaces. The surface of the project site has been previously graded, disturbed, and developed and no archaeological resources are known to have been discovered. However, the level and depth of disturbance is unknown.

Archival research indicates that the project vicinity is moderately to highly sensitive for buried archaeological resources. Of the four previously recorded resources are located within 0.25 mile of the project, two of which have yielded intact buried archaeological deposits: CA-SCL-948, a Native American burial; and CA-SCL-563H, three historic trash pits. The remaining two are historic in age, and may potentially have buried archaeological deposits associated with them: CA-SCL-39H, the original Plaza de San Jose de Guadalupe which was established in 1777; and CA-SCL-894H, the Fox California Theater which was built in 1927. In addition, three previously recorded archaeological resources located within approximately 1 mile of the project site are known to have included intact, buried cultural deposits, including Native American burials: CA-SCL-4/H, a Native American village site with an unknown number of burials; CA-SCL-128, a Native American burial ground with 57 burials and CA-SCL-690,a Native American burial ground with 125 burials. Thus, there is some potential for intact, archaeological deposits present within the project site.

Rincon recommends the following measures be implemented to reduce potential impacts to unanticipated archaeological resources to less than significant: retain a qualified principal investigator to carry out all mitigation measures related to archaeological resources; conduct preconstruction training for workers by a qualified archaeologist; conduct archaeological monitoring of construction activities by a qualified archaeological monitor; if unanticipated cultural deposits are identified, stop work within the vicinity of the find and notify the principal investigator; if human remains are discovered, immediately stop work in the vicinity of the find and notify the County Coroner.

1.0 INTRODUCTION

Rincon Consultants, Inc. (Rincon) was retained by San Jose State University (SJSU) to conduct a cultural resources study for the proposed Interdisciplinary Science Building Project (project) located on the SJSU campus, within the City of San Jose, Santa Clara County, California. All work was prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines; and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998). This cultural resources study includes a records search, Native American scoping, an intensive pedestrian survey of the proposed project, and preparation of this report.

1.1 PROJECT LOCATION

The project site is located entirely within the main campus of SJSU in the center of the City of San Jose, California. The SJSU campus is located to the east of the Guadalupe Freeway and to the north of Interstate 280/Junipero Serra Freeway. The main campus occupies a square-shaped property of 88.5 acres bordered by San Fernando Street on the north, San Salvador Street on the south, 10th Street on the east, and 4th Street on the west. The proposed Interdisciplinary Science Building (ISB) would be located north of Duncan Hall facing Paseo de San Carlos between 4th Street and 7th Street, in the southwest quadrant of campus, adjacent to MacQuarrie Hall. The ISB project site is the current location of the Associated Students House, parking lots 11 and 13, and a small botanic garden (Figures 1 and 2).

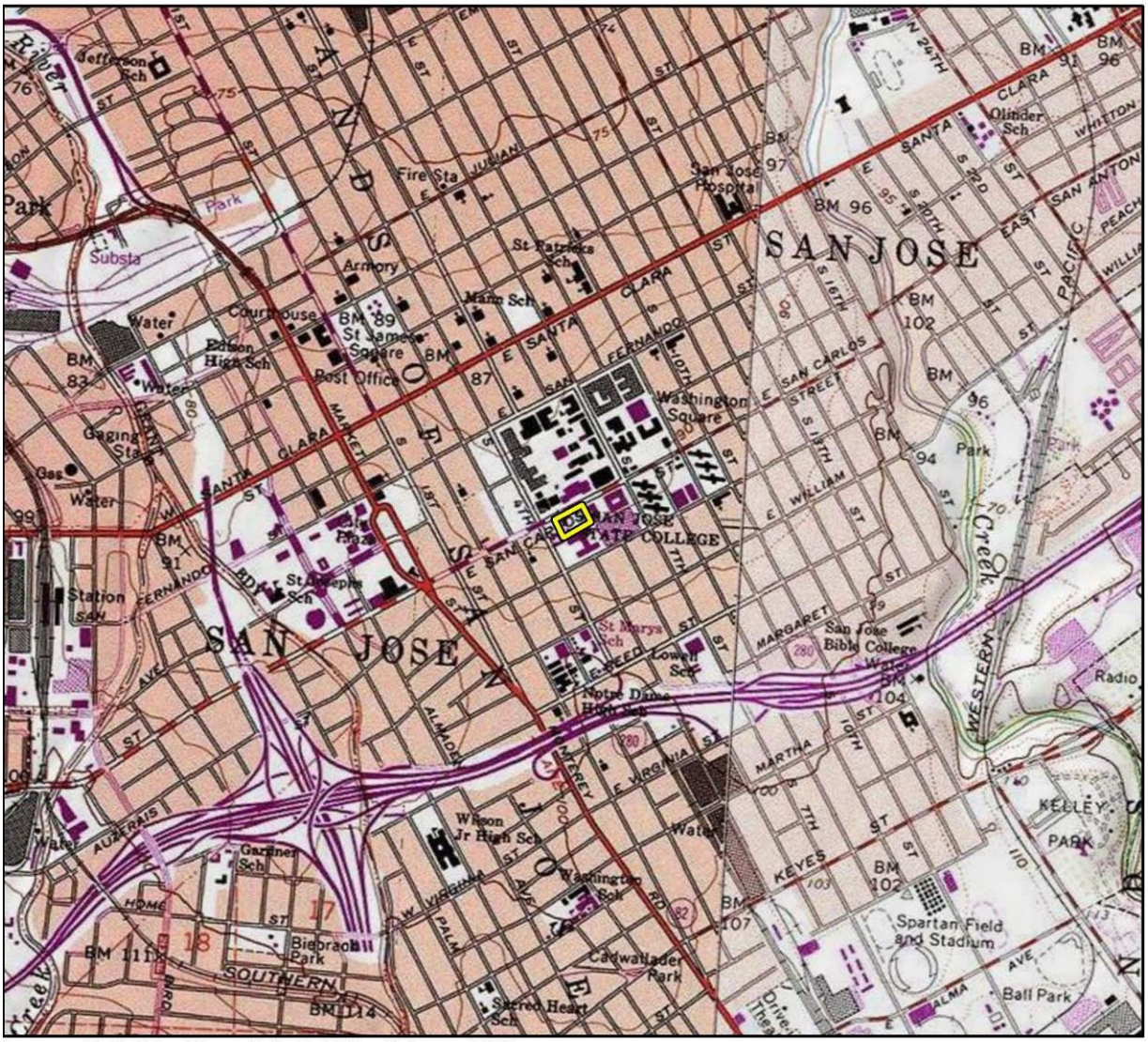
1.2 PROJECT DESCRIPTION

The Interdisciplinary Science Building (ISB) Project would include development of an 180,876 gross square feet (GSF) science building that is up to twelve stories high with a basement. The new building would house laboratories, faculty offices, and interdisciplinary spaces. In addition to the removal of an existing botanic garden, the project includes the relocation of the Associated Students House to a yet to be determined receiver site. As part of the current study, a potential receiver site located across from the Student Union building and adjacent to South 10th Street to the east was examined in detail and is discussed further in the sections below (Figure 3).

1.3 PERSONNEL

Architectural Historian Susan Zamudio-Gurrola M.A., conducted the field survey and served as the primary author of this report with support from Senior Architectural Historian Steven Treffers M.H.P. Senior Architectural Historian Shannon Carmack, B.A., provided oversight and served as Principal Investigator for the architectural history impacts to the project. Ms. Zamudio-Gurrola, Mr. Treffers, and Ms. Carmack meet the Secretary of the Interior's *Professional Qualification Standards* for architectural history and history (NPS 1983). Rincon Cultural Resources Specialist Meagan Szromba, M.A., Registered Professional Archaeologist (RPA) conducted the records search request, performed Native American scoping, and coauthored this report. Rincon Cultural Resources Principal Investigator Laura Hoffman, M.A., RPA, served as Principal Investigator for the archaeological impacts portion of the study. Ms. Hoffman meets the Secretary of the Interior's *Professional Qualification Standards* for prehistoric and historic archaeology (NPS 1983). All figures found in this report were prepared by

Geographic Information System (GIS) Specialist Allysen Valencia. Rincon Principal Richard Daulton reviewed this report for quality control.



Imagery provided by National Geographic Society, ESRI and its licensors © 2016. San Jose West Quadrangle. T07S R01E S08. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Figure 1. Project Location Map

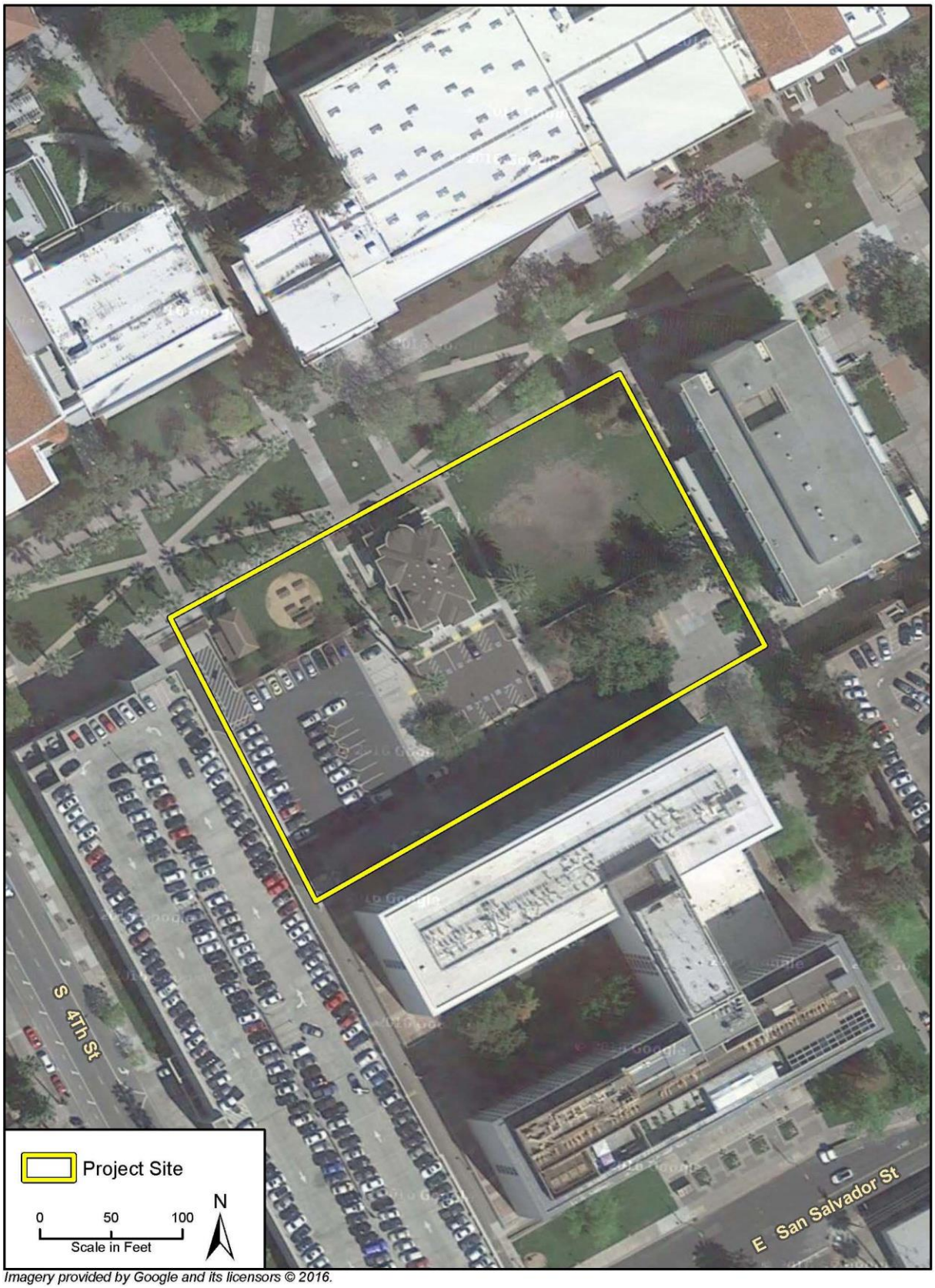


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Figure 2. Project Site Map

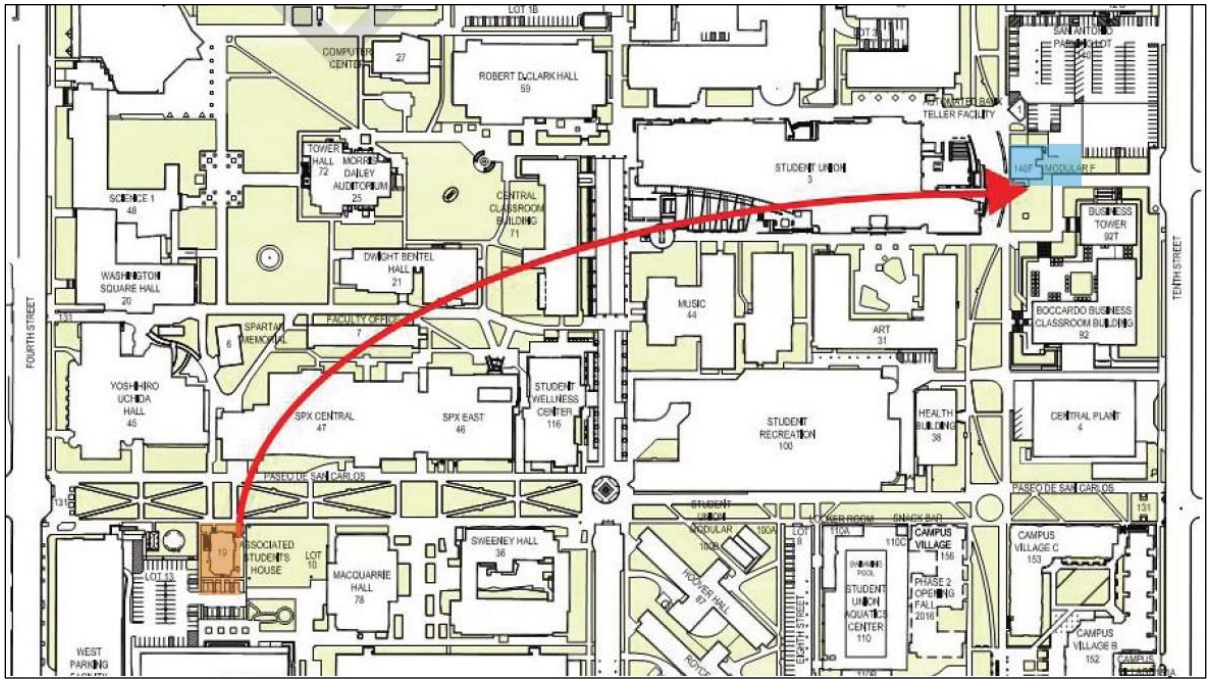

Figure 3. Existing site (shaded orange) and potential receiver site (shaded blue) (Page & Turnbull 2017)

2.0 REGULATORY SETTING

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources, which must be adhered to before and during implementation of the proposed project.

2.1 NATIONAL REGISTER OF HISTORIC PLACES

The project does not have a federal nexus and, therefore, compliance with reference to the NHPA and other federal laws is provided here for informational purposes only. Projects that involve federal funding or permitting (i.e., have a federal nexus) must comply with the provisions of the National Historic Preservation Act of 1966 (NHPA), as amended (16 United States Code [U.S.C.] 470f). Cultural resources are considered during federal undertakings chiefly under Section 106 of the NHPA through one of its implementing regulations, 36 Code of Federal Regulations (CFR) 800 (Protection of Historic Properties), as well as the National Environmental Policy Act (NEPA). Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of the NHPA. Other relevant federal laws include the Archaeological Data Preservation Act of 1974, American Indian Religious Freedom Act of 1978, Archaeological Resources Protection Act of 1979, and Native American Graves Protection and Repatriation Act of 1989.

The National Register of Historic Places (NRHP) was established by the National Historic Preservation Act (NHPA) of 1966 as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (CFR 36 CFR 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history;

Criterion B: It is associated with the lives of persons who are significant in our past;

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

2.2 CALIFORNIA REGISTER OF HISTORICAL RESOURCES

CEQA (Section 21084.1) requires that a lead agency determine whether a project could have a significant impact on historical resources. A *historical resource* is a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (Section 21084.1), a resource included in a local register of historical resources (Section 15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Section 15064.5[a][3]).

PRC Section 5024.1, Section 15064.5 of the CEQA Guidelines, and PRC Sections 21083.2 and 21084.1 were used as the basic guidelines for this cultural resources study. PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below.

According to PRC Section 5024.1(c)(1–4), a resource is considered *historically significant* if it: 1) retains substantial integrity, and 2) meets at least one of the following California Register criteria.

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
3. It embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values.
4. It has yielded or may be likely to yield information important in prehistory or history.

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (CEQA Guidelines, Section 15064.5 [b][1], 2000). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register… (CEQA Guidelines, Section 15064.5[b][2][A]).

2.3 ASSEMBLY BILL 52

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expands CEQA by defining a new resource category called *tribal cultural resources* (TCRs). AB 52 establishes that a "project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a TCR, when feasible (PRC Section 21084.3).

1. PRC Section 21074(a)(1)(A) and (B) defines TCRs as "sites, features, places, cultural landscapes, sacred places, and object with cultural value to a California Native American tribe" and meets either of the following criteria:Listed or eligible for listing in the CRHR, or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding TCRs. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

3.0 CULTURAL SETTING

The project area is located within the City of San Jose. None of the surrounding area retains its natural setting, as the project area is surrounded by institutional, commercial and residential development.

3.1 PREHISTORIC SETTING

The proposed project lies in the San Francisco Bay Area archaeological region (Milliken et al. 2007; Moratto 1984). Following Milliken et al. (2007), the prehistoric cultural chronology for the Bay Area can be generally divided into five periods: the Early Holocene (8,000-3,500 B.C.), Early (3,500-500 B.C.), Lower Middle (500 B.C. to A.D. 430), the Upper Middle (A.D. 430-1050), and the Late Period (A.D. 1050-contact).

It is presumed that early Paleoindian groups lived in the area prior to 8,000 B.C. However, no evidence for that period has been discovered in the Bay Area to date (Milliken et al. 2007). For this reason, the terminal Pleistocene Period (ca. 11,700-8,000 B.C.) is not discussed here.

The earliest intensive study of the archaeology of the San Francisco Bay Area began with N. C. Nelson of the University of California, Berkeley, between 1906 and 1908. He documented over 400 shell mounds throughout the area. Nelson was the first to identify the Bay Area as a discrete archaeological region (Moratto 1984).

3.1.1 Early Holocene (8,000-3,500 B.C.)

The Early Holocene in the San Francisco Bay Area is characterized by a mobile forager pattern and the presence of millingslabs, handstones, and a variety of leaf-shaped projectile points, though evidence for this period is limited. It is likely that Holocene alluvial deposits buried many prehistoric sites in the area (Moratto 1984; Ragir 1972). Sites such as CA-CCO-696 and CA-CCO-637 in Contra Costa County are two of just a few sites dating to this period. The earliest date for the Early Holocene comes from the CA-CCO-696 at Los Vaqueros Reservoir (Milliken et al. 2007).

3.1.2 Early Period (3,500-600 B.C.)

The Early Period saw increased sedentism from the Early Holocene as indicated by new ground stone technologies (introduction of the mortar and pestle), an increase in regional trade, and the earliest cut-bead horizon. The first documentation of the mortar and pestle, dating to 3,800 B.C., comes from CA-CCO-637 in the Los Vaqueros Reservoir area. By 1,500 B.C., mortars and pestles had almost completely replaced millingslabs and handstones. A shift to a sedentary or semi-sedentary lifestyle is marked by the prevalence of mortars and pestles, ornamental grave associations, and shell mounds. The earliest cut bead horizon dating to this period is represented by rectangular *Haliotis* (abalone) and *Olivella* (snail) beads from several sites, including CA-CCO-637, CA-SCL-832 in Sunnyvale, and CA-ALA-307 in Berkeley (Milliken et al. 2007). The advent of the mortar and pestle indicate a greater reliance on processing nuts such as acorns. Faunal evidence from various sites indicates a diverse diet based on mussel and other shellfish, marine mammals, terrestrial mammals, and birds (D'Oro 2009).

3.1.3 Lower Middle Period (500 B.C.-A.D. 430)

The Lower Middle Period saw numerous changes from the previous period. Rectangular shell beads, common during the Early Period, disappear completely and are replaced by split-beveled and saucer *Olivella* beads. In addition to the changes in beads, *Haliotis* ornaments, bone tools and ornaments, and basketry awls indicating coiled basketry manufacture appeared. Mortars and pestles continued to be the dominant grinding tool (Milliken et al. 2007). Evidence for the Lower Middle Period in the Bay Area comes from sites such as the Emeryville shell mound (CA-ALA-309) and Ellis Landing (CA-CCO-295). CA-ALA-309 is one of the largest shell mounds in the Bay Area and contains multiple cultural sequences. The lower levels of the site, dating to the Middle Period, contain flexed burials with bone implements, chert bifaces, charmstones, and oyster shells (Moratto 1984).

3.1.4 Upper Middle Period (A.D. 430-1050)

Around A.D. 430, *Olivella* saucer bead trade networks established during earlier periods collapsed and over half of known sites occupied during the Lower Middle Period were apparently abandoned. *Olivella* saucer beads were replaced with *Olivella* saddle beads. New items appear at sites, including elaborate, decorative blades, fishtail charmstones, new *Haliotis* ornament forms, and mica ornaments. Sea otter bones became more frequent from earlier periods (Milliken et al. 2007). Excavations at CA-ALA-309 have indicated a shift from oysters to clams at that site. Subsistence analysis at various sites dating to this period indicate a diverse diet that included various species of fish, mammal species, bird species, shellfish, and plant resources that varied by location within the Bay Area (Hylkema 2002).

3.1.5 Late Period (A.D. 1050-contact)

The Late Period saw an increase in social complexity, indicated by differences in burials, and an increased level of sedentism relative to preceding periods. Small, finely worked projectile points associated with bow and arrow technology appear around A.D. 1250. *Olivella* shell beads disappeared and were replaced with clamshell disk beads. The toggle harpoon, hopper mortar, and magnesite tube beads also appeared during this period (Milliken et al. 2007). This period saw an increase in the intensity of resource exploitation that correlates with an increase in population (Moratto 1984). Many of the well-known sites of earlier periods, such as the Emeryville shell mound (CA-ALA-309) and the West Berkeley site (CA-ALA-307) were apparently abandoned as indicated by the lack of Late Period elements at these sites, possibly due to fluctuating climates and drought that occurred throughout the Late Period (Lightfoot and Luby 2002).

3.2 ETHNOGRAPHIC OVERVIEW

The proposed project is located within the area traditionally occupied by the Ohlone (or Costanoan) people. Ohlone territory extends from the point where the San Joaquin and Sacramento Rivers issue into the San Francisco Bay to Point Sur, with the inland boundary most likely constituted by the interior Coast Ranges (Kroeber 1925:462). The Ohlone language belongs to the Penutian family, with several distinct dialects throughout the region (Kroeber 1925: 462).

The pre-contact Ohlone were semi-sedentary, with a settlement system characterized by base camps of tule reed houses and seasonal specialized camps (Skowronek 1998). Villages were divided into small polities, each of which was governed by a chief responsible for settling disputes, acting as a war leader (general) during times of conflict, and supervising economic and ceremonial activities (Skowronek 1998, Kroeber 1925:468). Social organization appeared flexible to ethnographers and any sort of social hierarchy was not apparent to mission priests (Skowronek 1998).

Ohlone subsistence was based on hunting, gathering, and fishing (Kroeber 1925: 467, Skowronek 1998). Mussels were a particularly important food resource (Kroeber 1925: 467). Sea mammals were also important; sea lions and seals were hunted and beached whales were exploited (Kroeber 1925: 467). Like the rest of California, the acorn was an important staple and was prepared by leaching acorn meal both in openwork baskets and in holes dug into the sand (Kroeber 1925: 467). The Ohlone also practiced controlled burning to facilitate plant growth (Kroeber 1925: 467, Skowronek 1998).

Seven Franciscan missions were built within Ohlone territory in the late 1700s, and all members of the Ohlone group were eventually brought into the mission system (Kroeber 1925: 462, Skowronek 1998). After the establishment of the missions, Ohlone population dwindled from roughly 10,000 people in 1770 to 1,300 in 1814 (Skowronek 1998). In 1973, the population of people with Ohlone descent was estimated at fewer than 300 (Levy 1978:487). The descendants of the Ohlone united in 1971 and have since arranged political and cultural organizations to revitalize aspects of their culture (Skowronek 1998).

3.3 HISTORIC OVERVIEW

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present).

3.3.1 Spanish Period (1769-1822)

For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). Francis Drake in 1579 landed in what was most likely San Francisco Bay. Sebastian Cermeño landed in Drake's Bay in 1595 before returning south (Bean 1968).

By the 1760s Spain developed a three-pronged approach of establishing presidios (military garrisons), missions and towns throughout Alta California to solidify its hold on the territory and counter against English and Russian explorers. Gaspar de Portolá and the Franciscan Father Junípero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769. This was the first of 21 missions erected by the Spanish between 1769 and 1823. Portolá continued north, reaching the San Francisco Bay in 1769. Short on food and supplies, the expedition turned back to San Diego. In 1770, Pedro Fages began his expedition, reaching the San Francisco Bay Area and exploring the region in 1772 (Cook 1957).

The mission and presidio at Monterey were founded in 1770, and three years later Juan Bautista de Anza proposed to open a land route from Sonora to Monterey. The viceroy at the time, Antonio de Bucareli, sanctioned Anza's expedition and proposed he extend it to form a settlement at the bay of San Francisco. Anza's first expedition traveled from Mexico City to Monterey. During this time, various sea expeditions from Monterey discovered Nootka Sound, the Columbia River, and the Golden Gate. Anza's second expedition began in 1775 leading to the establishment of the presidio and mission at San Francisco the following year (Bean 1968; National Park Service, n.d.; California Missions Foundation, n.d.). The town of San Jose was founded in 1777 and is known as the first civilian settlement in California (City of San Jose Department of Planning, Building & Code Enforcement, n.d.). Mission San Jose, 14th out of the chain of 21 missions, was founded in 1797. Originally known as La Mision del Gloriosisimo Patriarch San Jose, it was practically destroyed by an earthquake in 1868 (California Missions Foundation, n.d.).

3.3.2 Mexican Period (1822-1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. The presidios were not as well-supported under Mexican governance. A secularization act was passed in 1833 which privatized the mission lands and converted the missions into parish churches. The Native Americans affiliated with the missions were re-settled. Although secularization plans called for the surviving Native Americans to receive land, this was often not the case. The majority of land grants went to well-connected families, resulting in what was called the Rancho period. Mexican governors made more than 700 private land grants between 1834 and 1846 (Rice et al. 2012). During this time a class of wealthy landowners known as rancheros or Californios worked large ranches based on cattle hide and tallow production. Fifty land grants (ranchos) were located in modern-day Santa Clara County (U.C. Berkeley Earth Sciences and Map Library 2007).

The Mexican Period saw an increased importance of sea trade and an influx of American settlers which motivated the United States to expand their territory into California. The United States supported a small group of insurgents from Sonoma during the Bear Flag Revolt. The Bear Flaggers captured Sonoma in June of 1846. In July, Commodore John Drake Sloat landed in Monterey and proceeded to take Yerba Buena, Sutter's Fort, Bodega Bay, and Sonoma. That same month, Captain Thomas Fallon entered San Jose and raised the United States flag over the town hall. Fighting between American and Mexican forces continued until Mexico surrendered in 1847 (NPS 2015; Rolle 2003).

3.3.3 American Period (1848-Present)

The American Period began with the signing of the Treaty of Guadalupe Hidalgo in 1848, which marked the end of the United States' war with Mexico. The United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. The existing Mexican land grants were expected to be recognized, but over time, as settlement increased throughout the state, disputes arose between rancheros and settlers. Rancho owners expended much money and effort attempting to defend their land holdings. Rancheros struggled with this loss of income, debt, and costs incurred from legally defending their land under the new American law. As a result,

many of the rancho lands were sold or lost. Most were subdivided into agricultural parcels or towns. Settlement of California continued to increase during the early American Period. Following the discovery of gold in 1848, California's population grew exponentially. The Santa Clara Valley was greatly changed by the gold rush, as numerous immigrants arrived. California officially became a state in 1850; Santa Clara County was one of the state's original counties. Throughout the late nineteenth century, immigrants continued to flood into California, leading to growth and expansion of towns such as San Jose (Rolle 2003; NPS 2015).

3.3.4 City of San Jose

San Jose was the site of the first state capital from 1849 to 1852. It incorporated as a city in 1850. The city's commercial development benefitted from the gold rush; it was a source of supplies for the multitude of gold prospectors and newcomers. In 1864 San Jose was connected by railroad to San Francisco and became the distribution point for agricultural products from the Santa Clara Valley (Preservation Action Council of San Jose, n.d).

The area where the subject property is located was until the 1880s on the southern limits of the populated area of the City of San Jose. To the north was Washington Square which, in the 1850s, had been used as an area to butcher animals and as a city dump. Commercial enterprise in the area during the 1860s to late 1880s included businesses such as a Daguerrean Saloon or photo studio, the California Cracker Co. Depot, and a saloon. The area was mainly residential with smaller single-family homes and working-class residents. A building boom during the 1880s to early 1900s led to larger Victorian-style homes being developed in the surrounding neighborhood with residents of higher status. Later in the 20th century some of the large houses were converted into apartments or flats, in response to the need for student housing for the Normal School. Many residences were sold to the state to make way for new, expanded school facilities (Cartier 1980).

During the 1990s the technology industry experienced a boom and San Jose became known as the Capital of Silicon Valley (City of San Jose, n.d.). San Jose has grown to become the third largest city in the state of California (City of San Jose Department of Planning, Building & Code Enforcement, n.d.).

3.3.5 San Jose State University

The history of San Jose State University began in 1857 in San Francisco with the formation of the Minns' Evening Normal School. George Washington Minns, the founder and principal, was a Harvard College graduate and former lawyer. He started teaching in San Francisco in 1856 and became principal of the Normal School the following year (ARG 2005).

San Francisco school teachers were required to attend Minns Evening Normal School sessions, which were held weekly. The first class included five women and one man. By 1862 the graduating class had 38 individuals. That year an act of the state legislature provided funding for and led to the formation of the first California State Normal School. In 1870 the state legislature voted to relocate the campus. Many counties throughout the state proposed a site as well as monetary subsidies. Of the various cities that were considered, San Jose was chosen, reportedly, due to its healthful climate, accessibility, size and boarding accommodations (ARG 2005; Sawyer 1922).

During its first year in San Jose, the State Normal School was housed in temporary buildings on Washington Square. Theodore Lenzen, a well-known local architect designed the new school building. By 1872 it was partially finished and classes were held on the first floor. The building was completed in 1876. A fire destroyed the first Normal School building in 1880. Later that year the state legislature appropriated $100,000 to reconstruct the school on Washington Square. In 1887 it became known as the San Jose State Normal School (ARG 2005).

The 1906 earthquake damaged the 1880 San Jose State Normal School building. In 1909 construction began on a replacement building, Tower Hall, and was completed by the following year. Within a few years additional structures had been built (ARG 2005).

In 1921 the school was renamed San Jose State Teachers College and in 1935 it was renamed San Jose State College. During the 1940s the college was accredited by the Association of American Universities, and the state legislature appropriated $300,000 for post-war land acquisition. Countless veterans took advantage of the government support for education and retraining which undoubtedly encouraged expansion of the school campus. By the 1950s there were numerous new buildings on campus such as an auditorium, classrooms, a science building, an economics building, gyms, and an aeronautics laboratory. The surrounding neighborhoods were affected by the school's growth as residences were demolished for school buildings. The school was elevated to the status of University in 1972, demonstrating its substantial size and its role in education. In 1974 enrollment surpassed 20,000 students. A re-design of part of the campus in 1994 closed East San Carlos Street from South Fourth Street to South Tenth Street, in order to unite different sections of the campus and allow for expansion (ARG 2005).

4.0 BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

Rincon requested a search of the cultural resource records housed at the California Historical Resources Information System (CHRIS), Northwestern Information Center (NWIC) located at Sonoma State University, Rohnert Park on July 29, 2016. The NWIC completed the search on August 25, 2016. The search was conducted to identify all previous cultural resources work and previously recorded cultural resources within a 0.25-mile radius of the project. The CHRIS search included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5- and 15-minute quadrangle maps. The records search results summary letter is included in Appendix A.

4.1.1 Previous Studies

The NWIC records search identified three previous studies that have been conducted within the project area, and an additional thirty-five previous studies that have been conducted within a 0.25-mile radius of the project site (Table 1).

Table 1. Previous Studies Within a 0.25-Mile Radius of the Project

Report No.	Author	Year	Study	Proximity to Project
S-004319; S-004319a; S-004319b	Hester, Joseph A.; King, Chester; Hester, Joseph A. and Chester King	1974, 1973	*Archaeological Assessment of Park Center Project*; *Review of the Archaeological Element of Draft of Environmental Impact Report for Park Center Redevelopment Project, No. 1973; West San Carlos-Alamden Site Correspondence*	Outside
S-004598	Cartier, Robert	1978	*Archaeological Evaluation of Subsurface Testing in Block 6, San Antonio Plaza Project*	Outside
S-005298	Cartier, Robert, Detlefs, Charlene and Janice Whitow	1978	*The Preliminary Archaeological Evaluation of the San Antonio Plaza Project*	Outside
S-004870	Cartier, Robert and Janice Whitlow	1978	*Preliminary Archaeological Evaluation of Block No. 7*	Outside
S-017782	Cartier, Robert and Janice Whitlow	1978	*Preliminary Archaeological Evaluation of Block #7*	Outside
S-004871	Cartier, Robert and Jan Whitlow	1979	*Archaeological Monitoring and Minor Salvage Excavation, Block 7*	Outside

Table 1. Previous Studies Within a 0.25-Mile Radius of the Project

Report No.	Author	Year	Study	Proximity to Project
S-008624	Bard, James C. and Donna M. Garaventa	1980	*Cultural Resources Monitoring, San Antonio Plaza Redevelopment Project: Blocks 2 and 3, May 15- July 18, 1980, City of San Jose, California*	Outside
S-005295	Breschini, Gary S.	1980	*Archaeological Monitoring during the grading and construction of the Washington Square Branch of the Bank of America*	**Within**
S-005299	Cartier, Robert and Charlene Detlefs	1980	*Archaeological Excavation of the Proposed West Parking Structure*	Outside
S-005276	Holman, Miley Paul	1980	*An archaeological field reconnaissance of the proposed Jeanne D'Arc Manor project (letter report)*	Outside
S-008387; S-008387a	Chavez, David; Roop, William	1981, 1980	*An evaluation of the applicability of section 4 (F) of the Department of Transportation Act to the Guadalupe Corridor Transportation Plan Alternatives (letter report); Archaeological Resources Assessment for the Guadalupe Corridor Alternatives Analysis Draft Environmental Impact Statement, Santa Clara County, California*	Outside
S-008405	Hurtado, Albert L.	1980	*Historical Evaluation of two houses at 63 and 67 South Street, San Jose, California (letter report)*	Outside
S-005195	Garaventa, Donna M., Colin I. Busby	1982	*A Cultural Resources Assessment of Capital Improvements Known as Prevost Street, Delmas Avenue, Downtown Supplement and Central Interceptor Projects, San Jose, California*	Outside
S-005646	Kobori, Larry S., Fee, David J., Garaventa, Donna M., Kennard, Melissa C., Bard, James C., Harmon, Robert M., Lewis, Beverly K., Oglesby, Fred M. and Melody E. Tannam	1982	*A Limited Archaeological Data Recovery and Monitoring Program Along East San Fernando Street, City of San Jose, California*	Outside
S-006095	Roop, William, Gerike, Christian and Margaret Duddy	1982	*Prehistoric Archaeological Survey Report, Guadalupe Transportation Corridor, Santa Clara County, California*	Outside
S-006181	Garaventa, Donna M. and Rebecca Loveland Anastasio	1983	*Addendum to the Cultural Resources Survey for the Improvements Known as Downtown Supplement and Central Interceptor, Located Between Empire and Alma Streets, City of San Jose, California*	Outside
S-005907	Grattan, Carolyn, Garaventa, D.M., and R.L. Anastasio	1983	*Cultural Resources Monitoring of the Lick Stable, Block 2, San Antonio Redevelopment District, San Jose, California*	Outside

Table 1. Previous Studies Within a 0.25-Mile Radius of the Project

Report No.	Author	Year	Study	Proximity to Project
S-009404	Loveland Anastasio, Rebecca, Garaventa, Donna M., Harmon, Robert M. and Melody E. Tannam	1987	*Archaeological Monitoring at San Antonio Plaza Block 2 Retail Pavilion Redevelopment Project, City of San Jose, Santa Clara County, California*	Outside
S-011396	Unknown	1989	*Technical Report of Cultural Resources Studies for the Proposed WTG-WEST, Inc., Los Angeles to San Francisco and Sacramento, California: Fiber Optic Cable Project*	**Within**
S-012438	Chavez, David and Jan M. Hupman	1990	*Cultural Resources Evaluation for the Proposed Santa Clara County BART Extension Corridor*	Outside
S-011749	Holman, Miley Paul	1990	*Archaeological Field Inspection of the Bridge Housing/Lands of YWCA Project Area, San Jose, Santa Clara County, California (letter report)*	Outside
S-013351	Cartier, Robert	1991	*Cultural Resources Evaluation of the Cinema Complex Theatres Project in the City of San Jose, County of Santa Clara*	Outside
S-016712	Reese, Elena, Denison, Jessica and Robert Cartier	1994	*Cultural Resource Evaluation for the Repertory Theater Project in the City of San Jose*	Outside
S-017608	Cartier, Robert, Reese, Elena, Wizorek, Julie C., and Carolyn Roberts	1995	*Mercy Housing California 3 Project*	Outside
S-023060	Hill, Ward, Laffey, Glory Anne and Charlene Duval	1998	*Cultural Resources Assessment, Civic Plaza Redevelopment Plan Area, City of San Jose, California*	Outside
S-022240; S-022240a	Cartier, Robert R.	1999	*Historical Evaluation of the Structure at 396 S. First Street (The Studio Theatre Building) in the City of San Jose*	Outside
S-023637	Maggi, Franklin and Charlene Duval	2000	*Historical and Architectural Evaluation for the Historic Fox California Theatre, 345 South First Street, San Jose, California*	Outside
S-024595	Maggi, Franklin, Duval, Charlene, Dill, Leslie, Halberstadt, April, Engle, Amber and Elizabeth Stephens	2000	*Downtown San Jose Historic Resources Survey, Year 2000*	Outside

Table 1. Previous Studies Within a 0.25-Mile Radius of the Project

Report No.	Author	Year	Study	Proximity to Project
S-025173	Holson, John, Sutch, Cordelia and Stephanie Pau	2002	*Cultural Resources Report for San Jose Local Loops, Level 3 Fiber Optics Project in Santa Clara and Alameda Counties, California*	Outside
S-025200	Oosterhous, Kara, Maggi, Franklin and Leslie A.G. Dill	2002	*Historical and Architectural Evaluation, 440 South Sixth Street & 444 South Sixth Street, San Jose, Santa Clara County, California*	Outside
S-027447	Dill, Leslie A.G., Oosterhous, Kara and Charlene Duval	2003	*Historical and Architectural Evaluation, 480 South 6th Street, 479, 491, and 499 South 7th Street (APN's 467-48-039, 467-48-034, 467-48-035, 467-48-036)*	Outside
S-028978	Duval, Charlene	2004	*San Jose State University Campus Village Housing Project, City of San Jose, Santa Clara County*	Outside
S-031897	Busby, Colin I.	2005	*Archaeological Monitoring Closure Report, San Jose State University Campus- Joe West Hall & Dining Commons Service Area and Pedestrian Improvements (letter report)*	Outside
S-044020a; S-044020	Donaldson, Milford Wayne, Rodriquez, Joseph R., Kochan, Nancy, McGuirt, Mike, Beattie, Bert, Mellon, Knox and Don Kilma; Hill, Ward, Minor, Woodruff C. and Charlene Duval	2006; 2003	*RE: Programmatic Agreement for the San Jose Norman Y. Mineta International Airport Acoustic Treatment Program (concurrence correspondence); Historic Architectural Survey, Guadalupe/Washington Neighborhood, Norman Y. Mineta San Jose International Airport, Acoustical Treatment Program, City of San Jose, Santa Clara County, California*	Outside
S-039380; S-039380a	Pastron, Allen G., Touton, Michelle and Jennifer Redmond; Pastron, Allen G.	2007; 2005	*Final Archaeological Resources Report for the CIM Block 3 San Jose Project, San Jose, Santa Clara County, California; Pre-Construction Archaeological Testing Report for Block 3, Phase 1 of the Heart of the City Project, San Jose, California*	Outside
S-037095; S-037095a	Unknown; Donaldson, Milford Wayne and Michael A. Chotkowski	2010	*Historic Property Survey Report/Finding of Effect (No Historic Properties Affected), South Bay Water Recycling (SBWR) Stimulus Projects, San Jose State University Main Campus, City of San Jose, Santa Clara County, BUR100218A; BUR100218A; South Bay Water Recycling Program (SBWRP) Phase 1C Project (San Jose State University), City of San Jose, Santa Clara County, California (Project No. 09-SCAO-092.8) (Concurrence Correspondence)*	Outside
S-044011; S-044011a	Jimenez, Corri; Donaldson, Milford Wayne and Dean Martorana	2011	*Verizon Cellular Communications Tower Site- San Jose State University, Duncan Hall, One Washington Square (APN: 467-421-016), San Jose, CA 95192; Section 106 Consultation for Proposed Collocation: San Jose State University, 1 Washington Square, San Jose, CA (concurrence correspondence)*	**Within**

Table 1. Previous Studies Within a 0.25-Mile Radius of the Project

Report No.	Author	Year	Study	Proximity to Project
S-041528; S-041528a; S-041528b; S-041528c	Psota, Sunshine	2012	*Historic Property Survey Report, proposed enhanced bikeway and pedestrian access along San Fernando Street between Cahill and 10th Streets, 04-SCL--SJS, STPL-5005(105); Archaeological Survey Report for the San Fernando Street Enhanced Bikeway and Pedestrian Access Project Between Cahill and 10th Streets in Downtown San Jose, Santa Clara County: 04-SCL--SJS, STPL-5005(105); Extended Phase I Proposal for the San Fernando Enhanced Bikeway and Pedestrian Access Project, Between Cahill and 10th Streets in Downtown San Jose, Santa Clara County, 04-SCL--SJS, RPSTPLE-5005(105); Extended Phase I Report for the San Fernando Enhanced Bikeway and Pedestrian Access Project, Between Cahill and 10th Streets in Downtown San Jose, Santa Clara County, 04-SCL--SJS, STPL-5005(105)*	Outside

Source: Northwest Information Center, August 2016.

S- 005295: *Archaeological monitoring during the grading and construction of the Washington Square Branch of the Bank of America* was authored by Gary S. Breschini in April 1980 and summarizes the archaeological monitoring conducted by Archaeological Consulting in Santa Clara County. No cultural resources were identified during this study.

S-011396: Technical Report of Cultural Resources Studies for the Proposed WTG-West Inc., Los Angeles to San Francisco and Sacramento, California: Fiber Optic Cable Project presents the results of an archaeological field study conducted in October 1989 by BioSystems Analysis, Inc. This study was located in several counties, including Alameda, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, and one other unidentified county. A total of 43 cultural resources were identified in this study; however, none were identified within the current project area.

S-044011; S-044011a: Report number S-044011 titled Verizon Cellular Communications Tower Site- San Jose State University, Duncan Hall, One Washington Square (APN: 467-421-016), San Jose, CA 95192 by Corri Jimenez is a report of an architectural/historical field study conducted by URS Corporation in September 2011. One resource, Duncan Hall (P-43-003127), is associated with this study. Report number S-044011a titled Section 106 Consultation for Proposed Collocation: San Jose State University, 1 Washington Square, San Jose, CA (concurrence correspondence) was written by Milford Wayne Donaldson and Dean Martorana and details the management plan for the proposed project.

4.1.2 Previously Recorded Sites

The records search identified no cultural resources within the project area, and four previously recorded cultural resources within a 0.25-mile radius of the project area (Table 2). In addition, the NWIC also provided the records for three sites located outside of the 0.25-mile buffer that

were identified by Alan Leventhal on behalf of the Muwekma Tribal Administration, in conjunction with Native American scoping (see Section 4.2).

Table 2. Previously Recorded Cultural Resources Within a 0.25-Mile Radius of the Project

Primary Number	Trinomial	Description	CRHR/NRHP Eligibility Status	Recorded By and Year	Proximity to Project
P-42-000558	CA-SCL-563H	SJSU-2; historic site	Unknown	J. Hall, M. Hylkema, P. Sobrero, R. Anastasio 1984	Outside (within 0.25 miles)
P-43-000024	CA-SCL-4/H	Spartan Stadium; prehistoric village	Recommended	A. Pilling 1949; K. A. Dixon 1977; L. Billat, K. Broschinsky 2002	Outside (more than 0.25 mile)
P-43-000058	CA-SCL-39H	San Antonio Plaza; historic district	Unknown	A. Ellison, T. Curren 1952; J. Whitlow 1979; 1984	Outside (within 0.25 miles)
P-43-000141	CA-SCL-128	Holiday Inn site; prehistoric site	Nominated	L. King 1973; J. Delgado 1973; C. King, L. King, J. Delgado 1974; SJSU 1977; R. Cartier 1984; Caltrans 2011	Outside (more than 0.25 mile)
P-43-001531	CA-SCL-894H	Fox California Theater; historic building	Unknown	P. Shaffer 1988; F. Maggi, C. Duval 2000	Outside (within 0.25 miles)
P-43-003535	CA-SCL-948	Burial; prehistoric site	Unknown	R. Cambra, A. Leventhal, L. Ferris 2011	Outside (within 0.25 miles)
P-43-001071	CA-SCL-690	The Lick Site; prehistoric site	Unknown	M. G. Hylkema 1990; Santa Clara Valley Transportation Authority 1991; J. Nelson 1998; M. G. Hylkema 2007; T. M. Van Bueren 1993, 2008	Outside (more than 0.25 mile)

Source: Northwest Information Center, August 2016.

Resources within 0.25 mile of the project

P-43-000058/CA-SCL-39H: San Antonio Plaza, or Pueblo de San Jose, is a historic district first recorded in 1952 by A. Ellison and T. Curren. The site record was updated in 1979 by J. Whitlow, and again by an unknown individual in 1984. The Plaza is described by Whitlow as comprising eight blocks in downtown San Jose, bounded by East San Fernando on the north, Fourth Street on the east, East San Carlos on the South, and Market Plaza on the west. Whitlow notes that this was the heart of the original Plaza de San Jose de Guadalupe established in 1777. The site was originally recorded as a single earthenware jug found in the vicinity, but was later redefined to include the entire historic district.

P-42-000558/CA-SCL-563H: This site was recorded in 1984 by J. Hall, M. Hylkema, P. Sobrero, and R. Anastasio as three historic trash pits, identified after the demolition of the Social Science Building and the disturbance of the site by a pothunter on the San Jose State University (SJSU) campus. Noted in the pits were historic bottles dating to the late 1800's and early 1900's, ceramic fragments, butchered faunal remains, a clam shell, metal fragments, and bottle glass fragments.

P-43-001531/CA-SCL-894H: The Fox California Theater was first formally recorded in 2000 by F. Maggi and C. Duval and comprises a one and two-story theater building which spans the block between South First Street and South Market Street. The building was built by William Fox, and is noted to maintain a high level of integrity from its original construction in 1927. The Fox California Theater was San Jose's premier showcase for motion pictures until the 1950s when its patronage became localized. The theater closed in 1973 and was purchased by the Redevelopment Agency of the City of San Jose to be used in the future by a nonprofit.

P-43-003535/CA-SCL-948: R. Cambra, A. Leventhal, and L. Ferris recorded a single, prehistoric burial in 2011 during the construction of the Fox Theater in the City of San Jose. The inhumation was identified when construction crews were excavating a trench for a waterline along Market Street to the Fox California Theater. The prehistoric individual was interred with grave goods including faunal remains, chert lithics, and shell, as was identified to have been of Ancestral Ohlone origin.

Resources outside of Records Search Buffer
Additional resources located outside of our records search buffer were identified by Mr. Leventhal. These include: P-43-000024/CA-SCL-4/H, the Spartan Stadium and prehistoric village site; and P-43-000141/CA-SCL-128 and P-43-001071/CA-SCL-690, two Native American burial sites.

P-43-000024/CA-SCL-4/H: CA-SCL-4/H is a college football arena and the location of a prehistoric village site. The original site record by A. Pilling in 1949 is minimal, and states that the site is a prehistoric occupation and burial site exposed by bull-dozing in 1946. In 1977, K. A. Dixon penned a memo stating that while looking through a 1933 issue of the *Los Angeles Times*, he noticed an article referencing the prehistoric site, and that it appeared to have never been recorded in detail greater than stated above. Dixon additionally mentioned that through personal communication with C. King, he learned that when the stadium was to be rebuilt in 1972, minimal archaeological testing in the form of auger borings was done, and that no evidence of a site had been found. King also informed Dixon that additional testing was done in 1973 by a San Jose State University (SJSU) archaeological field class, which again yielded negative results.

Spartan Stadium was constructed in 1933 as a part of the SJSU campus, and was recorded in 2002 by L. Billat and K. Broschinsky. The stadium is a concrete structure that was originally constructed in a round-oval shape with a seating capacity of 4,000 people. The stadium size has an expanded capacity of 30,000 spectators, and is home to the SJSU football team, and the men's and women's soccer teams.

P-43-000141/CA-SCL-128: CA-SCL-128, The Holiday Inn site, is a Native American burial ground located in the highly urbanized downtown district of San Jose beneath the present location of the Crown Plaza Hotel. The site has undergone numerous archaeological investigations since its first recording by L. King in 1973; although according to San Jose news reports, the site had been known as a burial ground as far back as 1934. Over 57 burials and an array of prehistoric cultural materials have been identified at this site, which is currently completely obscured by modern urban development. A historic refuse scatter, building foundations, and other structural elements were additionally recognized here, and the site appeared to be within the original Pueblo de San Jose. The Holiday Inn site is surrounded by controversy, particularly in regards to the 1978 excavation and the discovery of numerous burials during the construction of a parking garage. During this time, the project was met with political engagement and outrage from the Ohlone people, and the site was nominated for inclusion in the NRHP in 1982. However, archaeological monitoring for transportation improvements in the mid to late 1980s revealed that site CA-SCL-128 had been heavily impacted by historic and modern construction over the last 100 years.

P-43-001071/CA-SCL-690: CA-SCL-690, The Lick Site, was originally recorded in 1990 by M. G. Hylkema as a large prehistoric cemetery site on a low rise of the alluvial flood plain of the Guadalupe River. Hylkema noted that the site contained multiple human burials and cultural constituents including shell beads and pendants, projectile points, mortars and pestles, manos, debitage, bone tools, and bone whistles. The site record was updated in 1998 by J. Nelson during a field reconnaissance survey that identified evidence of the site in a small, undeveloped area of the site boundary. T. M. Van Bueren updated the record again in 2008 and explained that the Lick Site was completely excavated in the early 1990s, and that the only existing remains at the site consist of the 125 Native American individuals and their associated grave goods that were reburied in a dedicated cemetery easement.

4.2 ADDITIONAL HISTORIC RESOURCES SURVEYS

In addition to the CHRIS records search, Rincon reviewed two additional historic resources surveys with study areas that included the current project area. The first was *Historical and Architectural Evaluation for 301 South Fifth Street, San Jose, California*, a historic resources study that was prepared Glory Anne Laffey of Archives & Architecture in 1994 (Laffey 1994). The study was conducted at the request of San Jose Councilman David Pandori with the purpose of evaluating the historical and architectural significance of the Scheller (Associated Students) House. Methods included contextual and property-specific archival research, an intensive-level field survey, and consideration of federal and local historic designation criteria (an evaluation for CRHR-eligibility was not completed). The findings of the study concluded that the Scheller (Associated Students) House, which at the time was at its original location at 301 South Fifth Street, was eligible for listing as a City Landmark in San Jose. Its eligibility for local designation was based on its association with notable local architect Theodore Lenzen and as a good example of what was described as "California Colonial Revival Architecture" (Laffey 1994). The residence was also found to have significance for its associations with its early occupants, who were members of the socially prominent Scheller and Martin families. Regarding the building's NRHP eligibility, the study concluded that the Scheller (Associated Students) House may become eligible on the local level of significance under Criterion C as an example of Theodore Lenzen's work. A definitive finding was not included as additional research was deemed

necessary to understand the role of Theodore Lenzen in the development of California architecture.

The second historic resources survey report reviewed by Rincon was *San José State University: Historic Resources Survey*, which was prepared in 2005 by Architectural Resources Group (ARG) (ARG 2005). The report summarized the results of a campus-wide historic resources survey, which included archival research, the development of historic contexts for the SJSU campus, and the survey of individual buildings. Properties were evaluated for listing in the NRHP and CRHR, both individually and as contributors to potential historic districts. As a result of the study, one historic district was identified and recommended eligible for listing in the CRHR. The district was identified as meeting CRHR Criterion 1 and found significant under the theme of education for its representation of the early development of SJSU, with a period of significance beginning in 1909 and ending in 1935. Located in the northwest quadrant of the campus, the potential historic district is located immediately to the north of the current project area with boundaries that include the historic borders of East San Fernando Street to the north, South Seventh Street to the east, East San Carlos to the South and South Fourth Street to the west. Six buildings were identified as contributors to the potential historic district:

- Tower Hall/Morris Dailey Auditorium (1910/1920)
- Dwight Bentel Hall/Addition (1911/1920)
- Central Classroom Building (1924)
- Spartan Complex East & Spartan Complex Central (1928; does not include 1960 annex)
- Yoshihiro Uchida Hall (1932)
- Washington Square Hall (1932)

One of these six contributing buildings, Tower Hall, also was recommended eligible for individual NRHP and CRHR listing. The Scheller (Associated Students) House, which by 2005 was relocated to its current location, was outside of the potential historic district's boundaries and was not considered to be a contributing resource to the district. Despite its relocation, the Scheller (Associated Students) was however recommended individually eligible for listing in the CRHR under Criterion 2 for its significant association with Victor Scheller, an early district attorney in Santa Clara County (Cocks and Stock 2005).

4.3 NATIVE AMERICAN SCOPING

Rincon Consultants conducted Native American scoping in an effort to identify Native American resources within the project area. This scoping is separate from government to government consultation as required under AB 52. contacted the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF) on July 29, 2016. The NAHC responded on August 11, 2016, stating that the search of the SLF "was completed and site(s) were found"(Appendix B). The NAHC named Philip Galvin as the contact person for this site(s); however, the phone number provided for Mr. Galvin was incorrect. Rincon Cultural Resources Specialist Meagan Szromba emailed the NAHC on August 12, 2016 requesting additional contact information for Mr. Galvin. As of May 2017, the NAHC has not responded to this request.

The NAHC additionally provided a contact list of seven Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the proposed project area. Rincon prepared and mailed anticipatory letters (Appendix B) to each of the NAHC-listed contacts on August 12, 2016 requesting information regarding any Native American cultural resources within or immediately adjacent to the proposed project area. Ms. Szromba received a response on August 19, 2016 from Alan Leventhal, a tribal archaeologist on behalf of the Muwekma Tribal Administration, providing Rincon with information regarding ancestral heritage sites within the vicinity of the project area, as well as two tribal publications concerning cultural resources. Mr. Leventhal additionally asked for results from the cultural resources records search. Follow-up emails were sent to each additional contact on August 29, 2016. On August 30, 2016, Irene Zwierlein, Chairperson for the Amah Mutsun Tribal Band of Mission San Juan Bautista emailed Ms. Szromba stating that "we are not going to make a comment on this project," and to direct communication to Mr. Leventhal, representative of the Muwekma people. As ofMay 2017, no additional responses have been received (Table 3).

Table 3. Native American Contact Table

Native American Contact and Affiliation	Contact Information	Email Sent	Follow-up Email Sent	Results
Edward Ketchum, Amah Mutsun Tribal Band	35867 Yosemite Ave, Davis, CA 95616 aerieways@aol.com	August 12, 2016	August 29, 2016	Did not receive a response.
Valentin Lopez, Chairperson, Amah Mutsun Tribal Band	P.O. Box 5272, Galt, CA 95632 vlopez@amahmutsun.org (916)743-5833	August 12, 2016	August 29, 2016	Did not receive a response.
Irenne Zwierlein, Chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista	789 Canada Road, Woodside, CA 94062 amahmutsuntribal@gmail.com (650)400-4806	August 12, 2016	August 29, 2016	Ms. Zwierlein emailed Ms. Szromba on August 30, 2016 stating "We are not going to make a comment on this project; you have in house Alan Leventhal who works with the Muwekma people."
Ann Marie Sayers, Chairperson, Indian Canyon Mutsun Band of Costanoan	P.O. Box 28, Hollister, CA 95024 ams@indiancanyon.org (831)637-4238	August 12, 2016	August 29, 2016	Did not receive a response.

Table 3. Native American Contact Table

Native American Contact and Affiliation	Contact Information	Email Sent	Follow-up Email Sent	Results
Rosemary Cambra, Chairperson, Muwekma Ohlone Indian Tribe of the SF Bay Area	P.O. Box 360791, Milpitas, CA 95036 muwekma@muwekma.org (408)314-1898	August 12, 2016	August 29, 2016	Alan Leventhal, a tribal archaeologist representing the Muwekma Ohlone Tribe, emailed Ms. Szromba on August 17, 2016 requesting the results of the records search on behalf of the Tribe. On August 26, 2016, Ms. Szromba emailed the Northwest Information Center (NWIC) regarding the protocol for delivering confidential records search information. The NWIC informed Ms. Szromba that Mr. Leventhal would be required to fill out a conditional user agreement in order to be authorized to receive these results. The NWIC contacted Ms. Szromba on September 1, 2016 and informed her that Mr. Leventhal's agreement was received and had been processed by the Info Center. Ms. Szromba sent the records search results to Mr. Leventhal on September 1, 2016 on a compact disk through priority mail.
Katherine Erolinda Perez, Chairperson, North Valley Yokuts Tribe	P.O. Box 717, Linden, CA 95236 canutes@verizon.net (209)887-3415	August 12, 2016	August 29, 2016	Did not receive a response.
Andrew Galvan, The Ohlone Indian Tribe	P.O. Box 3152, Fremont, CA 94539 chochenyo@aol.com (510)882-0527	August 12, 2016	August 29, 2016	Did not receive a response.

5.0 METHODS

5.1 ARCHIVAL RESEARCH

Archival research was completed in August 2016. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the project area. Sources included, but were not limited to, historic maps, aerial photographs, and written histories of the area. The following repositories, publications, and individuals were contacted to identify known historical land uses and the locations of research materials pertinent to the project site:

- San Jose State University Library Special Collections
- Historic aerial photographs
- United States Geological Survey Maps
- Sanborn Fire Insurance Company Maps
- *Spartan Daily*, *San Jose Evening News*, *San Francisco Call*, *San Francisco Chronicle*
- Other sources as noted in the references list

5.2 SURVEY METHODS

On August 11, 2016 Rincon Architectural Historian Susan Zamudio-Gurrola, M.H.P., conducted an intensive-level cultural resources survey of the project area. The purpose of this survey was to identify and photograph any built environment resources that may be impacted by the proposed project. The field survey consisted of a visual inspection of all built environment features of the property, including buildings, structures, and associated features to assess the overall condition and integrity, and to identify and document any potential character-defining features. Ms. Zamudio-Gurrola confirmed that the entire project area has been previously developed and the ground surface is covered by buildings and infrastructure such as parking lots or landscaping, and thus an archaeological survey was not warranted. Field documentation included digital photographs of the property to support field observations. California Department of Parks and Recreation (DPR) 523 series forms were completed and are included in Appendix C.

5.3 FEASIBILITY STUDY

In May 2017, Page & Turnbull conducted a Historical Resource Relocation Feasibility Study to determine the feasibility of relocating the Scheller (Associated Students) House from its current location to a potential Receiver Site on the SJSU campus (Appendix D). The purpose of the study was to provide SJSU with substantial environmental and technological evidence that can be used to assess the feasibility of relocating and restoring the historic residence. Methods of the study included background research, client meetings, a field survey, and a relocation analysis. The study was divided into four sections: Existing Conditions; Historic Context and Character Analysis; Relocation Analysis; and Proposed Receiver Site Analysis, including a preliminary cost estimate. The building was found to be in good overall condition and provided recommendations for completing a successful relocation to the potential receiver site on the SJSU campus across from the Student Union building and adjacent to South 10th Street to the

east. The feasibility study did not explore the feasibility of relocating the building to other receiver sites on or off the SJSU campus.

6.0 RESULTS

Ms. Zamudio--Gurrola conducted a field survey of the project area on August 11, 2016. The project area contains one building; the Scheller (Associated Students) House. The project area is covered by the building, landscaping and paved surfaces such as parking lots and sidewalks; no exposed ground surface is visible.

6.1 SCHELLER (ASSOCIATED STUDENTS) HOUSE

The subject building is a former single-family residence that has been converted to offices. It was designed in what can be called the California Colonial Revival style and is two stories in height. It has an asymmetrical plan and is clad with shiplap siding. The hipped roof has several dormers and is clad with composite shingles. It also has wide boxed eaves with modillions and dentils beneath. The building has a wrap-around porch supported by rounded columns and has a spindle post balustrade. There is a two-story, semi-circular tower on the façade. The primary entry is a single wooden door on the façade which is accessed via a set of concrete steps with rails matching the spindle balustrade. A secondary entry on the façade is comprised of a large wooden door with two rectangular glass panes that simulate French doors but appears to be hinged on one side only and has only one knob. This is flanked by rectangular windows and topped by a fanlight with diamond shaped muntins. Windows are mainly wooden 1/1 double-hung with wooden casing. There are bay windows on the east and west elevations. Until the year 2000 the building had been located approximately 80 feet to the west and oriented in a different direction. Prior to the 1960s the setting surrounding the building was a residential neighborhood which was razed to allow for construction of campus buildings. The subject building is currently surrounded by grass lawns and wide concrete walkways. Further beyond are paved surface parking lots and larger university buildings. See Figures 4 through 7.

Figure 4. North-facing façade. View to the south.

Figure 5. West elevation. View to the east.

Figure 6. East elevation. View to the west.

Figure 7. South elevation. View to the north.

6.1.1 Property History

The subject building, historically known as the Scheller house and more recently as the Associated Students House, was originally located at 301 S. Fifth Street before it was absorbed into the San Jose State University campus. Designed by Theodore Lenzen, the home was built for Henry Beaumont Martin and his wife Louise Martin. It was constructed in 1904 by Robert O. Summers (Laffey 1994). Henry B. Martin was a local business owner whose parents, James and Margaret Martin, had settled in San Jose in 1863. By the early 1880s the Martins were operating a small grocery store next to their home (Laffey 1994). Henry was employed as a clerk and a bookkeeper for G. Peirano & Co., a wholesale house and commission merchant, during the 1880s. By 1892 Henry established his own business called H.B. Martin & Co., which sold items such as grain, flour, feed, potatoes, onions, beans, corn and cheese at wholesale (Laffey 1994; San Jose city directory 1892).

In 1899 Henry married Louise Scheller whose family also resided in San Jose. Henry and Louise Martin lived with Louise's widowed mother, Mary Scheller, at 329 S. Fifth Street until the Martins' new house was built at 301 S. Fifth Street (San Jose city directories 1903, 1904, 1905). Afterwards, Henry and Louise shared their new house with Mary and with Louise's brother Victor. The house acquired its name from its association with Victor Scheller, who lived there from 1905-1915 (Laffey 1994; San Jose city directories 1905, 1910, 1915). However, the Martins were also prominent members of San Jose society. For example, they were guests at the reception for United States President and Mrs. McKinley on May 13, 1901 at the Vendome Hotel. Henry and Louise Martin had four children: Margaret, Victor James, Henry Beaumont Jr., and Louis Scheller (Laffey 1994).

Victor Scheller was one of five children born to Louis and Anna Maria Scheller, who had come to live in San Jose in about 1870. Louis Scheller had immigrated to the United States from Bavaria in 1848 and worked as a foreman and manager of the Weber ranch south of San Jose. Louis later purchased the ranch and also purchased property in San Jose. He had a home built at 329 S. Fifth Street in 1867 and moved the family to the city. Victor Scheller studied in San Jose public schools and went on to study at Santa Clara College (later called the University of Santa Clara). He then earned a law degree from Hastings Law School in San Francisco. Victor returned to San Jose and became the Santa Clara County District Attorney, reportedly the youngest D.A. in California at the time. He served as D.A. from 1891-1894 then retired from public office and practiced as an attorney in San Jose (Laffey 1994; The Redwood 1909; County of Santa Clara 2016).

Victor Scheller was one of the organizers of the San Jose Chamber of Commerce in 1900, serving as its president from 1901 to 1911. Victor also served as president of the Santa Clara County Bar Association and the University of Santa Clara Alumni Association (Laffey 1994; The San Francisco Call 1912). While Scheller was president of the San Jose Chamber of Commerce, he also helped organize and served as the president of, a company that planned to build a railroad from San Jose up Mount Hamilton (San Francisco Chronicle 1905).

Scheller lived with his widowed mother Mary at 329 South Fifth Street for a time. He then lived with his mother, his sister Louise and her husband Henry at 301 South Fifth Street between 1905 and 1915 (San Jose city directory 1904, 1910, 1915, 1916, 1917). A prominent attorney in the city,

Victor married late in life. He likely lived at the old family ranch in Madrone during the 1920s. Scheller Avenue in the nearby community of Morgan Hill is named after the family (Laffey 1994).

Henry Beaumont Martin died in 1923. Louise Martin traveled extensively as a widow, sometimes accompanied by her sons. She occupied the house until her death in 1940 (San Jose Evening News 1932, 1934, 1935, 1940; Laffey 1994). By the mid-1940s the large residence had been converted to a boarding house and was utilized as such through at least 1963. In 1947, six different individuals were listed as residents at the 301 S. Fifth St. address. In 1957 the building had six residents and one vacant unit. The building was referred to as "Don Lar Apartments" in 1963 and had seven residents (San Jose city directory 1947, 1957, 1960, 1963).

The house was eventually purchased by San Jose State University as the campus expanded. Except for the Scheller House, the residential neighborhood between South 4th and South 7th streets and East San Carlos and East San Salvador streets was razed for the construction of new school buildings in the mid to late 1960s (ARG 2005; historic aerials). The Scheller House was referred to as "University House" at one time (ARG 2005). It was used as offices for the Urban and Regional Planning and African-American Studies departments in approximately the 1980s (historic photographs on file at SJSU Library Special Collections). The house was vacated in 1991 and plans were made to demolish it. The home was offered at no cost to any taker that would arrange its relocation off campus but no one came forward to take the offer (Associated Students, n.d.). In 1994 the San Jose Preservation Action Council filed a lawsuit to save the house because of its historical significance. In early 1995 a Superior Court Judge ruled that the house could not be demolished without completing an environmental impact report, which encouraged the university to retain the house instead (Associated Students, n.d.; Ferrante 1998).

The house sat unused and vacant until approximately 1998. During this time the house was occasionally used as a training site by emergency responders (Associated Students, n.d.). It was reported that items such as door knobs and door plates had been stolen during the time the building was vacant. A contractor also removed windows and stored them; it is assumed that the windows were replaced during the renovation (Ferrante 1998; Domingue 1994).

In the year 2000 the Associated Students of San Jose State University offered to pay the $2.3 million that were needed to rehabilitate the house. The house was moved 80 feet to the east of its original location and also rotated 90 degrees to face the Paseo de San Carlos. The original foundation was demolished and a new foundation was built for the house's current site. The house became the headquarters of the Associated Students. It houses the A.S. Board of Directors, the Executive Director, Government Administration, the Marketing and Events Department, and the A.S.I.T. Department. In order to convert the former residential spaces into office space and to comply with the Americans with Disabilities Act (ADA), various alterations were made to the house. These included: a basement was added to the new foundation and accompanying access stairs were constructed, an elevator was added to the rear elevation which replaced a section of the back porch, a wheelchair ramp was constructed on the southwest elevation, and various interior alterations were made to convert the residential spaces to office spaces (Associated Students, n.d.).

6.1.2 Theodore Lenzen

The Scheller (Associated Students) House is notable for being designed by a well-known and prolific architect in the area named Theodore Lenzen. Lenzen also designed the new building of the State Normal School (which later became San Jose State University) when the school moved to San Jose in 1870 (Sawyer 1922). Lenzen was an accomplished local architect who designed numerous public and private buildings throughout San Jose. Born in Prussia in 1833, Lenzen undertook an apprenticeship at the age of fourteen and became a carpenter and millwright. He also studied mechanical and architectural drawing. Lenzen immigrated to the United States in 1854, living near an uncle in Chicago. Lenzen worked as a builder for the Illinois Central Railroad while learning English and further studying architecture. By 1857 he was working for a local contractor and builder. Lenzen established his own business as an architect, contractor and builder by 1859 (Laffey 1994). After moving to the west coast Lenzen opened an architecture firm in San Francisco in 1861. He helped draw plans for St. Ignatius College and subsequently was offered to design buildings for Santa Clara College. The Auzerais House (a luxury hotel) was his first major project in San Jose (Laffey 1994).

Lenzen's parents and siblings had immigrated to the United States and moved to San Jose by 1862. Lenzen employed his brothers Jacob and Michael in many of his building projects. Theodore would design them, Jacob would build them, and Michael did paint and interior decoration. Theodore Lenzen became San Jose's best known architect. By 1888 an estimated 500 to 600 buildings were credited to his name – in San Jose, Gilroy, Salinas, Hollister, Santa Cruz, Sacramento, Los Angeles, and El Paso, Texas. Among these buildings were business blocks, schools, churches, civic and fraternal buildings and residences (Laffey 1994). In the San Jose area, Lenzen worked on the Old City Hall, Carnegie Library, the Fredericksburg Brewery, St. Joseph's Cathedral and Santa Clara University (McCarthy 2002). In modern day, few of his buildings are known to survive (Laffey 1994; McCarthy 2002).

6.2 SCHELLER (ASSOCIATED STUDENTS) HOUSE EVALUATION

As discussed above, the Scheller (Associated Students) House was previously found eligible for local designation as a San Jose City Landmark in 1994 (Laffey 1994). This recommendation was based on its association with local architect Teodore Lenzen, as well as with its early occupants, members of the socially prominent Scheller and Martin Families. Following its relocation to its current location in 1999-2000, the building was again evaluated by ARG in 2005 and recommended individually eligible for listing in the CRHR under Criterion 2 for its association with Victor Scheller; other CRHR criteria were not explicitly addressed.

The property appears largely unaltered since it was last evaluated in 2005 and there is no new evidence to suggest that it would no longer remain eligible for listing in the CRHR. In consideration of both previous evaluations and independent archival research, the current study recommends the Scheller (Associated Students) House for listing in the CRHR under Criterion 2 for its associations with Victor Scheller, as well as under Criterion 3 as a good example of a California Colonial Revival residence designed by noted local architect Theodore Lenzen. The period of significance is 1904-1915, coinciding with its construction and Scheller's occupancy of the house. Its character-defining features include:

- Two-story residence with semi-circular tower

- Asymetrical massing and floor plan
- Shiplap siding
- Wrap-around porch
- Hipped roof with dormers
- Wide boxed eaves with exposed rafter tails
- Modillions, dentils, classical frieze
- Rounded columns
- Spindle-post balustrade
- Bay windows
- Double-hung wood windows
- Art glass window

Although the property has been relocated, it still retains sufficient integrity to convey these significant associations. The exterior of the building has not been substantially altered and its still maintains its overall historic appearance as designed in 1904 and during Scheller's occupancy (1904-1915). As a result the, property retains integrity of design, workmanship, and materials. In addition, because the property appears largely as it did during the period of significance and would be recognizable to its original architect and early inhabitants, it retains integrity of feeling. It also is in close proximity to its original location and therefore retains sufficient integrity of association. The relocation of the property and the substantial expansion and growth of SJSU however has resulted in a loss of integrity of location and setting.

In summary, because the Scheller (Associated Students) House meets CRHR eligibility Criteria 2 and 3 and retains sufficient integrity to convey the reasons for its significance, it is considered a historical resource for the purposes of CEQA.

7.0 IMPACTS AND MITIGATION MEASURES

CEQA (Section 21084.1) requires that a lead agency determine whether a project may have a significant effect on cultural resources. Impacts to significant cultural resources that affect the characteristics of the resource that qualify it for the NRHP or adversely alter the significance of a resource listed on or eligible for the CRHR are considered a significant effect on the environment.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2[a], [b], and [c]).

In terms of historical resources, these impacts could result from "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines, Section 15064.5 [b][1], 2000). *Material impairment* is defined as demolition or alteration "in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register." (CEQA Guidelines Section 15064.5[b][2][A]). The potential for the proposed project to result in impacts associated with cultural resources is based on the CEQA thresholds of significance outlined in Appendix G of the State CEQA Guidelines. They are as follows:

- Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?
- Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?
- Would the project disturb any human remains, including those interred outside of formal cemeteries?
- Does the project site contain known historic structures or sites?
- Is the project site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) that indicate potential archaeological sensitivity?

7.1 ARCHAEOLOGICAL RESOURCES

No archaeological resources were identified within the project area by the NWIC records search or Native American scoping. The project is located within a highly urbanized area; the entire ground surface within the project area is covered by buildings and paved surfaces such as parking lots and sidewalks, thus no archaeological survey was warranted. The surface of the project site has been previously graded, disturbed, and developed and no archaeological resources are known to have been discovered within the project site.

Archival research indicates that the project vicinity is moderately to highly sensitive for buried archaeological resources. Four previously recorded resources are located within 0.25 mile of the project: CA-SCL-39H, CA-SCL-563H, CA-SCL-894H, and CA-SCL-948. Two of these yielded intact buried archaeological deposits: CA-SCL-948, a Native American burial; and CA-SCL-563H, three historic trash pits. The remaining two are historic in age, and may potentially have buried archaeological deposits associated with them: CA-SCL-39H, the original Plaza de San Jose de Guadalupe which was established in 1777; and CA-SCL-894H, the Fox California Theater which was built in 1927.

In addition, three previously recorded archaeological resources located within approximately 1 mile of the project site are known to have included intact, buried cultural deposits, including Native American burials: CA-SCL-4/H, CA-SCL-128, and CA-SCL-690. The prehistoric component of CA-SCL-4/H consists of a Native American village site with an unknown number of burials, which was reportedly identified up to 10 feet below the ground surface. Site CA-SCL-128, located within 0.5 mile of the project, is a Native American burial ground with 57 burials and other cultural materials. Site CA-SCL-690 is also a Native American burial ground with 125 burials.

Although the project site has been previously developed and disturbed and no known archaeological resources have been recorded within the project boundary, the level of previous disturbance is unknown. In addition, numerous sites in the vicinity have yielded intact, buried deposits, including a large village site with Native American burials (CA-SCL-4/H) and multiple other Native American burials (CA-SCL-128, CA-SCL-690, and CA-SCL-948). Further, the village site (CA-SCL-4/H) was buried up to 10 feet below the ground surface. Thus, there is some potential for intact, archaeological deposits present within the project site.

Rincon recommends that the following measures be implemented to reduce potential impacts to previously unidentified archaeological resources. Impacts would be less than significant with adherence to these mitigation measures (MM).

MM-1 Retain a Qualified Principal Investigator
A qualified principal investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, shall be retained to carry out all mitigation measures related to archaeological and historical resources (hereafter principal investigator).

MM-2 Preconstruction Worker Training
At the project kickoff and before construction activities begin, the principal investigator or his/her designee will provide training to construction personnel on information regarding regulatory requirements for the protection of cultural resources. As part of this training, construction personnel will be briefed on proper procedures to follow should unanticipated cultural resources discoveries be made during construction. Workers will be provided contact information and protocols to follow in the event that inadvertent discoveries are made. If necessary, the project archaeologist can create a training video, PowerPoint presentation, or printed literature that can be shown to new workers and contractors to avoid continuous training throughout the life of the project.

MM-3 Archaeological Construction Monitoring
A qualified archaeological monitor will be retained to conduct archaeological monitoring of initial ground disturbing activities within the project site. The archaeological monitor will work under the supervision of the principal investigator. The duration and timing of the monitoring will be determined by the principal investigator. If the principal investigator determines that monitoring is no longer warranted, he or she may recommend that monitoring cease entirely or be reduced to periodic spot-checking. In addition, if the principal investigator determines that an increase in the level of monitoring is warranted, he or she may recommend that monitoring continue beyond initial ground disturbance.

MM-4 Unanticipated Discovery of Archaeological Resources
In the event that archaeological resources are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery proves significant under CEQA (Section 15064.5f; PRC 21082), additional work such as testing or data recovery may be warranted.

MM-5 Unanticipated Discovery of Human Remains
The discovery of human remains is always a possibility during ground disturbances; State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7.2 BUILT ENVIRONMENT RESOURCES

7.2.1 Potential Direct Impacts

As discussed herein, the Scheller (Associated Students) House is considered a historical resource in accordance with CEQA. According to CEQA, a substantial adverse change is defined as demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (14 CCR Section 15064.5(b)(1)). The project proposes to relocate the Scheller (Associated Students) House, which has the potential to result in significant direct impacts to a cultural resource related to the substantial adverse change in the significance of a historical resource. A substantial adverse impact on the environment would occur if the relocation of the Scheller (Associated Students) House materially alters in an adverse manner those physical characteristics that convey its historical significance and justify its eligibility for listing in the CRHR.

However, in situations where relocation is the only feasible alternative to demolition, relocation may mitigate below a level of significance provided that the new location is compatible with the original character and use of the historical resource and the resource retains its eligibility for

CRHR listing (14 CCR Section 4852(d)(1)). In considering the character of the setting of the Scheller (Associated Students) House during its period of significance (1904-1915), the residence was located at the northern edge of a residential neighborhood immediately adjacent to the San José State Normal School. However, since this time, the setting of not only the former residence but the surrounding neighborhood as a whole has changed substantially.

Early developments included the construction new buildings on the northern side of East San Carlos in the late 1920s and early 1930s, followed by more substantial changes beginning in the 1950s and 1960s with the expansion of the college. The post-World War II expansion of the surrounding area included the acquisition and extensive demolition of the residential neighborhood south and southeast of the original campus. One of four early residential buildings to remain following this expansion, the Scheller (Associated Students) House was located within the campus boundaries by 1966 and surrounded by modern school buildings. The campus was further developed in the following decades and in 1999-2000 the Scheller (Associated Students) House continued to develop and the Scheller (Associated Students) House moved 80 feet to the west and rotated 90 degrees to face north. By this time, the remaining three adjacent residences were demolished, making the Scheller (Associated Students) House the oldest building on the SJSU campus.

The current setting of the Scheller (Associated Students) House is consistent with that of a modern college campus. Its immediate surroundings consist of surface parking lots to the west and south, and open grass areas to the north and east. Beyond these open areas, the subject property is surrounded by buildings that are substantially different in size, design, materials, and age, including: the four-story, concrete West Parking Facility approximately 150 feet to the west/southwest (ca. 2000); the tall two-story Yoshihiro Uchida Hall (1932) approximately 215 feet to the northwest; the three-story Spartan Central Complex approximately 100-feet to the north/northwest (ca. 1966); and the four-story, Modernist MacQuarrie Hall approximately 185 feet to the east/northeast (ca. 1966).

As discussed in the evaluation section of the Scheller (Associated Students) House above, the residence no longer retains integrity of location or setting due to the relocation of the former residence and the extensive growth and development of the surrounding SJSU campus. Nonetheless, the building retains sufficient integrity of design, materials, workmanship, feeling, and association, to convey its significance as a property directly associated with Victor Scheller and as a good example of California Colonial Revival style architecture designed by notable local architect Theodore Lenzen. Those physical characteristics that are essential in defining the historic significance of the building and for its inclusion in the CRHR are its rectangular footprint, two-story height, asymmetrical massing, projecting verandahs, intersecting hipped roof with dormers, cornice with dentil course modillions, two-story projecting circular bay on the primary façade, and curved windows. The physical features that convey this significance are therefore embodied primarily in the building itself and less its setting or location.

Because the property no longer retains integrity of location and setting, these aspects are not considered a character-defining feature and there is potential to relocate the Scheller (Associated Students) House to a new location where it would still be able to convey its historic significance. A receiver site for the building has yet to be determined; however, one potential option was analyzed in detail as part of the study to determine if the relocation would be

structurally feasible and if it would result in a significant adverse impact on a historical resource under CEQA.

If the building is to be relocated to the receiver site on the SJSU campus across from the Student Union building and adjacent to South 10th Street to the east, implementation of the relocation plan that follows the recommendations presented in the feasibility study prepared by Page & Turnbull (Appendix D) would ensure that the any potential impacts generated by the project would be reduced to less-than-significant levels. The potential receiver site identified in the feasibility study is approximately 1,500 feet to the northeast of the building's present location and is consistent with its current setting. The receiver site is similarly flat with immediate surroundings that include open lawn areas to the east and south, and a surface parking lot to the north. Adjacent buildings include the two-story Students Union building approximately 50 feet to the west and opposite a pedestrian pathway, the 10-story Business Tower approximately 100 feet opposite the proposed lawn to the east, and the three-story Boccardo Business Classroom Building approximately 175 feet to the southwest. Should a receiver site other than the site across from the Students Union building be chosen, whether on campus or off, impacts to the Scheller (Associated Students) House could occur through the obstruction of character-defining features, and/or to other historical resources through the introduction of a non-original residence to its historic setting. Implementation of mitigation measure MM-6 would ensure that direct or indirect impacts to historical resources would be less than significant by confirming the chosen receiver site meets similar criteria as outlined above and that the feasibility study be amended to address any differences from those previously analyzed.

Outside of the relocation of the Scheller (Associated Students) House, the proposed project includes no direct alterations to the building. As a result, the project would not have the potential to affect any of those physical characteristics that define the historic character of the building and justify its inclusion in the CRHR. The relocation shall be completed by a qualified consultant team with experience moving historic buildings; however there is always potential for the building to be damaged during the course of the relocation, which could materially impair those physical features that convey the historical significance of the Scheller (Associated Students) House.

In accordance with CEQA, a project that has been determined to conform with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (*Secretary's Standards*) is generally considered a project that will not cause a significant adverse direct or indirect impact to historical resources (14 CCR § 15126.4(b)(1)). If a project meets the *Secretary of Interior's Standards*, the project can, in most cases, be considered categorically exempt from CEQA (14 CCR § 15331).

The goal of the *Secretary's Standards* is to outline treatment approaches that allow for the retention of and/or sensitive changes to the distinctive materials and features that lend a historical resource its significance. When changes are carried out according to the *Secretary's Standards*, the historical resource retains its historic integrity and thereby continues to convey the reasons for its significance. The *Secretary's Standards* and associated *Guidelines* (36 Code of Federal Regulations [CFR] 67) are not technical or prescriptive, but are intended to outline approaches and guidelines to promote responsible stewardship of cultural resources. The *Secretary's Standards* and *Guidelines* offer general recommendations for preserving, maintaining,

repairing, and replacing historical materials and features, as well as designing new additions or making alterations.

Rincon recommends that the following mitigation measure be implemented to reduce potential impacts to historical resources. Impacts to the Scheller (Associated Students) House resulting from its relocation would be mitigated to a level below significance as a result. A full and complete analysis of the feasibility and impacts stemming from the proposed relocation of the building was limited to potential receiver site on the SJSU campus across from the Student Union Building. Should another receiver site be chosen, there is potential that both the site and the physical relocation of the building to that site could result in an adverse impact to the building. To ensure that the project avoids impacts to historical resources, Rincon recommends one, initial mitigation measure (MM 6) if a site other than the receiver site across from the Student Union Building is chosen.

MM 6 Scheller (Associated Students) House Receiver Site Selection

If a receiver site other than the potential site across from the Student Union building is chosen, whether on-campus or off, SJSU shall retain a qualified architectural historian to prepare an analysis to determine whether the new site does would result in and adverse impact to the Scheller (Associated Students) House or other historical resources. The analysis shall consider whether the chosen site would affect the building's integrity of design, materials, workmanship, feeling, and association, which continue to convey its significance as a property directly associated with Victor Scheller and as a good example of California Colonial Revival style architecture designed by notable local architect Theodore Lenzen. The analysis shall also determine whether relocation of the building to the chosen receiver site would result in any direct or indirect impacts to adjacent historical resources, such as the potential historic district in the northwest quadrant of the SJSU campus. To support a finding of no adverse effect, the receiver site shall be comparable to the existing site of the residence in terms of the scale, massing, and setback of adjacent buildings, and ensure that the residence and its identified character-defining features are not obstructed and are visible to the public in a manner that is consistent with its current and historic location and setting. The analysis shall be presented in a memorandum and reviewed and approved by SJSU.

If the analysis determines that the selected receiver site may result in an adverse impact to the Scheller (Associated Students) House or other historical resources, the site shall be rejected and a new site selected for consideration. If the analysis determines that the selected receiver site would result in no adverse impact, mitigation measures CUL-2 through CUL-4 shall apply to the relocation.

MM-7 Scheller (Associated Students) House Relocation Implementation Plan

SJSU shall develop a relocation implementation plan in accordance with the recommendations of *San Jose State University Associated Students House Relocation, San Jose, California: Feasibility Study and Appendices* (Page & Turnbull 2017). This will be accomplished through coordination with a qualified Historic Preservation Architectural Consultant Team, which will finalize the relocation strategy based on the recommendations of the 2017 Page & Turnbull study, coordinate the relocation and provide for subsequent restoration work as required to minimize

displacement of the Associated Students staff during the relocation. The Consultant Team shall include architectural historians, preservation architects, structural engineers, the building mover, and other consultants, such as Landscape, Civil and MEP. It should be anticipated that a geotechnical report and civil survey of the Receiver Site will also be required prior to beginning the work. Should the historic residence be damaged during the relocation the Consultant Team shall be advised to ensure that any repairs are consistent with the *Secretary's Standards for Rehabilitation*.

MM-8 Historic Building Documentation

Impacts resulting from the relocation of the Scheller (Associated Students) House shall be minimized through archival documentation of as-built and as-found condition. Prior to the building's relocation, SJSU shall ensure that documentation of the residence is completed in accordance with the general guidelines of Historic American Building Survey (HABS) documentation. The documentation shall include high-resolution, digital photographic recordation, a historic narrative report and a compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be offered as donated material to repositories that will make it available for current and future generations. Archival copies of the documentation also shall be submitted to the History|San Jose Library and Archives and the SJSU Special Collection and Archives at the Dr. Martin Luther King Library where it would be available to local researchers.

MM-9 Interpretive Display

A historic preservation professional qualified in accordance with the Secretary of the Interior's Standards shall be selected to prepare an onsite interpretive display to be located at the new location of the building. The interpretive display shall include a brief history of the building and its significance within SJSU and the community. The interpretive plan shall be installed within one year of the building's relocation.

7.2.2 Potential Indirect Impacts

In discussing potential indirect project-related impacts to historical resources, the 2005 survey report by ARG identified a potential historic district in the northwest quadrant of the SJSU campus. Consisting of six contributing buildings, the potential district was recommended eligible for CRHR listing under Criterion 1 for its significant associations with the theme of education relating to the early development of the San Jose Normal School, which would subsequently become San Jose State College and SJSU. The boundaries for the district were identified as the historic borders of East San Fernando Street to the north, South Seventh Street to the east, East San Carlos to the South and South Fourth Street to the west. As a historic district that was recommended eligible for the listing in the CRHR, it would be considered a historical resource under CEQA.

In discussing the characteristics that convey the reasons for the district's potential historical significance, the 2005 study stated:

> The campus buildings constructed between 1909 and 1935 share many characteristics: All are one to two-stories with low profiles designed in Period Revival styles, especially Spanish Revival. Many were designed by the state architect's office. Most of the buildings are reinforced concrete structures finished with a cement plaster. In addition, the buildings are arranged around the two quads, the organizing system of the early campus. Although the arcades surrounding the Inner Quad are no longer extant, the open space in the center of the Inner Quad and eastern quad remains, maintaining the feel of the historic campus plan. This open space should be retained in future campus planning efforts.

Pursuant to CEQA, a substantial adverse change is defined as demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. The current project proposes to development of an interdisciplinary science building (ISB) that is approximately 12 stories high. This will introduce a new visual feature to the surrounding setting of the potential historic district. However, while the new building will affect the immediate surroundings of the potential historic district, it would not result in the material impairment of the significance of a historical resource. As identified by ARG in 2005, the potential historic district is significant as a grouping of buildings that are associated with the early development of the San José State Normal School. The potential historic district conveys its significance through the contributing building's scale, architectural styles, and arrangement around an open inner quad. The 2005 study by ARG concedes that the surrounding historic setting has been affected by modern school buildings constructed as part of the growth and expansion of SJSU from the 1950s through the present day.

The building proposed for the current project is consistent with this growth. It is located outside of the boundaries of the potential historic district and would not affect those features that convey the reasons for the potential district's significance, specifically the physical features of the contributing buildings and the open quad that they encircle. As a result, the project would not result in any indirect impacts to historical resources such that they would no longer be able to convey the reasons for their significance.

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1916 " "
1917 " "
1947 " "
1957 " "
1960 " "
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Appendix A

Records Search Summary

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

8/25/2016 NWIC File No.: 16-0149

Ashlee Bailey, Laura Hoffman
Rincon Consultants, Inc.
1530 Monterey Street Suite D
San Luis Obispo, CA 93401

Re: San Jose State University Science Building Project #16-02813

The Northwest Information Center received your record search request for the project area referenced above, located on the San Jose West USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a ¼ mi. radius:

Resources within project area:	None listed
Resources within ¼ mi. radius: Requested Resource Outside buffer:	P-43-000058, P-43-000558, P-43-001531 P-43-003535
Reports within project area:	S-5295, 11396, 44011
Reports within ¼ mi. radius:	(35) See attached list
Other Reports within records search radius:	Included is a list of the 29 "Other Reports" within or encompassing your project area. These reports are classified as Other Reports; reports with little or no field work or missing maps. The electronic maps do not depict study areas for these reports, however a list of these reports has been provided. In addition, you have not been charged any fees associated with these studies.

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☐ enclosed ☐ not requested ☒ nothing listed

Resource Digital Database Records: ☐ enclosed ☐ not requested ☒ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☐ enclosed ☒ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

Archaeological Determinations of Eligibility: ☒ enclosed ☐ not requested ☐ nothing listed

CA Inventory of Historic Resources (1976):	☒ enclosed	☐ not requested	☐ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☐ not requested	☒ nothing listed
Historical Literature:	☐ enclosed	☐ not requested	☒ nothing listed
Historical Maps:	☒ enclosed	☐ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☒ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed

*Notes:

- PDF copies of CA-SCL-128/P-43-000141, CA-SCL-690/P-43-001071 included on specific request.
- CA-SCL-894/P-43-001531 & CA-SCL-948 included on maps and PDFs sent on specific request.

Please let us know if you would like additional information, this invoice will remain open until September 1st.

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Annette Neal

Researcher

DocCo	DocNo
0	004319
0	004598
0	004870
0	004871
in Project Area 0	005195
0	005276
0	005295
0	005298
0	005299
0	005646
0	005907
0	006095
0	006181
0	008387
0	008405
0	008624
0	009404
in Project Area 0	011396
0	011749
0	012438
0	013351
0	016712
0	017608
0	017782
0	022240
0	023060
0	023637
0	024595
0	025173
0	025200
0	027447
0	028978
0	031897
0	037095
0	039380
0	041528
in Project Area 0	044011
0	044020

Appendix B

Native American Scoping Documentation

Rincon Consultants, Inc.
180 North Ashwood Avenue
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August 12, 2016

Amah Mutsun Tribal Band
Edward Ketchum
35867 Yosemite Ave
Davis, CA 95616
aerieways@aol.com

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Mr. Ketchum:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

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August 12, 2016

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA 95632
vlopez@amahmutsun.org

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Chairperson Lopez:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

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August 12, 2016

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irenne Zwierlein
789 Canada Road
Woodside, CA 94062
amahmutsuntribal@gmail.com

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Chairperson Zwierlein:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

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August 12, 2016

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024
ams@indiancanyon.org

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Chairperson Sayers:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

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August 12, 2016

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791
Milpitas, CA 95036
muwekma@muwekma.org

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Chairperson Cambra:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

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August 12, 2016

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden, CA 95236
canutes@verizon.net

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Chairperson Perez:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

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August 12, 2016

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3152
Fremont, CA 94539
chochenyo@aol.com

RE: Cultural Resources Study for the San Jose State University Science Building Project, City of San Jose, Santa Clara County, California

Dear Mr. Galvan:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the San Jose State University Science Building Project in the City of San Jose, Santa Clara County, California. The proposed project consists of the construction of a new science building located on the SJSU Campus, on a site north of Duncan Hall facing Paseo de San Carlos and between 4th Street and 7th Street. The site currently contains the Associated Students House and parking lots 11 and 13. The project would include the development of a 160,000 gross square foot science building that is approximately 8 stories high with a basement, and would replace the existing Science 1 building. The project additionally includes the relocation of the Associated Students House, the demolition of the existing Science 1 building, the renovation of Duncan Hall, and the removal of an existing botanic garden. A records search map is attached for reference.

As part of the process of identifying cultural resources issues for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The NAHC recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project. If you have knowledge of cultural resources that may exist within or near the project site, please contact me in writing at the above address, by email at mszromba@rinconconsultants.com, or by telephone at (805) 644-4455. Thank you for your assistance.

Sincerely,

Meagan Szromba, M.A., RPA
Cultural Resources Specialist

Appendix C

California Department of Parks and Recreation (DPR) Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CS

Other Listings
Review Code | Reviewer | Date

Page 1 **of** 7 *__Resource Name or #:__ Scheller (Associated Students) House

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Santa Clara

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** *San Jose West* **Date:** 1961 (PR 1980) **T** 7S ; **R** 1E ; **¼ of** **¼ of Sec** **;** M.D. **B.M.**

c. Address: San Jose State University campus City: San Jose Zip:95192

d. UTM: Zone: ; mE/ mN (G.P.S.)

e. Other Locational Data: Formerly addressed as 301 South Fifth Street, San Jose, CA. APN # 467-53-002

***P3a. Description:** The subject building is a former single-family residence that has been converted to offices. It was designed in what can be called the California Colonial Revival style and is two stories in height. It has an asymmetrical plan and is clad with shiplap siding. The hipped roof has several dormers and is clad with composite shingles. It also has wide boxed eaves with modillions and dentils beneath. The building has a wrap-around porch supported by rounded columns and has a spindle post balustrade. There is a two-story, semi-circular tower on the façade. The primary entry is a single wooden door on the façade which is accessed via a set of concrete steps with rails matching the spindle balustrade. A secondary entry on the façade is comprised of a large wooden door with two rectangular glass panes that simulate French doors but appears to be hinged on one side only and has only one knob. This is flanked by rectangular windows and topped by a fanlight with diamond shaped muntins. Windows are mainly wooden 1/1 double-hung with wooden casing. There are bay windows on the east and west elevations. Until the year 2000 the building had been located approximately 80 feet to the west and oriented in a different direction. Prior to the 1960s the setting surrounding the building was a residential neighborhood which was razed to allow for construction of campus buildings. The subject building is currently surrounded by grass lawns and wide concrete walkways. Further beyond are paved surface parking lots and larger university buildings.

***P3b. Resource Attributes:** (List attributes and codes) HP39 – single family residence converted to office building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #)
Façade, view to southeast, 8/11/16.

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
The Trustees of the California State University
400 Golden Shore
Long Beach, CA 90802-4275

***P8. Recorded by:** (Name, affiliation, and address)
Susan Zamudio-Gurrola
Rincon Consultants, Inc.
180 N. Ashwood
Ventura, CA 93003

***P9. Date Recorded:** 8/15/2016

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Zamudio-Gurrola, S., S. Carmack, S. Treffers, M. Szromba, and L. Hoffman
2017 *Cultural Resources Study for the San Jose State University Interdisciplinary Science Building Project, Santa Clara County, California.* Rincon Consultants Project No. 16-02813. Report on file at the Northwest Information Center, Rohnert Park, California.

***Attachments:** ☐NONE ☒Location Map ☒Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

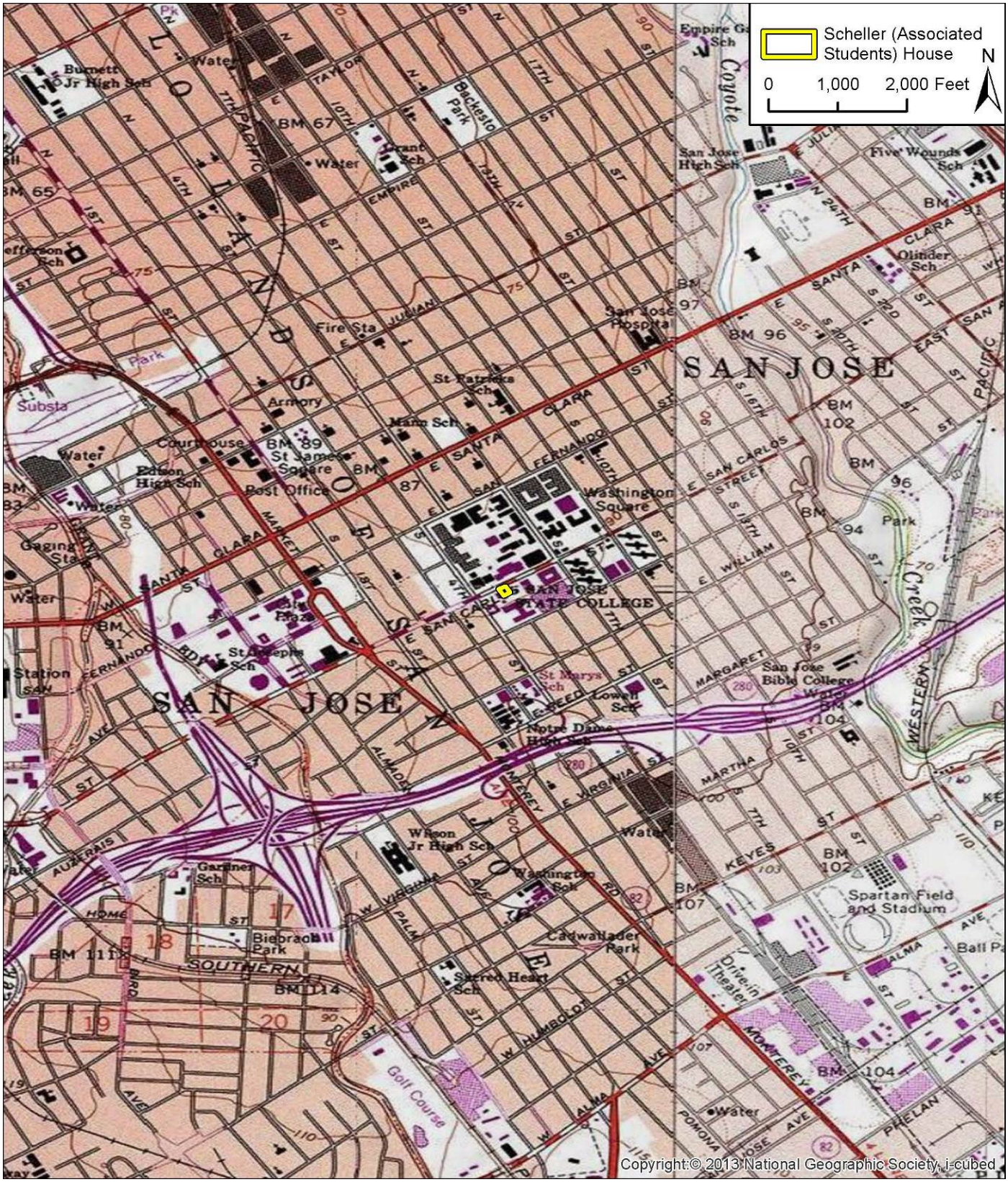
LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #:** Scheller (Associated Students) house

***Map Name:** *San Jose West* and *San Jose East*

***Scale:** 1:24,000 ***Date of Map:** 1961 (Photorevised 1980)



*Required information

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 3CS

***Resource Name or #** (Assigned by recorder) Scheller (Associated Students) House

B1. Historic Name: Scheller House
B2. Common Name: Associated Students (AS) House
B3. Original Use: Residence
B4. Present Use: Offices

***B5. Architectural Style:** Colonial Revival

***B6. Construction History:** (Construction date, alterations, and date of alterations)
Originally built in 1904. Part of the front porch was enclosed, a second story addition/enclosure was made across the rear elevation, likely in the 1940s. In approximately 2000 those alterations were removed, the house was moved 80' to the east and re-oriented to face north, and various alterations were done to rehabilitate the residence for office space. Alterations included the addition of a basement to the new foundation as well as access stairs, the construction of a handicap ramp on the southwest elevation, addition of an elevator at the rear of the house which replaced part of the back porch, and interior alterations to convert residential spaces to office space.

***B7. Moved?** ☐No ☒Yes ☐Unknown **Date:** 2000 **Original Location:** 80 feet to the west

***B8. Related Features:**

B9a. Architect: Theodore Lenzen
b. Builder: Robert O. Summers

***B10. Significance:** **Theme:** Residential Architecture **Area:** San Jose
Period of Significance: 1904-1915 **Property Type:** Residence **Applicable Criteria:** 2 and 3
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject building, historically known as the Scheller house and more recently as the Associated Students House, was originally located at 301 S. Fifth Street before it was absorbed into the San Jose State University campus. Designed by Theodore Lenzen, the home was built for Henry Beaumont Martin and his wife Louise Martin. It was constructed in 1904 by Robert O. Summers (Laffey 1994). Henry B. Martin was a local business owner whose parents, James and Margaret Martin, had settled in San Jose in 1863. By the early 1880s the Martins were operating a small grocery store next to their home (Laffey 1994). Henry was employed as a clerk and a bookkeeper for G. Peirano & Co., a wholesale house and commission merchant, during the 1880s. By 1892 Henry established his own business called H.B. Martin & Co., which sold items such as grain, flour, feed, potatoes, onions, beans, corn and cheese at wholesale (Laffey 1994; San Jose city directory 1892).

In 1899 Henry married Louise Scheller whose family also resided in San Jose. Henry and Louise Martin lived with Louise's widowed mother, Mary Scheller, at 329 S. Fifth Street until the Martins' new house was built at 301 S. Fifth Street (San Jose city directories 1903, 1904, 1905). Afterwards, Henry and Louise shared their new house with Mary and with Louise's brother Victor. The house acquired its name from its association with Victor Scheller, who lived there from 1905-1915 (Laffey 1994; San Jose city directories 1905, 1910, 1915). However, the Martins were also prominent members of San Jose society. For example, they were guests at the reception for United States President and Mrs. McKinley on May 13, 1901 at the Vendome Hotel. Henry and Louise Martin had four children: Margaret, Victor James, Henry Beaumont Jr., and Louis Scheller (Laffey 1994). See continuation sheet, p. 4.

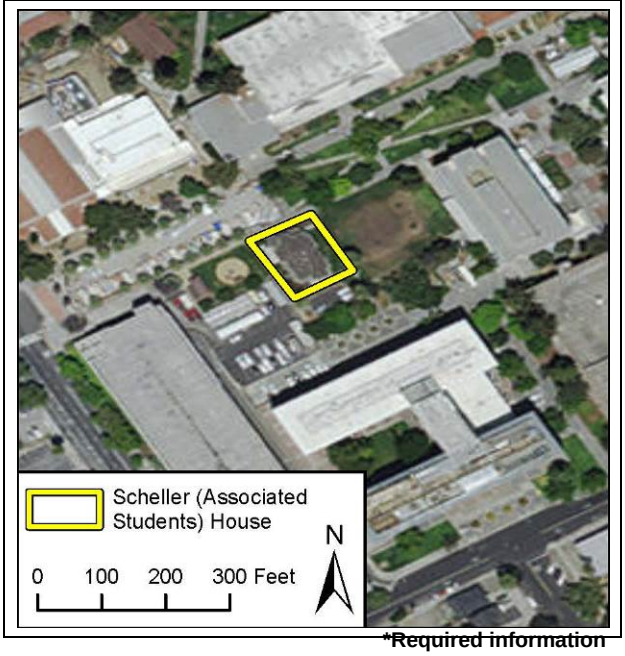
B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**
See continuation sheet, p. 6.

B13. Remarks:

***B14. Evaluator:** Susan Zamudio-Gurrola, Rincon Consultants

***Date of Evaluation:** August 15, 2016



(This space reserved for official comments.)

B10. Significance, continued:

Victor Scheller was one of five children born to Louis and Anna Maria Scheller, who had come to live in San Jose in about 1870. Louis Scheller had immigrated to the United States from Bavaria in 1848 and worked as a foreman and manager of the Weber ranch south of San Jose. Louis later purchased the ranch and also purchased property in San Jose. He had a home built at 329 S. Fifth Street in 1867 and moved the family to the city. Victor Scheller studied in San Jose public schools and went on to study at Santa Clara College (later called the University of Santa Clara). He then earned a law degree from Hastings Law School in San Francisco. Victor returned to San Jose and became the Santa Clara County District Attorney, reportedly the youngest D.A. in California at the time. He served as D.A. from 1891-1894 then retired from public office and practiced as an attorney in San Jose (Laffey 1994; The Redwood 1909; County of Santa Clara 2016).

Victor Scheller was one of the organizers of the San Jose Chamber of Commerce in 1900, serving as its president from 1901 to 1911. Victor also served as president of the Santa Clara County Bar Association and the University of Santa Clara Alumni Association (Laffey 1994; The San Francisco Call 1912). While Scheller was president of the San Jose Chamber of Commerce, he also helped organize and served as the president of, a company that planned to build a railroad from San Jose up Mount Hamilton (San Francisco Chronicle 1905).

Scheller lived with his widowed mother Mary at 329 South Fifth Street for a time. He then lived with his mother, his sister Louise and her husband Henry at 301 South Fifth Street between 1905 and 1915 (San Jose city directory 1904, 1910, 1915, 1916, 1917). A prominent attorney in the city, Victor married late in life. He likely lived at the old family ranch in Madrone during the 1920s. Scheller Avenue in the nearby community of Morgan Hill is named after the family (Laffey 1994).

Henry Beaumont Martin died in 1923. Louise Martin traveled extensively as a widow, sometimes accompanied by her sons. She occupied the house until her death in 1940 (San Jose Evening News 1932, 1934, 1935, 1940; Laffey 1994). By the mid-1940s the large residence had been converted to a boarding house and was utilized as such through at least 1963. In 1947, six different individuals were listed as residents at the 301 S. Fifth St. address. In 1957 the building had six residents and one vacant unit. The building was referred to as "Don Lar Apartments" in 1963 and had seven residents (San Jose city directory 1947, 1957, 1960, 1963).

The house was eventually purchased by San Jose State University as the campus expanded. Except for the Scheller House, the residential neighborhood between South 4th and South 7th streets and East San Carlos and East San Salvador streets was razed for the construction of new school buildings in the mid to late 1960s (ARG 2005; historic aerials). The Scheller House was referred to as "University House" at one time (ARG 2005). It was used as offices for the Urban and Regional Planning and African-American Studies departments in approximately the 1980s (historic photographs on file at SJSU Library Special Collections). The house was vacated in 1991 and plans were made to demolish it. The home was offered at no cost to any taker that would arrange its relocation off campus but no one came forward to take the offer (Associated Students, n.d.). In 1994 the San Jose Preservation Action Council filed a lawsuit to save the house because of its historical significance. In early 1995 a Superior Court Judge ruled that the house could not be demolished without completing an environmental impact report, which encouraged the university to retain the house instead (Associated Students, n.d.; Ferrante 1998).

The house sat unused and vacant until approximately 1998. During this time the house was occasionally used as a training site by emergency responders (Associated Students, n.d.). It was reported that items such as door knobs and door plates had been stolen during the time the building was vacant. A contractor also removed windows and stored them; it is assumed that the windows were replaced during the renovation (Ferrante 1998; Domingue 1994).

In the year 2000 the Associated Students of San Jose State University offered to pay the $2.3 million that were needed to rehabilitate the house. The house was moved 80 feet to the east of its original location and also rotated 90 degrees to face the Paseo de San Carlos. The original foundation was demolished and a new foundation was built for the house's current site. The house became the headquarters of the Associated Students. It houses the A.S. Board of Directors, the Executive Director, Government Administration, the Marketing and Events Department, and the A.S.I.T. Department. In order to convert the former residential spaces into office space and to comply with the Americans with Disabilities Act (ADA), various alterations were made to the house. These included: a basement was added to the new foundation and accompanying access stairs were constructed, an elevator was added to the rear elevation which replaced a section of the back porch, a wheelchair ramp was constructed on the southwest elevation, and various interior alterations were made to convert the residential spaces to office spaces (Associated Students, n.d.).

See continuation sheet, p. 5.

B10. Significance, continued:

the Scheller (Associated Students) House was previously found eligible for local designation as a San Jose City Landmark in 1994 (Laffey 1994). This recommendation was based on its association with local architect Teodore Lenzen, as well as with its early occupants, members of the socially prominent Scheller and Martin Families. Following its relocation to its current location in 1999-2000, the building was again evaluated by ARG in 2005 and recommended individually eligible for listing in the CRHR under Criterion 2 for its association with Victor Scheller; other CRHR criteria were not explicitly addressed.

The property appears largely unaltered since it was last evaluated in 2005 and there is no new evidence to suggest that it would no longer remain eligible for listing in the CRHR. In consideration of both previous evaluations and independent archival research, the current study recommends the Scheller (Associated Students) House for listing in the CRHR under Criterion 2 for its associations with Victor Scheller, as well as under Criterion 3 as a good example of a California Colonial Revival residence designed by noted local architect Theodore Lenzen. The period of significance is 1904-1915, coinciding with its construction and Scheller's occupancy of the house. Its character-defining features include:

- Two-story residence with semi-circular tower
- Asymetrical massing and floor plan
- Shiplap siding
- Wrap-around porch
- Hipped roof with dormers
- Wide boxed eaves with exposed rafter tails
- Modillions, dentils, classical frieze
- Rounded columns
- Spindle-post balustrade
- Bay windows
- Double-hung wood windows
- Art glass window

Although the property has been relocated, it still retains sufficient integrity to convey these significant associations. The exterior of the building has not been substantially altered and its still maintains its overall historic appearance as designed in 1904 and during Scheller's occupancy (1904-1915). As a result the, property retains integrity of design, workmanship, and materials. In addition, because the property appears largely as it did during the period of significance and would be recognizable to its original architect and early inhabitants, it retains integrity of feeling. It also is in close proximity to its original location and therefore retains sufficient integrity of association. The relocation of the property and the substantial expansion and growth of SJSU however has resulted in a loss of integrity of location and setting.

In summary, because the Scheller (Associated Students) House meets CRHR eligibility Criteria 2 and 3 and retains sufficient integrity to convey the reasons for its significance, it is considered a historical resource for the purposes of CEQA.

B12. References, continued:

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1892 Accessed August 15-16, 2016 on ancestry.com.
1903 " "
1904 " "
1905 " "
1910 " "
1915 " "
1916 " "
1917 " "
1947 " "
1957 " "
1960 " "
1963 " "

San Jose Evening News
1932 "Nuptial Plans Completed by Miss Musto". March 21, 1932.
1934 "Mrs. Martin Sr. Concludes Stay on Peninsula". September 15, 1934.
1935 "Mrs. Martin Is Welcomed From Abroad". October 26, 1935.
1940 "Louise S. Martin Funeral Will Be Held Tomorrow". May 20, 1940.

Sawyer, Eugene T.
1922 History of Santa Clara County California with Biographical Sketches of The Leading Men and Women of the County Who Have Been Identified With Its Growth and Development...Historic Record Company, Los Angeles.

The Redwood. 1909. "Alumni". October 1909, p. 271. Nace Printing Co., Santa Clara, CA. Accessed 8/14/16 at https://ia600200.us.archive.org/12/items/redwoodunse_2/redwoodunse_2.pdf

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East elevation, view slightly to southwest

West elevation, view to the east

South elevation, view to the northwest

Interior staircase

Scheller House c. 1980s. Façade and rear elevations showing previous alterations. Source: SJSU Library Special Collections

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CS
Other Listings
Review Code | Reviewer | Date

Page 1 of 6 **Resource Name or #:** (Assigned by recorder) University House

P1. Other Identifier: Scheller-Martin House, Associated Students House, Building DD

P2. Location: ☐ Not for Publication ☒ Unrestricted **a. County** Santa Clara

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

b. USGS 7.5' Quad San José West **Date** 1979 **T** ___ ; **R** ___ ; ___ **1/4 of** ___ **1/4 of Sec** ___ ; ___ **B.M.**

c. Address One Washington Square City San José Zip 95192

d. UTM: (Give more than one for large and/or linear resources) Zone 10 ; 598981 mE/ 4132431 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Located on the southwest quadrant of campus, between San Carlos and San Salvador Streets and 4th and 7th Streets. Parcel No.

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

University House has a rectangular footprint with projecting verandahs of varying shapes and sizes. The facade (northern elevation) is asymmetrical; the entrance is to the west of an off-centered two-story circular projecting bay that intersects with the verandah. The verandah, which is very large, projects along the north façade and has a turned wood balustrade and columns supporting a low-pitched roof covered in composition shingles. The verandah connects with a railed ramp on the west elevation.

The roof is composed of a series of intersecting hipped sections of a medium pitch and is covered in composition shingles. The residence has two dormers on the northern side (one of which is presently a vent, and the other contains two narrow windows and lies above the rounded projection), one dormer on the western side, and a chimney on the eastern half. The roof has a wide boxed overhang, beneath which is a cornice, including a dentil course and modillions. The building has wood window frames, sashes and surrounds. Other decorative features include: curved windows, window frames with molded lintels, and leaded, beveled glass windows.

Athough the form of the building is more typical of Victorian houses, the ornamentation are representative of the Colonial Revival

P3b. Resource Attributes: HP15 - Educational building

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates,etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #)
View looking south
Photo taken August 8, 2005

P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1904: various texts

P7. Owner and Address:
San José State University
One Washington Square
San José, CA 95192

P8. Recorded by:
James Cocks, Jody Stock
Architectural Resources Group
Pier 9, The Embarcadero
San Francisco, CA 94111

P9. Date Recorded: 9/12/2005

P10. Survey Type (Describe)
Intensive Level Survey

P11. Report Citation: (Cite survey report and other sources, or enter "none.")
San José State University Historic Resources Survey

Attachments:
☐ None ☒ Continuation Sheet ☐ District Record ☐ Rock Art Record ☐ Other (List)
☐ Location Map ☒ Building, Structure, and Object Record ☐ Linear Feature Record ☐ Artifact Record
☐ Sketch Map ☐ Archaeological Record ☐ Milling Station Record ☐ Photograph Record

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

NRHP Status Code 3CS

Resource Name or #: (Assigned by recorder) University House

B1. Historic Name: Scheller-Martin House

B2. Common Name: University House

B3. Original Use: Private Residence B4. Present Use: Campus and Student-organization

B5. Architectural Style: Colonial Revival Style

B6. Construction History: (Construction date, alterations, and date of alterations)

1904 - Designed by Theodore Lenzen
2000 - Major renovation by Allan Walter Group, Inc. and JBM

B7. Moved? ☐ No ☒ Yes ☐ Unknown **Date:** 2000 **Original Location:** 80 feet to the west and facing east

B8. Related Features:

B9a. Architect: Theodore Lenzen b. Builder: unknown

B10. Significance: **Theme** Education **Area** San Jose

Period of Significance 1904 - present **Property Type** Educational **Applicable Criteria**

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Scheller-Martin House is the oldest standing building on the San José State University campus. It was originally constructed as a private residence in 1904 for local business owner Henry Martin and his brother-in-law Victor Scheller, an early district attorney in Santa Clara County, a president of the Santa Clara County Bar Association, and co-founder of the San José Chamber of Commerce. The residence was designed by noted San José architect Theodore Lenzen, who also designed the first San José Normal School Building of 1871.

The Scheller-Martin House was constructed at the corner of what was then 301 S. 5th Street at the intersection with E. San Carlos Street. Sanborn maps indicate the building was used as a single-family dwelling in 1915 and as a boarding house in 1950. The blocks bounded by E. San Carlos, E. San Salvador, S. Fourth, and S. Seventh Streets were acquired by the University in 1943-1944 but were not redeveloped for expansion until the 1960s. This area, the southwest quadrant, is presently dominated by the Seventh and Fourth Street parking garages (1962 and 1985), Duncan Hall (1967), MacQuarrie Hall (1965), and Sweeney Hall (1963). The Scheller-Martin House is the only standing building in the southeast quadrant predating University acquisition.

See continuation sheet.

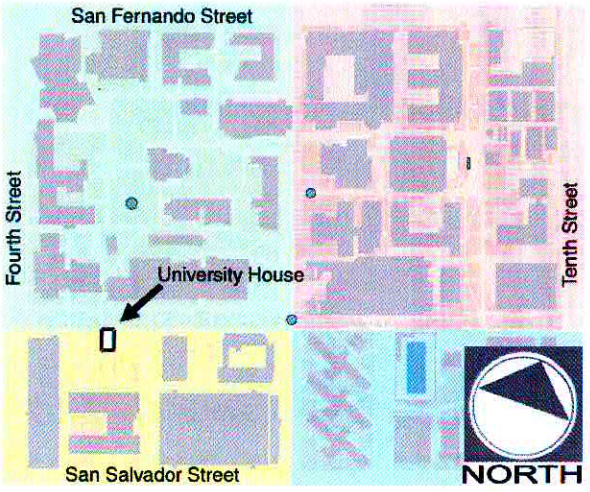
B11. Additional Resource Attributes: HP15 - Educational building

B12. References:

See continuation sheet.

B13. Remarks:

(Sketch Map with north arrow required.)



B14. Evaluator: James Cocks, Jody Stock
Architectural Resources Group

Date of Evaluation: 9/12/2005

(This space reserved for official comments.)

B10. Significance continued:

From the time of University acquisition, the building housed a number of faculty offices and departments until it was vacated in 1991, when the University first proposed demolishing it to expand the surrounding science buildings. Community efforts to save the building led to reconsideration, and during this time University Executive Vice President J. Handel Evans reportedly offered the house for sale - for $1 - to anyone who would move it off campus. After several years without a buyer, the University began preparing for demolition. The Preservation Action Council of San José then sued the University in 1994 for non-compliance with state preservation law. Santa Clara County Superior Court Judge Jeremy Fogel ruled that the house was historically significant and needed environmental review before demolition.

The house had been vacant for years and had fallen into disrepair. In 1999-2000 the University renovated the house with the assistance of Allan Walter Group, Inc. and JBM at a cost of $2 million. The building was moved 80 feet west and rotated 90 degrees to face north. The original brick foundation and basement were removed. The roof was also replaced, and the original chimneys were removed. The facility presently houses Associated Students administration, government, campus recreation, and special events offices.

Despite being moved 80 feet and rotated, and years of neglect that led to extensive renovations and loss of some historic fabric, the house retains sufficient integrity to be eligible for the California Register. It does not appear to have sufficient integrity or significance to be eligible for the National Register.

The Scheller-Martin House appears to be individually eligible for the California Register under Criterion 2: properties associated with the lives of persons important to local, California, or national history. In this case, the Scheller-Martin House is significant for its association with Victor Scheller, an early district attorney in Santa Clara County, a president of the Santa Clara County Bar Association, and co-founder of the San José Chamber of Commerce.

B12. References continued:

"Address of State Superintendent O.P. Fitzgerald Delivered at the Ceremony for Laying the Cornerstone of the California State Normal School at Washington Square in San Jose, October 20, 1870." www2.sjsu.edu/sjsuhistory/Fitzgerald_Address.htm (4 August 2005).

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"The Beginnings of San Jose State University: Laying of the Cornerstone at Washington Square on October 20, 1870." www2.sjsu.edu/sjsuhistory/1870_history.htm (1 August 2005).
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Lantow, Susan and Phuong Nguyen, Facilities Development. Department of Parks and Recreation, Historic Resources Inventory: Home Economics Building. 15 July 1983.

Lantow, Susan and Phuong Nguyen, Facilities Development. Department of Parks and Recreation, Historic Resources Inventory: Men's Gym. 15 July 1983.

Lantow, Susan and Phuong Nguyen, Facilities Development. Department of Parks and Recreation, Historic Resources Inventory: Old Science Building. 15 July 1983.

Lantow, Susan and Phuong Nguyen, Facilities Development. Department of Parks and Recreation, Historic Resources Inventory: Women's Gym. 15 July 1983.

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State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #
HRI #
Trinomial

Resource Name or #: (Assigned by recorder) *Building DD*

Recorded by *James Cocks, Jody Stock* ***Arch. Resources Group*** **Date** *9/12/2005* ☒ Continuation ☐ Update

Supplemental Photograph or Drawing

Description of Photo:
(View, date, accession #)
View looking south
Photo taken August 8, 2005

Supplemental Photograph or Drawing

Description of Photo:
(View, date, accession #)
View looking southeast
Photo taken August 8, 2005

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Office of Historic Preservation
Historic Resources Inventory

Survey Ref. No. _____

Identification and Location

Ser. No. _____
National Register Status 4S2 or 4S7
Local designation CL

1. Historic name Martin House
*2. Common name or current name Scheller House
*3. Number & street 301 South Fifth Street Cross-corridor San Carlos St.
City San Jose Vicinity only _____ Zip 95192 County Santa Clara
4. UTM Zone _____ A _____ B _____ C _____ D _____
5. Quad map No. _____ Parcel No. State of California Other _____

Description

6. Property Category Building If district, number of documented resources _____

*7. Briefly describe the present physical appearance of the property, including condition, boundaries, related features, surroundings, and (if appropriate) architectural style.

As an example of California Colonial Revival, the architectural style of the house is a transition between the free classic variation of the Queen Anne style and an asymmetrical variation of the Colonial Revival style. The two-story house has a hipped roof with five small roof dormers, wide boxed eaves decorated with modillions and dentils, and a deep classical frieze. The front porch wraps around the two-story semi-circular tower that dominates the facade of the house. The porch roof has round columns, and a wide eave with dentil decoration. Half of the porch has been enclosed to form a sun room. Fenestration includes three slanted bay, one-over-one, double-hung sashes, and leaded windows with clear beveled glass. Alterations include the enclosure of part of the front porch and several small additions to side and rear of the house. In effort to rid the house of hazardous asbestos, many of the exterior features have been removed or damaged. Interior features include natural wood door and window frames with elaborate molded lintels, and a staircase with a curved balustrade. The rooms have high coved ceilings with picture rail moldings and wide natural wood baseboards. The hardwood floors are well-preserved with some floors being laid in patterns with dark and light woods.

8. Planning agency SJSU
9. Owner Address State of California University Regents
10. Type of Ownership Public
11. Present Use Vacant
12. Zoning _____
13. Threats Demolition

* Complete these items for historic preservation compliance projects under Section 106 (36 CFR 800).
All items must be completed for historical resources survey information.

Survey Ref. No. _____

Historical Information

*14. Construction date(s) 1904F Original location same Date moved _____

15. Alterations & date Enclosed front porch, small additions in 1940s/50s

16. Architect Theodore Lenzen Builder Robert O. Summers

17. Historic attributes (with number from list) 02--residence

Significance and Evaluation

18. Context for evaluation: Theme Architecture & Shelter Area San Jose
Period Horticultural Property Type residence Context formally developed? yes

*19. Briefly discuss the property's importance within the context. Use historical and architectural analysis as appropriate. Compare with similar properties.

This house was designed by Theodore Lenzen, one of the most prominent and prolific of San Jose's nineteenth century architects. Based on the long period of time (50 years) that Lenzen actively worked in San Jose and the hundreds of buildings that he designed during this period, it is safe to say that his impact of the face and fabric of San Jose's development during the late nineteenth century was considerable. The Scheller House is the only known 20th century example of Theodore Lenzen's work. This house is a good example of Colonial Revival architecture.

The house is also associated with the socially prominent Scheller and Martin families. Constructed by Henry Martin for his wife Louise Scheller, the house was occupied by the Martins until 1940. Victor Scheller, Martin's brother-in-law lived with the Martins for many years. Scheller was the district attorney in the 1890s, then the state's youngest DA. He was later a prominent local attorney. He organized the Chamber of Commerce and was the president of the the Santa Clara County Bar Association and the University of Santa Clara Alumni Association.

20. Sources:
Visual Survey 6/25/94; McAlester & McAlester, A Field Guide to American Houses 1986; J. Blumenson, Identifying American Architecture; Sanborn Insurance Maps 1884-1951; San Jose City Directories 1870-1979; San Jose Mercury 5 May 1904; Carroll, Ten Years in Paradise 1905; Foote, Pen Pictures from the Garden of the World 1888; Sunshine Fruit and Flowers 1895.

21. Applicable National Register criteria
C

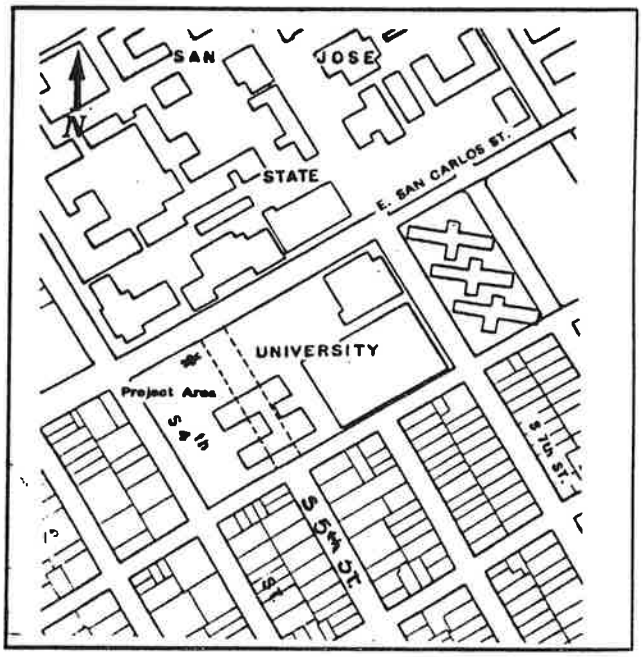
22. Other recognition _____
State Landmark No. (if applicable) _____

23. Evaluator Glory Anne Laffey
Date of evaluation December 1994

24. Survey type Single Resource

25. Survey name Scheller House

26. Year form prepared 1994
By (name) Glory Anne Laffey
Organization Archives & Architecture
Address 353 Surber Drive
City & Zip San Jose, CA 95123
Phone (408) 227-2657



EVALUATION SHEET

HISTORIC RESOURCE NAME Henry B. Martin House SURVEY REF. NO. 1

ADDRESS 301 S. Fifth Street

A. VISUAL QUALITY/DESIGN						
1. EXTERIOR good visual design	E	VG X	G	FP		
2. STYLE Colonial Revival	E	VG X	G	FP		
3. DESIGNER Theodore Lenzen	E X	VG	G	FP		
4. CONSTRUCTION leaded beveled glass windows	E	VG	G X	FP		
5. SUPPORTIVE ELEMENTS none	E	VG	G	FP X		
B. HISTORY/ASSOCIATION						
6. PERSON/ORGANIZATION Martin, V. Scheller, T. Lenzen	E	VG X	G	FP		
7. EVENT none	E	VG	G	FP X		
8. PATTERNS early 20th century residential architecture	E	VG	G X	FP		
9. AGE 1904	E	VG X	G	FP		
C. ENVIRONMENTAL/CONTEXT						
10. CONTINUITY	E	VG	G	FP X		
11. SETTING	E	VG	G	FP X		
12. FAMILIARITY	E	VG	G X	FP		
D. INTEGRITY						
13. CONDITION design elements need to be replaced	E	VG	G X	FP		
14. EXTERIOR ALTERATIONS minor, character in tact	E	VG X	G	FP		
15. STRUCTURAL REMOVALS none	E X	VG	G	FP		
16. SITE original	E X	VG	G	FP		
E. REVERSIBILTY						
17. EXTERIOR reversible	E	VG X	G	FP		
F. ADDITIONAL CONSIDERATIONS/BONUS POINTS						
18. INTERIOR/VISUAL door and window frames, stairs, windows, firepl.	E	VG X	G	FP		
19. INTERIOR/HISTORY	E	VG	G	FP X		
20. INTERIOR ALTERATIONS remodeling of upper floors	E	VG X	G	FP		
21. REVERSIBILITY/INTERIOR	E X	VG	G	FP		

REVIEWED BY Glory Anne Laffey 18 DATE: December 1994

EVALUATION TALLY SHEET

SURVEY REF. NO. 1

Value E	VG	G	FP		
				A. VISUAL QUALITY/DESIGN	
	12			1. Exterior	
	8			2. Style	
6				3. Designer	
		4		4. Construction	
			0	5. Supportive Elements	
				VISUAL QUALITY/DESIGN SUB-TOTAL	30
				B. HISTORY/ASSOCIATION	
	15			6. Person/Organization	
			0	7. Event	
		5		8. Patterns	
	6			9. Age	
				HISTORY/ASSOCIATION SUB-TOTAL	26
				C. ENVIRONMENTAL/CONTEXT	
			0	10. Continuity	
			0	11. Setting	
		4		12. Familiarity	
				ENVIRONMENTAL/CONTEXT SUB-TOTAL	4
				A & C SUB-TOTAL	34
				B SUB-TOTAL	26
				PRELIMINARY TOTAL (SUM of A, B, & C)	60

Value E	VG	G	FP						
				D. INTEGRITY					
		.05		13. Alterations					
				From A, B & C Sub-Totals	60	X	.05	=	3
				14. Exterior Alterations					
	.05			From A & C Sub-Totals	34	X	.05	=	1.7
	.03			From B Sub-Total	26	X	.03	=	.78
				15. Structural Removals					
0				From A & C Sub-Totals	34	X	0	=	0
0				From B Sub-Total	26	X	0	=	0
				16. SITE					
0				From B Sub-Total	26	X	0	=	0
				INTEGRITY DEDUCTIONS (SUB-TOTAL)					5.48
				ADJUSTED SUB-TOTAL	60 (PRELIMINARY TOTAL)	-	5.48 (INTEGRITY DEDUCTIONS)	=	54.52
				E. REVERSIBILITY					
	3			17. Exterior					3
				========== TOTAL					57.52

Value E	VG	G	FP	F. ADDITIONAL CONSIDERATIONS/BONUS POINTS	
	3			18. Interior Visual Quality	3
			0	19. History/Association of Interior	0
	4			20. Interior Alterations	4
4				21. Reversibility/Interior	4
				BONUS POINTS SUB-TOTAL	11
				ADJUSTED TOTAL (With Bonus Points)	68.52

Appendix D

Feasibility Study (Page & Turnbull)

SAN JOSE STATE UNIVERSITY
ASSOCIATED STUDENTS HOUSE RELOCATION
SAN JOSE, CALIFORNIA

FEASIBILITY STUDY & APPENDICES
FINAL [16287]

PAGE & TURNBULL
imagining change in historic environments through design, research, and technology

MAY 3, 2017

TABLE OF CONTENTS

Associated Students House Primary (north) Facade, 2017 (Page & Turnbull)

INTRODUCTION

"Taggart Wilde, the District Attorney, lived at the corner of Fourth and Lafayette Park, in a white frame house the size of a carbarn, with a red sandstone porte-cochere built on to one side and a couple of acres of soft rolling lawn out front. It was one of those solid old-fashion houses which it used to be the thing to bodily move to new locations as the city grew westward..."

--Raymond Chandler, The Big Sleep (1939)

STATEMENT OF PURPOSE

The purpose of this Historical Resource Relocation Feasibility Study is to determine the feasibility of relocating the Associated Students House from its current location to a proposed Receiver Site on San Jose State University's campus and retain the current use. The California Register-eligible building is historically significant as an intact example of the Colonial Revival style of design and the only known surviving residential work of Theodore Lenzen, one of San Jose's first master architects. The current location has been identified as the site for the SJSU Interdisciplinary Science Building Project. The project was undertaken at the request of San Jose State University and Rincon Consultants, who will incorporate this information into their Cultural Resources Study for the San Jose State University Interdisciplinary Science Building Project.

The study is generally divided into four sections: Existing Conditions; Historic Context and Character Analysis; Relocation Analysis; and Proposed Receiver Site Analysis, including a preliminary cost estimate. Page & Turnbull's services to assist Rincon in this study include professional architectural consultation related to the relocation of the historic resource and a Relocation Feasibility Study. A follow-up task may be to provide Architecture Services for Relocation, based on feasibility, consisting of design and construction drawings and specifications for the relocation of the Associated Students House, and/or mitigation measures as suggested by Rincon's Cultural Resource Study.

METHODOLOGY

Review of Background Information & Research

Page & Turnbull's review of background information included review of past reports and surveys, Department of Parks & Recreation Forms (DPR) (1994), an Architectural and Historical Evaluation for 301 5th Street (1994), the San Jose State University Historic Resources Survey (2005), and Rincon Consultants' Cultural Resources Study (2017). Additionally, Page & Turnbull collected historical maps and photographs to indicate the building's historic site conditions and any alterations since its construction in 1904. Sources included Sanborn Fire Insurance maps, historic aerials, and articles from San Jose newspapers collected online and in the Archives at the MLK Jr. Library in San Jose.

Client Meeting

The project kick-off meeting was held on March 1, 2017. Attendees included the project manager for SJSU facilities, members of the user group, and Rincon consultant's project manager via phone. Members of the consultant team in attendance included architects and planners from Page & Turnbull; structural engineers from Daedelus Engineers; and JR Conkey, the cost estimator, who participated via phone. As the study is preliminary, SJSU directed the consultant team to not engage with the city of San Jose until the next phase of the project.

Field Survey

Page & Turnbull conducted a field survey in March 2017 and took notes and digital photographs of the building to assess character-defining features and alterations. A Conditions Assessment was completed to confirm the current state of the building and structure. Existing drawings were spot-checked for reference and additional photographs and notes were taken to record these findings.

Significance Diagrams

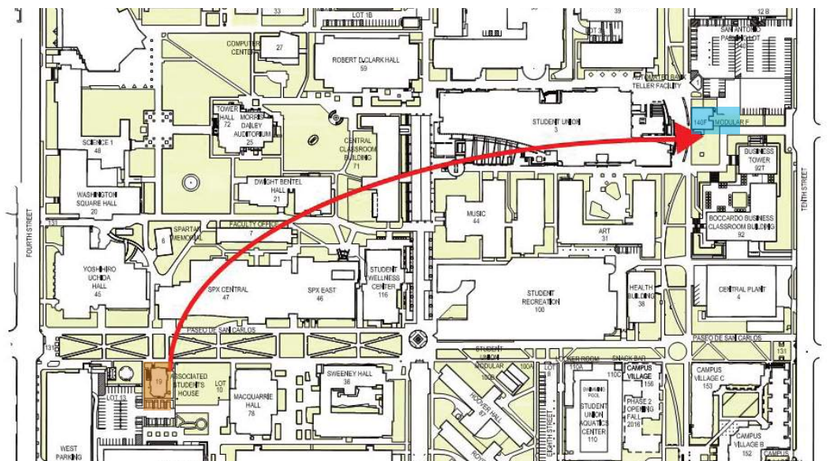
Based on field survey observations and project research, Page & Turnbull prepared historic signifance diagrams that indicate the primary, secondary, and non-contributing historic features of the Associated Students House.

Relocation Analysis and Route Alternatives Matrix

Using GoogleEarth, field survey data, and AutoCAD floor plans and campus site plans provided by the SJSU, Page & Turnbull created a matrix to analyze and compare multiple routes and determine the pros and cons of each.

Proposed Move Route, Receiver Site Analysis, & Cost Estimate

A single proposed route was selected to study in greater depth, based on the site survey, matrix analysis, and feedback from Kelly Brothers House Movers and Daedalus Structural Engineering consultants. The Kelly Brothers, who moved the Associated Students House in 2000, provided a scope of work summarizing the recommended pre- and post-move preparation of the building and sites; the proposed move sequence, which would occur over an approximately 12-hour period; and a preliminary cost estimate. The engineers at Daedalus provided a structural scope of work, a building code analysis, and an existing structural conditions assessment. The selected route was also preliminarily costed by JR Conkey, cost estimators.



The existing site (shaded orange) and proposed Receiver Site (shaded blue) is across from the Student Union building, adjacent to S. 10th St on the east.

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BACKGROUND INFORMATION

ASSOCIATED STUDENTS HOUSE

The Associated Students (AS) House, historically known as the Martin House and more recently as the Scheller House, was originally constructed in 1904 at 301 S. Fifth Street, facing northeast. In 2000, it was moved 80 feet from its original site and rotated 90 degrees to face the Paseo de San Carlos, in order to avoid demolition and be absorbed into the San Jose State University campus. It underwent a significant renovation in 2001. The current address is 1 Washington Square.

The subject property is eligible for listing under Criteria 2 and 3 of the California Register for its association with notable local District Attorney, Victor Scheller, and as a good example of California Colonial Revival architecture, which was designed by prominent local architect, Theodore Lenzen, and retains high architectural integrity.

The following summarizes specific information about the existing property:

Location

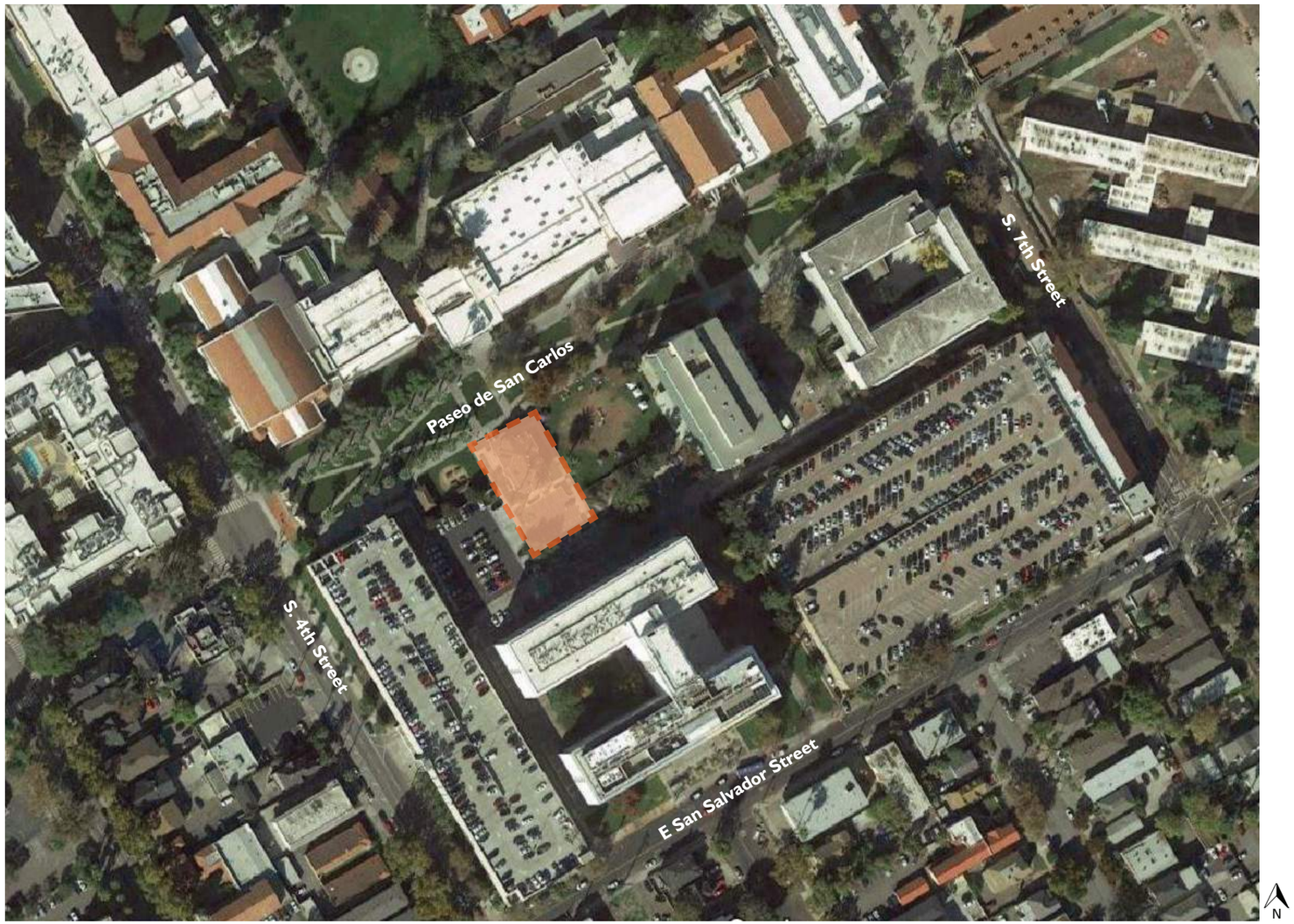
- Fronts the pedestrian Paseo de San Carlos between 4th and 7th streets
- Primary facade faces northwest towards the campus across the Paseo

Site Features

- Planted lawn with low bushes on north, east and west sides
- ADA concrete ramp (2000-2001 addition) at west side
- Rear and northeast side entries with concrete paths
- Palm trees to the northwest along the Paseo; deciduous trees to the northeast along the Paseo
- Palm tree to the southeast; green space adjacent on the east and west sides
- Parking lots at the rear (south) and west sides

Neighborhood Character

- Located within the pedestrian corridor adjacent to the main SJSU campus
- Surrounded by large campus buildings to the east (Dining, Mathematics), south (Chemistry), and west (Parking Garage)
- Retail, institutional, and residential uses on surrounding streets



Map of Site, showing SJSU main campus (north) and surrounding neighborhoods and campus buildings. The current site is outlined and shaded in orange. (Google 2017, Edited by Page & Turnbull).

EXECUTIVE SUMMARY

In February 2017, Page & Turnbull, Inc. was retained by Rincon Consultants on behalf of San Jose State University to examine the feasibility of relocating the Associated Students House, formerly known as the Scheller House. The team included preservation architects, a structural engineer, a building mover, and a cost estimator. Upon evaluation, the Page & Turnbull Team determined that moving the Associated Students House from its current location on the Paseo de San Carlos to the proposed Receiver Site at the northeast quadrant of San Jose State University's campus is physically feasible and will not compromise its status as a California Register-eligible historic resource. Following a previous relocation in 2000-2001, the timber-framed building was renovated, the front and rear porches removed and reconstructed, and a new foundation, partial basement, elevator and ADA improvements were added. A preliminary structural assessment indicates a sesimic retrofit occurred, but the extent of these improvements will need to be verified during the next phase of work.

The current use and occupancy of the Associated Students House will be enhanced in its new location. The Consultant Team recommends that the move route to accomplish the relocation should utilize San Jose public rights-of-way along South 4th Street, South San Fernando Street, and South 10th Street. This route will require the dismantling and reconstruction of the panelized SJSU gateway structure at South 4th Street and the Paseo de San Carlos, which is not an individual historic resource or a contributor to the historic district. Preliminary study indicates that this route will allow the building to be moved intact, except for the removal of the exterior stairs and ramp; this will minimize occupant disruption, preparation and reconstruction time, as well as cost. The amount of time estimated for the actual move is less than 24 hours -- prep time and reconstruction efforts after the move will be dependent upon the amount of internal shoring required and any necessary repairs due to plaster cracking and other incidental damage.

The conceptual cost estimate for the recommended move will be $1,056,244, which includes pre-move preparation, building mover labor and associated costs, estimated permitting costs, estimated city and utility company labor and associated costs, reconstructing the basement as it currently exists, and reconstruction of the exterior stairs and ramp at the Receiver Site. It should be noted that this estimate was prepared without City of San Jose input about the proposed move route, including the use of public streets or impacts on public utilities, at the request of San Jose State University staff, and therefore should be considered a preliminary estimate. SJSU has a building official on staff and handles campus building permits internally. Assuming the building remains on campus, the permission of the City will not be required to move the building, and the necessary involvement of San Jose will be minimal, except for coordination of the impacts external to campus. The building's historic value and status as eligible for listing in the California Register would not necessitate the City's involvment in the building's relocation.

Seismic strengthening has been itemized as a separate cost in the event that building officials will require upgrades as part of a relocation project. As a point of reference, the estimator has indicated that Replacement Value of the Associated Students House in 2017 economic conditions, not including land value, would be approximately $4,290,000.

PREVIOUS STUDIES

Several studies of the AS House have been conducted, including:

Department of Parks & Recreation Forms (DPR) & Architectural and Historical Evaluation for 301 5th Street (1994)

- Study of existing conditions, historic context, and evaluation of the property prior to proposed demolition of the property, including evaluation for inclusion in the San Jose Historic Resources Inventory
- Prepared at the request of San Jose Councilman, David Pandori, in June 1994 by Glory Anne Laffey, a principal at Archives & Architecture in San Jose
- The subject property in 1994 was evaluated according to the City of San Jose's criteria for historical significance and granted a '44.76' rating, which qualifies it as a 'Structure of Merit' and eligible to be listed in the San Jose Historic Resources Inventory
- The study identified the property as a good and generally intact example of Colonial Revival architecture; however, the building was found to have compromised physical integrity due to damage caused by asbestos removal and overall neglect. No surviving interior features were identified.
- This study also indicated that the house was mistakenly identified as belonging to Victor Scheller in a 1980 study prepared for an adjacent parking garage project and has been attributed to Scheller as the primary resident and builder since that time, despite subsequent research correcting the error.

San Jose State University Historic Resources Survey (2005)

- Study of local historic resources prepared by the Architectural Resources Group in November 2005
- Subject building was found individually eligible for the California Register of Historical Resources (CRHR) but neither found to be a contributor to a California Register-eligible Historic District nor eligible for the National Register of Historic Places

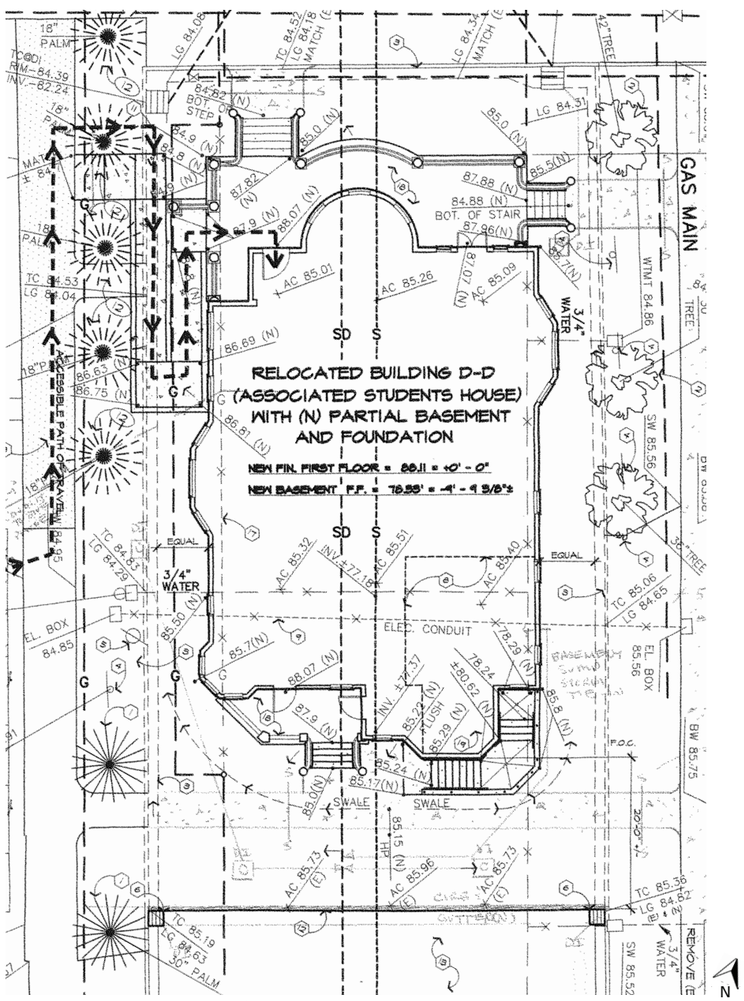
Cultural Resources Study for the San Jose State University Interdisciplinary Science Building Project (May 2017)

- Study of existing conditions, historic context, and evaluation of the historic resource for a Cultural Resources Study produced for the San Jose State University Interdisciplinary Science Building Project
- Prepared for the San Jose State University, Facilities Development and Operations Department by Rincon Consultants, Inc. in Oakland
- Archival research was completed for this study in August 2016 and research methodology focused on the review of primary and secondary source materials related to the development of the project area
- Sources included historic maps (Sanborn and Geological Survey maps), aerial photographs, local newspaper articles (*Spartan Daily, San Jose Evening News, San Francisco Call, and San Francisco Chronicle*), and written and spoken histories
- Evaluation of the property in April 2017 corroborates that the Associated Students House is eligible for listing in the California Register under Criterion 2 for its associations with Victor Scheller, as well as under Criterion 3 in the California Register as a good example of a California Colonial Revival residence designed by noted local architect, Theodore Lenzen. The period of significance is 1904-1915, coinciding with its construction and Scheller's occupancy of the house.

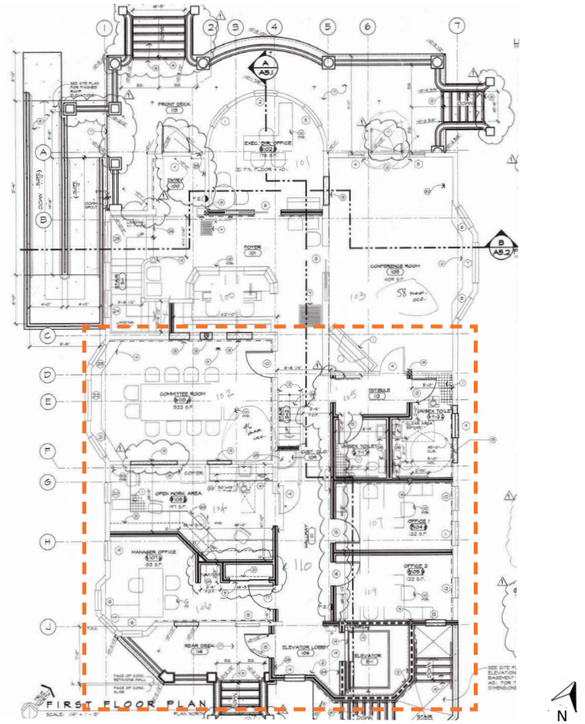
Theodore Lenzen, architect.
(http://www.thesanjoseblog.com/)

EXISTING CONDITIONS

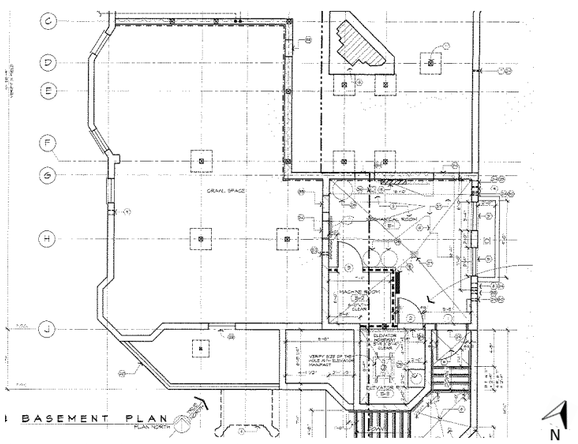
The AS House is a 7,000 square-foot former single-family residence that was converted to office and meeting space for SJSU's Associated Students following its previous relocation and renovation (1999-2001). The two-and-one-half-story building is capped with a hipped roof clad in composite shingles, and contains a partial basement and partially-finished attic/third story. It features a rectilinear plan and consists of shiplap wood siding on all exterior facades. All drawings shown are from the As-Built set produced by the Allen Walter Group in 2001.



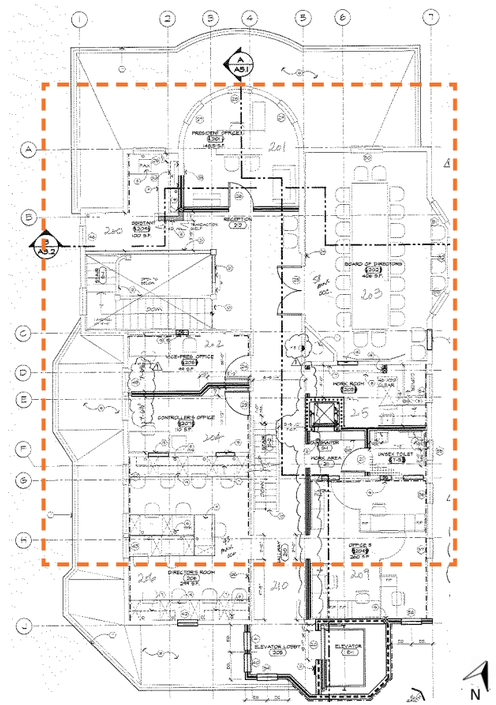
Associated Students House Site Plan, NTS.



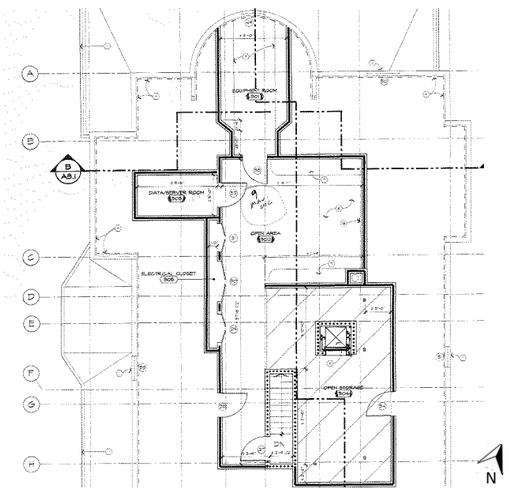
Ground Floor Plan, Dashed line indicates partial basement plan shown below.
Scale: 1/16"=1'0"



Basement Plan, Scale: 1/16"=1'0"



Second Floor Plan, Dashed line indicates partial attic plan shown below.
Scale: 1/16"=1'0"



Partial Attic/Third Floor Plan, Scale: 1/16"=1'0"

EXISTING CONDITIONS

EXTERIOR PHOTOGRAPHS (PAGE & TURNBULL, MARCH 2017)

Primary (northwest) facade, looking southeast.

Southwest facade south side, looking northwest.

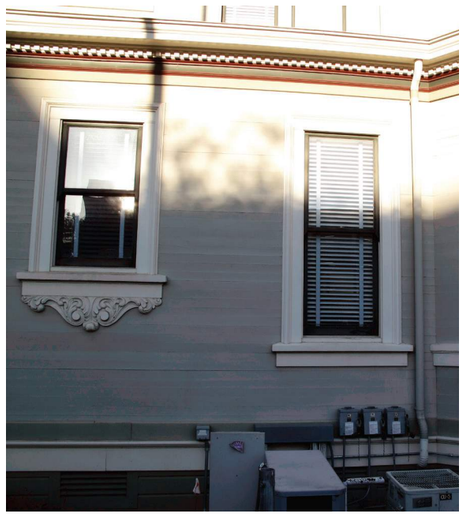
Detail of front porch door with transom and sidelites, east side.

Detail of northeast facade bay window.

Rear (southeast) facade east side, looking northeast.

Northeast facade, looking northwest.

Front porch at northeastern corner, looking west.



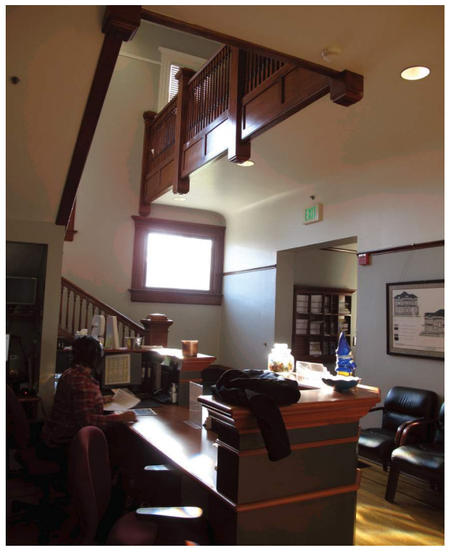
Detail of ground story windows at southwest facade.

Detail of second story windows at southwest facade.

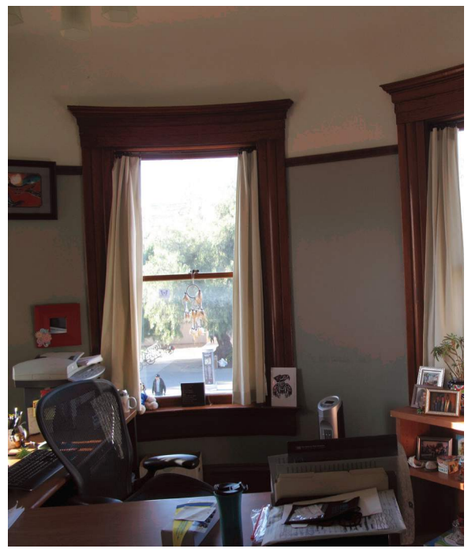
EXISTING CONDITIONS

INTERIOR PHOTOGRAPHS (PAGE & TURNBULL, MARCH 2017)

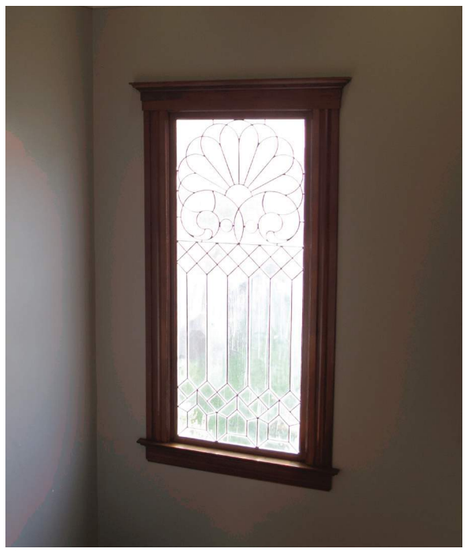
Front conference room, looking north towards door with transom and sidelites.



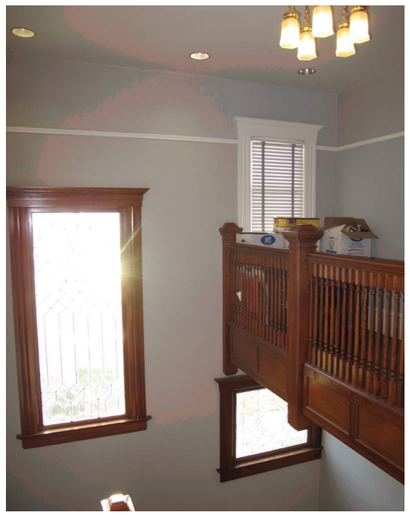
Front entry reception area and main stair.



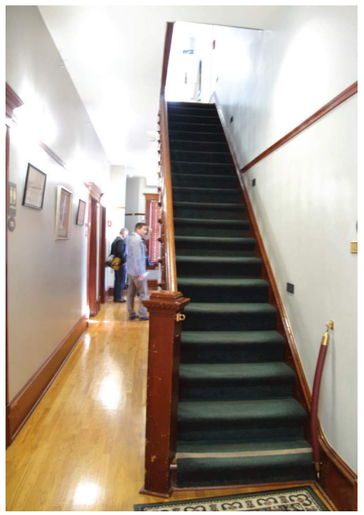
Second story office, looking north.



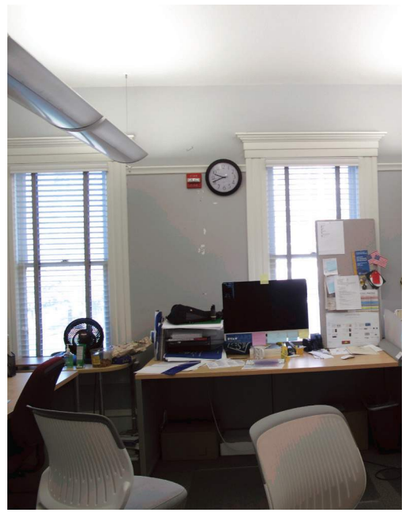
Detail of art glass window at main staircase.



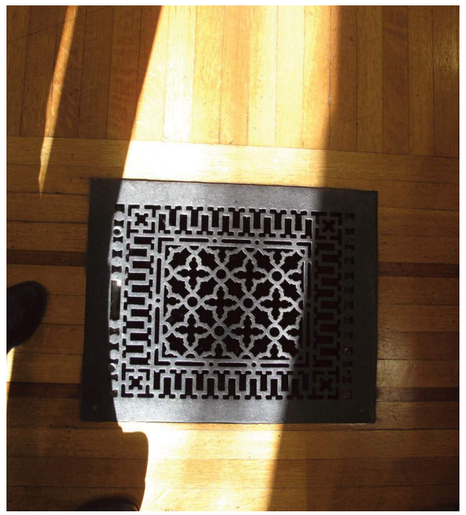
Second story mezzanine at top of stairs.



Ground floor corridor, secondary stair.



Second story office.



Detail of decorative iron grille.

Front door.

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HISTORIC CONTEXT

BRIEF HISTORY OF SAN JOSE

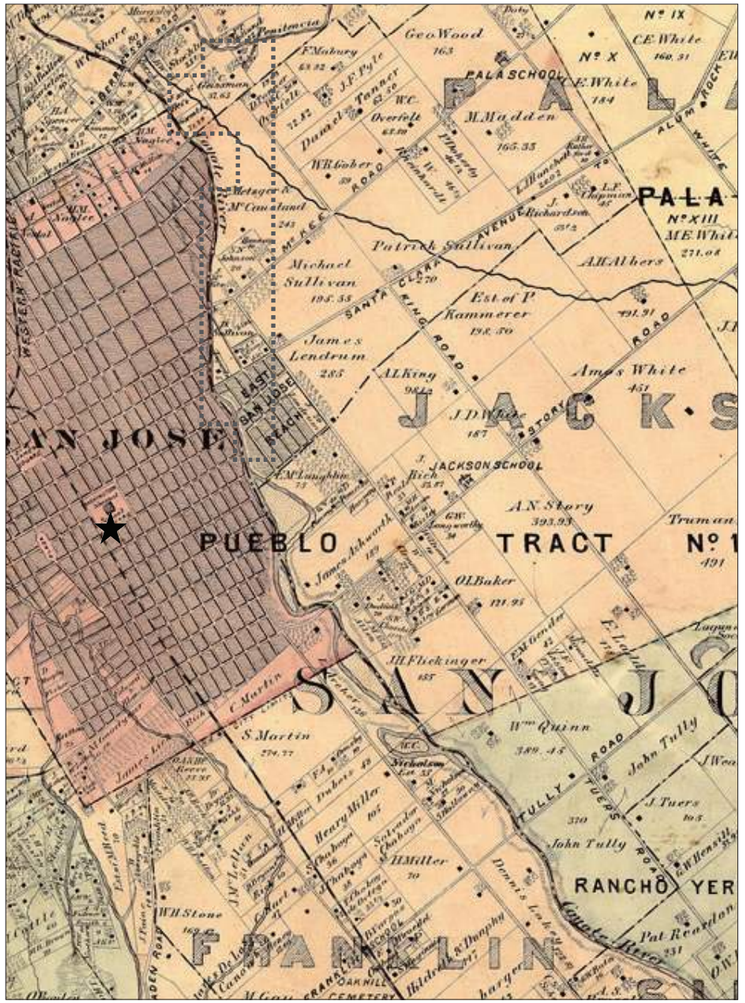
El Pueblo de San José de Guadalupe was established in 1777 on the banks of the Guadalupe River by José Joaquin Moraga. Following Mexican independence, the secularization of the missions in 1834, and the relaxation of immigration restrictions, an influx of American immigrants began slowly making their way over the Sierra Nevada Mountains into California. The annexation of California by the United States in 1849 and the ensuing Gold Rush further transformed San José, and it soon became the primary supply center for miners taking the overland route to the gold fields. San Jose was incorporated as a city in 1850.

Downtown San José served as the mercantile, financial and social center of the Santa Clara Valley throughout the entire Spanish/Mexican period (1777-1848) and through most of the American period from 1849 until the late 1950s. The central business district was a thriving area of department stores, restaurants, hotels, theaters and civic buildings until the mid-twentieth century. At that time, automobile-driven suburbanization and decentralization led to the eclipse of downtown San José by suburban shopping centers and regional malls, which rapidly took the place of apricot and cherry orchards on the fringes of the city. Even after economic decline set in, downtown San José remained one of California's oldest and best preserved historic urban cores until urban renewal projects led to the demolition of much of the city center in the late 1960s. However, a significant amount of historic resources survive within the boundaries of the Downtown San José Commercial Historic District, especially along the major east-west arterial boulevards of San Fernando and Santa Clara Streets, as well as along the narrower numbered streets.[1]

SITE HISTORY

The subject property, historically known as the Martin House, and later as the Scheller House, is currently referred to as the Associated Students House. It originally faced northeast onto 5th Street (301 S. 5th Street), which divided the subject block in the north-south directions until the mid-1960s, when San Jose State University's campus redevelopment replaced several surrounding residential properties with multi-story university buildings and a parking structure. Other original outbuildings on the site included a garage in the rear southwest corner of the parcel (removed by c.1980). The AS House remained in its original location through the late 1990s, though its landscaping and setting were significantly altered and its garage removed. In order to save the building from demolition as a result of further campus redevelopment, it was lifted, moved 80 feet to the east, and rotated 90 degrees to face northwest onto the Paseo in 1999-2000. The house was rehabilitated in 2000-2001 for its new use as the Associated Students department offices. The Paseo de San Carlos was pedestrianized by the mid-1990s (See historic aerials on page 12).

1 Summarized from Page & Turnbull, "San Jose Historic Context," September 2014.



Block Map of San Jose, 1876. Future site of subject property starred. Edited by Page & Turnbull.

Birdseye view of San Jose, looking north, 1875. Future site of subject property starred. Edited by Page & Turnbull (Wikipedia).

San Jose South First Street at San Antonio, c. 1920 (http://www.thesanjoseblog.com/)

HISTORIC CONTEXT

University House pre-restoration and relocation, c. 1995 (Charlene Duval)

Associated Students House, post-relocation, 2003 (Charlene Duval)

BUILDING HISTORY

The following historic information is summarized from Rincon consultants' Cultural Resources Report and expanded upon based on additional research. See the full report in Appendix E.

The Martin/Scheller Residence (1904-1940)
The Associated Students House was designed by celebrated San Jose architect, Theodore Lenzen in 1904. The residence was constructed by Robert O. Summers for Henry Beaumont Martin and his wife, Louise Martin. Henry's family had originally settled in San Jose in 1863 and opened a small grocery store by the 1880s. Henry was a local businessman and by 1892, he had established H.B. Martin & Co., which sold wholesale produce, including grain, flour, feed, potatoes, vegetables, and cheese. Henry married Louise Scheller, a San Jose resident, in 1899, and moved into their new home by 1904. The Martins lived there with Louise's brother, Victor Scheller, from 1905-1915, a prominent local District Attorney. Henry Martin died in 1923, but Louise resided there until her death in 1940.

A Boarding House (Mid-1940s-1963)
Following Louise Martin's death in 1940, the house was converted to an apartment building with at least six or seven individual units. In the early 1960s, the building was referred to in San Jose city directories as the 'Don Lar Apartments'.

University House (Mid-1960s-1991)
Following redevelopment of the surrounding block between E. San Carlos, E. San Salvador, S. 4th and S. 7th streets, the subject property was purchased by San Jose State University and converted to office use. It housed several campus department offices, including Urban and Regional Planning and the African-American Studies departments in the 1980s. By the early 1990s, the building was in a significant state of disrepair and was vacated by 1991.

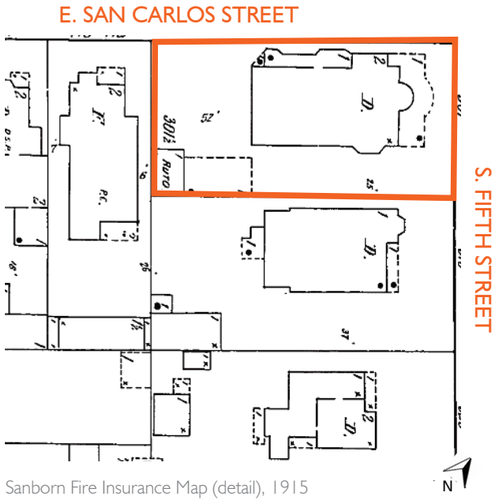
Vacant (1991-1998)
Plans were developed to demolish the house in the early 1990s, following an offer by the city for anyone to take it at no cost and relocate it (no one came forward). No further actions were taken, however, until 1994 at which point the San Jose Preservation Action Council filed a lawsuit and began a campaign to save the house due to its evaluation of individual historic significance. Superior Court Judge Jeremy Fogel ruled in 1995 that the building could not be demolished without completing an Environmental Impact Report (EIR), which encouraged future owners to consider preservation alternatives instead. Despite this ruling, funds and support were challenging to muster and the house remained vacant until 1998, though occasionally utilized as an emegerncy responder training facility and site for vandalism.

Relocation and Rehabilitation (1999-2001)
By 2000, the house had been acquired by SJSU and the Associated Students organization agreed to sponsor a $2.3 million rehabilitation of the house as its headquarters. It was determined that the house should be moved to the east 80 feet to allow for future development, and rotated such that the house's main entry would face the main campus and the Paseo de San Carlos, converted for pedestrian-only use a few years earlier. The original foundation was demolished, and a new one was reconstructed. Today the building hosts the Associated Students Board of Directors, the Executive Director, Government Administration, the Marketing and Events offices, and the A.S.I.T. Departments.

Alterations during the 2000-2001 restoration and relocation included interior remodeling, a partial basement, exterior access stairs, and an elevator, which replaced a section of the rear porch. A wheelchair ramp was also added on the southwest elevation. An enclosed portion of the front porch (current northeast side) was removed to extend the wraparound porch, and a column and stair were added on the side at the northeast corner (See photos this page). Though perimeter planting beds were replaced in a similar layout as appears in original site photographs, the rows of perimeter palm trees in front of the primary facades were not reinstalled.

Portraits of Victor Scheller (top left) and Henry Martin (bottom right), (SJSU MLK Jr. Library)

HISTORIC MAPS & PHOTOGRAPHS



Sanborn Fire Insurance Map (detail), 1915

University House, looking southeast, 1994 (MLK Jr. Library file)

University House, looking southwest, ca. 1998 (Scheller Family history report)

1904 (BUILT)

1915

1930

1951

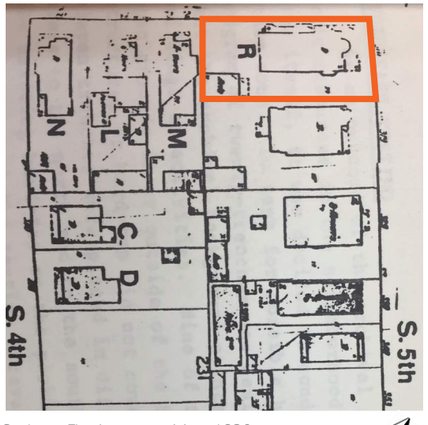
1994

1998

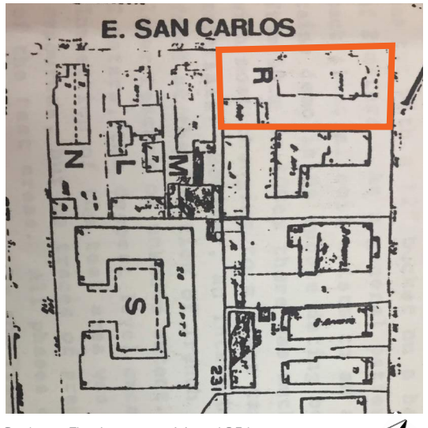
1999

2000

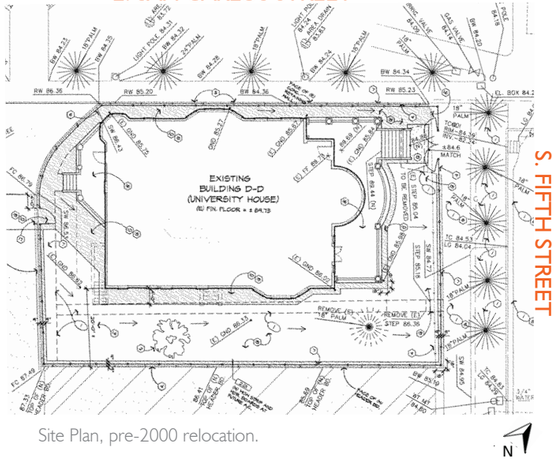
2017



Sanborn Fire Insurance Map, 1930



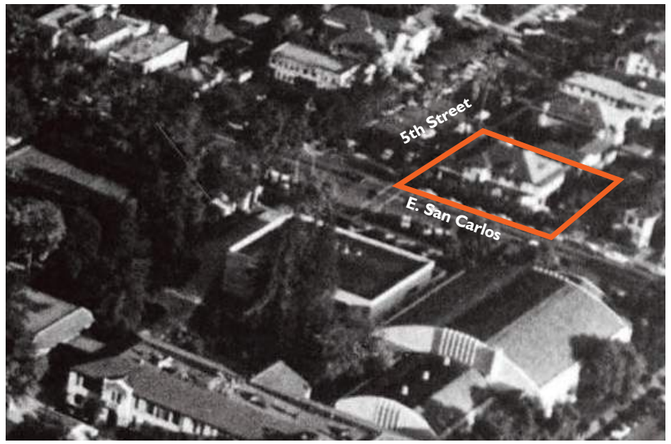
Sanborn Fire Insurance Map, 1951



Site Plan, pre-2000 relocation.

University House, unrestored and on blocks in process of being rotated, c.2000 (C. Duval)

HISTORIC AERIAL PHOTOGRAPHS

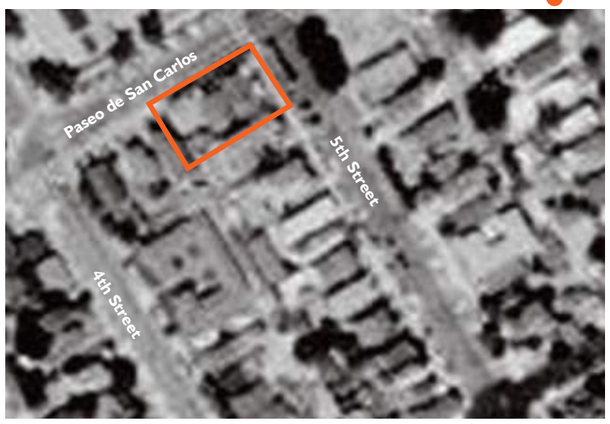


Historic Aerial depicting subject property looking southeast, 1935
(SJSU MLK Jr. Library)

Site Aerial Photograph, following block redevelopment, 1968
(historicaerials.com)

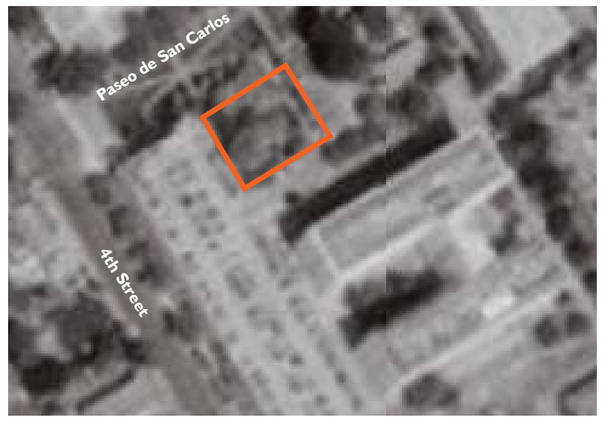
Site Aerial Photograph, depicting addition of parking garage to west, 1987
(historicaerials.com)

1904
(BUILT)
1935
1956
1968
1980
1987
1998
2017



Site Aerial Photograph, 1956
(historicaerials.com)

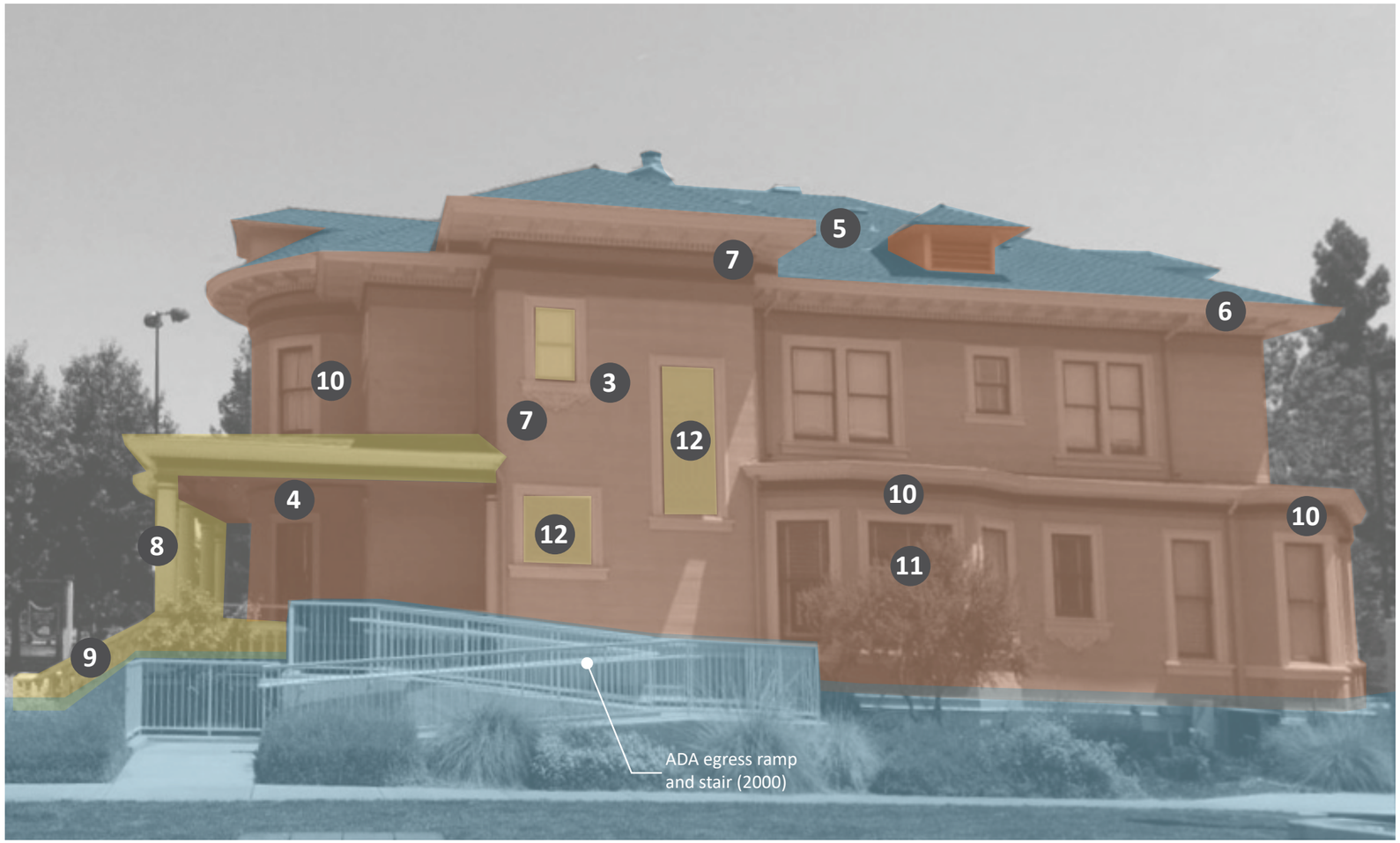
Site Aerial Photograph, depicting further redevelopment to south, 1980
(historicaerials.com)



Site Aerial Photograph, depicting pedestrianization of the Paseo, 1998
(historicaerials.com)

HISTORIC SIGNIFICANCE DIAGRAMS

This section contains a series of diagrams illustrating the relative areas of historical significance at the Associated Students House. For the purposes of this analysis, Page & Turnbull reviewed as-built drawings, historic photographs, surveyed the building, including all exterior façades and interior spaces, and evaluated their relative significance organized into three categories: Primary Significance, Secondary Significance, and Non-Contributing. These categories are further defined at the right. The period of significance for the building is 1904-1915, beginning at its construction through Victor Scheller's occupancy of the house.



Southwest Facade

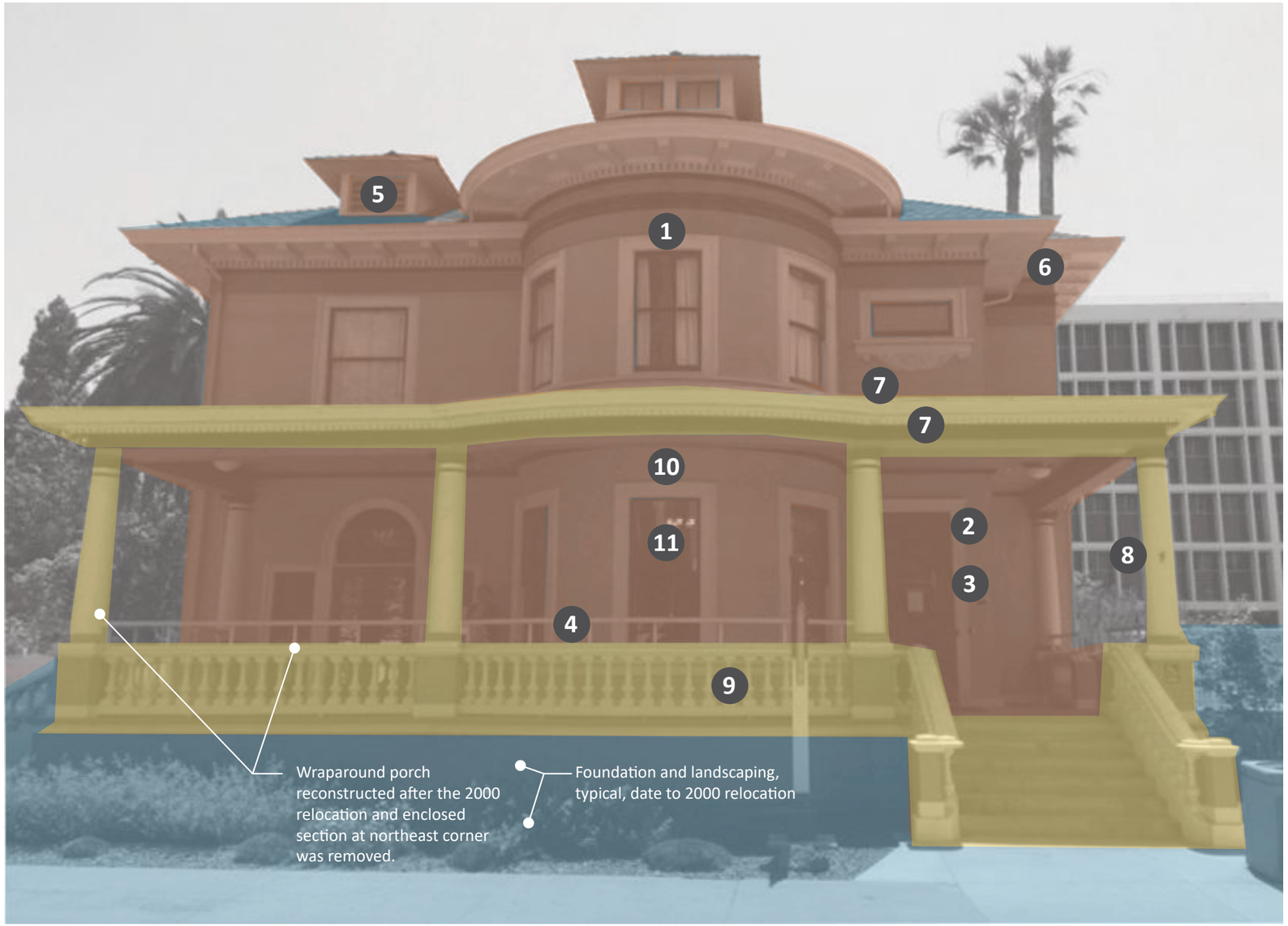
PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows



Primary (Northwest) Facade

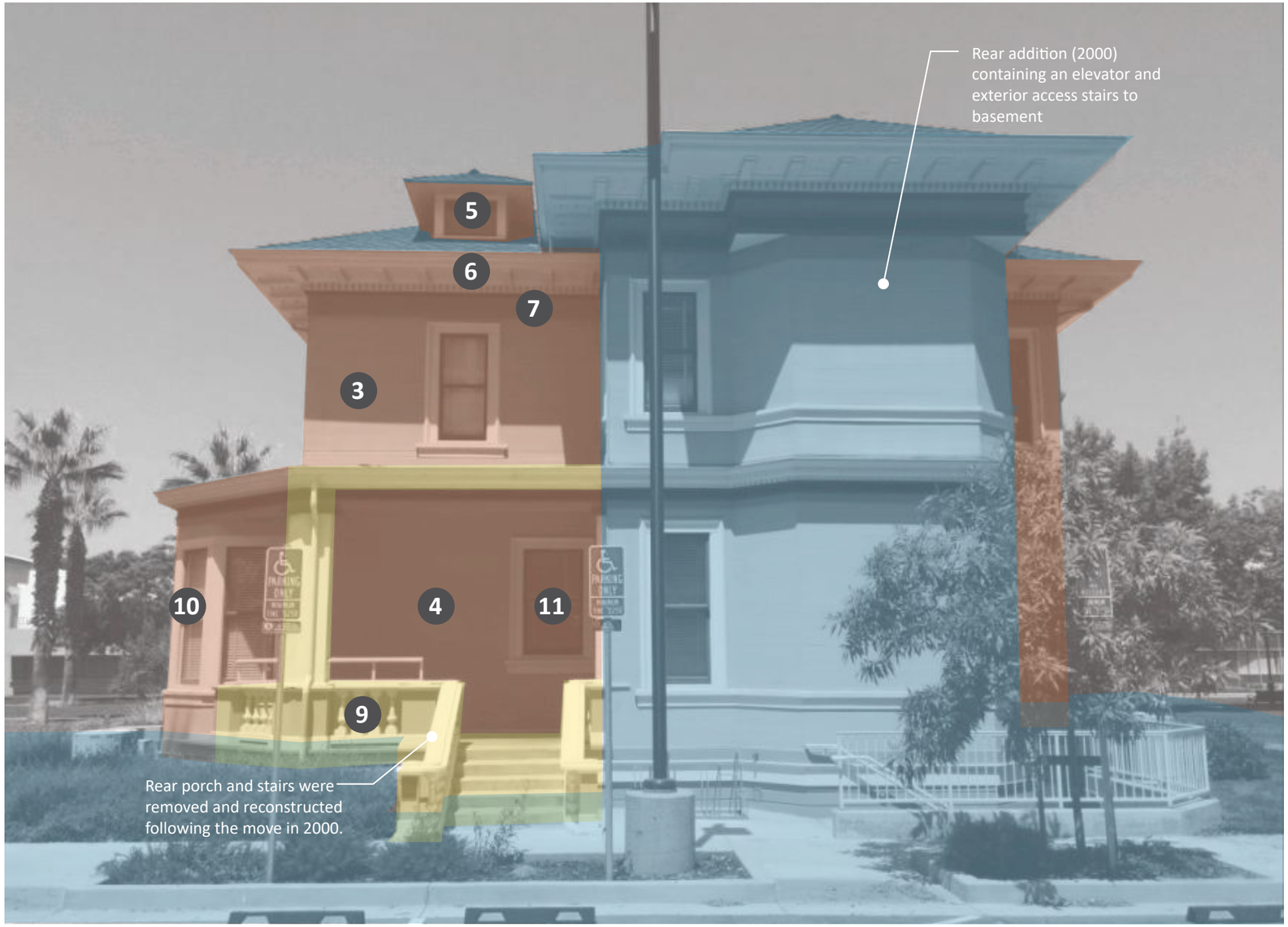
PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows



Rear (Southwest) Facade

PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows

Southeast Facade

PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows

RELOCATION ANALYSIS

MOVING HISTORIC HOUSES: GOOD PRACTICES ANALYSIS SUMMARY

Page & Turnbull worked with Place Economics to prepare an analysis of historic building relocation strategies, entitled "Moving Historic Buildings: A Good Practices Analysis from American Cities That Have Done It," as part of a feasibility study in San Diego in 2009. The analysis considers fourteen "good practice examples," consisting of historic building relocation projects that have been successfully implemented in the past.

The analysis is entitled "Good Practices" because the examples are diverse and are influenced by a wide range of variables. Variables may include reasons for relocation, local policies, groups and organizations involved, financial backing, character of buildings and receiving sites, and extent of work to be undertaken. These variables strongly influence each individual case, and therefore every historic building relocation project should be addressed on an individual basis to determine the best approach; therefore, the Good Practices Analysis concludes that a concrete set of "best practices" is impossible to formulate. However, commonalities among the examples were identified, and they helped to inform a set of "good practices" that can serve as a general guide for other building relocation undertakings. The ten principles of good practice listed below can assist any building relocation project be completed successfully.

Prior to relocating a historic building, ask the following questions:

Why is the building endangered in its current location?

What makes it a candidate for relocation?

What public policy would be advanced by the relocation?

What criteria should be used for selecting a new site?

What parties will be involved, and what are their responsibilities?

The answers to these questions will help teams establish the most important goals for their projects.

1. *Select relocation only as a last resort*

In nearly every example considered in the analysis, the decision to relocate the historic building was not made until all other alternatives had been explored and found infeasible. This principle was followed regardless of whether the entity responsible for the decision was a historic preservation advocacy organization.

2. *Conduct thorough documentation*

In the good practice examples, communities thoroughly documented not just the buildings to be moved, including their site conditions, orientation, and other non-building components of the original location. In the case of the Associated Students House, it is recommended to thoroughly document both 2000 and anticipated 2018 moves.

3. *Establish design guidelines*

In most examples considered in the analysis, a historic building was relocated into a historic district. In some cases, the district was created after the building relocation was planned; in other cases, it was a pre-existing district. Regardless of whether or not a district was present, design guidelines were typically in place and affected any reconstruction or siting of the relocated building, and future infill construction. (In this case, the SJSU campus guidelines apply.)

4. *Ensure an appropriate new site context*

As has been noted above, good practice examples took considerable care to ensure that the relocated building fit seamlessly into its new urban and architectural context. (In this case, the new site context is the SJSU campus between the 9th St. Paseo and S. 10th Street.) Relevant considerations include age, scale, style, and lot size. In good practice examples, buildings were also frequently relocated to areas appropriate to their original and intended use.

5. *Ensure an appropriate new site plan*

Related to principle 4 above, the compatibility of a relocated building with its specific site was given considerable thought in the good practice examples. Important historic and aesthetic considerations included orientation and lot size similarity, as well as practical criteria such as access, context disruption, and the amount of demolition or utility removal required.

6. *Gain formal or informal assistance from the preservation community*

Moving historic buildings is generally not regarded favorably by the preservation community and is only considered acceptable when all other alternatives have been exhausted. However, in almost every good practice example, the preservation community was either a direct participant in the relocation efforts and/or actively engaged in developing the relocation plan. It was found that this level of involvement led to strong and favorable perceptions of project success by the community. In the case of the AS House, the local groups to inform would primarily be the SJSU campus community and the Preservation Action Council of San Jose (PACSJ), who were involved in the previous relocation.

7. *Gain local community support*

Support from preservation advocates does not necessarily translate to support from the broader community, particularly those who will be the neighbors of the relocated building (in this case the SJSU community). Similar to the preservation community, it is helpful to foster involvement and feedback from local community groups to increase support and favorable perceptions of the relocation efforts.

8. *Achieve a sale price within range of neighborhood market (Not applicable for AS House)*

9. *Consider all contributing factors affecting a relocation*

Good practice examples involved far more considerations than simply the questions, "Can we move that building?" and "Do we have a site to move it to?" A more comprehensive set of variables was considered, including the cost of the move, the route of the move, and disruption to the new surroundings. The aforementioned "fit" between the building to be moved and its new site context was a less tangible but crucial factor to be considered.

10. *Accept that time and effort must be invested before project is considered successful*

Only in rare occasions does the relocation of a historic building give the impression of instant success. More typically, the success of relocation can be determined 5 to 10 years after a building has been moved.

These principles of good practice concern both immediate and secondary actions in undertaking a historic building relocation. The Good Practices Analysis concludes that moving historic buildings should continue to be a "last resort" strategy, taken only after all other avenues have been exhausted. However, when that point has been reached, good practice examples prove that relocation strategies can be successful if they are supported by historic preservation advocates and advance both preservation and public policy goals. The potential relocation of the SJSU Associated Students House initially appears to meet both of these goals, and upon a decision to move forward, the project would benefit from engagement with the SJSU and local preservation communities to further its support.

EXISTING BUILDING CONDITIONS ASSESSMENT

Yellow haze on exterior and deteriorated boards on second level, 2017 (Page & Turnbull)

Typical deterioration of exterior boards at west facade due to sun exposure, 2017 (Page & Turnbull)

Architectural - Exterior

The Associated Students House is in good condition. Given the recent rehabilitation of the house after its move in 2000, the house remains in good form with the following minor issues. These items should be addressed after the move in addition to any damage sustained as a result of the move:

EXTERIOR SIDING: Good/Fair

- The west facade exhibits an increased level of deterioration in the exterior siding compared to the rest of the house due to its increased sun exposure.
  - There is a yellow haze on the exterior below the second level window shared in the Vice-President and Controller's offices. This haze was not evaluated at close range due to access. The source of the haze should be determined and the area repainted (and/or repaired) as needed.
  - Along the base of the second floor level, south of the historic stairwell and along to the rear of the house, there appears to be increased deterioration at the lowest two boards. Close range access was not available. The issue may be due to flashing in this location. After the move, the boards should be more closely evaluated and repaired, mitigating the cause as necessary.
  - The boards on the west façade have an increased level of separation in their paint coating. The façade should be repainted after the move to keep the siding watertight and prevent increases in these gaps.
  - The covered electrical outlet near the entry door on the north façade has a broken weather cover. Replace it (ideally before the move as it presents an electrical safety hazard).
- Utility ingress points exist on both the east and west facades near the current south facade. If these openings are not to be reused after the move, the boards will need to be repaired with Dutchman repairs and repainted to match the surrounding boards.

WINDOWS: Good/Fair

- Windows everywhere but at the west facade were in good condition. At the west facade, multiple window sills and bottom sash rails had paint delamination and the beginnings of UV deterioration in the exposed wood. Some sashes were starting to show joint separation. Exposed wood surfaces (and areas with discoloring due to UV damage) should be repainted as soon as possible to protect the wood windows, ideally pre-move.

West facade utility ingress locations, 2017 (Page & Turnbull)

SIll and window joint deterioation, 2017 (Page & Turnbull)

Nails used on the historic exterior should not be mild steel, 2017 (Page & Turnbull)

Possible deterioration of the exterior boards above the north porch , 2017 (Page & Turnbull)

- At the north façade, raw steel nails have been installed around the window and door frames (presumably to carry lights during the holiday season). These nails should be removed, or else replaced with galvanized or stainless alternatives to prevent any future rust bleeding onto the historic trim.
- A handful of windows have minor damage in sills or frame casing. Patch, repair, and repaint.
- Two windows, one at the east facade and one on the south façade had small mud nests, likely wasps. These locations are not active, but the mud should be removed.

GUTTERS: Good/Fair

- No water tests were conducted of the gutter system, but minimal water damage was visible on the building exterior near the downspouts. Notedly, at the southeast corner where the porch meets the front of the house, there was a darkening, indicating possible rot around the downspout at the exterior wall. The wood should be evaluated more closely after the move and repaired or replaced as necessary.

SOFFITS: Good

- There is broken board at the southeast corner of the roof; it should be fitted with a Dutchman repair.
- The north east corner at the roof line shows some breakage at the edge and a partially missing board; repair as required.

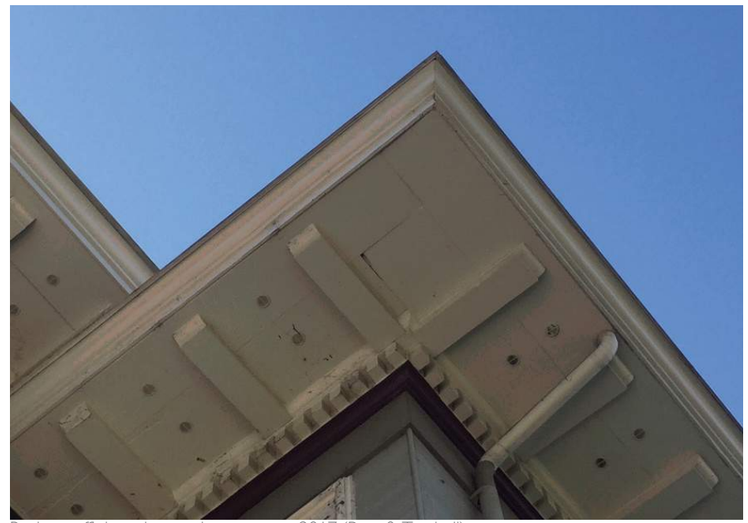
ROOF: Not evaluated

- Condition of the roof was not evaluated due to access, however, no water staining spots were visible on the house's interior.

PORCHES: (non-historic)

- The current non-historic porch railings are exhibiting two locations of major infestation damage, one at the north porch and one at the south. It appears that a burrowing insect has caused damage to the wood used in the porches since 2000. Other wood surfaces in the building do not show any signs of similar damage. Should the same plans be used for the porch recreation on the new site, an alternate wood variety should be selected to construct the porch details at the columns and balustrades.

Broken roof edge, 2017 (Page & Turnbull)



Broken soffit board at southeast corner, 2017 (Page & Turnbull)

Insect damage in porch railing, 2017 (Page & Turnbull)

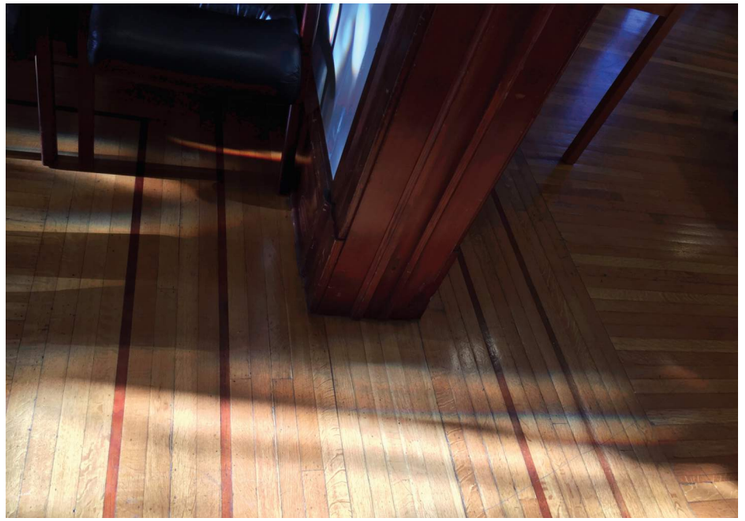
Architectural - Interior

The interior exhibits standard wear and tear issues of a well-used building: paint delamination and nicks and scratches of wall surfaces. The stained wood work appeared in great condition in all locations. The Ceramic tiles surrounding the fireplace in the first floor conference room were also in good condition with no cracks or breaks. All cove ceilings (where access was available) were in good condition with no visible cracks.

Should the building need to be separated into two pieces in order to accommodate the move, additional repair work will be necessary, including:

- Patching the boards in the historic first floor (in the foyer and other historic front rooms), matching the existing border framing in use.
- Repair to any damaged plaster cove ceilings. Schemes for separating the building include a break point that will have to occur within at least one room with a cove ceiling. The ceiling will need to be patched to match adjacent finish with appropriate compatible patching material.

The first floor fireplace is in good condition, 2017 (Page & Turnbull)



Historic flooring should be as undisturbed as possible or else patched to match in the event that the building has to be taken apart to be moved, 2017 (Page & Turnbull)

Typical cove ceilings, first floor conference room shown, 2017 (Page & Turnbull)

Structural Assessment

The existing timber framed structure includes two full floor levels plus a partial finished attic floor level and an elevator addition and partial basement which were added to the building as part of the 1999-2001 building relocation, in which the existing building was rotated 90 degrees and moved from a nearly adjacent building site. The original and renovated construction is conventional timber framed construction, supported by the new concrete foundation and basement walls. This type of construction has not changed significantly over the life of the structure and construction of similar light framed buildings continues to this day, using similar techniques though the use of manufactured timber framing and new framing hardware has grown more common over the past several decades.

The objective of the current project is to relocate the structure, while minimizing the disruption and cost of renovation of the existing superstructure (both structural and architectural). The move will require some removal of siding and exposure of the conditions at the base of the existing building, to erect a temporary framework necessary to lift and move the building. The front and rear porches will once again, likely be removed and reframed. Other timber framing of the structure above the base level is not intended, unless such work is necessary to repair timber damaged by termites or moisture or to make seismic improvements, if required by the relevant building code provisions and/or governing Building Officials.

Based on our meeting with University representatives and our brief walkthrough assessment, the building interiors and exterior appears to remain in relatively good condition, apart from some limited observed rot damage at the rear porch and possibly some areas of the front porch and we would not expect to find any other major gravity framing deficiencies in the building. As the construction begins we would expect some new rot or evidence of past insect infestation will be revealed, as is common for buildings of this type and age, which will require some localized repairs, and some funds should be set aside for this repair work, but we have no reason to expect more extensive repairs or replacement of framing will be necessary.

As part of the 2001 relocation project, it is our understanding that an architectural renovation was undertaken to improve the interior and exterior conditions of the building and front and rear porches were removed and then rebuilt following the move. Additionally, structural drawings were, prepared by "Dominique Chu, Consulting Structural Engineer," and dated 10.04.2000. These drawings depict the new basement and foundations, required to complete the move, and also suggest that the building was seismically retrofitted, though this could not be verified during our brief walkthrough with only limited access to the building and no access to the crawl space and basement areas. We propose to confirm this work was completed, to the extent that is readily visible, at the start of the next phase of work.

These previous structural construction drawings, include adding plywood over existing roof sheathing, adding plywood sheathing over existing stud walls and hardware to create interior shear walls. The drawings reference the 1996 Uniform Building Code but do not explicitly reference this code as the basis for seismic design. Further review and discussions with the University and the responsible Building Officials will be required to fully vet whether seismic study and improvements will be necessary.

Rear porch, southwest corner, 2017 (Page & Turnbull)

PROPOSED RELOCATION APPROACH

PRE-MOVE CONSULTANT COORDINATION

1) Several consultants, including the project architects, structural engineers, and building movers will be engaged by the University to provide design services for the new foundation and basement structure at the Receiver Site.
2) Structural team to provide global gravity and lateral analyses to determine design loads for the foundation and basement walls in compliance with CBC
3) Coordination between the engineers, architects, and building movers/ contractors, and University to develop the best strategy for new construction sequencing to determine realistic project schedule and cost
4) Depending on further review of Code provisions (Code Analysis pg. 30), other structural engineering services might be required (See Appendix C)

PRE-MOVE STABILIZATION AND DECONSTRUCTION

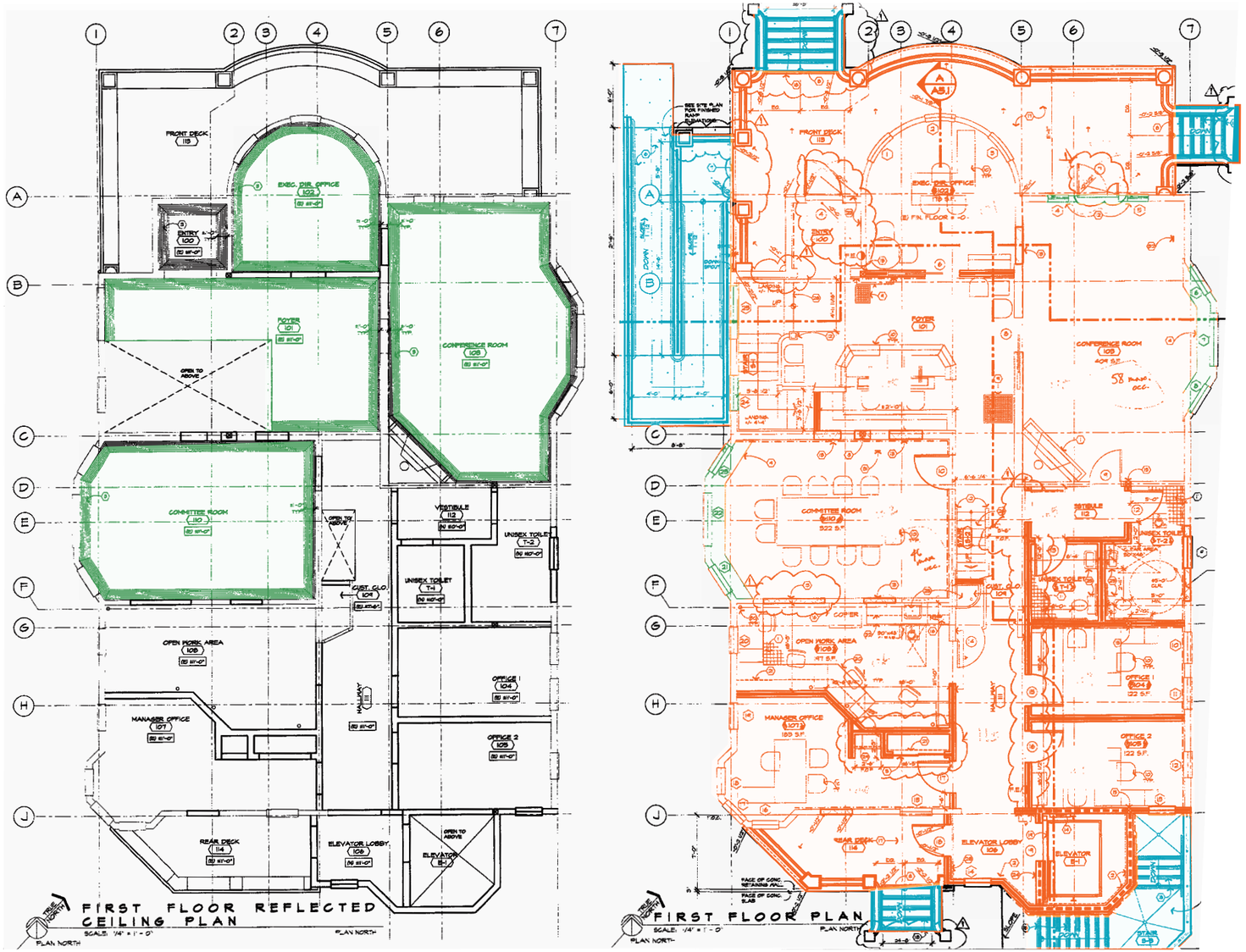
Since moving structures is a unique specialty and is a temporary condition during the construction period only, the contractor responsible for moving the structure is engaged either directly by the University or by a general contractor, and is expected to contract on a design-build basis to perform the following tasks.
(See Appendices B&C for complete Moving and Structural Scope of Work)

1) Associated Students department to vacate 30 days prior to move.
2) Remove perimeter site plantings and other removable infrastructure.
3) Remove front and rear steps and ramp (to be reconstructed); porches will remain because it was determined by Kelly Bros. that they will fit along specified route.
4) Stabilize cove ceilings and millwork (window seats) and/or temporarily remove art glass windows to be protected from damage during move.
5) Movers to disconnect plumbing where steel beams will be located.
6) Movers to disconnect any bolts or tie-downs so building can be raised on dolly.
7) Disconnect all utilities, including HVAC, other Plumbing (General Contractor).
8) Install steel beams, other structure and cribbing and jacking system to create a platform and raise the building onto it (about 5')
9) A dolly system will be used to move the building and metal plates will be laid down on areas of grass on Paseo before reaching S. 4th Street.
10) Demolish abandoned foundation and repair site as necessary.

POST-MOVE RECONSTRUCTION AND REHABILITATION

1) House to be resituated as designed on the Receiver Site and to be kept elevated at 5' from floor joist to the ground.
2) Movers will lower the building onto the new foundation, removing all equipment. Pockets in the foundation will remain to remove steel beams.
3) Connect utilities to building once in place (General Contractor).

See page 23 for Receiver Site preparation and Post-Relocation reconstruction, and page 24-25 for Analysis and Proposed Relocation Route.



NTS

These plans indicate the footprint of the AS House to be moved intactly (shaded orange), the elements to be removed pre-move and reconstructed at the Receiver Site (shaded blue), as well as interior features that will possibly require stabilization pre-move and rehabilitation following the relocation (e.g. cove ceilings, millwork in green).

LEGEND

- TO REMAIN INTACT DURING MOVE
- TO BE REMOVED & RECONSTRUCTED
- TO BE STABILIZED PRE-MOVE AND/OR RESTORED POST-MOVE

PROPOSED RELOCATION APPROACH

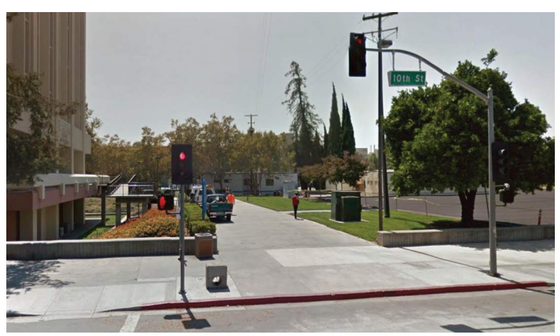
RECEIVER SITE DESCRIPTION

SJSU staff have determined the new location for the AS House to be in the northeast quadrant of the campus, directly north of the Business Tower and adjacent to the Student Union Plaza. The site is currently occupied by temporary modular building "F" (Building Number 140F) and an open lawn, which is directly adjacent to a surface parking lot. Relocation of the building to this Receiver Site will remove approximately 18-20 parking spaces from this lot. Preliminary analysis indicates a number of above ground utilities as well as buried gas, telecommunication and water lines will also need to be relocated. Preliminary analysis of the utilities indicates that the 'Receiver Site Plan-Alternate Scheme' (page 27) would minimize necessary utility relocations.

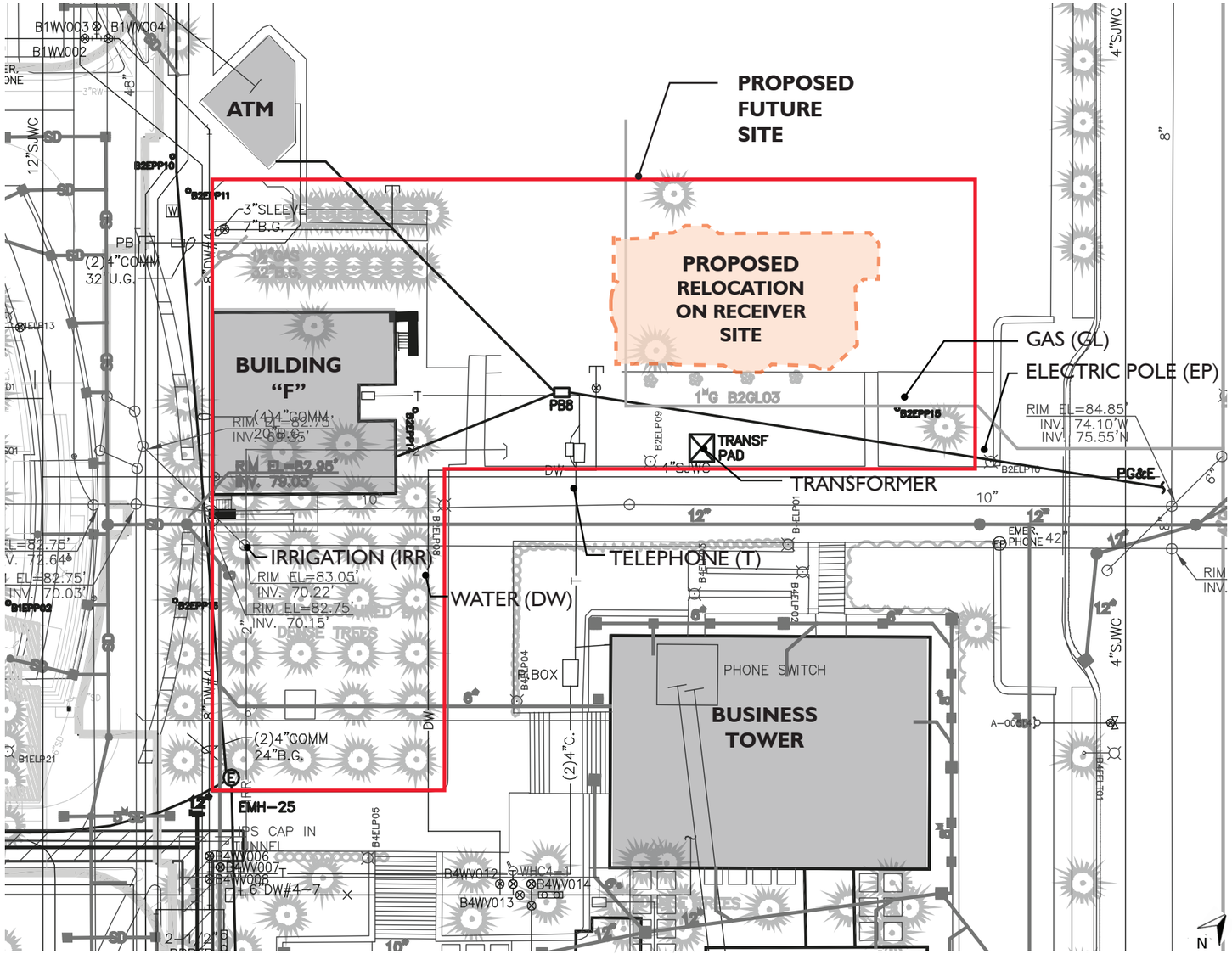
For the purposes of this feasibility study, SJSU provided a geotechnical report from 2008 that examined the area to the immediate west during expansion and renovation of the Student Union. A preliminary review of this report indicates that a high water table may be encountered at the Receiver Site. Ground water was encountered at the nearby site between 11.8 and 15 feet below the existing ground surface. While this study assumes adequate bearing capacity of the site to support the Associated Students House, it is recommended that SJSU undertake another geotechnical report to confirm the load bearing capacity of the soils.

RECEIVER SITE PREPARATION

1) Prepare geotechnical report to confirm soil conditions of Receiver Site.
2) Design & permitting of new foundation as required
3) Remove existing temporary buildings, trees, lighting, signage, and other infrastructure. Partial demolition of Adjacent parking lot.
4) Construct new basement foundations and/or deep pier foundation system (if recommended). Note: it is recommended that new basement walls be constructed after building has been moved into place by movers.
5) Prepare site utilities and hookups on new site (see Utility Siteplan at right).



Receiver Site, looking west from S. 10th Street, 2017 (Google Maps)



RECEIVER SITE UTILITY PLAN
SCALE: 1"=100'0"

RELOCATION ROUTES ANALYSIS

Several relocation route alternatives were initially identified in order to compare the varying site conditions and obstacles (see table below) and determine an appropriate and most 'feasible' route to analyze in greater depth. Page & Turnbull's observations were recorded for each route alternative, including the trees, overhead wires, traffic signals, telephone and cable poles, and campus gateways, etc. Different paving conditions, especially on routes internal to campus, were also noted. A site visit in March 2017 confirmed several measurements on the different routes to determine the feasibility of various path widths and existing infrastructure. Following this analysis and input from the building movers and structural team, route 1a-2 (bold in table below) was selected as the most feasible option based on the goals listed below:

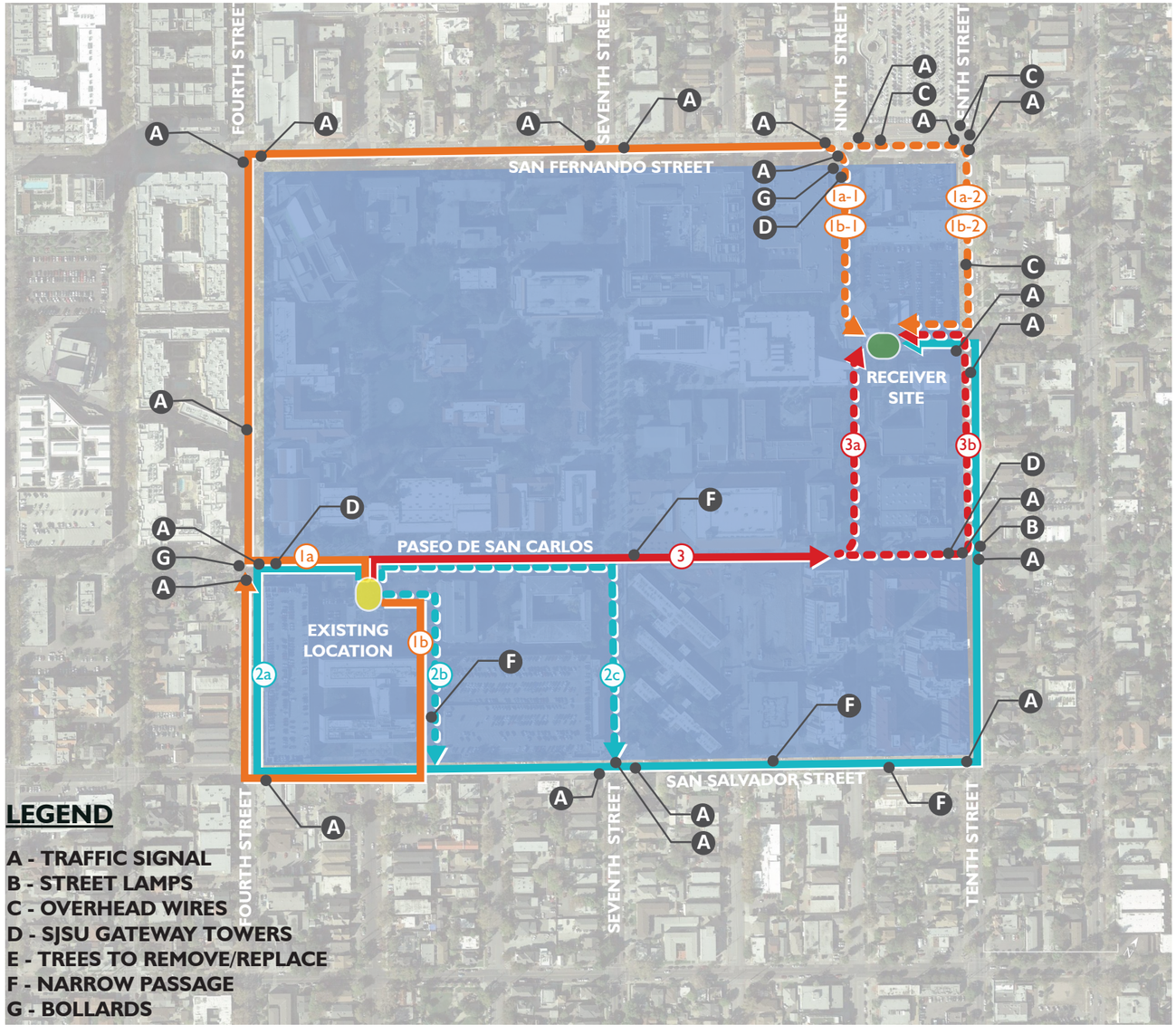
GOALS

- Move house on widest streets to avoid bisecting the house
- Minimize cutting down or temporarily removing trees
- Avoid varying paving conditions to maximize stability during move
- Avoid disrupting city utilities and infrastructure as much as possible
- Minimize the dismantling of campus gateways (not individual historic resources or contributor to the historic district) or other architectural features
- Establish a cost-effective strategy for relocation

ROUTES	Path Length (mi.)	a. Traffic Signals	b. Street Lamps*	c. O-H Wire Xing	d. SJSU Gateway	e. Trees to remove**	f. Narrow passage	g. Bollards
1a-1	.75	6	38	0	2	Yes	1	10
1a-2	**.91**	**12**	**55**	**10**	**1**	**No**	**0**	**7**
1b-1	1.01	9	48	0	2	Yes	2	10
1b-2	1.20	14	54	10	1	Yes	1	7

* Number of street lamps shown indicates the total quantity along the routes and a 'worst case scenario' for removal; actual widths between lamps will be verified at a later time, and it is possible that not all street lamps will need to be removed.

** Number of trees to remove does not include those at the Receiver Site.



scale: 1″ = 400′

PROPOSED RELOCATION ROUTE

PROPOSED MOVE SEQUENCE

The following route (1a-2) was determined to be most feasible following Page & Turnbull's site visit survey and observations by the Kelly Brothers House Movers and the Daedelus structural engineering team, based on their analysis of the route obstacles and extensive experience in historic house relocation.

The diagram (right) was prepared to indicate the footprint of the Associated Students House moving intactly (exterior stairs and ADA ramp to be removed and reconstructed) along the recommended move route. The following sequence was proposed by Kelly Brothers House Movers (See Appendix B).

1. Building to be moved forward, pivoted, and moved west onto the **Paseo de San Carlos**, fitting between the two rows of palm trees at the Paseo perimeter.

2. Dismantle panelized concrete SJSU Gateway (by SJSU); to be reconstructed. The Gateway is not an individual historic resource or contributor to the historic district.

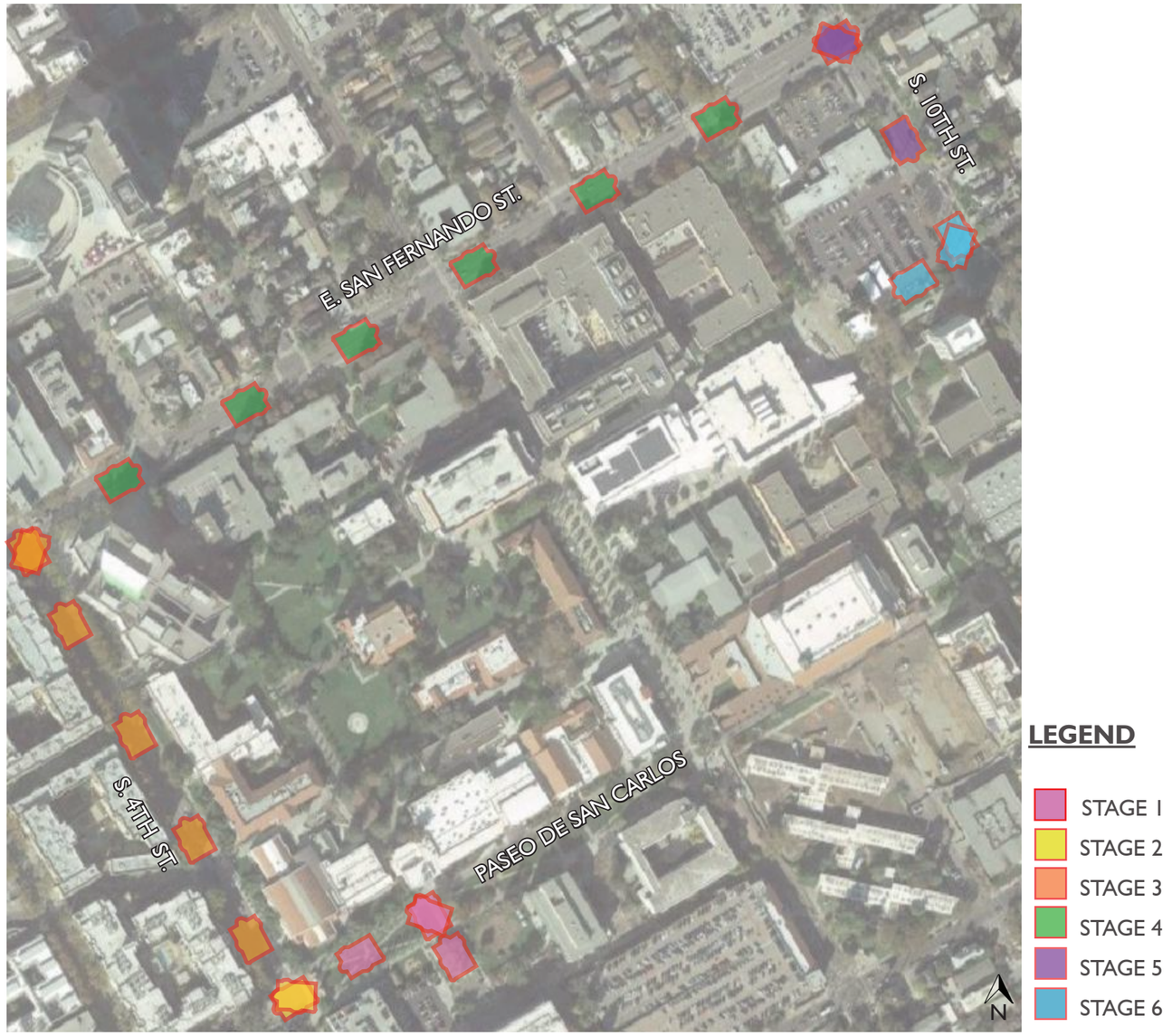
3. Turn right (northeast) onto **S. 4th Street.**

4. Turn right (east) onto **E. San Fernando Street.** Remove signal lights on E. San Fernando Street and approaching 9th and 10th Street intersections, the crossing overhead cables and hot lines must be lowered to allow access (by City). Tree trimming will also be required, but likely not removal.

5. Turn right (southeast) onto **S. 10th Street.** Service lines to residential properties must be temporarily removed (by City), and trees trimmed. Traveling southwest on 10th Street, all electric, phone and cable service lines to residences must be removed. The **intersection at E. San Fernando and 10th Streets** will required additional utility coordination due to the complexity of overhead wires.

6. At Parking Lot 4, at the edge of campus, the house will again pivot 90 degrees to face west towards the main campus, the Paseo, and the Student Union and be moved into position above the new foundation at the **Receiver Site**.

Depending on the logistics and cost, following coordination with the University, the City of San Jose and Utility companies, the building may be moved in either one or two sections. It is preferable to move the building as a single piece to reduce the time and cost of the move and to eliminate the need to reconnect two pieces. However, the logistics and obstructions along the move may require moving the building in two pieces. An additional cost for moving in two pieces has been provided by the move contractor consulting for this feasibility study and is included in the cost estimate. Similarly, Kelly Brothers has provided an estimate of added cost if the building is moved over a partial basement and a separate price estimate if moved over a full basement.



Proposed Relocation Route (Daedalus Structural Engineering, Edited by Page & Turnbull).

PROPOSED RELOCATION ROUTE

Paseo de San Carlos SJSU Gateway, 2017 (Page & Turnbull)

E. San Fernando Street, 2017 (Page & Turnbull)

RELOCATION ROUTE CONTEXT DESCRIPTION

The streets surrounding the SJSU campus are predominantly commercial and high-density with large institutional buildings on the campus sides of the streets and some commercial and residential on the opposite sides. In comparison to routes internal to the campus, the public streets are wider and will involve less removal of trees and other campus architectural features or utilities. The Kelly Brothers recommend having utility crews present during the move, including electrical, telephone, cable, etc., as well as a tree trimming crew to remove unforeseen obstacles.

Streetscape Features

- Mixed Use, with Commercial corridors on S. 4th and E. San Fernando Streets and Residential corridors on E. San Fernando and S. 10th Streets
- Varying medium to large setbacks from sidewalks for commercial, residential, and institutional properties
- SJSU Gateway Arch between the Paseo de San Carlos and S. 4th Street (would be required to be dismantled and reconstructed following the move)
- Few garages, limited off-street parking; on-street parking on all streets along route would need to be coordinated and cleared before the move
- Wide sidewalks
- Sidewalks separated from street by planting zones or scattered trees (deciduous and palm trees along campus side) on S. 4th and S. 10th streets
- Overhead wire crossings on S. 4th Street, San Fernando and 10th Streets
- Large parking lot adjacent to Receiver Site on north side

Lighting

- City street lights lining all streets external to campus
- Standard traffic lights at intersections (to be temporarily removed by City)

Neighborhood Identity

- SJSU Gateways at every entry point to campus at transition from sidewalk; (Recommended route only requires the dismantling of one Gateway)
- Campus signage along route

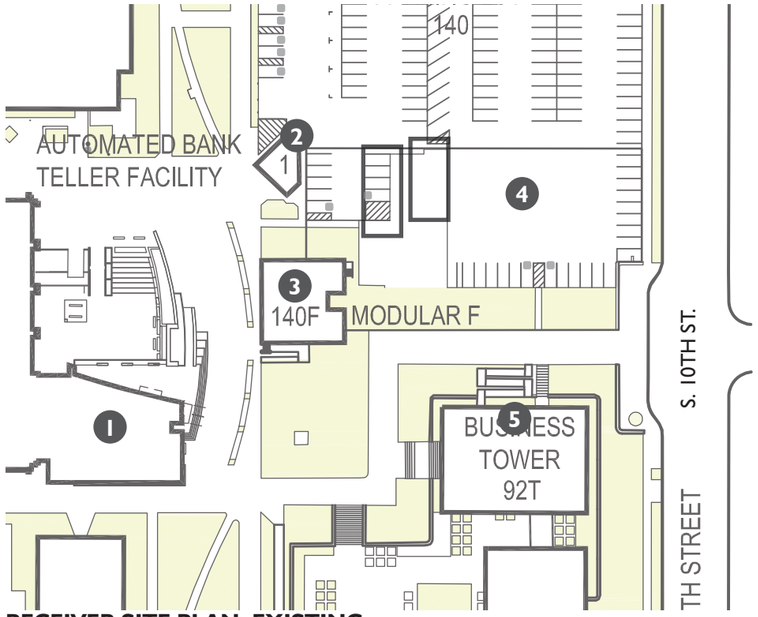
Buildings

- 1-3 story, mixed-use and institutional campus buildings are most common along route with some residential along E. San Fernando and 10th streets
- Stuccoed and brick-clad commercial and institutional buildings and wood-clad residences are most typical
- Flat, gabled & hipped roofs
- Modern or vernacular styles most common

S. 10th Street, 2017 (Page & Turnbull)

Receiver Site and adjacent lawn, 2017 (Page & Turnbull)

ANALYSIS OF RECEIVER SITE PLAN



RECEIVER SITE PLAN, EXISTING
SCALE: 1"=100'0"

RECEIVER SITE FEATURES:

1. STUDENT UNION
2. ATM KIOSK
3. MODULAR BUILDING "F" (to be removed)
4. PARKING LOT (to be reconfigured)
5. BUSINESS TOWER

RECEIVER SITE PLAN, AS PROPOSED BY SJSU
SCALE: 1"=100'0"

PROS:
- Event lawn remains the current size
- House is directly accessible from the Paseo

CONS:
- Indirect relationship between the Paseo, Student Union, and Lawn A
- House has no green space in front
- Event lawn is disconnected from campus core and next to a busy street
- Requires more relocation of site utilities

RECEIVER SITE AREAS (+/- s.f.)

	EXISTING	PROPOSED	ALTERNATE
LAWN A	14,000	14,400	11,000
LAWN B	4,800	8,300	7,200
GARDEN	not included	not included	4,300

RECEIVER SITE PLAN ALTERNATE SCHEME
SCALE: 1"=100'0"

PROS:
- Both Lawns (A & B) have a direct relationship with the Paseo and Student Union, and are perceived as one larger open space
- Lawn A provides a welcoming foreground for the House
- House features a rear and side garden as buffer between 10th Street
- Minimizes relocation of site utilities

CONS:
- Event Lawn slightly smaller than current size
- House not directly located on the Paseo

RECEIVER SITE AREAS (+/- s.f.)

	EXISTING	PROPOSED	ALTERNATE
LAWN A	14,000	14,400	11,000
LAWN B	4,800	8,300	7,200
GARDEN	not included	not included	4,300

PRELIMINARY CODE ANALYSIS

APPLICABLE BUILDING CODES

This project, which includes new foundation and basement construction, the relocation of the structure and any necessary improvements, must be designed and constructed as required by the 2016 California Building Code (CBC), Title 24, incorporating provisions adopted by the California Building Standards Commission (BSC) as defined in the California Building Code adoption matrix. Specifically, the project must comply with the California Historical Building Code (Part 8), the California Existing Building Code (Part 10) and other relevant sections of the Code referenced in these two parts. No changes of use are proposed for the property on the Receiver Site. It will continue to be used as the administrative office space of the Associated Students department for San Jose State University.

More extensive Code excerpts are included as Appendix C at the end of this report but discussion of the more relevant and fundamental provisions that have the greatest influence on project feasibility and cost are briefly summarized below. This discussion is not intended to draw definitive conclusions but provides the necessary framework for further discussion and evaluation.

California Existing Building Code (CBC), 2016

The following sections indicate that the proposed work will require seismic evaluation and strengthening design. Exception (1) implies that the Building official can allow existing construction complying with standards in force at the time of construction (or more likely in this case seismic improvements that appear to have been made as part of the 1999-2001 structure relocation project in compliance with the then current 1996 Uniform Building Code) to be considered "alterations" (i.e. work that is part of the move) in compliance with the current code if structural alterations are limited. This is entirely at the discretion of the Building Official. If seismic work is required by the Building Official, the relocated building must comply with Seismic provisions of Sections 317-322.

301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections **301.1.1** through **301.1.3** as selected by the applicant. **Sections 301.1.1** through **301.1.3** shall not be applied in combination with each other. Where this code requires consideration of the seismic force- resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on **Section 301.1.4** regardless of which compliance method is used.

Exceptions:
1. Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in ***Section 907.4.4****. New structural members added as part of the alteration shall comply with the California Building Code.*

2. ***Existing state-owned structures.*** *[BSC] The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of* ***Sections 317 through 322*** *as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, the California State University, or the Judicial Council. The provisions of* ***Sections 317 through 322*** *may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings. 317.3 Applicability.*

The following excerpt might provide an opportunity to satisfy Building Code requirements without the need for seismic evaluation and retrofit and the associated cost of this work. Provided that the cost of the relocation does not exceed 25% of the "building replacement cost," seismic work may not be required. However the interpretation of this is not entirely clear with two uncertainties as follows: (1) this provision mentions structures that are retrofitted, repaired or modified but does not explicitly refer to structure "relocation." In a number of other sections of the code, relocation is mentioned along with the terms retrofitted, repaired or modified, so it is not clear whether this is an intentional omission or an error. Therefore, this would presumably be at the discretion of the Building Official. (2), what costs must be included in the calculations of the relocation cost for comparison with the replacement cost is not clear. For example, must the cost of temporary utility relocations, the demolition of the existing foundations, etc. be included in the cost of the relocation project? Also, costs are cumulative and may include the cost or portions of the cost of the work done after 1995 for the previous relocation project. However, if previous work mandated seismic retrofit than this cost need not be included but it is not clear whether this exception pertains to only cost related to seismic retrofit or the cost of the entire project.
These provisions will require further review and interpretation by the University representatives and/or Building Officials. The current cost estimate for this feasibility study suggests that with a full basement the project cost may approach or exceed this 25% of replacement cost value (estimated to be $4,000,000). Therefore, pending further review by the Building Official and further cost analyses, the project program might want to be limited to only a partial basement, Also if the cost of the previous relocation project must be included, than this 25% threshold is almost certain to be exceeded.

317.3.1 Existing state-owned buildings. [BSC] For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:
1. Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit.

A further excerpt from of the California Existing Building Code indicates that seismic evaluation and design can either follow the procedures of the "California Building Code" or "ASCE 41 Seismic Evaluation and Retrofit of Existing Buildings" which is the prevailing and more detailed standard on which the California Existing Building Code is based.

[BS] 301.1.4 Seismic evaluation and design procedures.
The seismic evaluation and design shall be based on the procedures specified in the California Building Code or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

In ASCE 41, table 4-6 includes a list of "Benchmark Buildings," and the paragraph 4.3, that precedes the table, specifies that buildings designed and built in accordance with the specified code and after the specified date, do not require seismic evaluation (and by inference) retrofit. Based on table ASCE 41 table 3-2, the Associate Student House structure is characterized as a "wood frame, wood shear panel structure (Types W1 and W2)" and since a retrofit was performed in 2001 well after the Benchmark Building seismic provisions of the 1976 UBC, no evaluation or retrofit should be required.

4.3 BENCHMARK BUILDINGS
A structural seismic evaluation using this standard need not be performed for buildings designed and constructed or evaluated in accordance with the benchmark provisions of this section. However, an evaluation of nonstructural elements in accordance with Section 16.17 is still required. Buildings that meet the provisions of this section satisfy BSE-1E for the designated Performance Level.
However, the following excerpt appears very direct and clearly requires that the "moved structure" fully complies with the current 2016 Building Code provisions for new structures. However, this seems to contradict the previous excerpts and again would require further evaluation and interpretation by University Building Officials.

APPLICABLE BUILDING CODES, CONTINUED

SECTION 409 MOVED STRUCTURES
409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

If the cost of the project exceeds 25% of replacement cost discussed above, or the Building Official rules that the "Moved Structures" provision does not apply, then refer to **Section 317.3.1**, indicating that a seismic evaluation by a structural engineer and a subsequent peer review will be required (Appendix C).

317.4 Evaluation required. If the criteria in **Section 317.3** apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with **Section 317** to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by **Section 317.5** is evaluated as satisfactory and the peer reviewer(s), when Method B of **Section 321** is used, concur, then no structural retrofit is required.

California Historic Building Code (CHBC), 2016

The California Historical Building Code (CHBC) provides dispensation of alternative approaches that provide reasonable occupant safety and cost effective solutions in the interest of preservation of historic buildings. This is described in the following provisions.

Section 8-102.1.2 - Relocation. "Relocated qualified historical buildings or properties shall be sited to comply with the regular code or with the solutions listed in the CHBC. Nonhistorical new construction related to relocation shall comply with the regular code. Reconstruction and restoration related to relocation is permitted to comply with the provisions in the CHBC."

Section 8-102.1.4 - Continued use. "Qualified historical buildings or properties may have their existing use or occupancy continued if such use or occupancy conformed to the code or to the standards of construction in effect at the time of construction, and such use or occupancy does not constitute a distinct hazard to life safety as defined in the CHBC."

Section 8-102.1.6 - Additional Work. "Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC."

The following excerpt makes clear, as expected, that any new partial or full basement must comply with building code requirement for new buildings. The new basement will not have any influence or impact on the evaluation or strengthening design for the existing historic building above.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, provided nonhistorical additions shall conform to the requirements of the regular code. See **Chapter 8-2**.

The following excerpts indicate that "unsafe building" requirements of the CHBC are applicable to correct the unsafe condition but that full compliance with the regular code, beyond correction of the unsafe condition, is not required. While these code provisions do not explicitly refer to seismic safety, seismic safety is implicitly applicable. Based on provision **8-705.1** the gravity load carrying system in the building is sufficient and should not require significant, if any, structural strengthening. **Section 8-705.2** clearly specifies that the building should be evaluated for wind and seismic loads but provides some relief allowing for 75% (or a 25% reduction) of wind loads considered for new construction.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code.

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

Provisions 8.705.2.1 (and by reference **8-701.2**) attempt to provide some relief for seismic performance provided that a minimum standard is met, in which the risk of life-threatening injury due to partial or total structural collapse is low. It is this author's opinion that the idea that a partial or total collapse could be allowed without risk of life-threatening injury seems folly and therefore it is recommend that the prevention of either partial or total collapse be the minimum allowed standard (See Appendix C for code excerpts).

Similar to the 25% reduction in wind forces that may be considered, and described previously, the following excerpt allows a similar 25% reduction in seismic forces prescribed by the regular code.

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the R-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such R-values exist. Where such R-values do not exist, an appropriate R- value shall be rationally assigned considering the structural detailing of the members.

Exceptions:
1. The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.

Americans with Disabilities Act (ADA), 2013

Per Section 202.5 - Alterations to Qualified Historic Buildings and Facilities. "Alterations to a qualified historic building or facility shall comply with **202.3** and **202.4.**

Advisory 202.5 - Alterations to Qualified Historic Buildings and Facilities Exception. "...There are exceptions for alterations to qualified historic buildings and facilities for accessible routes, entrances, and toilet facilities. When an entity believes that compliance with the requirements for any of these elements would threaten or destroy the historic significance of the building or facility, the entity should consult with the State Historic Preservation Officer. If the Officer agrees that compliance would threaten or destroy the significance, use of the exception is permitted."

Chapter 4: Accessible Routes
403.2 Floor or Ground Surface.
403.3 Slope
403.5 Clearances and 403.5.1 Clear Width
404 Doors, Doorways, and Gates
405 Ramps

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PRELIMINARY COST ESTIMATE

DESCRIPTION OF COST ESTIMATE

JR Conkey has provided a conceptual cost estimate to move the Associated Students House from its current location to the proposed Receiver Site in the northeast quadrant of the SJSU campus, utilizing the recommended route and the alternative site plan identified in this study. This preliminary cost estimate was completed without consultation of the City of San Jose and utility companies, at the request of SJSU staff. The estimate considers three main options:

- Building Relocation as-is with no additional basement
- Building Relocation plus 1,200 sf basement
- Building Relocation plus full basement

The cost estimate includes building mover costs provided by Kelly Brothers, dismantling and reassembly of the SJSU gateway signage along South 4th Street, tree trimming, temporary removal and replacement of street lamps and traffic signals, overhead wire crossings, and anticipated utility relocation at the Receiver Site. Additional costs have been itemized, such as seismic upgrades, as well as contingencies that include unforeseen costs, such as city permitting, off-duty police, or unknown utilities. Consultant Team fees have not been included. See Appendix A for the complete preliminary cost estimate.

SJSU Gateway Arch at Paseo de San Carlos and S. Fourth Street, 2017 (Page & Turnbull)

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION**
BUILDING: **SUMMARY**
PHASE: **FEASIBILITY STUDY**
PREPARED BY: JR CONKEY & ASSOCIATES
PREPARED FOR: PAGE & TURNBULL

PRINT DATE: 3/31/2017
PRINT TIME: 3:24 PM
PAGE 1 OF 7
SJSU Assoc Students House Relo Feasibility Study Cost Estimate 3_31_17_R1

ESTIMATE DATE: **MARCH 31, 2017**

SUMMARY

BUILDING	NO. OF UNITS	SF PER UNIT	TOTAL SF	CURRENT COST PER UNIT	TOTAL COST	COST / SF
MOVE WITH NO ADDITIONAL BASEMENT AT RECEIVER SITE					$996,244	
CONSTRUCTION CONTINGENCY					$45,000	
SPECIAL INSPECTIONS & TESTING					$15,000	
TOTAL WITH NO ADDITIONAL BASEMENT					$1,056,244	
ADD 1,200 SF BASEMENT AT RECEIVER SITE				ADD	$95,449	
TOTAL WITH 1,200 SF ADDITIONAL BASEMENT					$1,151,694	
ADD FULL BASEMENT AT RECEIVER SITE				ADD	$219,940	
TOTAL WITH FULL BASEMENT					$1,276,184	

MOVE THE HOUSE IN TWO PIECES	ADD	$61,558
CITY/ UTILITY COSTS ARE NOT COORDINATED WITH THE CITY OF SAN JOSE PER SJSU REQUEST		
SEISMIC UPGRADE IF REQUIRED @ $45/ SF	ADD	$308,700

REPLACEMENT COST ESTIMATE:

LEVEL	AREA (GSF)
BASEMENT CRAWL SPACE	2,396
BASEMENT ELEVATOR PIT	84
BASEMENT MECH AND MACHINE ROOM	337
FIRST FLOOR	2,714
SECOND FLOOR	2,498
ATTIC	1,310
TOTAL OCCUPIABLE SPACE	6,859
HYDRAULIC ELEVATOR	$140,000
ELEC SYSTEM UPGRADE	$10,000
LANDSCAPE TREATMENT	$25,000
REPLACEMENT VALUE @ $600/ SF	**$4,290,000**

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NEXT STEPS

The Page & Turnbull Consultant Team recommends that SJSU evaluate our analysis of the proposed move route and approach to reconstruction on the Receiver Site. The conceptual estimate indicates that the total cost ($1,056,244) to move the Associated Students House is less than 25% of the estimated Replacement Value ($4,290,000), and that in addition to providing an appropriate new location for the Associated Students Department, relocation of the building will not jeopardize its historic status as eligible for listing in the California Register of Historic Resources.

If SJSU moves forward with the project, we recommend they engage a qualified Historic Preservation Architectural Consultant Team to generate a work plan, coordinate the relocation and provide for subsequent restoration work as required to minimize displacement of the Associated Students staff during the relocation. The Consultant Team will include architects, structural engineers, the building mover, cost estimator, and other consultants, such as Landscape, Civil and MEP. It should be anticipated that a geotechnical report and civil survey of the Receiver Site will also be required prior to beginning the work.

Primary facade second story, 2017 (Page & Turnbull)

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APPENDICES

APPENDIX TABLE OF CONTENTS

PROJECT TEAM

Client Team

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003
Richard Daulton
Shannon Carmack

San Jose State University (Planning Design & Construction)
Facilities Development and Operations
One Washington Square
San Jose, CA 95192
Daniel No

Consultant Team

Page & Turnbull, Inc. (Prime Consultant)
417 Montgomery St. 8th Floor
San Francisco, CA 94104
Ruth Todd, Principal
Greg Yanito
Cassie Rogg
Caitlin Turner

Daedalus Engineering, Inc. (Project Structural Engineer)
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Saratoga, CA 95070
Doug Robertson
Bryan Cortnik

Kelly Brothers House Movers (Project Building Movers)
2269 Will Wood Dr.
San Jose, CA 95112
Howard Kelly

J.R. Conkey & Associates (Project Cost Estimator)
735 Sunrise Avenue, Suite 200
Roseville, CA 95661-4596
Scott Ransdell

Front entry stairway and art glass window reflections, 2017 (Page & Turnbull)

APPENDIX A. COST ESTIMATE

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION**
BUILDING: **SUMMARY**
PHASE: **FEASIBILITY STUDY**
PREPARED BY: JR CONKEY & ASSOCIATES
PREPARED FOR: PAGE & TURNBULL

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SJSU Assoc Students House Relo Feasibility Study Cost Estimate 3_31_17_R1

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TOTAL WITH 1,200 SF ADDITIONAL BASEMENT					$1,151,694	
ADD FULL BASEMENT AT RECEIVER SITE				ADD	$219,940	
TOTAL WITH FULL BASEMENT					$1,276,184	

MOVE THE HOUSE IN TWO PIECES — ADD $61,558

CITY/ UTILITY COSTS ARE NOT COORDINATED WITH THE CITY OF SAN JOSE PER SJSU REQUEST

SEISMIC UPGRADE IF REQUIRED @ $45/ SF — ADD $308,700

REPLACEMENT COST ESTIMATE:

LEVEL	AREA (GSF)
BASEMENT CRAWL SPACE	2,396
BASEMENT ELEVATOR PIT	84
BASEMENT MECH AND MACHINE ROOM	337
FIRST FLOOR	2,714
SECOND FLOOR	2,498
ATTIC	1,310
TOTAL OCCUPIABLE SPACE	6,859
HYDRAULIC ELEVATOR	$140,000
ELEC SYSTEM UPGRADE	$10,000
LANDSCAPE TREATMENT	$25,000
REPLACEMENT VALUE @ $600/ SF	**$4,290,000**

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - NO ADDITIONAL BASEMENT OPTION**
PHASE: **FEASIBILITY STUDY**
ESTIMATE DATE **MARCH 31, 2017**
BID DATE: **ASSUME 7/2018**
PREPARED BY: JR CONKEY & ASSOCIATES

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3/31/2017
3:24 PM
SJSU Assoc Students House Relo Feasibility Study Cost Estimate 3_31_17_R1

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
2	SITEWORK					
	A	VERTICAL OBSTRUCTIONS FOR MOVE				
		1 DISMANTLE GATEWAY SIGNAGE	160	MH	$90.00	$14,400
		2 RE-ASSEMBLE/REPAIR GATEWAY SIGNAGE	320	MH	$90.00	$28,800
		3 COBRA LIGHT FIXTURES (REMOVE & REPLACE)	55	EA	$600.00	$33,000
		4 TRAFFIC SIGNALS (REMOVE & REPLACE)	12	EA	$1,200.00	$14,400
		5 OVERHEAD WIRE CROSSINGS	10	EA	$400.00	$4,000
		6 TRIM TREES	67	EA	$100.00	$6,700
		7 REMOVE & REPLACE BOLLARDS	7	EA	$600.00	$4,200
	B	HOUSE MOVING (ASSUME NO BASEMENT AT RECEIVER SITE)				
		1 HOUSE MOVING - ONE PIECE	1	LS	$198,200.00	$198,200
		2 IF THERE IS A 1,200 SF BASEMENT ADD $13,200	0	LS	$13,200.00	$0
		3 IF THERE IS A FULL BASEMENT ADD $28,600	0	LS	$28,600.00	$0
	C	SITE UTILITIES EXISTING SITE - DISCONNECT ALLOWANCE	1	LS	$2,500.00	$2,500
	D	SITE UTILITIES RECEIVER SITE				
		1 RELOCATE TRANSFORMER	1	EA	$4,000.00	$4,000
		2 RELOCATE POWER POLES & O/H WIRE	2	EA	$2,000.00	$4,000
		3 LIGHT POST (NEW)	2	EA	$5,000.00	$10,000
		4 RELOCATE 2" DOMESTIC WATER	1	LS	$4,500.00	$4,500
		5 RELOCATE TEL/COM	1	LS	$2,500.00	$2,500
	E	FOUNDATION AND BASEMENT (IF REQUIRED)				
		1 NEW PERIMETER FOUNDATION AND INTERIOR PIERS	126	CY	$450.00	$56,600
		2 BASEMENT - MECHANICAL AND ELEV. MACHINE ROOM	337	SF	$35.00	$11,795
		3 ADD HALF BASEMENT	0	SF	$35.00	$0
		4 ADD FULL BASEMENT	0	Sf	$35.00	$0
	F	RECEIVER SITE - OTHER				
		1 LANDSCAPING				
		a NEW TREES - MEDIUM	1	EA	$500.00	$500
		b NEW TREES - SMALL	5	EA	$200.00	$1,000
		c MISC	1	LS	$500.00	$500
		2 CONCRETE BENCH	60	LF	$150.00	$9,000
		3 BIKE RACK	1	EA	$3,500.00	$3,500
		4 BOLLARD	1	EA	$750.00	$750

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - NO ADDITIONAL BASEMENT OPTION**

PHASE: **FEASIBILITY STUDY**

ESTIMATE DATE **MARCH 31, 2017**

BID DATE: **ASSUME 7/2018**

PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
	5	SIGN POSTS	6	EA	$150.00	$900
	6	CONCRETE RAMP	240	SF	$35.00	$8,400
	G	CONSTRUCTION TRAILER & OUT BUILDING	2	EA	$3,500.00	$7,000
	H	MISCELLANEOUS				
	1	PHASING	1	LS	$10,000.00	$10,000
	2	WORK AROUND PUBLIC	1	LS	$10,000.00	$10,000
	3	EXISTING ELEVATOR DISASSEMBLY, NEW PIT, REINSTALL	2	FLT	$25,000.00	$50,000
9	FINISHES					
	A	MISC REPAIRS AND PAINT @ $11.5/ SF	1	LS	$75,000.00	$75,000
	SUBTOTAL HARD COSTS					**$576,145**
	CONTINGENCY					
		ESTIMATING CONTINGENCY	15.00%			**$86,422**
	SUBTOTAL CONSTRUCTION COSTS					**$662,567**
	MARK-UPS					
		GENERAL CONDITIONS	20.00%			$132,513
		OVERHEAD & PROFIT	15.00%			$119,262
		INSURANCE & BONDS	2.50%			$22,859
	SUBTOTAL MARK-UPS					**$274,634**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS					**$937,201**
	ESCALATION					
	ESCALATION TO BID	15 MONTHS AT 5% PER DOF	6.30%		TO JULY 2018	**$59,044**
	ESCALATION FROM BID		0.00%		N/A	**$0**
	TO MIDPOINT OF CONSTRUCTION					
	TOTAL ESTIMATE - NO ADDITIONAL BASEMENT OPTION:					**$996,244**

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - 1,200 SF BASEMENT OPTION**

PHASE: **FEASIBILITY STUDY**

ESTIMATE DATE **MARCH 31, 2017**

BID DATE: **ASSUME 7/2018**

PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
2	SITEWORK					
	A	VERTICAL OBSTRUCTIONS FOR MOVE				
	1	DISMANTLE GATEWAY SIGNAGE	160	MH	$90.00	$14,400
	2	RE-ASSEMBLE/REPAIR GATEWAY SIGNAGE	320	MH	$90.00	$28,800
	3	COBRA LIGHT FIXTURES (REMOVE & REPLACE)	55	EA	$600.00	$33,000
	4	TRAFFIC SIGNALS (REMOVE & REPLACE)	12	EA	$1,200.00	$14,400
	5	OVERHEAD WIRE CROSSINGS	10	EA	$400.00	$4,000
	6	TRIM TREES	67	EA	$100.00	$6,700
	7	REMOVE & REPLACE BOLLARDS	7	EA	$600.00	$4,200
	B	HOUSE MOVING (ASSUME NO BASEMENT AT RECEIVER SITE)				
	1	HOUSE MOVING - ONE PIECE	1	LS	$198,200.00	$198,200
	2	IF THERE IS A 1,200 SF BASEMENT ADD $13,200	1	LS	$13,200.00	$13,200
	3	IF THERE IS A FULL BASEMENT ADD $28,600	0	LS	$28,600.00	$0
	C	SITE UTILITIES EXISTING SITE - DISCONNECT ALLOWANCE	1	LS	$2,500.00	$2,500
	D	SITE UTILITIES RECEIVER SITE				
	1	RELOCATE TRANSFORMER	1	EA	$4,000.00	$4,000
	2	RELOCATE POWER POLES & O/H WIRE	2	EA	$2,000.00	$4,000
	3	LIGHT POST (NEW)	2	EA	$5,000.00	$10,000
	4	RELOCATE 2" DOMESTIC WATER	1	LS	$4,500.00	$4,500
	5	RELOCATE TEL/COM	1	LS	$2,500.00	$2,500
	E	FOUNDATION AND BASEMENT (IF REQUIRED)				
	1	NEW PERIMETER FOUNDATION AND INTERIOR PIERS	126	CY	$450.00	$56,600
	2	BASEMENT - MECHANICAL AND ELEV. MACHINE ROOM	337	SF	$35.00	$11,795
	3	ADD HALF BASEMENT	1,200	SF	$35.00	$42,000
	4	ADD FULL BASEMENT	0	Sf	$35.00	$0
	F	RECEIVER SITE - OTHER				
	1	LANDSCAPING				
	a	NEW TREES - MEDIUM	1	EA	$500.00	$500
	b	NEW TREES - SMALL	5	EA	$200.00	$1,000
	c	MISC	1	LS	$500.00	$500
	2	CONCRETE BENCH	60	LF	$150.00	$9,000
	3	BIKE RACK	1	EA	$3,500.00	$3,500
	4	BOLLARD	1	EA	$750.00	$750

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - 1,200 SF BASEMENT OPTION**
PHASE: **FEASIBILITY STUDY**
ESTIMATE DATE **MARCH 31, 2017**
BID DATE: **ASSUME 7/2018**
PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
	5	SIGN POSTS	6	EA	$150.00	$900
	6	CONCRETE RAMP	240	SF	$35.00	$8,400
	G	CONSTRUCTION TRAILER & OUT BUILDING	2	EA	$3,500.00	$7,000
	H	MISCELLANEOUS				
	1	PHASING	1	LS	$10,000.00	$10,000
	2	WORK AROUND PUBLIC	1	LS	$10,000.00	$10,000
	3	EXISTING ELEVATOR DISASSEMBLY, NEW PIT, REINSTALL	2	FLT	$25,000.00	$50,000
9	FINISHES					
	A	MISC REPAIRS AND PAINT @ $11.5/ SF	1	LS	$75,000.00	$75,000
	SUBTOTAL HARD COSTS					**$631,345**
	CONTINGENCY					
		ESTIMATING CONTINGENCY	15.00%			**$94,702**
	SUBTOTAL CONSTRUCTION COSTS					**$726,047**
	MARK-UPS					
		GENERAL CONDITIONS	20.00%			$145,209
		OVERHEAD & PROFIT	15.00%			$130,688
		INSURANCE & BONDS	2.50%			$25,049
	SUBTOTAL MARK-UPS					**$300,946**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS					**$1,026,993**
	ESCALATION					
	ESCALATION TO BID	15 MONTHS AT 5% PER DOF	6.30%	TO JULY 2018		**$64,701**
	ESCALATION FROM BID		0.00%	N/A		**$0**
	TO MIDPOINT OF CONSTRUCTION					
	TOTAL ESTIMATE - 1,200 SF BASEMENT OPTION:					**$1,091,694**

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - FULL BASEMENT OPTION**
PHASE: **FEASIBILITY STUDY**
ESTIMATE DATE **MARCH 31, 2017**
BID DATE: **ASSUME 7/2018**
PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
2	SITEWORK					
	A	VERTICAL OBSTRUCTIONS FOR MOVE				
	1	DISMANTLE GATEWAY SIGNAGE	160	MH	$90.00	$14,400
	2	RE-ASSEMBLE/REPAIR GATEWAY SIGNAGE	320	MH	$90.00	$28,800
	3	COBRA LIGHT FIXTURES (REMOVE & REPLACE)	55	EA	$600.00	$33,000
	4	TRAFFIC SIGNALS (REMOVE & REPLACE)	12	EA	$1,200.00	$14,400
	5	OVERHEAD WIRE CROSSINGS	10	EA	$400.00	$4,000
	6	TRIM TREES	67	EA	$100.00	$6,700
	7	REMOVE & REPLACE BOLLARDS	7	EA	$600.00	$4,200
	B	HOUSE MOVING (ASSUME NO BASEMENT AT RECEIVER SITE)				
	1	HOUSE MOVING - ONE PIECE	1	LS	$198,200.00	$198,200
	2	IF THERE IS A 1,200 SF BASEMENT ADD $13,200	0	LS	$13,200.00	$0
	3	IF THERE IS A FULL BASEMENT ADD $28,600	1	LS	$28,600.00	$28,600
	C	SITE UTILITIES EXISTING SITE - DISCONNECT ALLOWANCE	1	LS	$2,500.00	$2,500
	D	SITE UTILITIES RECEIVER SITE				
	1	RELOCATE TRANSFORMER	1	EA	$4,000.00	$4,000
	2	RELOCATE POWER POLES & O/H WIRE	2	EA	$2,000.00	$4,000
	3	LIGHT POST (NEW)	2	EA	$5,000.00	$10,000
	4	RELOCATE 2" DOMESTIC WATER	1	LS	$4,500.00	$4,500
	5	RELOCATE TEL/COM	1	LS	$2,500.00	$2,500
	E	FOUNDATION AND BASEMENT (IF REQUIRED)				
	1	NEW PERIMETER FOUNDATION AND INTERIOR PIERS	126	CY	$450.00	$56,600
	2	BASEMENT - MECHANICAL AND ELEV. MACHINE ROOM	337	SF	$35.00	$11,795
	3	ADD HALF BASEMENT	0	SF	$35.00	$0
	4	ADD FULL BASEMENT	2,817	Sf	$35.00	$98,595
	F	RECEIVER SITE - OTHER				
	1	LANDSCAPING				
	a	NEW TREES - MEDIUM	1	EA	$500.00	$500
	b	NEW TREES - SMALL	5	EA	$200.00	$1,000
	c	MISC	1	LS	$500.00	$500
	2	CONCRETE BENCH	60	LF	$150.00	$9,000
	3	BIKE RACK	1	EA	$3,500.00	$3,500
	4	BOLLARD	1	EA	$750.00	$750

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - FULL BASEMENT OPTION**

PHASE: **FEASIBILITY STUDY**

ESTIMATE DATE **MARCH 31, 2017**

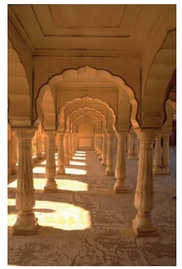
BID DATE: **ASSUME 7/2018**

PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
	5	SIGN POSTS	6	EA	$150.00	$900
	6	CONCRETE RAMP	240	SF	$35.00	$8,400
	G	CONSTRUCTION TRAILER & OUT BUILDING	2	EA	$3,500.00	$7,000
	H	MISCELLANEOUS				
	1	PHASING	1	LS	$10,000.00	$10,000
	2	WORK AROUND PUBLIC	1	LS	$10,000.00	$10,000
	3	EXISTING ELEVATOR DISASSEMBLY, NEW PIT, REINSTALL	2	FLT	$25,000.00	$50,000
9	FINISHES					
	A	MISC REPAIRS AND PAINT @ $11.5/ SF	1	LS	$75,000.00	$75,000
	SUBTOTAL HARD COSTS					**$703,340**
	CONTINGENCY					
		ESTIMATING CONTINGENCY	15.00%			**$105,501**
	SUBTOTAL CONSTRUCTION COSTS					**$808,841**
	MARK-UPS					
		GENERAL CONDITIONS	20.00%			$161,768
		OVERHEAD & PROFIT	15.00%			$145,591
		INSURANCE & BONDS	2.50%			$27,905
	SUBTOTAL MARK-UPS					**$335,265**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS					**$1,144,106**
	ESCALATION					
	ESCALATION TO BID	15 MONTHS AT 5% PER DOF	6.30%	TO JULY 2018		**$72,079**
	ESCALATION FROM BID		0.00%	N/A		**$0**
	TO MIDPOINT OF CONSTRUCTION					
	TOTAL ESTIMATE - FULL BASEMENT OPTION:					**$1,216,184**

APPENDIX B. MOVE NARRATIVE

Kelly Bros. House Movers



2306 Almaden RD ste 160/pmb
161
San Jose, CA 95125
Email-kellybrothers@mail.com
Phone 408-287-9755

Two Sections
If building is cut in two sections and moved to new site with all necessary bracing and false walls, the total amount will be $233,800.00
Additional
If the building is moved over a 1200 sq ft. basement there will be a $13,200.00 additional charge. If the building is moved over a full basement, there will be a $28,600.00 additional charge.
Not Included
Tree removal,trimming of branches or limbs, moving or removal of utility lines or signal lights,structural engineering, or reconstruction of cut area of building if building is cut.

Sincerely
Howard Kelly

Kelly Brothers

Kelly Bros. House Movers

2306 Almaden RD ste 160/pmb
161
San Jose, CA 95125
Email-kellybrothers@mail.com
Phone 408-287-9755

Route

The building will be moved forward, pivoted, and then moved down the center of a row of palm trees to entrance.(The entrance will be removed by others.) After moving past the entrance, the building will move to the right down 4th Street, then right again on East San Fernando Street to 10th Street, then right on 10th Street to destination on 10th Street.

All signal lights along the route on East San Fernando Street must be removed. Approaching 9th Street on East San Fernando Street to 10th street, cables and hot lines that cross East San Fernando Street must be removed. Major tree trimming on East San Fernando Street will be required. The corner of East San Fernando Street and 10th Street must be clean of all cables, signals, wires, and obstructing trees. Traveling South on 10th Street all service lines to residences must be removed. Movers are not resonsible for moving signal lights, cables,wires, tree trimming or any other work required to clear the route.

We recommend having utility crews present during the move. (Electrical,telephone, cable, etc.) We also recommend having a tree trimming crew present during the move, and that obstructing trees on the new site or at the entrance to the new site be removed.

Sincerely
Howard Kelly

Kelly Brothers

Kelly Bros. House Movers

2306 Almaden RD ste 160/pmb
161
San Jose, CA 95125
Email-kellybrothers@mail.com
Phone 408-287-9755

Prep Work

1. Remove siding and shrubs.
2. Remove front and rear steps and handicap ramp.
3. Mover will load and transport all movers materials and equipment to and from job site.
4. Disconnect plumbing where steel beams will be located, but we do not reconnect.
5. Disconnect any bolts or tie downs so building can be raised.
6. General Contractor will disconnect all ulities. (Air conditioner, heating,etc.)

Scope of Work

1. Install steel beams, cross beams sub-seal, cribbing and jacking system to raise building.(Create a platform under building).
2. Mover will raise the building approximately five feet..
3. A dolly system will be placed to move building as per plan.
4. Mover will lay metal plates down on the lawn to move building across the lawn to street

New Site

1. Building will be located as per plan and kept at five feet from floor joist to ground.Upon installation of new perimeter foundation, mudplate and pier system by others, movers will lower building and remove all equipment. It will be necessary to leave pockets in the foundation for the steel beams to be removed.
2. The estimate amount will be $ 198,200.00 This is only an estimate until final plans and requirements has been approved.

Sincerely
Howard Kelly

Kelly Brothers

APPENDIX C. STRUCTURAL

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San Jose State University Associated Students House Relocation
San Jose, California

Structural Engineering Narrative

For Page and Turnbull

April 26, 2017

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EXISTING STRUCTURE AND CONDITION

The existing timber framed structure includes two full floor levels plus a partial finished attic floor level and an elevator addition and partial basement which were added to the building as part of the 1999-2001 building relocation, in which the existing building was rotated 90 degrees and moved from a nearly adjacent building site. The original and renovated construction is conventional timber framed construction, supported by the new concrete foundation and basement walls. This type of construction has not changed significantly over the life of the structure and construction of similar light framed buildings continues to this day, using similar techniques though the use of manufactured timber framing and new framing hardware has grown more common over the past several decades.

The objective of the current project is to relocate the structure, while minimizing the disruption and cost of renovation of the existing superstructure (both structural and architectural). The move will require some removal of siding and exposure of the conditions at the base of the existing building, to erect a temporary framework necessary to lift and move the building. The front and rear porches will once again, likely be removed and reframed. Other timber framing of the structure above the base level is not intended, unless such work is necessary to repair timber damaged by termites or moisture or to make seismic improvements, if required by the relevant building code provisions and/or governing Building Officials.

Based on our meeting with University representatives and our brief walkthrough assessment, the building interiors and exterior appears to remain in relatively good condition, apart from some limited observed rot damage at the rear porch and possibly some areas of the front porch and we would not expect to find any other major gravity framing deficiencies in the building. As the construction begins we would expect some new rot or evidence of past insect infestation will be revealed, as is common for buildings of this type and age, which will require some localized repairs, and some funds should be set aside for this repair work, but we have no reason to expect more extensive repairs or replacement of framing will be necessary.

As part of the 2001 relocation project, it is our understanding that an architectural renovation was undertaken to improve the interior and exterior conditions of the building and front and rear porches were removed and then rebuilt following the move. Additionally, structural drawings were prepared by "Dominique Chu, Consulting Structural Engineer," and dated 10.04.2000. These drawings depict the new basement and foundations, required to complete the move, and also suggest that the building was seismically retrofitted, though this could not be verified during our brief walkthrough with only limited access to the building and no access to the crawl space and basement areas. We propose to confirm this work was completed, to the extent that is readily visible, at the start of the next phase of work.

These previous structural construction drawings, include adding plywood over existing roof sheathing, adding plywood sheathing over existing stud walls and hardware to create interior shear walls. The drawings reference the 1996 Uniform Building Code but do not explicitly reference this code as the basis for seismic design. Further review and discussions with the University and the responsible Building Officials will be required to fully vet whether seismic study and improvements will be necessary.

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CODE ANALYSIS RELEVANT TO STRUCTURAL DESIGN

This project, which includes new foundation and basement construction, the relocation of the structure and any necessary improvements, must be designed and constructed as required by the 2016 California Building Code (CBC), Title 24, incorporating provisions adopted by the California Building Standards Commission (BSC) as defined in the California Building Code adoption matrix. Specifically, the project must comply with the California Historical Building Code (Part 8), the California Existing Building Code (Part 10) and other relevant sections of the Code referenced in these two parts.

More extensive Code excerpts are included as Appendix A at the end of this report but discussion of the more relevant and fundamental provisions that have the greatest influence on project feasibility and cost are briefly summarized below. This discussion is not intended to draw definitive conclusions but provides the necessary framework for further discussion and evaluation.

California Existing Building Code (Part 10) Provisions

The following sections indicate that the proposed work will require seismic evaluation and strengthening design. Exception (1) implies that the Building official can allow existing construction complying with standards in force at the time of construction (or more likely in this case seismic improvements that appear to have been made as part of the 1999-2001 structure relocation project in compliance with the then current 1996 Uniform Building Code) to be considered "alterations" (i.e. work that is part of the move) in compliance with the current code if structural alterations are limited. This is entirely at the discretion of the Building Official. If seismic work is required by the Building Official, the relocated building must comply with Seismic provisions of Sections 317-322.

> 301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic force- resisting system of an existing building subject to repair, alteration, change of occupancy, addition or **relocation** of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.
>
> *Exceptions:*
>
> 1. *Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.4. New structural members added as part of the alteration shall comply with the California Building Code. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3.*
>
> 2. *Existing state-owned structures. [BSC] The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of Sections 317 through 322 as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, the California State University, or the Judicial Council. The provisions of Sections 317 through 322 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings. 317.3 Applicability.*

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The following excerpt might provide an opportunity to satisfy Building Code requirements without the need for seismic evaluation and retrofit and the associated cost of this work. Provided that the cost of the relocation does not exceed 25% of the "building replacement cost," seismic work may not be required. However the interpretation of this is not entirely clear with two uncertainties as follows: (1) this provision mentions structures that are retrofitted, repaired or modified but does not explicitly refer to structure "relocation." In a number of other sections of the code, relocation is mentioned along with the terms retrofitted, repaired or modified, so it is not clear whether this is an intentional omission or an error. Therefore, this would presumably be at the discretion of the Building Official. (2), what costs must be included in the calculations of the relocation cost for comparison with the replacement cost is not clear. For example, must the cost of temporary utility relocations, the demolition of the existing foundations, etc. be included in the cost of the relocation project? Also, costs are cumulative and may include the cost or portions of the cost of the work done after 1995 for the previous relocation project. However, if previous work mandated seismic retrofit than this cost need not be included but it is not clear whether this exception pertains to only cost related to seismic retrofit or the cost of the entire project.

These provisions will require further review and interpretation by the University representatives and/or Building Officials. The current cost estimate for this feasibility study suggests that with a full basement the project cost may approach or exceed this 25% of replacement cost value (estimated to be $4,000,000). Therefore, pending further review by the Building Official and further cost analyses, the project program might want to be limited to only a partial basement, Also if the cost of the previous relocation project must be included, than this 25% threshold is almost certain to be exceeded.

> 317.3.1 Existing state-owned buildings. [BSC] For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:
>
> 1. *Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit*

A further excerpt from of the California Existing Building Code indicates that seismic evaluation and design can either follow the procedures of the "California Building Code" or "ASCE 41 Seismic Evaluation and Retrofit of Existing Buildings" which is the prevailing and more detailed standard on which the California Existing Building Code is based.

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[BS] 301.1.4 Seismic evaluation and design procedures.

The seismic evaluation and design shall be based on the procedures specified in the California Building Code or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

In ASCE 41, table 4-6 includes a list of "Benchmark Buildings," and the paragraph 4.3, that precedes the table, specifies that buildings designed and built in accordance with the specified code and after the specified date, do not require seismic evaluation (and by inference) retrofit. Based on table ASCE 41 table 3-2, the Associate Student House structure is characterized as a "wood frame, wood shear panel structure (Types W1 and W2)" and since a retrofit was performed in 2001 well after the Benchmark Building seismic provisions of the 1976 UBC, no evaluation or retrofit should be required.

4.3 BENCHMARK BUILDINGS

A structural seismic evaluation using this standard need not be performed for buildings designed and constructed or evaluated in accordance with the benchmark provisions of this section. However, an evaluation of nonstructural elements in accordance with Section 16.17 is still required. Buildings that meet the provisions of this section satisfy BSE-1E for the designated Performance Level.

However, the following excerpt appears very direct and clearly requires that the "moved structure" fully complies with the current 2016 Building Code provisions for new structures. However, this seems to contradict the previous excerpts and again would require further evaluation and interpretation by University Building Officials.

SECTION 409 MOVED STRUCTURES

409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

If the cost of the project exceeds 25% of replacement cost per 317.3.1, discussed above, or the Building Official rules that the "Moved Structures" provision does not apply, then the following code provision will require a seismic evaluation by a structural engineer and a subsequent peer review. Furthermore, subsequent code provisions require that if the evaluation finds that the building does not meet the seismic performance objectives established through the peer review process, a seismic retrofit will then be required.

317.4 Evaluation required. *If the criteria in Section 317.3 apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with Section 317 to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by Section 317.5 is evaluated as satisfactory and the peer reviewer(s), when Method B of Section 321 is used, concur, then no structural retrofit is required.*

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If a seismic evaluation and possible retrofit is required the following excerpt requires an existing conditions survey and properties assessment.

319.2 Existing conditions. *The existing condition and properties of the entire structure must be determined and documented by thorough inspection of the structure and site, review of all available related construction documents, review of geotechnical and engineering geologic reports, and performance of necessary testing and investigation. Where samples from the existing structure are taken*

California Historical Building Code (Part 8) Provisions

The California Historical Building Code (CHBC) provides dispensation for alternative approaches that provide reasonable occupant safety and cost effective solutions in the interest of preservation of historic buildings. This is described in the following provisions.

8-101.2 Purpose. The purpose of the CHBC is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties (Chapter 8-2). The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties.

The following excerpt makes clear, as expected, that any new partial or full basement must comply with building code requirement for new buildings. The new basement will not have any influence or impact on the evaluation or strengthening design for the existing historic building above.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, provided nonhistorical additions shall conform to the requirements of the regular code. See Chapter 8-2.

The following excerpts indicate that "unsafe building" requirements of the CHBC are applicable to correct the unsafe condition but that full compliance with the regular code, beyond correction of the unsafe condition, is not required. While these code provisions do not explicitly refer to seismic safety, seismic safety is implicitly applicable.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified

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historical building or property into compliance with regular code.

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

Based on the following code provision we currently believe the gravity load carrying system in the building is sufficient and should not require significant, if any, structural strengthening.

8-705.1 Gravity loads. The capacity of the structure to resist gravity loads shall be evaluated and the structure strengthened as necessary. The evaluation shall include all parts of the load path. Where no distress is evident, and a complete load path is present, the structure may be assumed adequate by having withstood the test of time if anticipated dead and live loads will not exceed those historically present.

This excerpt clearly specified that the building should be evaluated for wind and seismic loads but provides some relief allowing for 75% (or a 25% reduction) of wind loads considered for new construction.

8-705.2 Wind and seismic loads. The ability of the structure to resist wind and seismic loads shall be evaluated. Wind loads shall be considered when appropriate, but need not exceed 75% of the wind loads prescribed by the regular code. The evaluation shall be based on the requirements of Section 8-706.

This provision (and by reference 8-701.2) attempts to provide some relief for seismic performance provided that a minimum standard is met, in which the risk of life-threatening injury due to partial or total structural collapse is low. It is this author's opinion that the idea that a partial or total collapse could be allowed without risk of life-threatening injury seems folly and therefore it is recommended that the prevention of either partial or total collapse be the minimum allowed standard.

8.705.2.1 Any unsafe conditions in the lateral-load-resisting system shall be corrected, or alternative resistance shall be provided. When strengthening is required, additional resistance shall be provided to meet the minimum requirements of the CHBC. The strengthening measures shall be selected with the intent of meeting the performance objectives set forth in Section 8-701.2. The evaluation of structural members and structural systems for seismic loads shall consider the inelastic performance of structural members and their ability to maintain load-carrying capacity during the seismic loadings prescribed by the regular code.

8-701.2 Intent. The intent of this chapter is to encourage the preservation of qualified historical buildings or structures while providing standards for a minimum level of building performance with the objective of preventing partial or total structural collapse such that the overall risk of life-threatening injury as a result

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of structural collapse is low.

Similar to the 25% reduction in wind forces that may be considered, and described above, the following excerpt allows a similar 25% reduction in seismic forces prescribed by the regular code.

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the R-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such R-values exist. Where such R-values do not exist, an appropriate R- value shall be rationally assigned considering the structural detailing of the members.

Exceptions:

1. The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.

STRUCTURAL CONSULTANT SCOPE OF WORK

At a minimum, a structural engineering consultant will be engaged by the project architect or directly by the University to provide engineering design services for the new foundation and basement structure at the receiving site. Since the building is being relocated, the consultant would be required to prepare global gravity and lateral analyses to determine the design loads for the foundation and basement walls in order support the existing building and to design the connections of the existing structure to the new supporting structure for full compliance with the current code 2016 CBC for both gravity and lateral loads.

The Structural engineer will need to coordinate the with the general/move contractor, architect, and the university to develop the best strategy for foundation and basement placement construction sequencing which will influence the project schedule and cost. This is explained in more detail under the Move scope of work.

Additionally, pending further review of the code provisions described previously (and additional excerpts provided in Appendix A) other structural engineering services might be required including: (1) testing and investigation of existing building structure and materials (2) development of a proposed seismic evaluation and strengthening approach for review by a Peer Reviewer and campus Building Officials (3) Seismic Evaluation (again for review by a structural Peer Review firm and University) (4) Seismic strengthening design and preparation of Construction Documents and (5) Construction Administration services.

It is this authors opinion, based on all the above described code excerpts, that further seismic evaluation and retrofit construction, above the new proposed basement/foundation level should not be required for this project. However, code provisions are complicated and many are contradictory and therefore

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the University and University Building Officials must review these relevant code sections and decide whether further seismic work should be considered.

STRUCTURE MOVER SCOPE OF WORK

Since moving structures is a unique specialty and is a temporary condition during the construction period only, this work is contractually part of the Contractors "Means and Methods of Construction." Therefore, the contractor responsible for moving the structure, engaged either directly by the University or by a general contractor, is expected to contract on a design-build basis to perform the following tasks.

Temporary Framing Structural Design

1. Contractor is expected to engage their own structural engineering firm to provide analysis and design of the temporary support framing and lateral bracing system required to lift, move, and support the existing building structure over the receiving site during any preparation of the new foundation and basement structure.

Prep Work

2. Coordinate, in concert with the University, the move strategy, schedule and logistics with University, City of San Jose, and public utility companies.
3. Provide all necessary protection to maintain primary existing improvements (sidewalks, roads, grass areas, etc.) that might be affected by bringing in materials to the existing site, the path of travel for the move itself and by bringing in and removing materials and equipment from receiving site. Features affected by the move that are outside of the mover's scope of work but are the responsibility of the University, City of San Jose, or public utilities includes (street lights, traffic lights, parking meters (if any), power and telephone lines, power poles (if any), etc.).
4. Remove siding at the foundation level and shrubs surrounding the building at the current site as required to erect the temporary support framing system to lift and move the structure.
5. Remove front and rear steps and handicap ramp. (Note that the rear porch should either be selectively repaired or replaced entirely based on observed rot damage. Extent of rot is unknown at this time).
6. Mover will load and transport all mover's materials and equipment to and from current building site and new receiving site.
7. Disconnect plumbing where temporary steel beams will be located. General Contractor will disconnect all utilities. (Air conditioner, heating, electrical, etc.) Reconnection of all utilities at the receiver site will also be by the General Contractors.
8. Disconnect any bolts or tie downs so building can be raised.

Scope of Work

9. Install steel beams, secondary purlins, cribbing and jacking system to raise building. (Create a platform under building).
10. Mover will raise the building approximately five feet.
11. A dolly system will be placed below the building to move building as per plan. Support framing system is not expected to encroach beyond the eave lines of the existing building.
12. Mover will place metal plates down over the lawn and sidewalks to move building across the current surrounding site to get to the street.

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New Receiving Site

13. General Contractor will construct a new basement foundations to receive the structure and deep pier foundation system (if recommended by the geotechnical engineering consultant) outside of the basement footprint.
14. Mover will construct a temporary platform at exterior grade level, over the new partial or full basement to move the building over the basement and to the new plan locations.
15. Mover will place the building over the new basement located as per plan and will keep the building a maximum height of five feet from bottom of floor joist to existing ground elevation.
16. General Contractor will construct new basement walls and new grade beams (or mat) beyond basement footprint.
17. Following placement of new supporting concrete walls and foundation, sill plate and pier system by General Contractor, mover will lower building and remove all equipment. It will be necessary to leave pockets in the foundation for the steel beams to be removed.
18. If building is moved in two pieces rather than in one piece, General Contractor will make structure connections and cosmetic repairs to reconnect the two pieces.

STRUCTURE MOVE ROUTE

The building will be moved forward (northwest), pivoted 90 degrees counter clockwise to the west, and then moved down the center of Paseo de San Carlos between palm trees to the campus entrance at 4th street. Temporary dismantling/deconstruction of the entry arch structure and reinstallation/restoration after the move would be performed as part of the General Contractor scope of work. After moving past the entrance, the building will be moved northwest down 4th Street, pivoted 90 degrees clockwise and moved northeast down East San Fernando Street, pivoted 90 degrees clockwise and moved down 10th Street, pivoted 90 degrees one last time and moved southwest on the campus to destination site off of 10th Street.

MOVING THE STRUCTURE

Depending on the logistics and cost, following coordination with University, City of San Jose and Utility companies, the building may be moved in either one or two sections. It is preferable to move the building as a single piece to reduce the time and cost of the move and to eliminate the need to reconnect two pieces. However, the logistics and obstructions along the move round may dictate moving the building in two pieces. An additional cost for moving in two pieces has been provided by the move contractor consulting for this feasibility study and is included in the cost estimate.
Similarly, the mover contractor consultant has provided an estimate of added cost if the building is moved over a 1200 sq ft. basement and a separate added price estimate if the building is moved over a full basement.

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Expected General Contractor/Mover Exclusions

The following items are known features along the move route, all or some of which will require work by the City of San Jose Public Works, San Jose State University facilities department, public utilities companies or other parties.

- All signal lights along the route on East San Fernando Street must be removed.
- Approaching 9th Street on East San Fernando Street to 10th street, cables and hot electric lines that cross East San Fernando Street must be removed and replaced.
- Major tree trimming on East San Fernando Street will be required.
- The corner of East San Fernando Street and 10th Street all cables, signals, and wires must be removed and replaced. Also, all obstructing trees must be cut back.
- Traveling southwest on 10th Street, all electric, phone and cable service lines to residences must be removed.

Utility crews should be present and on standby during the move should additional lines interfere with move, requiring additional removal (Electrical, telephone, cable, etc.). Additionally, a tree trimming crew should also be present during the move so that additional obstructing trees or branches adjacent the move route, at the entrance to the new site, or on the new site may be removed as needed.

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APPENDIX A
APPLICABLE CALIFORNIA BUILDING CODE EXCERPTS

The following relevant excerpts have been extracted from the 2016 California Building Code, Part 10 (Existing Building Code) and Part 8 (Historical Building Code). Excerpts relevant the immediate scope of work for the feasibility study are highlighted in blue, excerpts that have no relevance to this project have been removed, excerpts followed by "N/A" are non-applicable but have been retained to maintain the format and numbering system of the code (e.g. DSA, Concrete or masonry construction, etc.), and all remaining text may be relevant to the future project for the design and building relocations pending further evaluation of whether further engineering evaluation and upgrade work is required.

SECTION 301 ADMINISTRATION

301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic force- resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.

Exceptions:

1. Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.4. New structural members added as part of the alteration shall comply with the *California Building Code*. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3.

2. ***Existing state-owned structures. [BSC]*** *The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of Sections 317 through 322 as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, the California State University, or the Judicial Council. The provisions of Sections 317 through 322 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.*

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[BS] 301.1.4 Seismic evaluation and design procedures.

The seismic evaluation and design shall be based on the procedures specified in the *California Building Code* or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

[BS] 301.1.4.1 Compliance with International Building Code-level seismic forces. Where compliance with the seismic design provisions of the *California Building Code* is required, the criteria shall be in accordance with one of the following:

1. *One-hundred percent of the values in the California Building Code. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω0 and Cd used for analysis in accordance with Chapter 16 of the California Building Code shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.*
2. *2. ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category.*

[BS] 301.1.4.2 Compliance with reduced International Building Code-level seismic Forces. Where seismic evaluation and design is permitted to meet reduced *California Building Code* seismic force levels, the criteria used shall be in accordance with one of the following:

1. The *California Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 301.1.4.1 of this code.
2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.

   2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Risk Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1. (N/A)

   2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Risk Category I or II are permitted to be based on the procedures specified in Chapter A2. (N/A)

   2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A3.

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   2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A4. (N/A)

   2.5. Seismic evaluation and design of concrete buildings assigned to Risk Category I, II or III are permitted to be based on the procedures specified in Chapter A5. (N/A)

3. ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category.

SECTION 317 EARTHQUAKE EVALUATION AND DESIGN FOR RETROFIT OF EXISTING BUILDINGS

317.1 Purpose.

317.1.1 Existing state-owned structures. [BSC] *The provisions of Sections 317 through 322 establish minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California and the California State University.*

The provisions of Sections 317 through 323 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.

317.2 Scope. *All modifications, structurally connected additions and/or repairs to existing structures or portions thereof shall, at a minimum, be designed and constructed to resist the effects of seismic ground motions as provided in this section. The structural system shall be evaluated by a registered design professional and, if not meeting or exceeding the minimum seismic design performance requirements of this section, shall be retrofitted in compliance with these requirements.*

Exception: *Those structures for which Section 317.3 determines that assessment is not required, or for which Section 317.4 determines that retrofit is not needed, then only the requirements of Section 317.11 apply.*

317.3 Applicability.

317.3.1 Existing state-owned buildings. [BSC] *For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:*

1. Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit

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2. *There are changes in risk category. (N/A)*

3. *The modification to the structural components increases the seismic forces in or strength requirements of any structural component of the existing structure by more than 10 percent cumulative since the original construction, unless the component has the capacity to resist the increased forces determined in accordance with Section 319. If the building's seismic base shear capacity has been increased since the original construction, the percent change in base shear may be calculated relative to the increased value. (N/A)*

317.4 Evaluation required. *If the criteria in Section 317.3 apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with Section 317 to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by Section 317.5 is evaluated as satisfactory and the peer reviewer(s), when Method B of Section 321 is used, concur, then no structural retrofit is required.*

317.5 Minimum seismic design performance levels for structural and nonstructural components. *Following the notations of ASCE 41, the seismic requirements for design and assessment are based upon a prescribed Earthquake Hazard Level (BSE-1N, BSE-2N, BSE-1E, BSE-R or BSE-C), a specified structural performance level (S-1 through S- 5) and a non-structural performance level (N-A through N-D). The minimum seismic performance criteria are given in Table 317.5 according to the Building Regulatory Authority and the Risk Category as determined in Chapter 16 of the California Building Code or by the regulatory authority. The building shall be evaluated in accordance with a Tier 3 Systematic Evaluation and Retrofit per ASCE 41 Chapter 6 for both the Level 1 and Level 2 performance levels, and the more restrictive requirements shall apply.*

TABLE 317.5 SEISMIC PERFORMANCE REQUIREMENTS BY BUILDING REGULATORY AUTHORITY AND RISK CATEGORY.

		PERFORMANCE CRITERIA	
Building Regulatory Authority	***Risk Category***	***Level 1***	***Level 2***
State-Owned [BSC]	*I, II, III*	*BSE-R, S-3, N-C*	*BSE-C, S-5, N-D*
State-Owned [BSC]	*IV*	*BSE-R, S-2, N-B*	*BSE-C, S-4, N-D*

1. ASCE 41 provides acceptance criteria (e.g. m, rotation) for Immediate Occupancy (S1), Life Safety (S3), and Collapse Prevention (S5), and specifies in Section 2.3.1.2.1 and 2.3.1.4.1 the method to interpolate values for S-2 and S-4, respectively. For nonstructural components, N-A corresponds to the Operational level, N-B to the Position Retention, and N-C to the Life Safety level, and N-D to the Not Considered.

2. Buildings evaluated and retrofitted to meet the requirements for a new building, Chapter 16 of the California Building Code, in accordance with the exception in Section 319.1, are deemed to meet the seismic performance requirements of this section.

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317.6 Retrofit required. *Where the evaluation indicates the building does not meet the required performance objectives of this section, the owner shall take appropriate steps to ensure that the building's structural system is retrofitted in accordance with the provisions of Section 317. Appropriate steps are either: 1) undertake the seismic retrofit as part of the additions, modifications and/or repairs of the structure; or 2) provide a plan, acceptable to the building official, to complete the seismic retrofit in a timely manner. The relocation or moving of an existing building is considered to be an alteration requiring filing of the plans and specifications approved by the building official.*

317.7 *The additions, modification or repair to any existing building are permitted to be prepared in accordance with the requirements for a new building, Chapter 16 of the California Building Code, applied to the entire building.*

317.8 *The requirements of ASCE 41 Chapter 14 are to apply to the use of seismic isolation or passive energy systems for the repair, modification or retrofit of an existing structure. When seismic isolation or passive energy dissipation is used, the project must have project peer review as prescribed in Section 322. (N/A)*

317.9 *Any construction required by this chapter shall include structural observation by the registered design professional who is responsible for the structural design in accordance with Section 319.10.*

317.10 *Where Method B of Section 321 is used or is required by Section 319.7, the proposed method of building evaluation and design procedures must be accepted by the building official prior to the commencement of the work.*

317.11 Voluntary lateral-force-resisting system modifications. *Where the exception of Section 317.2 applies, modifications of existing structural components and additions of new structural components that are initiated for the purpose of improving the seismic performance of an existing structure and that are not required by other portions of this chapter are permitted under the requirements of Section 319.12.*

SECTION 318 DEFINITIONS

318.1 *In addition to the definitions given in Section 202, for the purposes of Sections 317 through 323, certain terms are defined as follows:*

ADDITION *means any work that increases the floor or roof area or the volume of enclosed space of an existing building, and is structurally attached to the existing building by connections that are required for transmitting vertical or horizontal loads between the addition and the existing structure.*

ALTERATION *means any change within or to an existing building, which does not increase and may decrease the floor or roof area or the volume of enclosed space.*

BSE-C RESPONSE ACCELERATION PARAMETERS [BSC] *are the parameters (S_{XS} and S_{X1}) taken from 5-percent/ 50-year maximum direction spectral response acceleration curves or by a Site Specific*

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Response Spectrum developed in accordance with ASCE 41, Section 2.4.2.1.

BSE-R RESPONSE ACCELERATION PARAMETERS [BSC] *are the parameters (S_{XS} and S_{X1}) taken from 20-percent /50-year maximum direction spectral response acceleration curves or by a Site Specific Response Spectrum developed in accordance with ASCE 41, Section 2.4.2.1.*

BUILDING OFFICIAL *is that individual within the agency or organization charged with responsibility for compliance with the requirements of this code. For some agencies this person is termed the "enforcement agent."*

DESIGN *is the procedure that includes both the evaluation and retrofit design of an existing component, element or structural system, and design of a new component, element or structural system.*

ENFORCEMENT AGENCY *(Authority Having Jurisdiction in ASCE 41) is the agency or organization charged with responsibility for agency or organization compliance with the requirements of this code.*

METHOD A *refers to the procedures prescribed in Section 320.*

METHOD B *refers to the procedures allowed in Section 321.*

MODIFICATIONS. *For this chapter, modification is taken*

to include repairs to structures that have been damaged.

N-A, N-B, N-C, N-D *are seismic nonstructural component performance measures as defined in ASCE 41. N-A corresponds to the highest performance level, and N-C the lowest, while N-D is not considered.*

PEER REVIEW *refers to the procedures contained in Section 322.*

REPAIR *as used in this chapter means the design and construction work undertaken to restore or enhance the structural and nonstructural load-resisting system participating in the lateral response and stability of a structure that has experienced damage from earthquakes or other destructive events.*

S-1, S-2, S-3, S-4, S-5, S-6 *are seismic structural performance measures as defined in ASCE 41. S-1 corresponds to the highest performance level, and S-5 the lowest, while S-6 is not considered.*

SPECIFIC PROCEDURES *are the procedures listed in Section 319.1.1.*

STRUCTURAL REPAIRS *are any changes affecting existing or requiring new structural components primarily intended to correct the effects of damage, deterioration or impending or actual failure, regardless of cause.*

SECTION 319 SEISMIC CRITERIA SELECTION FOR EXISTING BUILDINGS

319.1 Basis for evaluation and design. *This section determines what technical approach is to be used for*

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the seismic evaluation and design for existing buildings. For those buildings or portions of buildings for which Section 317 requires action, the procedures and limitations for the evaluation of existing buildings and design of retrofit systems and/or repair thereof shall be implemented in accordance with this section.

One of the following approaches must be used:

1. *Method A of Section 320;*
2. *Method B of Section 321, with independent review of a peer reviewer as required in Section 322; or*
3. *For state-owned buildings only, the use of one of the specific procedures listed in Section 319.1.1. When Method B is chosen it must be approved by the*

building official, and, where applicable, by the peer reviewer. All referenced standards in ASCE 41 shall be replaced by referenced standards listed in Chapter 35 of the California Building Code.

319.1.1 Specific procedures. [BSC] *For state-owned buildings, the following specific procedures located in Appendix A may be used, without peer review, for their respective types of construction to comply with the seismic performance requirements for Risk Category I, II or III buildings:*

1. *Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings (Chapter A1). (N/A)*
2. *Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light Wood-Frame, Residential Buildings (Chapter A3).*
3. *Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms (Chapter A2). (N/A)*

319.1.2 *When a design project is begun under Method B the selection of the peer reviewer is subject to the approval of the building official. Following approval by the peer reviewer, the seismic criteria for the project and the planned evaluation provisions must be approved by the building official. The approved seismic criteria and evaluation provisions shall apply. Upon approval of the building official these are permitted to be modified.*

319.2 Existing conditions. *The existing condition and properties of the entire structure must be determined and documented by thorough inspection of the structure and site, review of all available related construction documents, review of geotechnical and engineering geologic reports, and performance of necessary testing and investigation. Where samples from the existing structure are taken or in situ tests are performed, they shall be selected and interpreted in a statistically appropriate manner to ensure that the properties determined and used in the evaluation or design are representative of the conditions and structural circumstances likely to be encountered in the structure as a whole. Adjacent*

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structures or site features that may affect the retrofit design shall be identified.

The entire load path of the seismic-force-resisting system shall be determined, documented and evaluated. The load path includes all the horizontal and vertical elements participating in the structural response: such as diaphragms, diaphragm chords, diaphragm collectors, vertical elements such as walls frames, braces; foundations and the connections between the components and elements of the load path. Repaired or retrofitted elements and the standards under which the work was constructed shall be identified.

Data collection in accordance with ASCE 41 Section 6.2 shall meet the following minimum levels:

1. ***[BSC]*** *For state-owned buildings, the requirements shall be met following the data collection requirements of ASCE 41, Section 6.2.*

Exceptions:

1. The number of samples for data collection may be adjusted with approval of the enforcement agency when it has been determined that adequate information has been obtained or additional information is required. [1 SEP]

Where original building plans and specifications are not available, "as-built" plans shall be prepared that depict the existing vertical and lateral structural systems, exterior elements, foundations and nonstructural systems in sufficient detail to complete the design.

Data collection shall be directed and observed by the project structural engineer or design professional in charge of the design.

319.3 Site geology and soil characteristics. *Soil profile shall be assigned in accordance with the requirements of Chapter 18 of the California Building Code.*

319.4 Risk categories. *For purposes of earthquake-resistant design, each structure shall be placed in one of the risk categories in accordance with the requirements of the California Building Code.*

319.5 Configuration requirements. *Each structure shall be designated structurally regular or irregular in accordance with the requirements of ASCE 41, Sections 7.3.1.1.1 to 7.3.1.1.4.*

319.6 General selection of the design method. *The requirements of Method B (Section 321) may be used for any existing building.*

319.7 Prescriptive selection of the design method. *The requirements of Method A (Section 320) or the specific procedures for applicable building types given in Section 319.1.1 are permitted to be used except under the following conditions, where the requirements of Method B (Section 321) must be used.*

319.7.2*When the building is classified as irregular in vertical or horizontal plan by application of ASCE 7, Section 12.3 and/or ASCE 41, Sections 7.3.1.1.1 to 7.3.1.1.4, unless the irregularity is demonstrated*

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not to affect the seismic performance of the building.

Exception: *If the retrofit design removes the configurational attributes that caused the building to be classified as irregular, then Section 319.7.2 does not apply and Method A may be used.*

319.7.3 *For any building that is assigned to Risk Category IV.*

319.7.4 *For any building using undefined or hybrid structural systems. (N/A)*

319.7.5 *When seismic isolation or energy dissipation systems are used in the retrofit or repair, either as part of the existing structure or as part of the modifications. (N/A)*

319.7.6 *When the height of the structure exceeds 240 feet (73 152 mm). (N/A)*

319.7.7 *When ASCE 41 is the evaluation standard and its application requires the use of nonlinear procedures. (N/A)*

319.8 Strength requirements. *All components of the lateral force-resisting system must have the strength to meet the acceptance criteria prescribed in ASCE 41, Chapter 7 or as prescribed in the applicable Appendix A chapter of this code if a specific procedure in Section 319.1.1 is used. Any component not having this strength shall have its capacity increased by modifying or supplementing its strength so that it exceeds the demand, or the demand is reduced to less than the existing strength by making other modifications to the structural system.*

Exception: *A component' s strength is permitted to be less than that required by the specified seismic load combinations if it can be demonstrated that the associated reduction in seismic performance of the component or its removal due to the failure does not result in a structural system that does not comply with the required performance objectives of Section 317. If this exception is taken for a component, then it cannot be considered part of the primary lateral-load- resisting system.*

319.9 Nonstructural component requirements. *Where the nonstructural performance levels required by Section 317, Table 317.5 are N-C or higher, mechanical, electrical and plumbing components shall comply with the provisions of ASCE 41, Chapter 13, Section 13.2.*

Exception: *Modifications to the procedures and criteria may be made subject to approval by the building official, and concurrence of the peer reviewer if applicable. All reports and correspondence shall also be forwarded to the building official.*

319.10 Structural observation, testing and inspection. *Structural, geotechnical and construction observation, testing and inspection as used in this section shall mean meeting the requirements of Chapter 17 of the California Building Code, with a minimum allowable level of investigation corresponding to seismic design category (SDC) D. At a minimum the project site will be visited by the responsible design professional to observe existing conditions and to review the construction work for general compliance with approved plans, specifications and applicable structural regulations. Such visits*

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shall occur at significant construction stages and at the completion of the structural retrofit. Structural observation shall be provided for all structures. The plan for testing and inspection shall be submitted to the building official for review and approval with the application for permit.

Additional requirements: *For public schools and community colleges, construction material testing, inspection and observation during construction shall also comply with Section 4-333 of the California Administrative Code. (N/A)*

319.10.1 *The registered design professional, or their designee, responsible for the structural design shall be retained to perform structural observation and independently report to the owner of observations and findings as they relate to adherence to the permitted plans and good workmanship.*

319.10.2 *At the conclusion of construction, the structural observer shall submit to the enforcement agency and the owner a final written statement that the required site visits have been made, that the work, to the best of the structural observers knowledge and belief, is or is not in general conformity to the approved plans and that the observed structural deficiencies have been resolved and/or listing those that, to the best of the structural observers knowledge and belief, have not been satisfactorily corrected.*

319.10.2.1 *The requirement for structural observation shall be noted and prominently displayed on the front sheet of the approved plans and incorporated into the general notes on the approved plans.*

319.10.2.2 Preconstruction meeting. *A preconstruction meeting is mandatory for all projects which require structural observation. The meeting shall include, but is not limited to, the registered design professional, structural observer, general constructor, affected subcontractors, the project inspector and a representative of the enforcement agency (designated alternates may attend if approved by the structural observer). The structural observer shall schedule and coordinate this meeting. The purpose of the meeting is to identify and clarify all essential structural components and connections that affect the lateral and vertical load systems and to review scheduling of the required observations for the project's structural system retrofit.*

319.11 Temporary actions. *When compatible with the building use, and the time phasing for both use and the retrofit program, temporary shoring or other structural support is permitted to be considered. Temporary bracing, shoring and prevention of falling hazards are permitted to be used to qualify for Exception 1 in Section 319.12 that allows inadequate capability in some existing components, as long as the required performance levels given in Section 317 can be provided by the permanent structure. The consideration for such temporary actions shall be noted in the design documents.*

319.12 Voluntary modifications to the lateral-force resisting system. *Where modifications of existing structural components and additions of new structural components are initiated for the purpose of improving the lateral-force resisting strength or stiffness of an existing structure and they are not required by other sections of this code, then they are permitted to be designed to meet an approved seismic performance criteria provided that an engineering analysis is submitted that follows:*

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1. *The capacity of existing structural components required to resist forces is not reduced, unless it can be demonstrated that reduced capacity meets the requirements of Section 319.8.*
2. *The lateral loading to or strength requirement of existing structural components is not increased beyond their capacity.*
3. *New structural components are detailed and connected to the existing structural components as required by the California Building Code.*
4. *New or relocated nonstructural components are detailed and connected to existing or new structural components as required by the California Building Code.*
5. *A dangerous condition is not created.*

Use of ASCE 41 Tier 1 and Tier 2 deficiency only retrofit procedures are pre-approved for use where Section 317.3 does not require an assessment.

319.12.1 State-owned buildings. [BSC] *Voluntary modifications to lateral force-resisting systems conducted in accordance with Appendix A of this code and the referenced standards of the California Building Code shall be permitted.*

319.12.1.1 Design documents. [BSC] *When Section 319.12 is the basis for structural modifications, the approved design documents must clearly state the scope of the seismic modifications and the accepted criteria for the design. The approved design documents must clearly have the phrase "The seismic requirements of the California Existing Building Code have not been checked to determine if these structural modifications meet the full seismic evaluation and strengthening requirements of Sections 317-322: the modifications proposed are to a different seismic performance standard than would be required in Section 319 if they were not voluntary as allowed in Section 319.12."*

SECTION 320 METHOD A

320.1 General. *The retrofit design shall employ the Linear Static or Linear Dynamic Procedures of ASCE 41, Section 7.4.1 or 7.4.2, and comply with the applicable general requirements of ASCE 41, Chapters 6 and 7. The earthquake hazard level and performance level given specified in Section 317.5 for the building's risk category shall be used. Structures shall be designed for seismic forces coming from any horizontal direction.*

SECTION 321 METHOD B

321.1 *The existing or retrofitted structure shall be demonstrated to have the capability to sustain the deformation response due to the specified earthquake ground motions and meet the seismic performance requirements of Section 317. The registered design professional shall provide an evaluation of the response of the existing structure in its modified configuration and condition to the ground motions*

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specified. If the building' s seismic performance is evaluated as satisfactory and the peer reviewer(s,) and the enforcement agency concurs, then no further structural modifications of the lateral load-resisting system are required.

When the evaluation indicates the building does not meet the required performance levels given in Table 317.5 for the risk category, then a retrofit and/or repair design shall be prepared that provides a structure that meets these performance objectives and reflects the appropriate consideration of existing conditions. Any approach to analysis and design is permitted to be used, provided that the approach shall be rational, shall be consistent with the established principals of mechanics and shall use the known performance characteristics of materials and assemblages under reversing loads typical of severe earthquake ground motions.

***Exception:** Further consideration of the structure's seismic performance may be waived by the enforcement agency if both the registered design professional and peer reviewer(s) conclude that the structural system can be expected to perform at least as well as required by the provisions of this section without completing an analysis of the structure's compliance with these requirements. A detailed report shall be submitted to the responsible building official that presents the reasons and basis for this conclusion. This report shall be prepared by the registered design professional. The peer reviewer(s) shall concur in this conclusion and affirm to it in writing. The building official shall either approve this decision or require completion of the indicated work specified in this section prior to approval.*

***321.2** The approach, models, analysis procedures, assumptions on material and system behavior and conclusions shall be peer reviewed in accordance with the requirements of Section 322 and accepted by the peer reviewer(s).*

Exceptions:

1. The enforcement agency may perform the work of peer review when qualified staff is available within the jurisdiction.

2. The enforcement agency may modify or waive the requirements for peer review when appropriate.

***321.2.1** The approach used in the development of the design shall be acceptable to the peer reviewer and the enforcement agency and shall be the same method as used in the evaluation of the building. Approaches that are specifically tailored to the type of building, construction materials and specific building characteristics may be used, if they are acceptable to the independent peer reviewer. The use of Method A allowed procedures may also be used under Method B.*

***321.2.2** Any method of analysis may be used, subject to acceptance by the peer reviewer(s) and the building official. The general requirements given in ASCE 41, Chapters 6 and 7, shall be complied with unless exceptions are accepted by the peer reviewer(s) and building official. Use of other than ASCE 41 procedures in Method B requires building official concurrence before implementation.*

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***321.2.3** Prior to implementation, the procedures, methods, material assumptions and acceptance/rejection criteria proposed by the registered design professional will be peer reviewed as provided in Section 322. Where nonlinear procedures are used, prior to any analysis, the representation of the seismic ground motion shall be reviewed and approved by the peer reviewer(s) and the building official.*

***321.2.4** The conclusions and design decisions shall be reviewed and accepted by the peer reviewer(s) and the building official.*

SECTION 322 - PEER REVIEW REQUIREMENTS

***322.1 General.** Independent peer review is an objective, technical review by knowledgeable reviewer(s) experienced in the structural design, analysis and performance issues involved. The reviewer(s) shall examine the available information on the condition of the building, the basic engineering concepts employed and the recommendations for action.*

***322.2 Timing of independent review.** The independent reviewer(s) shall be selected prior to initiation of substantial portions of the design and/or analysis work that is to be reviewed, and review shall start as soon as practical after Method B is adopted and sufficient information defining the project is available.*

***322.3 Qualifications and terms of employment.** The reviewer(s) shall be independent from the design and construction team.*

***322.3.1** The reviewer(s) shall have no other involvement in the project before, during or after the review, except in a review capacity.*

***322.3.2** The reviewer(s) shall be selected and paid by the owner and shall have technical expertise in the evaluation and retrofit of buildings similar to the one being reviewed, as determined by the enforcement agency.*

***322.3.3** The reviewer (or in the case of review teams, the chair) shall be a California-licensed structural engineer who is familiar with the technical issues and regulations governing the work to be reviewed.*

***Exception:** Other individuals with acceptable qualifications and experience may be a peer reviewer(s) with the approval of the building official.*

***322.3.4** The reviewer shall serve through completion of the project and shall not be terminated except for failure to perform the duties specified herein. Such termination shall be in writing with copies to the enforcement agency, owner and the registered design professional. When a reviewer is terminated or resigns, a qualified replacement shall be appointed within 10 working days, and the reviewer shall submit copies of all reports, notes and correspondence to the responsible building official, the owner and the registered design professional within 10 working days of such termination.*

***322.3.5** The peer reviewer shall have access in a timely manner to all documents, materials and*

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information deemed necessary by the peer reviewer to complete the peer review.

322.4 Scope of review. *Review activities shall include, where appropriate, available construction documents, design criteria and representative observations of the condition of the structure, all inspection and testing reports, including methods of sampling, analytical models and analyses prepared by the registered design professional and consultants, and the retrofit or repair design. Review shall include consideration of the proposed design approach, methods, materials, details and constructability.*

Changes observed during construction that affect the seismic-resisting system shall be reported to the reviewer in writing for review and recommendation.

322.5 Reports. *The reviewer(s) shall prepare a written report to the owner and building official that covers all aspects of the review performed, including conclusions reached by the reviewer(s). Reports shall be issued after the schematic phase, during design development, and at the completion of construction documents but prior to submittal of the project plans to the enforcement agency for plan review. When acceptable to the building official, the requirement for a report during a specific phase of the project development may be waived.*

Such reports should include, at the minimum, statements of the following:

1. Scope of engineering design peer review with limitations defined.

2. The status of the project documents at each review stage.

3. Ability of selected materials and framing systems to meet performance criteria with given loads and configuration.

4. Degree of structural system redundancy and the deformation compatibility among structural and nonstructural components.

5. Basic constructability of the retrofit or repair system.

6. Other recommendations that would be appropriate to the specific project.

7. Presentation of the conclusions of the reviewer identifying any areas that need further review, investigation and/or clarification.

8. Recommendations.

The last report prepared prior to submittal of permit documents to the enforcement agency shall include a statement indicating that the design is in conformance with the approved evaluation and design criteria.

322.6 Response and resolutions. *The registered design professional shall review the report from the reviewer(s) and shall develop corrective actions and responses as appropriate. Changes observed during*

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construction that affect the seismic-resisting system shall be reported to the reviewer in writing for review and recommendations. All reports, responses and resolutions prepared pursuant to this section shall be submitted to the responsible enforcement agency and the owner along with other plans, specifications and calculations required. If the reviewer resigns or is terminated prior to completion of the project, then the reviewer shall submit copies of all reports, notes and correspondence to the responsible building official, the owner and the registered design professional within 10 working days of such termination.

322.7 Resolution of conflicts. *When the conclusions and recommendations of the peer reviewer conflict with the registered design professional' s proposed design, the enforcement*

agency shall make the final determination of the requirement for the design.

SECTION 402 ADDITIONS

402.1. **General.** ***[BSC & HCD]*** Additions to any building or structure shall comply with the requirements of the *California Building Code* or *California Residential Code, as applicable*, for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are no less conforming to the provisions of the *California Building Code* or *California Residential Code*, *as applicable,* than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and area provisions of Chapter 5 of the *California Building Code or the height provisions of Chapter 3 of the California Residential Code, as applicable.*

Exception: [BSC] *For state-owned buildings, including those owned by the University of California and the California State University and the Judicial Council, the requirements of Sections 402.3 and 402.4 are replaced by the requirements of Sections 317 through 322.*

SECTION 403 ALTERATIONS

403.1 General. Except as provided by Section 401.2 or this section, alterations to any building or structure shall comply with the requirements of the *California Building Code* or *California Residential Code*, as applicable, for new construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of the *California Building Code* or *California Residential Code,* as applicable, than the existing building or structure was prior to the alteration.

SECTION 409 MOVED STRUCTURES

409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

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PART 8 CONTAINS ALTERNATIVE REGULATIONS FOR QUALIFIED HISTORICAL BUILDINGS

The *California Historical Building Code* (CHBC) is unique among state regulations. The authoring of the original CHBC required state agencies promulgating regulations for building construction to work in harmony with representatives of other design and construction disciplines. The result was a totally new approach to building codes for historical structures, which maintains currently acceptable life–safety standards.

These regulations are also unique in that they are performance oriented rather than prescriptive. The provisions of the CHBC are to be applied by the enforcing authority of every city, county, city and county, or state agency in permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use or continued use of a qualified historical building.

The authority for use of the CHBC is vested in Sections 18950 through 18961 of the Health and Safety Code. Section 18954 states, "The building department of every city or county shall apply the provisions of alternative building standards and building regulations adopted by the CHBC Board pursuant to Section 18959.5 in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, moving or continued use of an historical building or structure. A state agency shall apply the alternative building regulations adopted by the CHBC Board pursuant to Section 18959.5 in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, moving or continued use of an historical building or structure."

However, be aware that in order to use the CHBC, the structure under consideration must be qualified by being designated as an historical building or structure. Section 18955 states, "For the purposes of this part, a qualified historical building or structure is any structure or collection of structures, and their associated sites deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This shall include structures on existing or future national, state or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories of historical or architecturally significant sites, places, historic districts or landmarks."

The regulations of the CHBC have the same authority as state law and are to be considered as such. Liability is the same as for prevailing law.

The intent of the CHBC is to save California's architectural heritage by recognizing the unique construction problems inherent in historical buildings and by providing a code to deal with these problems.

The background of the *California Historical Building Code* can be traced to December 1973, when the State Department of Parks and Recreation published the California History Plan, Volume I, in which

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Recommendation No. 11 was proposed by the then California Landmarks Advisory Committee (later to become The State Historical Resources Commission). This proposal expressed a need for a new building code to meet the intent of protecting the public health and safety and also retain "enough flexibility to allow restoration of a Historic feature while still retaining its Historic integrity." No. 11 of this History Plan supported this need by stating that ". . . restoration . . . is frequently made difficult by unnecessarily rigid interpretation of building . . . codes."

In March of 1974, the Landmarks Committee by resolution recommended that the Director of the State Department of Parks and Recreation and the State Architect initiate a study to develop this needed code. These two officials accepted this concept and jointly called a statewide meeting in Sacramento on May 14th of that year. Attending were representatives from both the public and private sectors, such as members of the building industry, design professions, local and state building officials, and others interested in this problem.

Out of this open conference, a steering committee was formed to explore in depth the ways and means of implementing the new historical building code concept. This ad hoc committee was chaired by a representative from the California Council, American Institute of Architects and composed of a comprehensive cross section of the professional organizations and government agencies concerned with design and code enforcement.

Meetings began late in 1974 and continued into early 1975. By April of that year, a legislative subcommittee of the ad hoc group drafted a sample bill for the proposed code and requested that it be carried by Senator James R. Mills, President Pro Tempore of the Senate. After further development and refinement, the enacting legislation to create the authority for the code and an advisory board to prepare regulations to implement it (SB 927, Mills) was supported by both the legislature and the public. It was signed by the governor in September 1975, and became effective January 1, 1976.

The members of the advisory board, which were required by law to include local and state building officials, individuals from the building industry and design professions, as well as representatives from city and county governments, were appointed and held their first session in Sacramento, February 24, 1976. This Board's duties included the preparation of code regulations and the review of specific historic building cases, when officially requested by governing bodies.

Several of the Board's members were a part of the original ad hoc steering committee and thus provided a continuity and smooth transition from the inception of the code's philosophy to its pragmatic implementation in these performance–oriented regulations.

The first comprehensive regulations were codified in August and October 1979, after years of careful deliberation. Those regulations allowed all jurisdictions to utilize them at their discretion in replacing or modifying details of prevailing prescriptive codes.

Changes made in law in 1984 and 1991, and to the code, make the application of the *California Historical Building Code* statutes and regulations applicable for all agencies and at the discretion of the owner for

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local jurisdictions when dealing with qualified historical buildings.

These current performance regulations were adopted by the Board on June 23, 1998, and approved by the California Building Standards Commission on December 12, 2013.

CHAPTER 8-1 ADMINISTRATION

Note: The *California Historical Building Code,* Part 8 of Title 24, governs for all qualified historical buildings or properties in the State of California.

SECTION 8-101 TITLE, PURPOSE AND INTENT

8-101.1 Title. These regulations shall be known as the *California Historical Building Code* and will be referred to herein as "the CHBC."

8-101.2 Purpose. The purpose of the CHBC is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties (Chapter 8-2). The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties.

8-101.3 Intent. The intent of the CHBC is to facilitate the preservation and continuing use of qualified historical buildings or properties while providing reasonable safety for the building occupants and access for persons with disabilities.

SECTION 8-102 APPLICATION

8-102.1 Application. The CHBC is applicable to all issues regarding code compliance for qualified historical buildings or properties. The CHBC may be used in conjunction with the regular code to provide solutions to facilitate the preservation of qualified historical buildings or properties. The CHBC shall be used by any agency with jurisdiction and whenever compliance with the code is required for qualified historical buildings or properties.

1. The state or local enforcing agency shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstruction, rehabilitation, relocation or continued use of a qualified historical building or property when so elected by the private property owner.

2. **State agencies.** All state agencies shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, safety, relocation, reconstruction or continued use of qualified historical buildings or properties.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, provided nonhistorical additions shall conform to the requirements of the regular code. See Chapter 8-2.

8-102.1.2 Relocation. Relocated qualified historical buildings or properties shall be sited to comply with the regular code or with the solutions listed in the CHBC. Nonhistorical new construction related to relocation shall comply with the regular code. Reconstruction and restoration related to relocation is permitted to comply with the provisions in the CHBC.

8-102.1.3 Change of occupancy. For change of use or occupancy, see Chapter 8-3, Use and Occupancy.

8-102.1.4 Continued use. Qualified historical buildings or properties may have their existing use or occupancy continued if such use or occupancy conformed to the code or to the standards of construction in effect at the time of construction, and such use or occupancy does not constitute a distinct hazard to life safety as defined in the CHBC.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code.

8-102.1.6 Additional work. Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC.

SECTION 8-103 ORGANIZATION AND ENFORCEMENT

8-103.1 Authority. The state or local enforcing agency, pursuant to authority provided under Section 18954 of the Health and Safety Code, shall administer and enforce the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstruction, rehabilitation, relocation or continued use of a qualified historical building or property.

8-103.2 State enforcement. All state agencies pursuant to authority provided under Section 18954 and Section 18961 of the Health and Safety Code shall administer and enforce the CHBC with respect to qualified historical buildings or properties under their respective jurisdiction.

ADMINISTRATION

8-103.3 Liability. Prevailing law regarding immunity of building officials is unaffected by the use and enforcement of the CHBC.

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SECTION 8-104 REVIEW AND APPEALS

8-104.1 State Historical Building Safety Board (SHBSB).

In order to provide for interpretation of the provisions of the CHBC and to hear appeals, the SHBSB shall act as an appeal and review body to state and local agencies or any affected party.

8-104.2 SHBSB review. When a proposed design, material or method of construction is being considered by the enforcing agency, the agency chief, the building official or the local board of appeals may file a written request for opinion to the SHBSB for its consideration, advice or findings. In considering such request, the SHBSB may seek the advice of other appropriate private or public boards, individuals, or state or local agencies. The SHBSB shall, after considering all of the facts presented, including any recommendation of other appropriate boards, agencies or other parties, determine if, for the purpose intended, the proposal is reasonably equivalent to that allowed by these regulations in proposed design, material or method of construction, and it shall transmit such findings and its decision to the enforcing agency for its application. The Board may recover the costs of such reviews and shall report the decision in printed form, copied to the California Building Standards Commission.

8-104.2.1 State agencies. All state agencies with ownership of, or that act on behalf of state agency owners of, qualified historical buildings or properties, shall consult and obtain SHBSB review prior to taking action or making decisions or appeals that affect qualified historical buildings or properties, per Section 18961 of the Health and Safety Code.

8-104.2.2 Imminent threat. Where an emergency is declared and a qualified historical building or property is declared an imminent threat to life and safety, the state agency assessing such a threat shall consult with the SHBSB before any demolition is undertaken, per Section 18961 of the Health and Safety Code.

8-104.3 SHBC appeals. If any local agency administering and enforcing the CHBC or any person adversely affected by any regulation, rule, omission, interpretation, decision or practice of the agency enforcing the CHBC wishes to appeal the issue for resolution to the SHBSB, either of these parties may appeal directly to the Board. The Board may accept the

appeal only if it determines that issues involved are of statewide significance. The Board may recover the costs of such reviews and shall make available copies of decisions in printed form at cost, copied to the California Building Standards Commission.

8-104.4 Local agency fees. Local agencies, when actively involved in the appeal, may also charge affected persons reasonable fees not to exceed the cost of obtaining reviews and appeals from the Board.

SECTION 8-105 CONSTRUCTION METHODS AND MATERIALS

8-105.1 Repairs. Repairs to any portion of a qualified historical building or property may be made in-kind with historical materials and the use of original or existing historical methods of construction,

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subject to conditions of the CHBC. (See Chapter 8-8.)

8-105.2 Solutions to the *California Historical Building Code*. Solutions provided in the CHBC, or any other acceptable regulation or methodology of design or construction and used in whole or in part, with the regular code, or with any combination of the regular code and the CHBC, shall be allowed. The CHBC does not preclude the use of any proposed alternative or method of design or construction not specifically prescribed or otherwise allowed by these regulations. Any alternative may be submitted for evaluation to the appropriate enforcing agency for review and acceptance. The enforcing agency may request that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding such solutions. Any alternative offered in lieu of that prescribed or allowed in the CHBC shall be reasonably equivalent in quality, strength, effectiveness, durability and safety to that of the CHBC.

SECTION 8-106 SHBSB RULINGS

8-106.1 General. Rulings of the SHBSB (i.e., formal appeals, case decisions, code interpretations and administrative resolutions, etc.) that are issues of statewide application are required to be submitted to the California Building Standards Commission in printed form. These rulings may be used to provide guidance for similar cases or issues.

SECTION 8-201 DEFINITIONS

For the purpose of the CHBC, certain terms and phrases, words and their derivatives shall be construed as specified in this chapter. Additional definitions and/or terms may appear in the various other chapters relative to terms or phrases primarily applicable thereto. Any reference to "authority having jurisdiction" does not necessarily preclude the appellate process of Section 8-104.3.

ADDITION. A nonhistorical extension or increase in floor area or height of a building or property.

ALTERATION. A modification to a qualified historical building or property that affects the usability of the building or property, or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historical restoration, changes or rearrangement of the structural parts or elements, and changes or rearrangements in the plan configuration of walls and full-height partitions.

BUILDING STANDARD. Any guideline, regulation or code that may be applied to a qualified historical building or property.

CHARACTER-DEFINING FEATURE. Those visual aspects and physical elements that comprise the appearance of a historical building or property, and that are significant to its historical, architectural and cultural values, including the overall shape of the historical building or property, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment.

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CULTURAL RESOURCE. Building, site, property, object or district evaluated as having significance in prehistory or history.

DISTINCT HAZARD. Any clear and evident condition that exists as an immediate danger to the safety of the occupants or public right of way. Conditions that do not meet the requirements of current regular codes and ordinances do *not*, of themselves, constitute a distinct hazard. Section 8-104.3, SHBC appeals, remains applicable.

ENFORCING AGENCY, Authority Having Jurisdiction, Local Agency with Jurisdiction. An entity with the responsibility for regulating, enforcing, reviewing or otherwise that exerts control of or administration over the process of granting permits, approvals, decisions, variances, appeals for qualified historical buildings or properties.

EXIT LADDER DEVICE. An exit ladder device is a permanently installed, fixed, folding, retractable or hinged ladder intended for use as a means of emergency egress from areas of the second or third stories. Unless approved specifically for a longer length, the ladder shall be limited to 25 feet (7620 mm) in length. Exit ladders are permitted where the area served by the ladder has an occupant load less than 10 persons.

FIRE HAZARD. Any condition which increases or may contribute to an increase in the hazard or menace of fire to a greater degree than customarily recognized by the authority having jurisdiction, or any condition or act which could obstruct, delay, hinder or interfere with the operations of firefighting personnel or the egress of occupants in the event of fire. Section 8-104.3, SHBC appeals, remains applicable.

HISTORICAL FABRIC OR MATERIALS. Original and later-added historically significant construction materials, architectural finishes or elements in a particular pattern or configuration which form a qualified historical property, as determined by the authority having jurisdiction.

HISTORICAL SIGNIFICANCE. Importance for which a property has been evaluated and found to be historical, as determined by the authority having jurisdiction.

IMMINENT THREAT. Any condition within or affecting a qualified historical building or property which, in the opinion of the authority having jurisdiction, would qualify a building or property as dangerous to the extent that the life, health, property or safety of the public, its occupants or those performing necessary repair, stabilization or shoring work are in immediate peril due to conditions affecting the building or property. Potential hazards to persons using, or improvements within, the right-of-way may not be construed to be "imminent threats" solely for that reason if the hazard can be mitigated by shoring, stabilization, barricades or temporary fences.

INTEGRITY. Authenticity of a building or property's historical identity, evidenced by the survival of physical characteristics that existed during the property's historical or prehistorical period of significance.

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LIFE-SAFETY EVALUATION. An evaluation of the life-safety hazards of a qualified historical building or property based on procedures similar to those contained in NFPA 909, *Standard for the Protection of Cultural Resources, Appendix B, Fire Risk Assessment in Heritage Premises.*

LIFE SAFETY HAZARD. See Distinct Hazard.

PERIOD OF SIGNIFICANCE. The period of time when a qualified historical building or property was associated with important events, activities or persons, or attained the characteristics for its listing or registration.

PRESERVATION. The act or process of applying measures necessary to sustain the existing form, integrity and materials of a qualified historical building or property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-related work to make properties functional is appropriate within a preservation project.

QUALIFIED HISTORICAL BUILDING OR PROPERTY. As defined in Health and Safety Code Section 18955 as "Qualified Historical Building or Property." Any building, site, object, place, location, district or collection of structures, and their associated sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state or federal governmental jurisdiction. This shall include historical buildings or properties on, or determined eligible for, national, state or local historical registers or inventories, such as the National Register of Historic Places, California Register of Historical Resources, State Historical Landmarks, State Points of Historical Interest, and city or county registers, inventories or surveys of historical or architecturally significant sites, places or landmarks.

RECONSTRUCTION. The act or process of depicting, by means of new construction, the form, features and detailing of a nonsurviving site, landscape, building, property or object for the purpose of replicating its appearance at a specific period of time.

REGULAR CODE. The adopted regulations that govern the design and construction or alteration of nonhistorical buildings and properties within the jurisdiction of the enforcing agency.

REHABILITATION. The act or process of making possible a compatible use for qualified historical building or property through repair, alterations and additions while preserving those portions or features which convey its qualified historical, cultural or architectural values.

RELOCATION. The act or process of moving any qualified historical building or property or a portion of a qualified historical building or property to a new site, or a different location on the same site.

REPAIR. Renewal, reconstruction or renovation of any portion of an existing property, site or building for the purpose of its continued use.

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RESTORATION. The act or process of accurately depicting the form, features and character of a qualified building or property as it appeared at a particular period of time by the means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code required work to make properties functional is appropriate within a restoration project.

STRUCTURE. That which is built or constructed, an edifice or a building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

TREATMENT. An act of work to carry out preservation, restoration, stabilization, rehabilitation or reconstruction.

SECTION 8-301 PURPOSE AND SCOPE

8-301.1 Purpose. The purpose of the CHBC is to provide regulations for the determination of occupancy classifications and conditions of use for qualified historical buildings or properties.

8-301.2 Scope. Every qualified historical building or property for which a permit or approval has been requested shall be classified prior to permit issuance according to its use or the character of its occupancy in accordance with the regular code and applicable provisions of this chapter.

SECTION 8-302 GENERAL

8-302.1 Existing use. The use or character of occupancy of a qualified historical building or property, or portion thereof, shall be permitted to continue in use regardless of any period of time in which it may have remained unoccupied or in other uses, provided such building or property otherwise conforms to all applicable requirements of the CHBC.

8-302.2 Change in occupancy. The use or character of the occupancy of a qualified historical building or property may be changed from or returned to its historical use or character, provided the qualified historical building or property conforms to the requirements applicable to the new use or character of occupancy as set forth in the CHBC. Such change in occupancy shall not mandate conformance with new construction requirements as set forth in regular code.

8-302.3 Occupancy separations. Required occupancy separations of more than one hour may be reduced to one-hour fire-resistive construction with all openings protected by not less than three-fourths-hour fire-resistive assemblies of the self-closing or automatic-closing type when the building is provided with an automatic sprinkler system throughout the entire building in accordance with Section 8-410.2. Doors equipped with automatic-closing devices shall be of a type which will function upon activation of a device which responds to products of combustion other than heat.

Required occupancy separations of one hour may be omitted when the building is provided with an automatic sprinkler system throughout.

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8-302.4 Maximum floor area. Regardless of the use or character of occupancy, the area of a one-story qualified historical building or property may have, but shall not exceed, a floor area of 15,000 square feet (1393.5 m^2) unless such an increase is otherwise permitted in regular code. Multistory qualified historical buildings (including basements and cellars) shall be in accordance with regular code requirements.

Exception: Historical buildings may be unlimited in floor area without fire-resistive area separation walls:

1. When provided with an automatic sprinkler, or

2. Residential occupancies of two stories or less when provided with a complete fire alarm and annunciation system and where the exiting system conforms to regular code.

8-302.5 Maximum height. The maximum height and number of stories of a qualified historical building or property shall not be limited because of construction type, provided such height or number of stories does not exceed that of its historical design.

8-302.5.1 High-rise buildings. Occupancies B, F-1, F-2 or S in high-rise buildings with floors located more than 75 feet above the lowest floor level having building access may be permitted with only the stories over 75 feet provided with an automatic fire sprinkler system if:

1. The building construction type and the exits conform to regular code, and

2. A complete building fire alarm and annunciation system is installed, and

3. A fire barrier is provided between the sprinklered and nonsprinklered floors.

8-302.6 Fire-resistive construction. See Chapter 8-4.

8-302.7 Light and ventilation. Existing provisions for light and ventilation which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain. See Section 8303.6 for residential requirements. See Section 8-503 for Escape or Rescue Windows and Doors.

SECTION 8-303 RESIDENTIAL OCCUPANCIES

8-303.1 Purpose. The purpose of this section is to provide regulations for those buildings designated as qualified historical buildings or properties and classified as residential occuancies. The CHBC requires enforcing agencies to accept any reasonably equivalent alternative to the regular code when dealing with qualified historical buildings and properties.

8-303.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings and properties while maintaining a reasonable degree of protection of life, health and safety for the occupants.

8-303.3 Application and scope. The provisions of this section shall apply to all qualified historical

buildings used for human habitation. Those dwelling units intended only for display, or public use with no residential use involved, need not comply with the requirements of this section.

8-303.4 Fire escapes. See Chapter 8-5.

8-303.5 Room dimensions. Rooms used for sleeping purposes may contain a minimum of 50 square feet (4.6 m^2) floor area, provided there is maintained an average ceiling height of 7 feet (2134 mm). Other habitable rooms need only be of adequate size to be functional for the purpose intended.

8-303.6 Light and ventilation. Windows in habitable rooms shall have an area of 6 percent of the floor area, or 6 square feet (0.56 m^2), whichever is greater. Windows in sleeping rooms shall be openable (see Section 8-503). Residential occupancies need not be provided with electrical lighting.

8-303.7 Alteration and repair. The alteration and repair of qualified historical buildings or properties may permit the replacement, retention and extension of original materials and the continued use of original methods of construction, provided a life-safety hazard is not created or continued. Alterations and repairs shall be consistent with the CHBC. The amount of alterations and repairs is not limited, provided there is no nonhistorical increase in floor area, volume or size of the building or property.

8-303.8 Exiting. See Chapter 8-5.

SECTION 8-401 PURPOSE, INTENT AND SCOPE

8-401.1 Purpose. The purpose of this chapter is to provide regulations for fire protection of qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-401.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings or properties while maintaining a reasonable degree of fire protection based primarily on the life safety of the occupants and firefighting personnel.

8-401.3 Scope. This chapter shall apply when required by the provisions of Section 8-102.

SECTION 8-402 FIRE-RESISTIVE CONSTRUCTION

8-402.1 Exterior wall construction. The fire-resistance requirement for existing exterior walls and existing opening protection may be satisfied when an automatic sprinkler system designed for exposure protection is installed per the CHBC. The automatic sprinklers may be installed on the exterior with at least one sprinkler located over each opening required to be protected. Additional sprinklers shall also be distributed along combustible walls under the roof lines that do not meet the fire-resistive requirement due to relationship to property lines as required by regular code. Such sprinkler systems may be connected to the domestic water supply on the supply-main side of the building shut-off valve. A shutoff valve may be installed for the sprinkler system, provided it is locked in an open position.

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8-402.2 One-hour construction. Upgrading an existing qualified historical building or property to one-hour fire-resistive construction and one-hour fire-resistive corridors shall not be required regardless of construction or occupancy when one of the following is provided:

1. An automatic sprinkler system throughout. See Section 8-410 for automatic sprinkler systems. SEP

2. An approved life-safety evaluation. SEP

3. Other alternative measures as approved by the enforcing agency. SEP

8-402.3 Openings in fire-rated systems. Historical glazing materials and solid wood unrated doors in interior walls required to have one-hour fire rating may be approved when operable windows and doors are provided with appropriate smoke seals and when the area affected is provided with an automatic sprinkler system. See Section 8-410 for automatic sprinkler systems.

SECTION 8-403 INTERIOR FINISH MATERIALS

New non-historical interior wall and ceiling finishes shall conform to the provisions of the regular code. Existing nonconforming materials used in interior walls and finishes may be surfaced with an approved fire-retardant to increase the rating of the natural finish to within reasonable proximity of the required rating. For wood lath and plaster walls, see Section 8-404.

Exception: When an automatic sprinkler system is provided throughout the building, existing finishes shall be approved.

SECTION 8-404 WOOD LATH AND PLASTER

Wood lath and plaster walls may be considered in accordance with codes, standards and listings published prior to 1943 whereby a wood stud wall assembly with gypsum or lime plaster on hand split or sawn wooden lath obtains a one-half hour fire-resistive rating. This rating may be increased for interior walls to as much as one hour by filling the wall with mineral fiber or glass fiber.

SECTION 8-405 OCCUPANCY SEPARATION

See Chapter 8-3.

SECTION 8-406 MAXIMUM FLOOR AREA

See Chapter 8-3.

SECTION 8-407 VERTICAL SHAFTS

Vertical shafts need not be enclosed when such shafts are blocked at every floor level by the installation of not less than 2 full inches (51 mm) of solid wood or equivalent construction to prevent the initial

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passage of smoke and flame. Automatic sprinkler systems or other solutions may be considered on a case-by-case basis, in lieu of enclosure of vertical shafts and stairwells.

SECTION 8-408 ROOF COVERING

Existing or original roofing materials may be repaired or reconstructed subject to the following requirements:

1. The original or historical roofing system shall be detailed or modified as necessary in order to be capable

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of providing shelter while preserving the historical materials and appearance of the roof.

2. Wooden roof materials may be utilized where fire resistance is required, provided they are treated with fire- retardant treatments to achieve a Class “B” roof covering rating. Wood roofing in state designated Urban Wildland and High Fire Zones shall be permitted when installed in class “A” assemblies.

3. Jurisdictions that prohibit wood roofing materials for application as roof coverings and roof assemblies shall submit documentation for the adoption. Express Terms, statement of reasons and minutes of the action by the adopting authority Health and Safety Code, Section 18959(f).

SECTION 8-409 FIRE ALARM SYSTEMS

Every qualified historical building or property shall be provided with fire alarm systems as required for the use or occupancy by the regular code or other approved alternative.

SECTION 8-410 AUTOMATIC SPRINKLER SYSTEMS

8-410.1 Every qualified historical building or property which cannot be made to conform to the construction requirements specified in the regular code for the occupancy or use, and which constitutes a distinct fire hazard (for definition of “distinct hazard,” see Chapter 8-2), shall be deemed to be in compliance if provided with an automatic sprinkler system or a life-safety system or other technologies as approved by the enforcing agency. (“Automatic” is defined in the regular code. Sprinkler System is defined in this section.)

8-410.2 When required by the CHBC, an automatic sprinkler system is defined by the following standards as adopted by the State Fire Marshal (for nonhazardous occupancies).

8-410.3 Automatic sprinkler systems shall not be used to substitute for or act as an alternate to the required number of exits from any facility. (See Chapter 8-5 for exiting requirements.)

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8-410.4 An automatic sprinkler system shall be provided in all detention facilities.

SECTION 8-411 OTHER TECHNOLOGIES

Fire alarm systems, smoke and heat detection systems, occupant notification and annunciation systems, smoke control systems and fire modeling, timed egress analysis and modeling, as well as other engineering methods and technologies may be accepted by the enforcing agency to address areas of nonconformance.

SECTION 8-412 HIGH-RISE BUILDINGS

Qualified historical buildings having floors for human occupancy located more than 75 feet above the lowest floor level having building access shall conform to the provisions of the regular code for existing high-rise buildings as amended by the CHBC.

1. Buildings of four stories or less: NFPA 13R.

2. For floors above the fourth, NFPA 13.

3. Buildings with floors above 75 feet, NFPA 13.

4. When the building is free standing or with property line separation, two floors and 1500 sf per floor or less, NFPA 13D.

5. For exterior wall and opening protection. As required by this chapter.

Exception: When the automatic sprinkler systems are used to reach compliance using this code, in three or more occasions, NFPA 13D standard shall be increased to NFPA 13R standard, or NFPA 13R standard shall be increased to a NFPA 13 standard.

SECTION 8-501 PURPOSE, INTENT AND SCOPE

8-501.1 Purpose. The purpose of this chapter is to establish minimum means of egress regulations for qualified historical buildings or properties. The CHBC requires enforcing agencies to accept reasonably equivalent alternatives to the means of egress requirements in the regular code.

8-501.2 Intent. The intent of these regulations is to provide an adequate means of egress.

8-501.3 Scope. Every qualified historical building or portion thereof shall be provided with exits as required by the CHBC when required by the provisions of Section 8-102.

SECTION 8-502 GENERAL

8-502.1 General. The enforcing agency shall grant reasonable exceptions to the specific provisions of

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applicable egress regulations where such exceptions will not adversely affect life safety.

8-502.2. Existing door openings and corridor widths of less than dimensions required by regular code shall be permitted where there is sufficient width and height for the occupants to pass through the opening or traverse the exit.

8-502.3 Stairs. Existing stairs having risers and treads or width at variance with the regular code are allowed if determined by the enforcing agency to not constitute a distinct hazard. Handrails with nonconforming grip size or extensions are allowed if determined by the enforcing agency to not constitute a distinct hazard.

8-502.4 Main entry doors. The front or main entry doors need not be rehung to swing in the direction of exit travel, provided other means or conditions of exiting, as necessary to serve the total occupant load, are provided.

8-502.5 Existing fire escapes. Existing previously approved fire escapes and fire escape ladders shall be acceptable as one of the required means of egress, provided they extend to the ground and are easily negotiated, adequately signed and in good working order. Access shall be by an opening having a minimum width of 29 inches (737 mm) when open with a sill no more than 30 inches (762 mm) above the adjacent floor, landing or approved step.

8-502.6 New fire escapes and fire escape ladders. New fire escapes and fire escape ladders which comply with this section shall be acceptable as one of the required means of egress. New fire escapes and new fire escape ladders shall comply with the following:

1. Access from a corridor shall not be through an intervening room.

2. All openings within 10 feet (3048 mm) shall be protected by three-fourths-hour fire assemblies. When

located within a recess or vestibule, adjacent enclosure walls shall be of not less than one-hour fire-resistive construction.

3. Egress from the building shall be by a clear opening having a minimum dimension of not less than 29 inches (737 mm). Such openings shall be openable from the inside without the use of a key or special knowledge or effort. The sill of an opening giving access shall not be more than 30 inches (737 mm) above the floor, step or landing of the building or balcony.

4. Fire escape stairways and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.79 kN/m^2) and shall be provided with a top and intermediate handrail on each side. The pitch of the stairway shall not exceed 72 degrees with a minimum width of 18 inches (457 mm). Treads shall not be less than 4 inches (102 mm) in width, and the rise between treads shall not exceed 10 inches (254 mm). All stair and balcony railings shall support a horizontal force of not less than 50 pounds per lineal foot (729.5 N/m^2) of railing.

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5. Balconies shall not be less than 44 inches (1118 mm) in width with no floor opening other than the stairway opening greater than $^5/_8$ inch (15.9 mm) in width. Stairway openings in such balconies shall not be less than 22 inches by 44 inches (559 by 1118 mm). The balustrade of each balcony shall not be less than 36 inches (914 mm) high with not more than 9 inches (287 mm) between balusters.

6. Fire escapes shall extend to the roof or provide an approved gooseneck ladder between the top floor landing and the roof when serving buildings four or more stories in height having roofs with less than 4 units vertical in 12 units horizontal (33.3 percent slope). Fire escape ladders shall be designed and connected to the building to withstand a horizontal force of 100 pounds (445 N) placed anywhere on the rung. All ladders shall be at least 15 inches (381 mm) wide, located within 12 inches (305 mm) of the building. Ladder rungs shall be $^3/_4$ inch (19.1 mm) in diameter and shall be located 12 inches (305 mm) on center. Openings for roof access ladders through cornices and similar projections shall have minimum dimensions of 30 inches by 33 inches (762 by 838 mm).

The length of fire escapes and exit ladder devices shall be limited to that approved by the building official based on products listed by a recognized testing laboratory.

7. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escapes shall extend to the ground or be provided with counterbalanced stairs reaching to the ground.

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8. Fire escapes shall not take the place of stairways required by the codes under which the building was constructed.

9. Fire escapes shall be kept clear and unobstructed at all times and maintained in good working order.

SECTION 8-503 ESCAPE OR RESCUE WINDOWS AND DOORS

Basements in dwelling units and every sleeping room below the fourth floor shall have at least one openable window or door approved for emergency escape which shall open directly into a public street, public way, yard or exit court. Escape or rescue windows or doors shall have a minimum clear area of 3.3 square feet (0.31 m^2) and a minimum width or height dimension of 18 inches (457 mm) and be operable from the inside to provide a full, clear opening without the use of special tools.

SECTION 8-504 RAILINGS AND GUARDRAILS

The height of railings and guard railings and the spacing of balusters may continue in their historical height and spacing unless a distinct hazard has been identified or created by a change in use or occupancy.

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SECTION 8-601 PURPOSE, INTENT AND SCOPE

8-601.1 Purpose. The purpose of the CHBC is to provide alternative regulations to facilitate access and use by persons with disabilities to and throughout facilities designated as qualified historical buildings or properties. These regulations require enforcing agencies to accept alternatives to regular code when dealing with qualified historical buildings or properties.

8-601.2 Intent. The intent of this chapter is to preserve the integrity of qualified historical buildings and properties while providing access to and use by persons with disabilities.

8-601.3 Scope. The CHBC shall apply to every qualified historical building or property that is required to provide access to persons with disabilities.

1. Provisions of this chapter do not apply to new construction or reconstruction/replicas of historical buildings.

2. Where provisions of this chapter apply to alteration of qualified historical buildings or properties, alteration is defined in *California Building Code* (CBC), Chapter 2, Definitions and Abbreviations. 202 – A. Alter or Alteration.

8-601.4 General application. The provisions in the CHBC apply to local, state and federal governments (Title II entities); alteration of commercial facilities and places of public accommodation (Title III entities); and barrier removal in commercial facilities and places of public accommodation (Title III entities). Except as noted in this chapter.

SECTION 8-602 BASIC PROVISIONS

8-602.1 Regular code. The regular code for access for people with disabilities (Title 24, Part 2, Vol. 1, Chapter 11B) shall be applied to qualified historical buildings or properties unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property.

8-602.2 Alternative provisions. If the historical significance or character-defining features are threatened, alternative provisions for access may be applied pursuant to this chapter, provided the following conditions are met:

1. These provisions shall be applied only on an item-by-item or a case-by-case basis.

2. Documentation is provided, including meeting minutes or letters, stating the reasons for the application of the alternative provisions. Such documentation shall be retained in the permanent file of the enforcing agency.

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SECTION 8-603 ALTERNATIVES

8-603.1 Alternative minimum standards. The alternative minimum standards for alterations of qualified historical buildings or facilities are referenced in Section 202.5 of the 2010 ADA Standards for Accessible Design, as incorporated and set forth in federal regulation 28 CFR Pt. 36.

8-603.2 Entry. These alternatives do not allow exceptions for the requirement of level landings in front of doors, except as provided in Section 8-603.4.

1. Access to any entrance used by the general public and no further than 200 feet (60 960 mm) from the primary entrance.

2. Access at any entrance not used by the general public but open and unlocked with directional signs at the primary entrance and as close as possible to, but no further than 200 feet (60 960 mm) from, the primary entrance.

3. The accessible entrance shall have a notification system. Where security is a problem, remote monitoring may be used.

8-603.3 Doors. Alternatives listed in order of priority are:1. Single-leaf door which provides a minimum 30

inches (762 mm) of clear opening.

2. Single-leaf door which provides a minimum $29^{1}/_{2}$ inches (749 mm) clear opening

3. Double door, one leaf of which provides a minimum $29^{1}/_{2}$ inches (749 mm) clear opening.

4. Double doors operable with a power-assist device to provide a minimum $29^{1}/_{2}$ inches (749 mm) clear opening when both doors are in the open position.

8-603.4 Power-assisted doors. Power-assisted door or doors may be considered an equivalent alternative to level landings, strikeside clearance and door-opening forces required by the regular code.

8-603.5 Toilet rooms. In lieu of separate-gender toilet facilities as required in the regular code, an accessible unisex toilet facility may be designated.

8-603.6 Exterior and interior ramps and lifts. Alternatives listed in order of priority are:

1. A lift or a ramp of greater than standard slope but no greater than 1:10, for horizontal distances not to exceed 5 feet (1525 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope.

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2. Access by ramps of 1:6 slope for horizontal distance not to exceed 13 inches (330 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope. Use of other designs and technologies, or deviation from particular technical and scoping requirements, are permitted if the application of the alternative provisions contained in Section 8-603 would threaten or destroy the historical significance or character-defining features of the historical building or property.

1. Such alternatives shall be applied only on an item-by- item or a case-by-case basis.
2. Access provided by experiences, services, functions, materials and resources through methods including, but not limited to, maps, plans, videos, virtual reality and related equipment, at accessible levels. The alternative design and/or technologies used will provide substantially equivalent or greater accessibility to, and usability of, the facility.
3. The official charged with the enforcement of the standards shall document the reasons for the application of the design and/or technologies and their effect on the historical significance or character-defining features. Such documentation shall be in accordance with Section 8-602.2, Item 2, and shall include the opinion and comments of state or local accessibility officials, and the opinion and comments of representative local groups of people with disabilities. Such documentation shall be retained in the permanent file of the enforcing agency. Copies of the required documentation should be available at the facility upon request. **Note:** For commercial facilities and places of public accommodation (Title III entities).

Equivalent facilitation for an element of a building or property when applied as a waiver of an ADA accessibility requirement will not be entitled to the Federal Department of Justice certification of this code as rebuttable evidence of compliance for that element.

SECTION 8-701 PURPOSE, INTENT AND SCOPE

8-701.1 Purpose. The purpose of the CHBC is to provide alternative regulations to the regular code for the structural safety of buildings designated as qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-701.2 Intent. The intent of this chapter is to encourage the preservation of qualified historical buildings or structures while providing standards for a minimum level of building performance with the objective of preventing partial or total structural collapse such that the overall risk of life-threatening injury as a result of structural collapse is low.

8-701.3 Application. The alternative structural regulations provided by Section 8-705 are to be applied in conjunction with the regular code whenever a structural upgrade or reconstruction is undertaken for qualified historical buildings or properties.

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SECTION 8-702 GENERAL

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

8-702.2 Nothing in these regulations shall prevent voluntary and partial seismic upgrades when it is demonstrated that such upgrades will improve life safety and when a full upgrade would not otherwise be required.

SECTION 8-703 STRUCTURAL SURVEY

8-703.1 Scope. When a structure or portion of a structure is to be evaluated for structural capacity under the CHBC, it shall be surveyed for structural conditions by an architect or engineer knowledgeable in historical structures. The survey shall evaluate deterioration or signs of distress. The survey shall determine the details of the structural framing and the system for resistance of gravity and lateral loads. Details, reinforcement and anchorage of structural systems and veneers shall be determined and documented where these members are relied on for seismic lateral resistance.

8-703.2 The results of the survey shall be utilized for evaluating the structural capacity and for designing modifications to the structural system to reach compliance with this code.

8-703.3 Historical records. Past historical records of the structure or similar structures may be used in the evaluation, including the effects of subsequent alterations.

SECTION 8-704 NONHISTORICAL ADDITIONS AND NONHISTORICAL ALTERATIONS

8-704.1 New nonhistorical additions and nonhistorical alterations which are structurally separated from an existing historical building or structure shall comply with regular code requirements.

8-704.2 New nonhistorical additions which impose vertical or lateral loads on an existing structure shall not be permitted unless the affected part of the supporting structure is evaluated and strengthened, if necessary, to meet regular code requirements.

Note: For use of archaic materials, see Chapter 8-8.

SECTION 8-705 STRUCTURAL REGULATIONS

8-705.1 Gravity loads. The capacity of the structure to resist gravity loads shall be evaluated and the structure strengthened as necessary. The evaluation shall include all parts of the load path. Where no distress is evident, and a complete load path is present, the structure may be assumed adequate by having withstood the test of time if anticipated dead and live loads will not exceed those historically present.

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8-705.2 Wind and seismic loads. The ability of the structure to resist wind and seismic loads shall be evaluated. Wind loads shall be considered when appropriate, but need not exceed 75% of the wind loads prescribed by the regular code. The evaluation shall be based on the requirements of Section 8-706.

8.705.2.1 Any unsafe conditions in the lateral-load-resisting system shall be corrected, or alternative resistance shall be provided. When strengthening is required, additional resistance shall be provided to meet the minimum requirements of the CHBC. The strengthening measures shall be selected with the intent of meeting the performance objectives set forth in Section 8-701.2. The evaluation of structural members and structural systems for seismic loads shall consider the inelastic performance of structural members and their ability to maintain load-carrying capacity during the seismic loadings prescribed by the regular code.

8.705.2.2 The architect or engineer shall consider additional measures with minimal loss of, and impact to, historical materials which will reduce damage and needed repairs in future earthquakes to better preserve the historical structure in perpetuity. These additional measures shall be presented to the owner for consideration as part of the rehabilitation or restoration.

SECTION 8-706 LATERAL LOAD REGULATIONS

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the *R*-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such *R*-values exist. Where such *R*-values do not exist, an appropriate *R*- value shall be rationally assigned considering the structural detailing of the members.

Exceptions:

1 The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.
2 For Risk Category I, II or III structures, near-fault increases in ground motion (maximum considered earthquake ground motion of 0.2 second spectral response greater than 150 percent at 5 percent damping) need not be considered when the fundamental period of the building is 0.5 seconds in the direction under consideration.
3 For Risk Category I or II structures, the seismic base shear need not exceed 0.30W.
4 For Risk Category III or IV structures, the seismic base shear need not exceed 0.40W.

8-706.1.1 When a building is to be strengthened with the addition of a new lateral force resisting system, the R value of the new system can be used when the new lateral force resisting system resists at least 75 percent of the building's base shear regardless of its relative rigidity.

8-706.1.2 Evaluation and seismic improvement of unreinforced masonry bearing wall buildings shall comply with the *California Existing Building Code* (CEBC), Appendix Chapter A1 2013 Edition, and as modified by the CHBC.

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Exceptions:

1. Alternative standards may be used on a case-by- case basis when approved by the authority having jurisdiction. It shall be permitted to exceed the strength limitation of 100 psi in Section A108.2 of the CEBC when test data and building configuration supports higher values subject to the approval of the authority having jurisdiction.
2. CEBC Section A102.2 shall not apply to Qualified Historical Buildings in Risk Category III buildings and other structures whose primary occupancies are public assembly with an occupancy load greater than 300.

8-706.1.3 All deviations from the detailing provisions of the lateral-force-resisting systems shall be evaluated for stability and the ability to maintain load-carrying capacity at the expected inelastic deformations.

8-706.2 Existing building performance. The seismic resistance may be based upon the ultimate capacity of the structure to perform, giving due consideration to ductility and reserve strength of the lateral-force-resisting system and materials while maintaining a reasonable factor of safety. Broad judgment may be exercised regarding the strength and performance of materials not recognized by regular code requirements. (See Chapter 8-8, Archaic Materials and Methods of Construction.)

8-706.2.1 All structural materials or members that do not comply with detailing and proportioning requirements of the regular code shall be evaluated for potential seismic performance and the consequence of non-compliance. All members that would be reasonably expected to fail and lead to collapse or life threatening injury when subjected to seismic demands shall be judged unacceptable, and appropriate structural strengthening shall be developed.

8-706.3 Load path. A complete and continuous load path, including connections, from every part or portion of the structure to the ground shall be provided for the required forces. It shall be verified that the structure is adequately tied together to perform as a unit when subjected to earthquake forces.

8-706.4 Parapets. Parapets and exterior decoration shall be investigated for conformance with regular code requirements for anchorage and ability to resist prescribed seismic forces.

An exception to regular code requirements shall be permitted for those parapets and decorations which are judged not to be a hazard to life safety.

8-706.5 Nonstructural features. Nonstructural features of historical structure, such as exterior veneer, cornices and decorations, which might fall and create a life-safety hazard in an earthquake, shall be evaluated. Their ability to resist seismic forces shall be verified, or the feature shall be strengthened with improved anchorage when appropriate.

8-706.5.1 Partitions and ceilings of corridors and stairways serving an occupant load of 30 or more shall be investigated to determine their ability to remain in place when the building is subjected to earthquake

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forces.

8-706.5.2 Seismic forces used to evaluate and improve nonstructural components and their anchorage, where required, shall comply with ASCE 41 or need not exceed 0.75 times the seismic forces prescribed by the requirements of the regular code.

STRUCTURAL REGULATIONS

CHAPTER 8-8 ARCHAIC MATERIALS AND METHODS OF CONSTRUCTION

SECTION 8-801 PURPOSE, INTENT AND SCOPE

8-801.1 Purpose. The purpose of the CHBC is to provide regulations for the use of historical methods and materials of construction that are at variance with regular code requirements or are not otherwise codified, in buildings or structures designated as qualified historical buildings or properties. The CHBC require enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-801.2 Intent. It is the intent of the CHBC to provide for the use of historical methods and materials of construction that are at variance with specific code requirements or are not otherwise codified.

8-801.3 Scope. Any construction type or material that is, or was, part of the historical fabric of a structure is covered by this chapter. Archaic materials and methods of construction present in a historical structure may remain or be reinstalled or be installed with new materials of the same class to match existing conditions.

SECTION 8-802 GENERAL ENGINEERING APPROACHES

Strength values for archaic materials shall be assigned based upon similar conventional codified materials, or on tests as hereinafter indicated. The archaic materials and methods of construction shall be thoroughly investigated for their details of construction in accordance with Section 8-703. Testing shall be performed when applicable to evaluate existing conditions. The architect or structural engineer in responsible charge of the project shall assign allowable stresses or strength levels to archaic materials. Such assigned strength values shall not be greater than those provided for in the following sections without adequate testing, and shall be subject to the concurrence of the enforcing agency.

SECTION 8-803 NONSTRUCTURAL ARCHAIC MATERIALS

Where nonstructural historical materials exist in uses which do not meet the requirements of the regular code, their continued use is allowed by this code, provided that any public health and life-safety hazards are mitigated subject to the concurrence of the enforcing agency.

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SECTION 8-804 ALLOWABLE CONDITIONS FOR SPECIFIC MATERIALS

Archaic materials which exist and are to remain in qualified historical buildings or structures shall be evaluated for their condition and for loads required by this code. The structural

survey required in Section 8-703 of the CHBC shall document existing conditions, reinforcement, anchorage, deterioration and other factors pertinent to establishing allowable stresses, strength levels and adequacy of the archaic materials. The remaining portion of this chapter provides additional specific requirements for commonly encountered archaic materials.

SECTION 8-805 MASONRY

For adobe, see Section 8-806.

8-805.1 Existing solid masonry. Existing solid masonry walls of any type, except adobe, may be allowed, without testing, a maximum ultimate strength of nine pounds per square inch (62.1 kPa) in shear where there is a qualifying statement by the architect or engineer that an inspection has been made, that mortar joints are filled and that both brick and mortar are reasonably good. The shear stress above applies to unreinforced masonry, except adobe, where the maximum ratio of unsupported height or length to thickness does not exceed 13, and where minimum quality mortar is used or exists. Wall height or length is measured to supporting or resisting elements that are at least twice as stiff as the tributary wall. Stiffness is based on the gross section. Shear stress may be increased by the addition of 10 percent of the axial direct stress due to the weight of the wall directly above. Higher-quality mortar may provide a greater shear value and shall be tested in accordance with Appendix A, Chapter A1 of the *California Existing Building Code* (CEBC) 2010 edition, and as modified by the CHBC.

8-805.2 Stone masonry.

8-805.2.1 Solid-backed stone masonry. Stone masonry solidly backed with brick masonry shall be treated as solid brick masonry as described in Section 8-805.1 and in the 2009 IEBC, provided representative testing and inspection verifies solid collar joints between stone and brick and that a reasonable number of stones lap with the brick wythes as headers or that steel anchors are present. Solid stone masonry where the wythes of stone effectively overlap to provide the equivalent header courses may also be treated as solid brick masonry.

8-805.2.2 Independent wythe stone masonry. Stone masonry with independent face wythes may be treated as solid brick masonry as described in Section 8-805.1 and the CEBC, provided representative testing and inspection verify that the core is essentially solid in the masonry wall and that steel ties are epoxied in drilled holes between outer stone wythes at floors, roof and not to exceed 4 feet (1219 mm) on center in each direction, between floors and roof. A reinforcing element shall exist or be provided at or near the top of all stone masonry walls.

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8-805.2.3 Testing of stone masonry. Testing of stone masonry shall be similar to the 2010 CEBC requirements for brick masonry, except that representative stones which are not interlocked shall be pulled outward from the wall and shear area appropriately calculated after the test.

8-805.3 Reconstructed walls. Totally reconstructed walls utilizing original brick or masonry, constructed similar to original, shall be constructed in accordance with the regular code. Repairs or infills may be constructed in a similar manner to the original walls without conforming to the regular code.

SECTION 8-807 WOOD

8-807.1 Existing wood diaphragms or walls. Existing wood diaphragms or walls of straight or diagonal sheathing shall be assigned shear resistance values appropriate with the fasteners and materials functioning in conjunction with the sheathing. The structural survey shall determine fastener details and spacings and verify a load path through floor construction. Shear values of Tables 8-8-A and 8-8-B.

8-807.2 Wood lath and plaster. Wood lath and plaster walls and ceilings may be utilized using the shear values referenced in Section 8-807.1.

8-807.3 Existing wood framing. Existing wood framing members may be assigned allowable stresses consistent with codes in effect at the time of construction. Existing or new replacement wood framing may be of archaic types originally used if properly researched, such as balloon and single wall. Wood joints such as dovetail and mortise and tenon types may be used structurally, provided they are well made. Lumber selected for use and type need not bear grade marks, and greater or lesser species such as low-level pine and fir, boxwood and indigenous hardwoods and other variations may be used for specific conditions where they were or would have been used.

Wood fasteners such as square or cut nails may be used with a maximum increase of 50 percent over wire nails for shear.

that are not specifically allowed by code may be used wherever applicable and wherever they have proven their worth under the considerable span of years involved with most qualified historical buildings or structures. Uplift capacity should be evaluated and strengthened where necessary. Fixed conditions or midheight lateral loads on cast iron columns that could cause failure should be taken into account. Existing structural wrought, forged steel or grey iron may be assigned the maximum working stress prevalent at the time of original construction.

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TABLE8-8A STRENGTH VALUES FOR EXISTING MATERIALS

ARCHAIC MATERIALS AND METHODS OF CONSTRUCTION

EXISTING MATERIALS OR CONFIGURATIONS OF MATERIALS[1]	STRENGTH LEVEL CAPACITY x14.594 for N/m
1. Horizontal diaphragms[2] . 1.1 Roofswithstraightsheathingandroofingapplieddirectlytothesheathing . 1.2 Roofswithdiagonalsheathingandroofingapplieddirectlytothesheathing . 1.3 Floors with straight tongue-and-groove sheathing . 1.4 Floors with straight sheathing and finished wood flooring with board edges offset or perpendicular . 1.5 Floors with diagonal sheathing and finished	300 lbs per foot for seismic shear 750 lbs per foot for seismic shear 300 lbs per foot for seismic shear 1,500 lbs per foot for seismic shear 1,800 lbs per foot for seismic shear
2. Crosswalls[2,3]2.1 Plaster on wood or metal lath2.2 Plaster on gypsum lath2.3 Gypsum wallboard, unblocked edges 2.4 Gypsum wallboard, blocked edges	Per side: 600 lbs per foot for seismic shear 550 lbs per foot for seismic shear200 lbs per foot for seismic shear400 lbs per foot for seismic shear
3. Existing footings, wood framing, structural steel and reinforcing steel 3.1 Plain concrete footings3.2 Douglas fir wood3.3 Reinforcing steel 3.4 Structural steel	f'_c = 1,500 psi (10.34 MPa) unless otherwise shown by tests[3] Allowable stress same as D.F. No. 1[3]f_t = 40,000 lbs per square inch (124.1 N/mm^2) maximumf_t = 33,000 lbs per square inch (137.9 N/mm^2) maximum

1 1 Material must be sound and in good condition.
2 2 Shear values of these materials may be combined, except the total combined value shall not exceed 900 pounds per foot (13,140 N/m).
3 3 Stresses given may be increased for combinations of loads as specified in the regular code.

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TABLE 8-8B STRENGTH VALUES OF NEW MATERIALS USED IN CONNECTION WITH EXISTING CONSTRUCTION

NEW MATERIALS OR CONFIGURATIONS OF MATERIALS	STRENGTH LEVEL CAPACITY[1]
1. Horizontal diaphragms[2] 1.1 $15/32$ inch minimum plywood sheathing fastened directly over existing straight sheathing with edges of plywood located on center of individual sheathing boards and fastened with minimum #8x $1\,1/4$ inch wood screws or nails with helical threads 0.13 inch min. diameter and $1\,1/4$ inch min. length at 4 inch centers all panel edges and 12 inch centers each way in field. 1.2 Same plywood and attachments as 1.1 fastened directly over existing diagonal sheathing. 1.3 $3/8$ inch plywood sheathing fastened directly over existing straight or diagonal sheathing with ends and edges on centers of individual sheathing boards and fastened with #6 wood screws or nails with helical threads 0.13 inch minimum diameter and $1\,1/4$ inch min. length at 6 inch centers tall panel edges and 12 inch centers each way in field.	1,500 lbs per foot 1,800 lbs per foot 900 lbs per foot
2. Shear walls: Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing	100 percent of the value specified in the regular code for shear walls
3. Crosswalls: (special procedure only) 3.1 Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing 3.2 Drywall or plaster applied directly over wood studs 3.3 Drywall or plaster applied to sheathing over existing wood studs	133 percent of the value specified in the regular code for shear walls 100 percent of the values in the regular code 50 percent of the values specified in the regular code
4. Tension bolts a. Bolts extending entirely through unreinforced masonry walls secured with bearing plates on far side of a three-wythe- minimum wall with at least 30 square inches (19 350 mm^2) of area[4,5] b. All thread rod extending to the exterior face of the wall installed in adhesive[9]	5,400 lbs (24,010 N) per bolt[6] 2,700 lbs (12,009 N) per bolt for two-wythe walls[6] 3,600 lbs (16,014 N) per bolt
5. Shear bolts: Bolts embedded a minimum of 8 inches (203 mm) into unreinforced masonry walls and centered in a $2\,1/2$-inch-diameter (63.5 mm) hole filled with dry-pack or nonshrink grout. Through bolts with first 8 inches (203 mm) as noted above and embedded all thread rod as noted in Item 4.b[5,7,9]	$1/2$ inch (12.7 mm) diameter = 1050 lbs (4671 N) $6\,5/8$ inch (15.9 mm) diameter = 1500 lbs (6672 N) $6\,3/4$ inch (19 mm) diameter = 2250 lbs (10,008 N)[6]
6. Infilled walls: Reinforced masonry infilled openings in existing unreinforced masonry walls. Provide keys or dowels to match reinforcing.	Same as values specified for unreinforced masonry walls
7. Reinforced masonry: Masonry piers and walls reinforced per the regular code	Same as values specified in the regular code[8]
8. Reinforced concrete: Concrete footings, walls and piers reinforced as specified in the regular code and designed for tributary loads	Same as values specified in the regular code[8]

4 Values are for strength level loads as defined in regular code standards.
5 Values may be adjusted for other fasteners when approved by the enforcing authority.
6 In addition to existing sheathing value.
7 Bolts to be $1/2$-inch (12.7 mm) minimum diameter.
8 Other bolt sizes, values and installation methods may be used provided a testing program is conducted in accordance with regular code standards. Bolt spacing shall not exceed 6 feet. (1830 mm) on center and shall not be less than 12 inches (305) mm) on center.
9 Other masonry based on tests or other substantiated data.
10 Embedded bolts to be tested as specified in regular code standards.
11 Stresses given may be increased for combinations of loads as specified in the regular code.
12 Adhesives shall be approved by the enforcing agency and installed in accordance with the manufacturer's recommendations. All drilling dust shall be removed from drilled holes prior to installation.

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CHAPTER 8-9 MECHANICAL, PLUMBING AND ELECTRICAL REQUIREMENTS

SECTION 8-901 PURPOSE, INTENT AND SCOPE

8-901.1 Purpose. The purpose of the CHBC is to provide regulations for the mechanical, plumbing and electrical systems of buildings designated as qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonable equivalent solutions to the regular code when dealing with qualified historical buildings or properties.

8-901.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings or properties while providing a reasonable level of protection from fire, health and life-safety hazards (hereinafter referred to as safety hazards) for the building occupants.

8-901.3 Scope. The CHBC shall be applied in conjunction with the regular code whenever compliance with the regular code is required for qualified historical buildings or properties.

8-901.4 Safety hazard. No person shall permit any safety hazard to exist on premises under their control,

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or fail to take immediate action to abate such hazard. Existing systems which constitute a safety hazard when operational may remain in place, provided they are completely and permanently rendered inoperative. Safety hazards created by inoperative systems shall not be permitted to exist. Requirements of the regular code concerning general regulations shall be complied with, except that the enforcing agency shall accept solutions which do not cause a safety hazard.

8-901.5 Energy conservation. Qualified historical buildings or properties covered by this part are exempted from compliance with energy conservation standards. When new nonhistorical lighting and space conditioning system components, devices, appliances and equipment are installed, they shall comply with the requirements of Title 24, Part 6, *The California Energy Code*, except where the historical significance or character-defining features are threatened.

SECTION 8-902 MECHANICAL

8-902.1 General. Mechanical systems shall comply with the regular code unless otherwise modified by this chapter.

8-902.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any heating, ventilating, air conditioning, domestic incinerators, kilns or miscellaneous heat-producing appliances or equipment within or attached to a historical building.

8-902.1.2 Existing systems which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-902.1.3 The enforcing agency may approve any alternative to the CHBC which would achieve equivalent life safety.

8-902.2 Heating facilities. All dwelling-type occupancies covered under this chapter shall be provided with heating facilities. Wood-burning or pellet stoves or fireplaces may be acceptable as heating facilities.

8-902.3 Fuel oil piping and tanks. Fuel oil piping and tanks shall comply with regular code requirements except that the enforcing agency may waive such requirements where the lack of compliance does not create a safety or environmental hazard.

8-902.4 Heat-producing and cooling equipment. Heat-producing and cooling equipment shall comply with the regular code requirements governing equipment safety, except that the enforcing agency may accept alternatives which do not create a safety hazard.

8-902.5 Combustion air

8-902.5.1 All fuel-burning appliances and equipment shall be provided a sufficient supply of air for proper fuel combustion, ventilation and draft hood dilution.

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8-902.5.2 The enforcing agency may require operational tests for combustion air systems which do not comply with applicable requirements of the regular code.

8-902.6 Venting of appliances.

8-902.6.1 Every appliance required to be vented shall be connected to an approved venting system. Venting systems shall develop a positive flow adequate to convey all combustion products to the outside atmosphere.

8-902.6.2 Masonry chimneys in structurally sound condition may remain in use for all fuel-burning appliances, provided the flue is evaluated and documentation provided that the masonry and grout are in good condition. Terra cotta chimneys and Type C metallic vents installed in concealed spaces shall not remain in use unless otherwise mitigated and approved on a case-by-case basis.

8-902.6.3 The enforcing agency may require operational tests for venting systems which do not comply with applicable requirements of the regular code.

8-902.7 Ducts.

8-902.7.1 New ducts shall be constructed and installed in accordance with applicable requirements of the regular code.

8-902.7.2 Existing duct systems which do not comply with applicable requirements of the regular code and do not, in the opinion of the enforcing agency, constitute a safety or health hazard may remain in use.

MECHANICAL, PLUMBING AND ELECTRICAL REQUIREMENTS

8-902.8 Ventilating systems. **8-902.8.1** Ventilating systems shall be installed so that no

safety hazard is created.

8-902.8.2 Grease hoods and grease hood exhaust systems shall be furnished and installed in accordance with applicable requirements of the regular code. Existing systems which are altered shall comply with the regular code.

8-902.9 Miscellaneous equipment requirements.

8-902.9.1 The following appliances and equipment shall be installed so that no safety hazard is created: warm air furnaces, space heating equipment, vented decorative appliances, floor furnaces, vented wall furnaces, unit heaters, room heaters, absorption units, refrigeration equipment, duct furnaces, infrared radiant heaters, domestic incinerators, miscellaneous heat-producing appliances and water heaters.

8-902.9.2 Storage-type water heaters shall be equipped with a temperatureand pressure-relief valve in accordance with applicable requirements of the regular code.

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SECTION 8-903 PLUMBING

8-903.1 General. Plumbing systems shall comply with the regular code unless otherwise noted.

8-903.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any plumbing system or equipment within or attached to a historical building.

8-903.1.2 Existing systems which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-903.1.3 The enforcing agency may approve any alternative to these regulations which achieves reasonably equivalent life safety.

8-903.2 Residential occupancies

8-903.2.1 Where toilet facilities are provided, alternative sewage disposal methods may be acceptable if approved by the local health department. In hotels, where private facilities are not provided, water closets at the ratio of one for each 15 rooms may be acceptable.

8-903.2.2 Toilet facilities are not required to be on the same floor or in the same building as sleeping rooms. Water-flush toilets may be located in a building immediately adjacent to the sleeping rooms. When alternative sewage disposal methods are utilized, they shall be located a minimum distance from the sleeping rooms or other locations as approved by the local health department.

8-903.2.3 Kitchen sinks shall be provided in all kitchens. The sink and countertop may be of any smooth nonabsorbent finish which can be maintained in a sanitary condition.

8-903.2.4 Hand washing facilities shall be provided for each dwelling unit and each hotel guest room. A basin and

pitcher may be acceptable as adequate hand washing facilities.

8-903.2.5 Hot or cold running water is not required for each plumbing fixture, provided a sufficient amount of water is supplied to permit the fixture's normal operation.

8-903.2.6 Bathtubs and lavatories with filler spouts less than 1 inch (25.4 mm) above the fixture rim may remain in use, provided there is an acceptable overflow below the rim.

8-903.2.7 Original or salvage water closets, urinals and flushometer valves shall be permitted in qualified historical buildings or properties. Historically accurate reproduction, nonlow-consumption water closets, urinals and flushometer valves shall be permitted except where historically accurate fixtures that comply with the regular code are available.

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8-903.3 Materials. New nonhistorical materials shall comply with the regular code requirements. The enforcing agency shall accept alternative materials which do not create a safety hazard where their use is necessary to maintain the historical integrity of the building.

8-903.4 Drainage and vent systems. Plumbing fixtures shall be connected to an adequate drainage and vent system. The enforcing agency may require operational tests for drainage and vent systems which do not comply with applicable requirements of the regular code. Vent terminations may be installed in any location which, in the opinion of the enforcing agency, does not create a safety hazard.

8-903.5 Indirect and special wastes. Indirect and special waste systems shall be installed so that no safety hazard is created. Chemical or industrial liquid wastes which may detrimentally affect the sanitary sewer system shall be pretreated to render them safe prior to discharge.

8-903.6 Traps and interceptors. Traps and interceptors shall comply with the regular code requirements except that the enforcing agency shall accept solutions which do not increase the safety hazard. Properly maintained "S" and drum traps may remain in use.

8-903.7 Joints and connections

8-903.7.1 Joints and connections in new plumbing systems shall comply with applicable requirements of the regular code.

8-903.7.2 Joints and connections in existing or restored systems may be of any type that does not create a safety hazard.

8-903.8 Water distribution. Plumbing fixtures shall be connected to an adequate water distribution system. The enforcing agency may require operational tests for water distribution systems which do not comply with applicable requirements of regular code. Prohibited (unlawful) connections and cross connections shall not be permitted.

8-903.9 Building sewers and private sewage disposal systems. New building sewers and new private sewage disposal systems shall comply with applicable requirements of the regular code.

8-903.10 Fuel-gas piping. Fuel-gas piping shall comply with the regular code requirements except that the enforcing agency shall accept solutions which do not increase the safety hazard.

SECTION 8-904 ELECTRICAL

8-904.1 General. Electrical systems shall comply with the regular code unless otherwise permitted by this code, or approved by the authority having jurisdiction.

8-904.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any electrical system or portion thereof, the premise wiring, or equipment fixed in place as related to restoration within or attached to a qualified historical building or

property.

8-904.1.2 Existing systems, wiring methods and electrical equipment which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-904.1.3 The enforcing agency may approve any alternative to the CHBC which achieves equivalent safety.

8-904.1.4 Archaic methods that do not appear in present codes may remain and may be extended if, in the opinion of the enforcing agency, they constitute a safe installation.

8-904.2 Wiring methods

8-904.2.1 Where existing branch circuits do not include an equipment grounding conductor and, in the opinion of the enforcing agency, it is impracticable to connect an equipment grounding conductor to the grounding electrode system, receptacle convenience outlets may remain the nongrounding type.

8-904.2.2 Ground fault circuit interrupter (GFCI) protected receptacles shall be installed where replacements are made at receptacle outlets that are required to be so protected by the regular code in effect at the time of replacement. Metallic face plates shall either be grounded to the grounded metal outlet box or be grounded to the grounding-type device when used with devices supplied by branch circuits without equipment grounding conductors.

8-904.2.3 Grounding-type receptacles shall not be used without a grounding means in an existing receptacle outlet unless GFCI protected. Existing nongrounding receptacles shall be permitted to be replaced with nongrounding or grounding-type receptacles where supplied through a ground fault circuit interrupter.

8-904.2.4 Extensions of existing branch circuits without equipment-grounding conductors shall be permitted to supply grounding-type devices only when the equipment grounding conductor of the new extension is grounded to any accessible point on the grounding electrode system.

8-904.2.5 Receptacle outlet spacing and other related distance requirements shall be waived or modified if determined to be impracticable by the enforcing agency.

8-904.2.6 For the replacement of lighting fixtures on an existing nongrounded lighting outlet, or when extending an existing nongrounding lighting outlet, the following shall apply:

1. The exposed conductive parts of lighting fixtures shall be connected to any acceptable point on the grounding electrode system, or

2. The lighting fixtures shall be made of insulating material and shall have no exposed conductive parts. **Exception:** Lighting fixtures mounted on electrically nonconductive ceilings or walls where located not less than either 8 feet (2438 mm) vertically or 5 feet (1524 mm) horizontally from grounded surfaces.

8-904.2.7 Lighting load calculations for services and feeders may be based on actual loads as installed in lieu of the "watts per square foot" method.

8-904.2.8 Determination of existing loads may be based on maximum demand recordings in lieu of calculations, provided all of the following are met:

1. Recordings are provided by the serving agency.

2. The maximum demand data is available for a one-year period.

Exception: If maximum demand data for a one- year period is not available, the maximum demand data shall be permitted to be based on the actual amperes continuously recorded over a minimum 30-day period by a recording ammeter connected to the highest loaded phase of the feeder or service. The recording should reflect the maximum demand when the building or space is occupied and include the measured or calculated load at the peak time of the year, including the larger of the heating or cooling equipment load.

3. There has been no change in occupancy or character of load during the previous 12 months.

4. The anticipated load will not change, or the existing demand load at 125 percent plus the new load does not exceed the ampacity of the feeder or rating of the service.

MECHANICAL, PLUMBING AND ELECTRICAL REQUIREMENTS

22 2016 CALIFORNIA HISTORICAL BUILDING CODE

CHAPTER 8-10 QUALIFIED HISTORICAL DISTRICTS, SITES AND OPEN SPACES

SECTION 8-1001 PURPOSE AND SCOPE

8-1001.1 Purpose. The purpose of this chapter is to provide regulations for the preservation, rehabilitation, restoration and reconstruction of associated historical features of qualified historical buildings, properties or districts (as defined in Chapter 8-2), and for which Chapters 8-3 through 8-9 of the CHBC may not apply.

8-1001.2 Scope. This chapter applies to the associated historical features of qualified historical buildings or properties such as historical districts that are beyond the buildings themselves which include, but are not limited to, natural features and designed site and landscape plans with natural and manmade landscape elements that support their function and aesthetics. This may include, but will not be limited to:

1. Site plan layout configurations and relationships (pedestrian, equestrian and vehicular site circulation,

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topographical grades and drainage, and use areas).

2. Landscape elements (plant materials, site structures other than the qualified historical building, bridges and their associated structures, lighting, water features, art ornamentation, and pedestrian, equestrian and vehicular surfaces).

3. Functional elements (utility placement, erosion control and environmental mitigation measures).

SECTION 8-1002 APPLICATION

8-1002.1 The CHBC shall apply to all sites and districts and their features associated with qualified historical buildings or qualified historical districts as outlined in 8-1001.2 Scope.

8-1002.2 Where the application of regular code may impact the associated features of qualified historical properties beyond their footprints, by work performed secondarily, those impacts shall also be covered by the CHBC.

8-1002.3 This chapter shall be applied for all issues regarding code compliance or other standard or regulation as they affect the purpose of this chapter.

8-1002.4 The application of any code or building standard shall not unduly restrict the use of a qualified historical building or property that is otherwise permitted pursuant to Chapter 8-3 and the intent of the *State Historical Building Code,* Section 18956.

SECTION 8-1003 SITE RELATIONS

The relationship between a building or property and its site, or the associated features of a district (including qualified historical landscape), site, objects and their features are critical components that may be one of the criteria for these buildings and properties to be qualified under the CHBC. The CHBC recognizes the importance of these relationships. This chapter shall be used to provide context sensitive solutions for treatment of qualified historical buildings, properties, district or their associated historical features, or when work to be performed secondarily impacts the associated historical features of a qualified historical building or property.

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APPENDIX A

CHAPTER 8-6 TABLE 1—PROVISION APPLICABILITY

	Title II Public Entities	Title III Private Entities	Title III Barrier Removal
SECTION 8-601 PURPOSE, INTENT, SCOPE 8-601.1 Purpose. The purpose of the CHBC is to provide alternative regulations to facilitate access and use by persons with disabilities to and throughout facilities designated as qualified historical buildings or properties. These regulations require enforcing agencies to accept alternatives to regular code when dealing with qualified historical buildings or properties. **8-601.2 Intent.** The intent of this chapter is to preserve the integrity of qualified historical buildings and properties while providing access to and use by persons with disabilities. **8-601.3 Scope.** The CHBC shall apply to every qualified historical building or property that is required to provide access to persons with disabilities. 1. Provisions of this chapter do not apply to new construction or reconstruction/ replicas of historical buildings. 2. Where provisions of this chapter apply to alteration of qualified historical buildings or properties, alteration is defined in *California Building Code* (CBC), Chapter 2, Definitions and Abbreviations. 202 – A. Alter or Alteration. **8-601.4 General application.** The provisions in the CHBC apply to local, state and federal governments (Title II entities); alteration of commercial facilities and places of public accommodation (Title III entities); and barrier removal in commercial facilities and places of public accommodation (Title III entities). Except as noted in this chapter.	Applies	Applies	Applies
SECTION 8-602 — BASIC PROVISIONS 8-602.1 Regular code. The regular code for access for people with disabilities (Title 24, Part 2, Vol.1, Chapter 11B) shall be applied to qualified historical buildings or properties unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property. **8-602.2 Alternative provisions.** If the historical significance or character-defining features are threatened, alternative provisions for access may be applied pursuant to this chapter, provided the following conditions are met: 1. These provisions shall be applied only on an item-by-item or case-by-	Applies	Applies	Applies

STRUCTURAL

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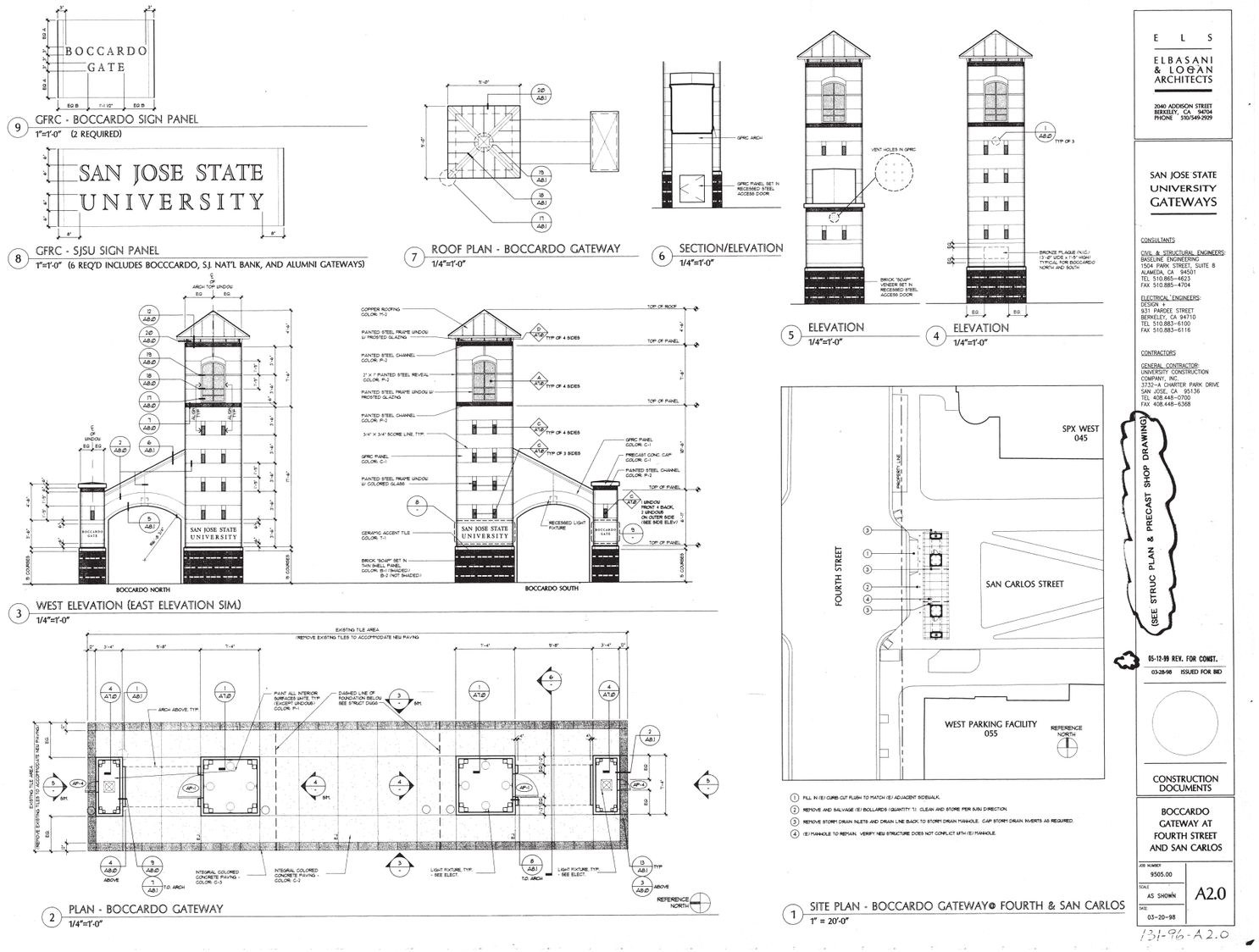
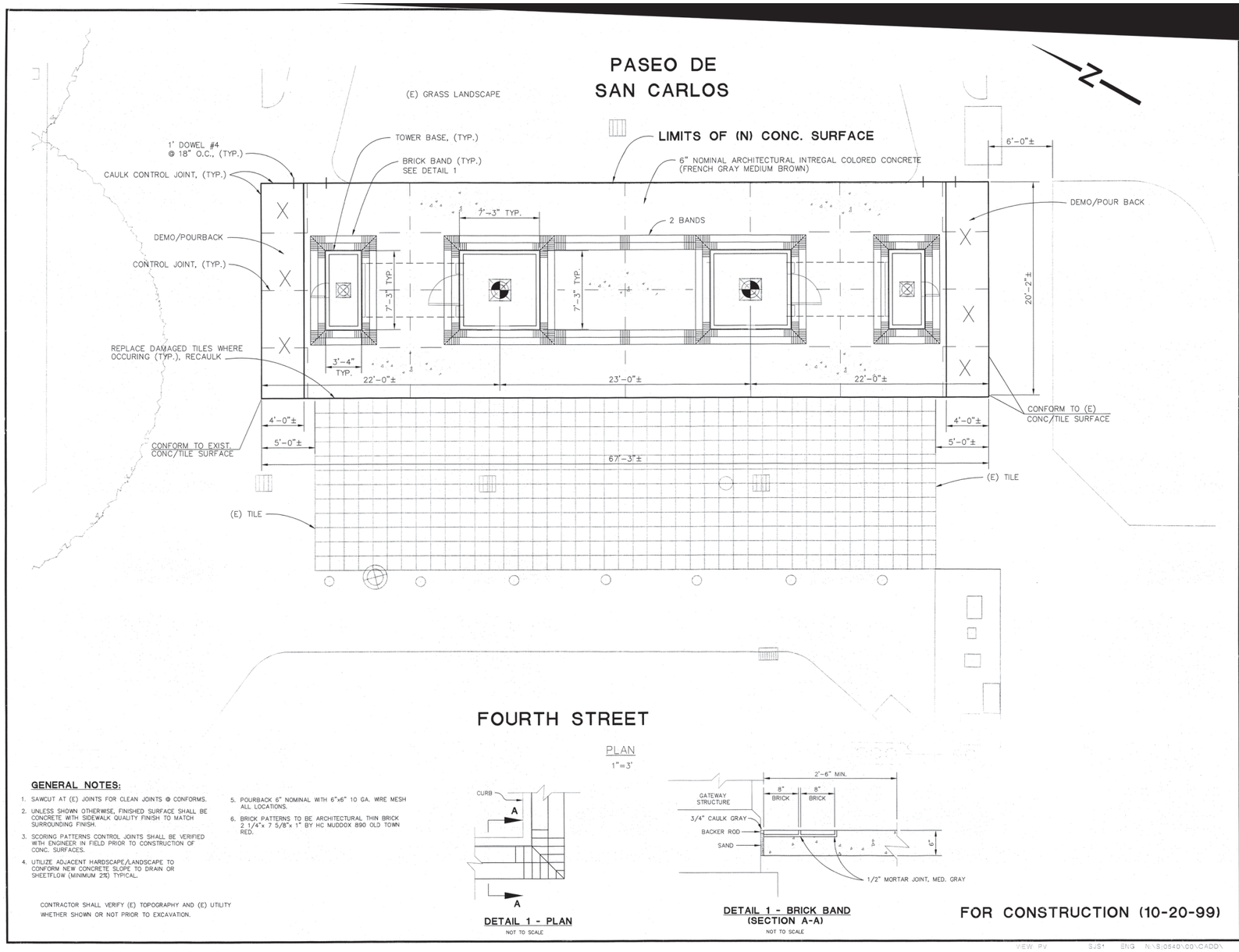
APPENDIX D. SJSU GATEWAY DRAWINGS




PASEO DE
SAN CARLOS
(E) GRASS LANDSCAPE
LIMITS OF (N) CONC. SURFACE
TOWER BASE, (TYP.)
BRICK BAND (TYP.)
SEE DETAIL 1
6" NOMINAL ARCHITECTURAL INTREGAL COLORED CONCRETE
(FRENCH GRAY MEDIUM BROWN)
1" DOWEL #4
@ 18" O.C., (TYP.)
CAULK CONTROL JOINT, (TYP.)
DEMO/POURBACK
CONTROL JOINT, (TYP.)
REPLACE DAMAGED TILES WHERE
OCCURING (TYP.), RECAULK
CONFORM TO EXIST.
CONC/TILE SURFACE
2 BANDS
7'-3" TYP.
3'-4" TYP.
22'-0"±
23'-0"±
6'-0"±
20'-2"±
4'-0"±
5'-0"±
67'-3"±
(E) TILE
CONFORM TO (E)
CONC/TILE SURFACE
FOURTH STREET
PLAN
1"=3'
GENERAL NOTES:
1. SAWCUT AT (E) JOINTS FOR CLEAN JOINTS @ CONFORMS.
2. UNLESS SHOWN OTHERWISE, FINISHED SURFACE SHALL BE CONCRETE WITH SIDEWALK QUALITY FINISH TO MATCH SURROUNDING FINISH.
3. SCORING PATTERNS CONTROL JOINTS SHALL BE VERIFIED WITH ENGINEER IN FIELD PRIOR TO CONSTRUCTION OF CONC. SURFACES.
4. UTILIZE ADJACENT HARDSCAPE/LANDSCAPE TO CONFORM NEW CONCRETE SLOPE TO DRAIN OR SHEETFLOW (MINIMUM 2%) TYPICAL.
5. POURBACK 6" NOMINAL WITH 6"x6" 10 GA. WIRE MESH ALL LOCATIONS.
6. BRICK PATTERNS TO BE ARCHITECTURAL THIN BRICK 2 1/4"x 7 5/8"x 1" BY HC MUDDOX 890 OLD TOWN RED.
CONTRACTOR SHALL VERIFY (E) TOPOGRAPHY AND (E) UTILITY WHETHER SHOWN OR NOT PRIOR TO EXCAVATION.
CURB
A
DETAIL 1 - PLAN
NOT TO SCALE
GATEWAY STRUCTURE
3/4" CAULK GRAY
BACKER ROD
SAND
2'-6" MIN.
8" BRICK
8" BRICK
1/2" MORTAR JOINT, MED. GRAY
DETAIL 1 - BRICK BAND
(SECTION A-A)
NOT TO SCALE
FOR CONSTRUCTION (10-20-99)
CAMPUS GATEWAYS PROJECT
BLDG. NO. - FIR NO. - ROOM NO. -
BOCCARDO GATEWAY
WORK ORDER FINISHED GRADING/SIDEWALK DETAILS
SJSU SAN JOSE STATE UNIVERSITY
JOB NO. SJ0540
DRAWN DMS
DESIGNED CPM
DATE 10/20/99 15:27
SCALE 1"=3'
APPROVED CPM
SHEET C-1
OF SHEETS
VIEW PV SJS1 ENG N:\SJ0540\00\CADD\ C1.DWG

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Appendix B.2

San Jose State University Associated Students
House Relocation Feasibility Study

SAN JOSE STATE UNIVERSITY
ASSOCIATED STUDENTS HOUSE RELOCATION
SAN JOSE, CALIFORNIA

FEASIBILITY STUDY & APPENDICES
FINAL [16287]

PAGE & TURNBULL
imagining change in historic environments through design, research, and technology

MAY 3, 2017

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Associated Students House Primary (north) Facade, 2017 (Page & Turnbull)

INTRODUCTION

"Taggart Wilde, the District Attorney, lived at the corner of Fourth and Lafayette Park, in a white frame house the size of a carbarn, with a red sandstone porte-cochere built on to one side and a couple of acres of soft rolling lawn out front. It was one of those solid old-fashion houses which it used to be the thing to bodily move to new locations as the city grew westward..."

--Raymond Chandler, The Big Sleep (1939)

STATEMENT OF PURPOSE

The purpose of this Historical Resource Relocation Feasibility Study is to determine the feasibility of relocating the Associated Students House from its current location to a proposed Receiver Site on San Jose State University's campus and retain the current use. The California Register-eligible building is historically significant as an intact example of the Colonial Revival style of design and the only known surviving residential work of Theodore Lenzen, one of San Jose's first master architects. The current location has been identified as the site for the SJSU Interdisciplinary Science Building Project. The project was undertaken at the request of San Jose State University and Rincon Consultants, who will incorporate this information into their Cultural Resources Study for the San Jose State University Interdisciplinary Science Building Project.

The study is generally divided into four sections: Existing Conditions; Historic Context and Character Analysis; Relocation Analysis; and Proposed Receiver Site Analysis, including a preliminary cost estimate. Page & Turnbull's services to assist Rincon in this study include professional architectural consultation related to the relocation of the historic resource and a Relocation Feasibility Study. A follow-up task may be to provide Architecture Services for Relocation, based on feasibility, consisting of design and construction drawings and specifications for the relocation of the Associated Students House, and/or mitigation measures as suggested by Rincon's Cultural Resource Study.

METHODOLOGY

Review of Background Information & Research

Page & Turnbull's review of background information included review of past reports and surveys, Department of Parks & Recreation Forms (DPR) (1994), an Architectural and Historical Evaluation for 301 5th Street (1994), the San Jose State University Historic Resources Survey (2005), and Rincon Consultants' Cultural Resources Study (2017). Additionally, Page & Turnbull collected historical maps and photographs to indicate the building's historic site conditions and any alterations since its construction in 1904. Sources included Sanborn Fire Insurance maps, historic aerials, and articles from San Jose newspapers collected online and in the Archives at the MLK Jr. Library in San Jose.

Client Meeting

The project kick-off meeting was held on March 1, 2017. Attendees included the project manager for SJSU facilities, members of the user group, and Rincon consultant's project manager via phone. Members of the consultant team in attendance included architects and planners from Page & Turnbull; structural engineers from Daedelus Engineers; and JR Conkey, the cost estimator, who participated via phone. As the study is preliminary, SJSU directed the consultant team to not engage with the city of San Jose until the next phase of the project.

Field Survey

Page & Turnbull conducted a field survey in March 2017 and took notes and digital photographs of the building to assess character-defining features and alterations. A Conditions Assessment was completed to confirm the current state of the building and structure. Existing drawings were spot-checked for reference and additional photographs and notes were taken to record these findings.

Significance Diagrams

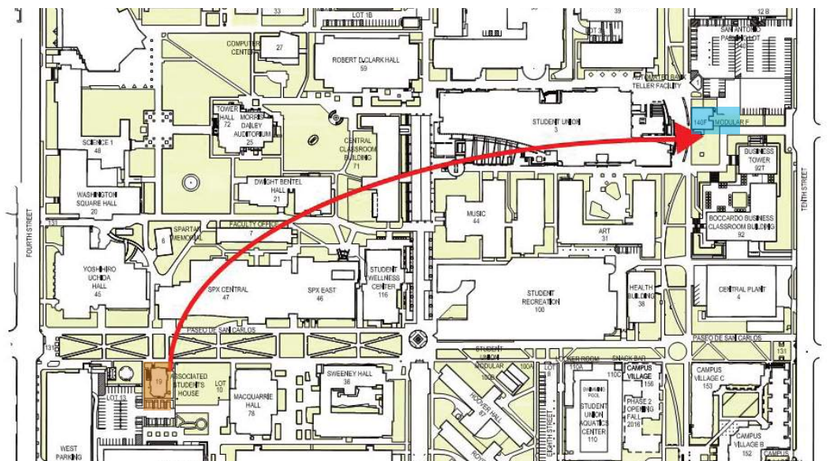
Based on field survey observations and project research, Page & Turnbull prepared historic signifance diagrams that indicate the primary, secondary, and non-contributing historic features of the Associated Students House.

Relocation Analysis and Route Alternatives Matrix

Using GoogleEarth, field survey data, and AutoCAD floor plans and campus site plans provided by the SJSU, Page & Turnbull created a matrix to analyze and compare multiple routes and determine the pros and cons of each.

Proposed Move Route, Receiver Site Analysis, & Cost Estimate

A single proposed route was selected to study in greater depth, based on the site survey, matrix analysis, and feedback from Kelly Brothers House Movers and Daedalus Structural Engineering consultants. The Kelly Brothers, who moved the Associated Students House in 2000, provided a scope of work summarizing the recommended pre- and post-move preparation of the building and sites; the proposed move sequence, which would occur over an approximately 12-hour period; and a preliminary cost estimate. The engineers at Daedalus provided a structural scope of work, a building code analysis, and an existing structural conditions assessment. The selected route was also preliminarily costed by JR Conkey, cost estimators.



The existing site (shaded orange) and proposed Receiver Site (shaded blue) is across from the Student Union building, adjacent to S. 10th St on the east.

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BACKGROUND INFORMATION

ASSOCIATED STUDENTS HOUSE

The Associated Students (AS) House, historically known as the Martin House and more recently as the Scheller House, was originally constructed in 1904 at 301 S. Fifth Street, facing northeast. In 2000, it was moved 80 feet from its original site and rotated 90 degrees to face the Paseo de San Carlos, in order to avoid demolition and be absorbed into the San Jose State University campus. It underwent a significant renovation in 2001. The current address is 1 Washington Square.

The subject property is eligible for listing under Criteria 2 and 3 of the California Register for its association with notable local District Attorney, Victor Scheller, and as a good example of California Colonial Revival architecture, which was designed by prominent local architect, Theodore Lenzen, and retains high architectural integrity.

The following summarizes specific information about the existing property:

Location

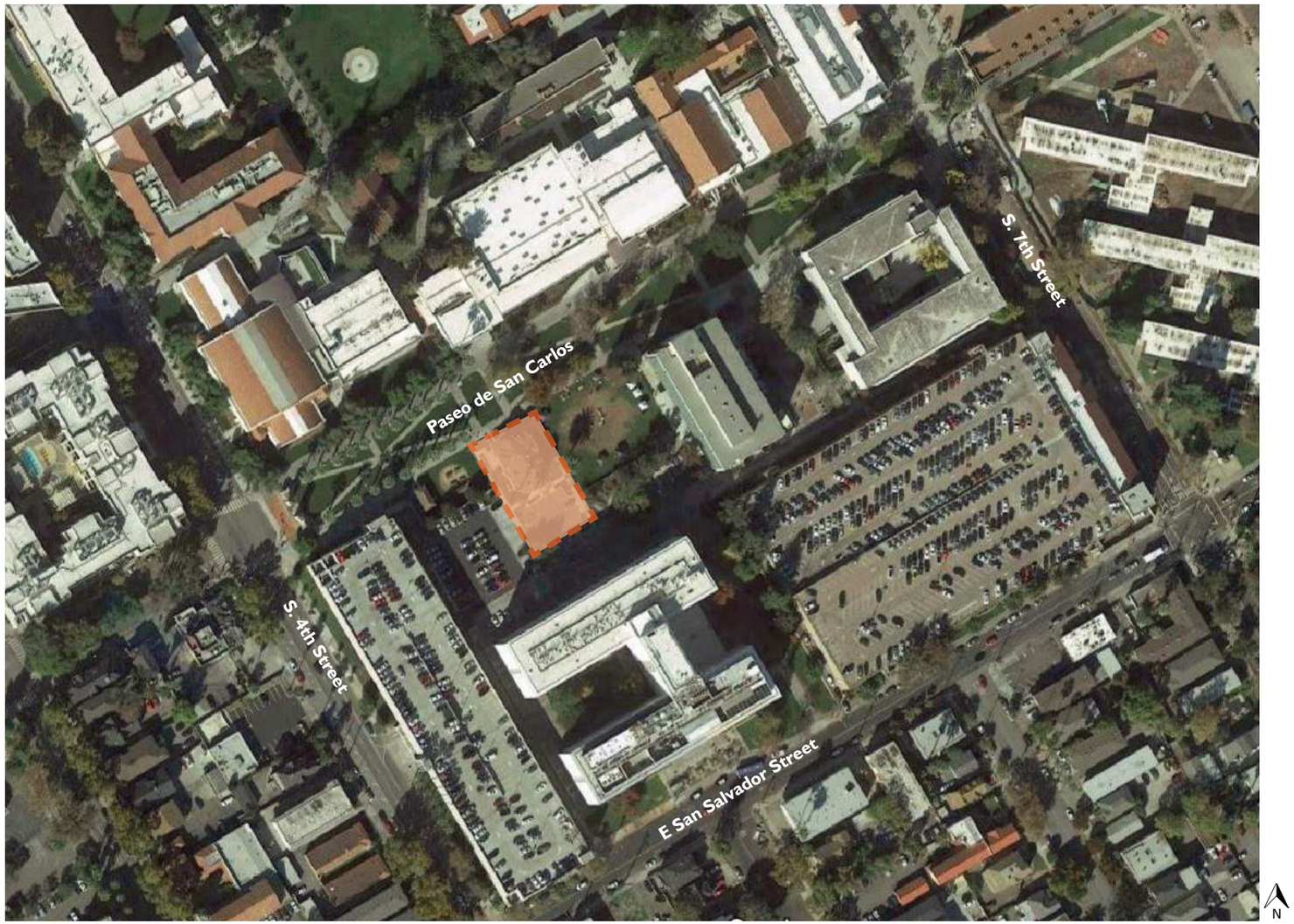
- Fronts the pedestrian Paseo de San Carlos between 4th and 7th streets
- Primary facade faces northwest towards the campus across the Paseo

Site Features

- Planted lawn with low bushes on north, east and west sides
- ADA concrete ramp (2000-2001 addition) at west side
- Rear and northeast side entries with concrete paths
- Palm trees to the northwest along the Paseo; deciduous trees to the northeast along the Paseo
- Palm tree to the southeast; green space adjacent on the east and west sides
- Parking lots at the rear (south) and west sides

Neighborhood Character

- Located within the pedestrian corridor adjacent to the main SJSU campus
- Surrounded by large campus buildings to the east (Dining, Mathematics), south (Chemistry), and west (Parking Garage)
- Retail, institutional, and residential uses on surrounding streets



Map of Site, showing SJSU main campus (north) and surrounding neighborhoods and campus buildings. The current site is outlined and shaded in orange. (Google 2017, Edited by Page & Turnbull).

EXECUTIVE SUMMARY

In February 2017, Page & Turnbull, Inc. was retained by Rincon Consultants on behalf of San Jose State University to examine the feasibility of relocating the Associated Students House, formerly known as the Scheller House. The team included preservation architects, a structural engineer, a building mover, and a cost estimator. Upon evaluation, the Page & Turnbull Team determined that moving the Associated Students House from its current location on the Paseo de San Carlos to the proposed Receiver Site at the northeast quadrant of San Jose State University's campus is physically feasible and will not compromise its status as a California Register-eligible historic resource. Following a previous relocation in 2000-2001, the timber-framed building was renovated, the front and rear porches removed and reconstructed, and a new foundation, partial basement, elevator and ADA improvements were added. A preliminary structural assessment indicates a sesimic retrofit occurred, but the extent of these improvements will need to be verified during the next phase of work.

The current use and occupancy of the Associated Students House will be enhanced in its new location. The Consultant Team recommends that the move route to accomplish the relocation should utilize San Jose public rights-of-way along South 4th Street, South San Fernando Street, and South 10th Street. This route will require the dismantling and reconstruction of the panelized SJSU gateway structure at South 4th Street and the Paseo de San Carlos, which is not an individual historic resource or a contributor to the historic district. Preliminary study indicates that this route will allow the building to be moved intact, except for the removal of the exterior stairs and ramp; this will minimize occupant disruption, preparation and reconstruction time, as well as cost. The amount of time estimated for the actual move is less than 24 hours -- prep time and reconstruction efforts after the move will be dependent upon the amount of internal shoring required and any necessary repairs due to plaster cracking and other incidental damage.

The conceptual cost estimate for the recommended move will be $1,056,244, which includes pre-move preparation, building mover labor and associated costs, estimated permitting costs, estimated city and utility company labor and associated costs, reconstructing the basement as it currently exists, and reconstruction of the exterior stairs and ramp at the Receiver Site. It should be noted that this estimate was prepared without City of San Jose input about the proposed move route, including the use of public streets or impacts on public utilities, at the request of San Jose State University staff, and therefore should be considered a preliminary estimate. SJSU has a building official on staff and handles campus building permits internally. Assuming the building remains on campus, the permission of the City will not be required to move the building, and the necessary involvement of San Jose will be minimal, except for coordination of the impacts external to campus. The building's historic value and status as eligible for listing in the California Register would not necessitate the City's involvment in the building's relocation.

Seismic strengthening has been itemized as a separate cost in the event that building officials will require upgrades as part of a relocation project. As a point of reference, the estimator has indicated that Replacement Value of the Associated Students House in 2017 economic conditions, not including land value, would be approximately $4,290,000.

PREVIOUS STUDIES

Several studies of the AS House have been conducted, including:

Department of Parks & Recreation Forms (DPR) & Architectural and Historical Evaluation for 301 5th Street (1994)

- Study of existing conditions, historic context, and evaluation of the property prior to proposed demolition of the property, including evaluation for inclusion in the San Jose Historic Resources Inventory
- Prepared at the request of San Jose Councilman, David Pandori, in June 1994 by Glory Anne Laffey, a principal at Archives & Architecture in San Jose
- The subject property in 1994 was evaluated according to the City of San Jose's criteria for historical significance and granted a '44.76' rating, which qualifies it as a 'Structure of Merit' and eligible to be listed in the San Jose Historic Resources Inventory
- The study identified the property as a good and generally intact example of Colonial Revival architecture; however, the building was found to have compromised physical integrity due to damage caused by asbestos removal and overall neglect. No surviving interior features were identified.
- This study also indicated that the house was mistakenly identified as belonging to Victor Scheller in a 1980 study prepared for an adjacent parking garage project and has been attributed to Scheller as the primary resident and builder since that time, despite subsequent research correcting the error.

San Jose State University Historic Resources Survey (2005)

- Study of local historic resources prepared by the Architectural Resources Group in November 2005
- Subject building was found individually eligible for the California Register of Historical Resources (CRHR) but neither found to be a contributor to a California Register-eligible Historic District nor eligible for the National Register of Historic Places

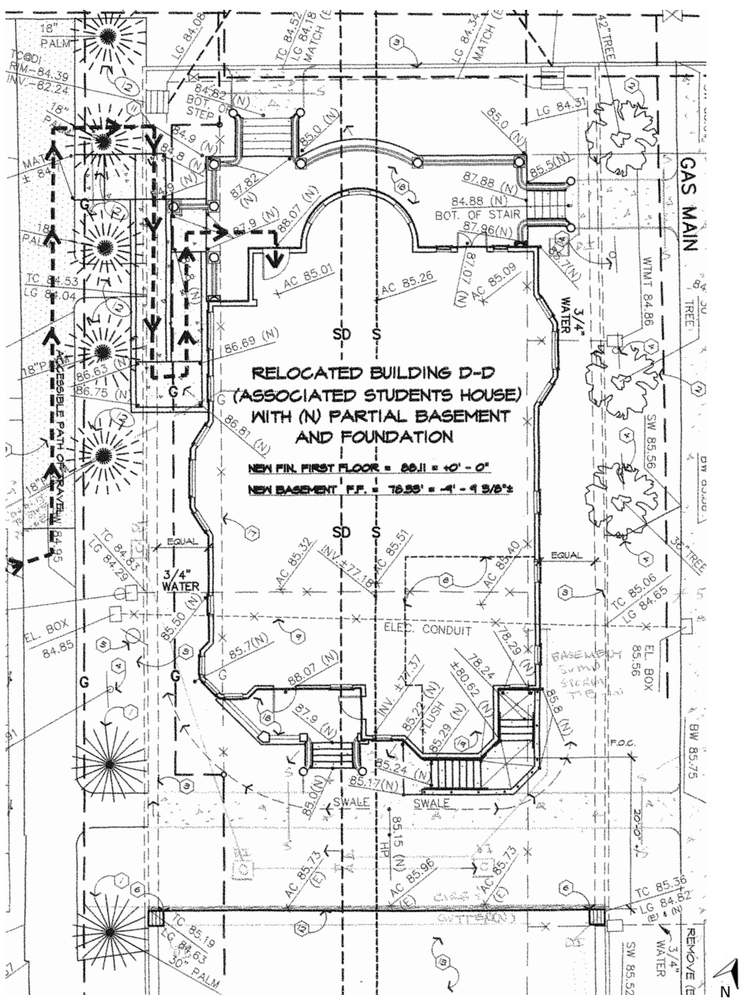
Cultural Resources Study for the San Jose State University Interdisciplinary Science Building Project (May 2017)

- Study of existing conditions, historic context, and evaluation of the historic resource for a Cultural Resources Study produced for the San Jose State University Interdisciplinary Science Building Project
- Prepared for the San Jose State University, Facilities Development and Operations Department by Rincon Consultants, Inc. in Oakland
- Archival research was completed for this study in August 2016 and research methodology focused on the review of primary and secondary source materials related to the development of the project area
- Sources included historic maps (Sanborn and Geological Survey maps), aerial photographs, local newspaper articles (*Spartan Daily, San Jose Evening News, San Francisco Call, and San Francisco Chronicle*), and written and spoken histories
- Evaluation of the property in April 2017 corroborates that the Associated Students House is eligible for listing in the California Register under Criterion 2 for its associations with Victor Scheller, as well as under Criterion 3 in the California Register as a good example of a California Colonial Revival residence designed by noted local architect, Theodore Lenzen. The period of significance is 1904-1915, coinciding with its construction and Scheller's occupancy of the house.

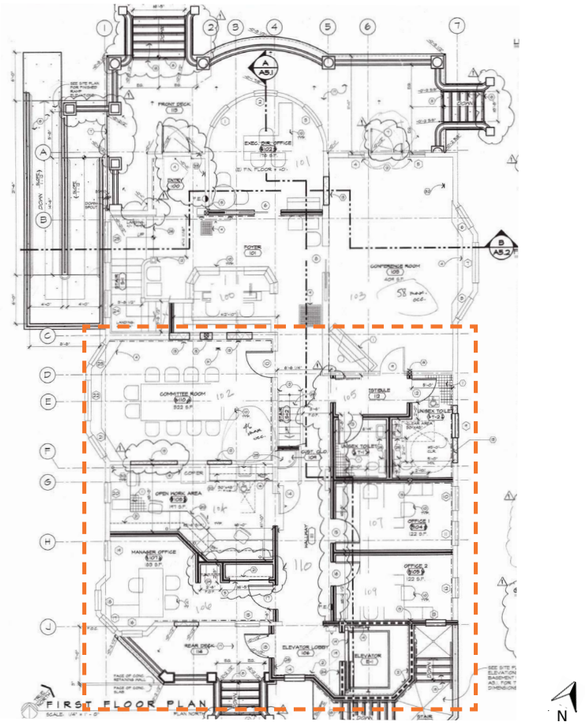
Theodore Lenzen, architect.
(http://www.thesanjoseblog.com/)

EXISTING CONDITIONS

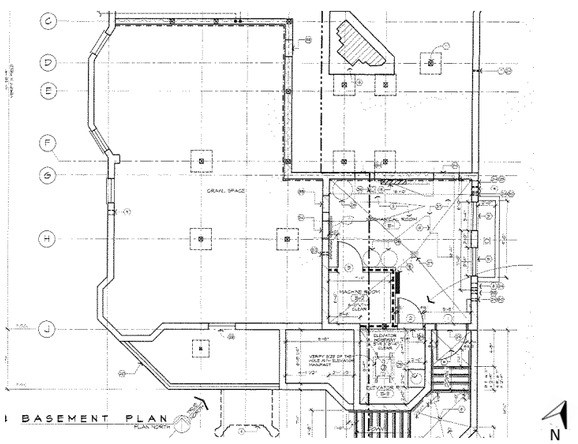
The AS House is a 7,000 square-foot former single-family residence that was converted to office and meeting space for SJSU's Associated Students following its previous relocation and renovation (1999-2001). The two-and-one-half-story building is capped with a hipped roof clad in composite shingles, and contains a partial basement and partially-finished attic/third story. It features a rectilinear plan and consists of shiplap wood siding on all exterior facades. All drawings shown are from the As-Built set produced by the Allen Walter Group in 2001.



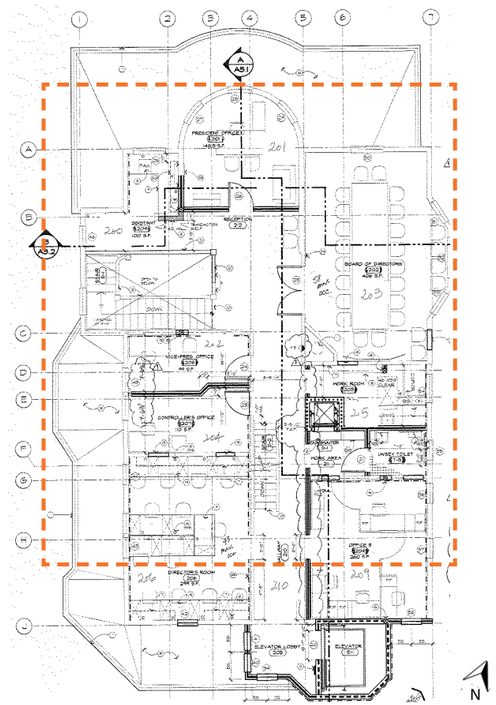
Associated Students House Site Plan, NTS.



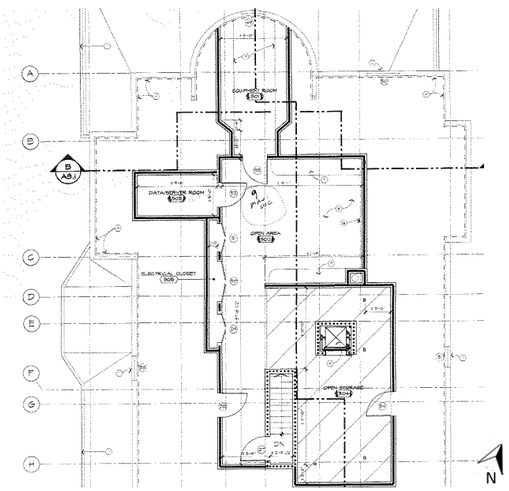
Ground Floor Plan, Dashed line indicates partial basement plan shown below.
Scale: 1/16"=1'0"



Basement Plan, Scale: 1/16"=1'0"



Second Floor Plan, Dashed line indicates partial attic plan shown below.
Scale: 1/16"=1'0"



Partial Attic/Third Floor Plan, Scale: 1/16"=1'0"

EXISTING CONDITIONS

EXTERIOR PHOTOGRAPHS (PAGE & TURNBULL, MARCH 2017)

Primary (northwest) facade, looking southeast.

Southwest facade south side, looking northwest.

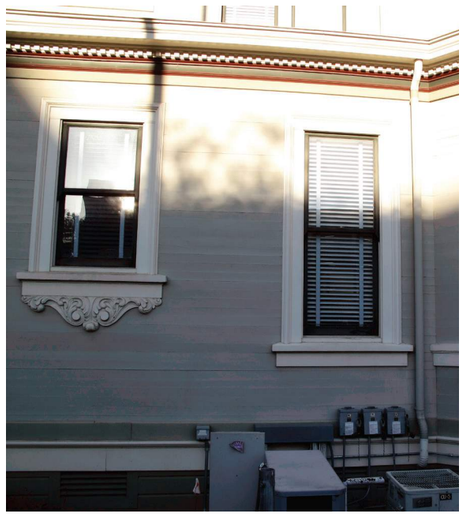
Detail of front porch door with transom and sidelites, east side.

Detail of northeast facade bay window.

Rear (southeast) facade east side, looking northeast.

Northeast facade, looking northwest.

Front porch at northeastern corner, looking west.



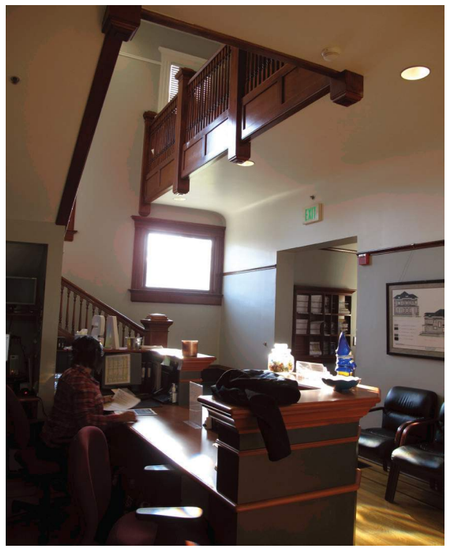
Detail of ground story windows at southwest facade.

Detail of second story windows at southwest facade.

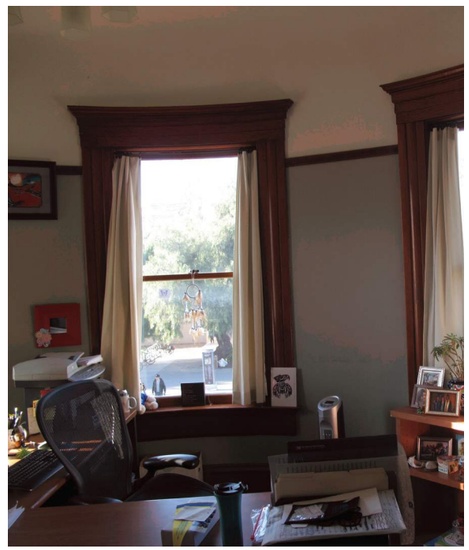
EXISTING CONDITIONS

INTERIOR PHOTOGRAPHS (PAGE & TURNBULL, MARCH 2017)

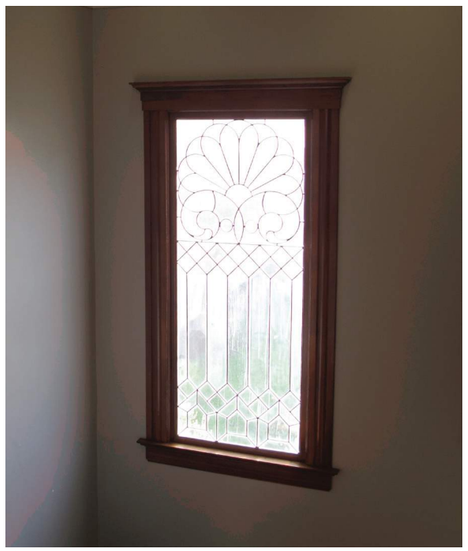
Front conference room, looking north towards door with transom and sidelites.



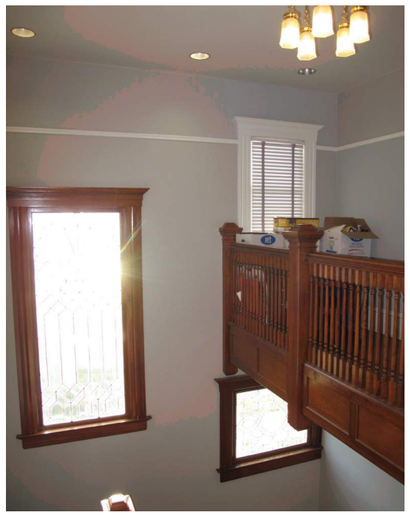
Front entry reception area and main stair.



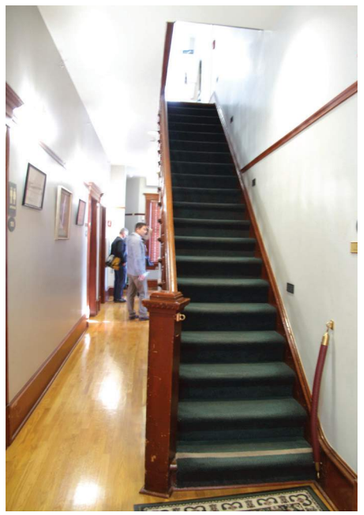
Second story office, looking north.



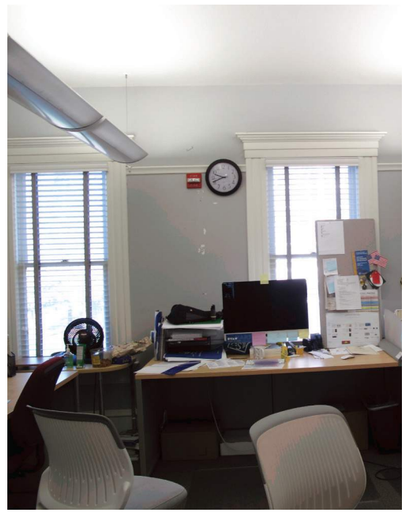
Detail of art glass window at main staircase.



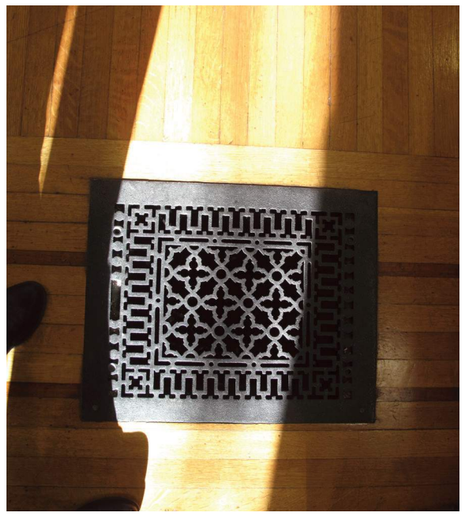
Second story mezzanine at top of stairs.



Ground floor corridor, secondary stair.



Second story office.



Detail of decorative iron grille.

Front door.

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HISTORIC CONTEXT

BRIEF HISTORY OF SAN JOSE

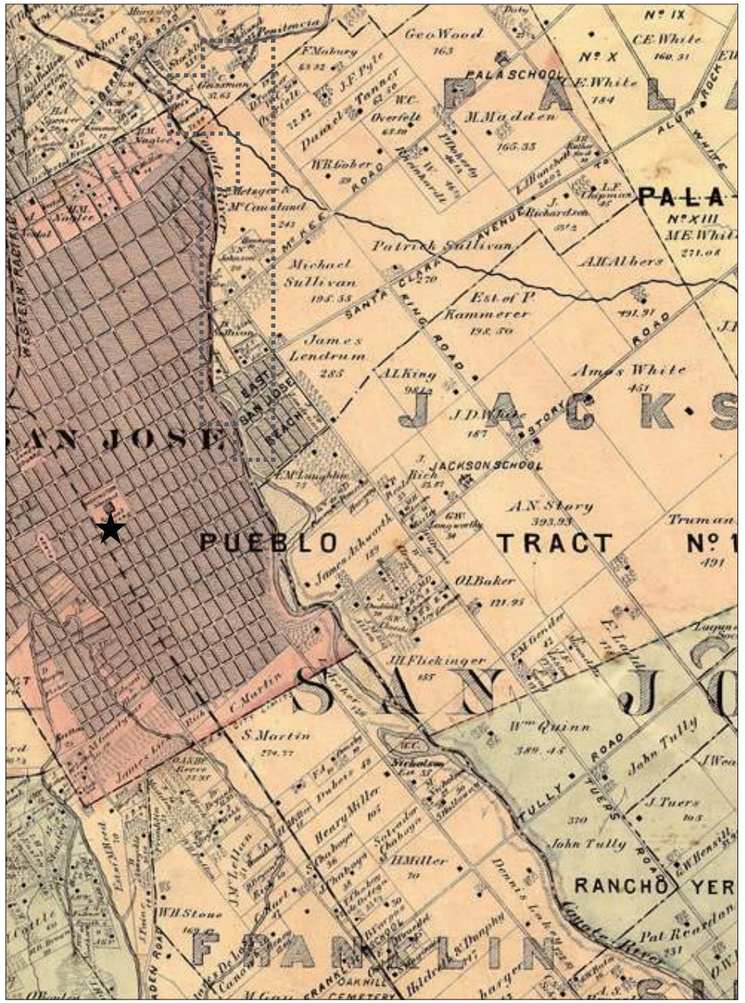
El Pueblo de San José de Guadalupe was established in 1777 on the banks of the Guadalupe River by José Joaquin Moraga. Following Mexican independence, the secularization of the missions in 1834, and the relaxation of immigration restrictions, an influx of American immigrants began slowly making their way over the Sierra Nevada Mountains into California. The annexation of California by the United States in 1849 and the ensuing Gold Rush further transformed San José, and it soon became the primary supply center for miners taking the overland route to the gold fields. San Jose was incorporated as a city in 1850.

Downtown San José served as the mercantile, financial and social center of the Santa Clara Valley throughout the entire Spanish/Mexican period (1777-1848) and through most of the American period from 1849 until the late 1950s. The central business district was a thriving area of department stores, restaurants, hotels, theaters and civic buildings until the mid-twentieth century. At that time, automobile-driven suburbanization and decentralization led to the eclipse of downtown San José by suburban shopping centers and regional malls, which rapidly took the place of apricot and cherry orchards on the fringes of the city. Even after economic decline set in, downtown San José remained one of California's oldest and best preserved historic urban cores until urban renewal projects led to the demolition of much of the city center in the late 1960s. However, a significant amount of historic resources survive within the boundaries of the Downtown San José Commercial Historic District, especially along the major east-west arterial boulevards of San Fernando and Santa Clara Streets, as well as along the narrower numbered streets.[1]

SITE HISTORY

The subject property, historically known as the Martin House, and later as the Scheller House, is currently referred to as the Associated Students House. It originally faced northeast onto 5th Street (301 S. 5th Street), which divided the subject block in the north-south directions until the mid-1960s, when San Jose State University's campus redevelopment replaced several surrounding residential properties with multi-story university buildings and a parking structure. Other original outbuildings on the site included a garage in the rear southwest corner of the parcel (removed by c.1980). The AS House remained in its original location through the late 1990s, though its landscaping and setting were significantly altered and its garage removed. In order to save the building from demolition as a result of further campus redevelopment, it was lifted, moved 80 feet to the east, and rotated 90 degrees to face northwest onto the Paseo in 1999-2000. The house was rehabilitated in 2000-2001 for its new use as the Associated Students department offices. The Paseo de San Carlos was pedestrianized by the mid-1990s (See historic aerials on page 12).

1 Summarized from Page & Turnbull, "San Jose Historic Context," September 2014.



Block Map of San Jose, 1876. Future site of subject property starred. Edited by Page & Turnbull.

Birdseye view of San Jose, looking north, 1875. Future site of subject property starred. Edited by Page & Turnbull (Wikipedia).

San Jose South First Street at San Antonio, c. 1920 (http://www.thesanjoseblog.com/)

HISTORIC CONTEXT

University House pre-restoration and relocation, c. 1995 (Charlene Duval)

Associated Students House, post-relocation, 2003 (Charlene Duval)

BUILDING HISTORY

The following historic information is summarized from Rincon consultants' Cultural Resources Report and expanded upon based on additional research. See the full report in Appendix E.

The Martin/Scheller Residence (1904-1940)
The Associated Students House was designed by celebrated San Jose architect, Theodore Lenzen in 1904. The residence was constructed by Robert O. Summers for Henry Beaumont Martin and his wife, Louise Martin. Henry's family had originally settled in San Jose in 1863 and opened a small grocery store by the 1880s. Henry was a local businessman and by 1892, he had established H.B. Martin & Co., which sold wholesale produce, including grain, flour, feed, potatoes, vegetables, and cheese. Henry married Louise Scheller, a San Jose resident, in 1899, and moved into their new home by 1904. The Martins lived there with Louise's brother, Victor Scheller, from 1905-1915, a prominent local District Attorney. Henry Martin died in 1923, but Louise resided there until her death in 1940.

A Boarding House (Mid-1940s-1963)
Following Louise Martin's death in 1940, the house was converted to an apartment building with at least six or seven individual units. In the early 1960s, the building was referred to in San Jose city directories as the 'Don Lar Apartments'.

University House (Mid-1960s-1991)
Following redevelopment of the surrounding block between E. San Carlos, E. San Salvador, S. 4th and S. 7th streets, the subject property was purchased by San Jose State University and converted to office use. It housed several campus department offices, including Urban and Regional Planning and the African-American Studies departments in the 1980s. By the early 1990s, the building was in a significant state of disrepair and was vacated by 1991.

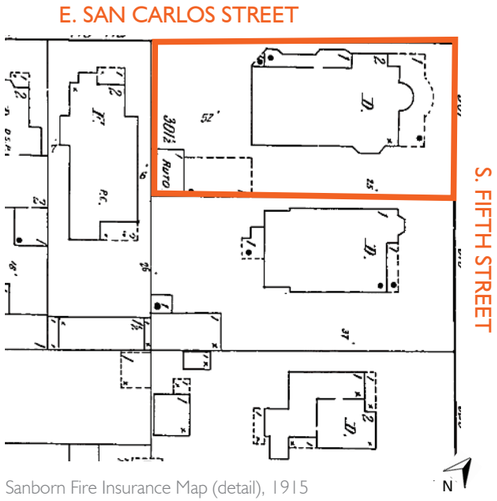
Vacant (1991-1998)
Plans were developed to demolish the house in the early 1990s, following an offer by the city for anyone to take it at no cost and relocate it (no one came forward). No further actions were taken, however, until 1994 at which point the San Jose Preservation Action Council filed a lawsuit and began a campaign to save the house due to its evaluation of individual historic significance. Superior Court Judge Jeremy Fogel ruled in 1995 that the building could not be demolished without completing an Environmental Impact Report (EIR), which encouraged future owners to consider preservation alternatives instead. Despite this ruling, funds and support were challenging to muster and the house remained vacant until 1998, though occasionally utilized as an emegerncy responder training facility and site for vandalism.

Relocation and Rehabilitation (1999-2001)
By 2000, the house had been acquired by SJSU and the Associated Students organization agreed to sponsor a $2.3 million rehabilitation of the house as its headquarters. It was determined that the house should be moved to the east 80 feet to allow for future development, and rotated such that the house's main entry would face the main campus and the Paseo de San Carlos, converted for pedestrian-only use a few years earlier. The original foundation was demolished, and a new one was reconstructed. Today the building hosts the Associated Students Board of Directors, the Executive Director, Government Administration, the Marketing and Events offices, and the A.S.I.T. Departments.

Alterations during the 2000-2001 restoration and relocation included interior remodeling, a partial basement, exterior access stairs, and an elevator, which replaced a section of the rear porch. A wheelchair ramp was also added on the southwest elevation. An enclosed portion of the front porch (current northeast side) was removed to extend the wraparound porch, and a column and stair were added on the side at the northeast corner (See photos this page). Though perimeter planting beds were replaced in a similar layout as appears in original site photographs, the rows of perimeter palm trees in front of the primary facades were not reinstalled.

Portraits of Victor Scheller (top left) and Henry Martin (bottom right), (SJSU MLK Jr. Library)

HISTORIC MAPS & PHOTOGRAPHS



Sanborn Fire Insurance Map (detail), 1915

University House, looking southeast, 1994 (MLK Jr. Library file)

University House, looking southwest, ca. 1998 (Scheller Family history report)

1904 (BUILT)

1915

1930

1951

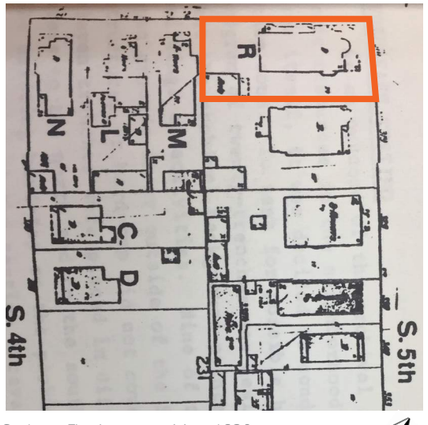
1994

1998

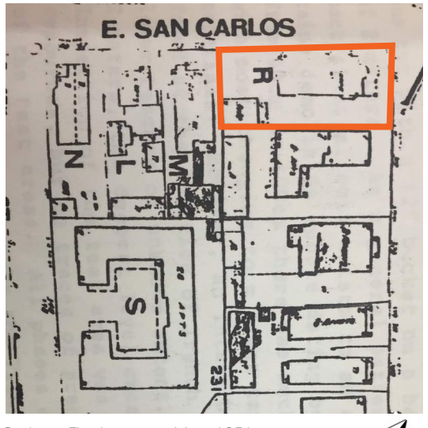
1999

2000

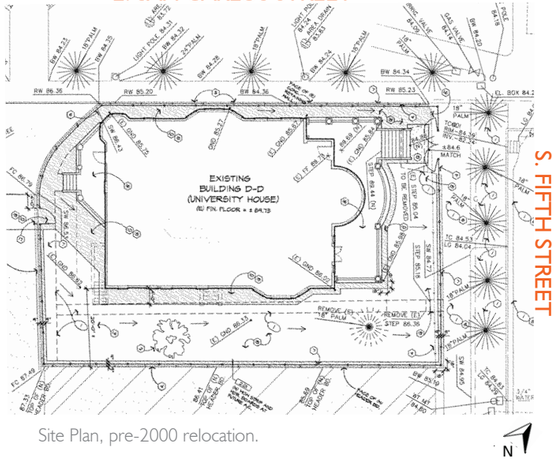
2017



Sanborn Fire Insurance Map, 1930



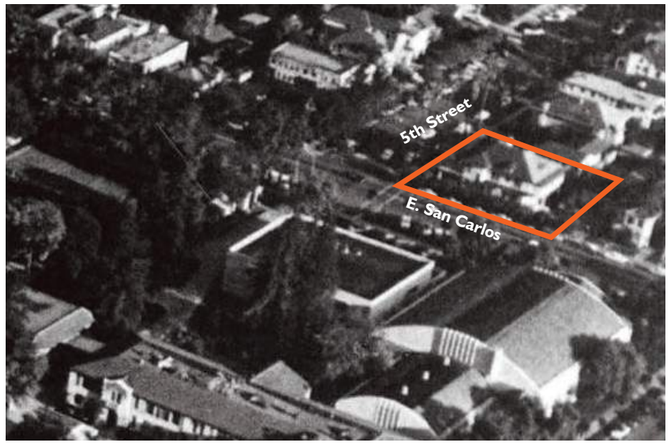
Sanborn Fire Insurance Map, 1951



Site Plan, pre-2000 relocation.

University House, unrestored and on blocks in process of being rotated, c.2000 (C. Duval)

HISTORIC AERIAL PHOTOGRAPHS

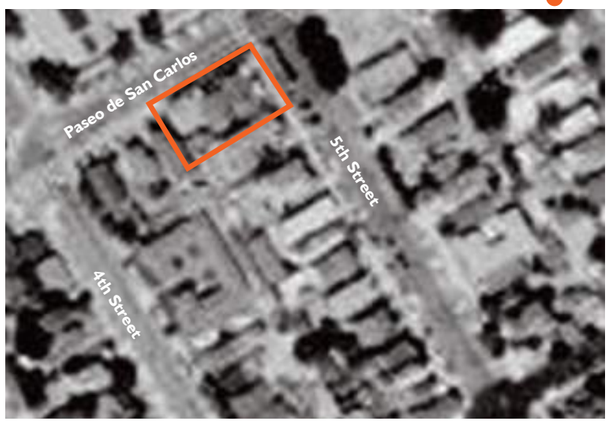


Historic Aerial depicting subject property looking southeast, 1935
(SJSU MLK Jr. Library)

Site Aerial Photograph, following block redevelopment, 1968
(historicaerials.com)

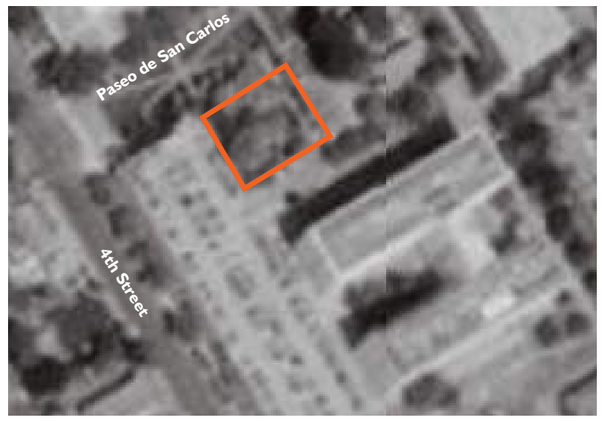
Site Aerial Photograph, depicting addition of parking garage to west, 1987
(historicaerials.com)

1904
(BUILT)
1935
1956
1968
1980
1987
1998
2017



Site Aerial Photograph, 1956
(historicaerials.com)

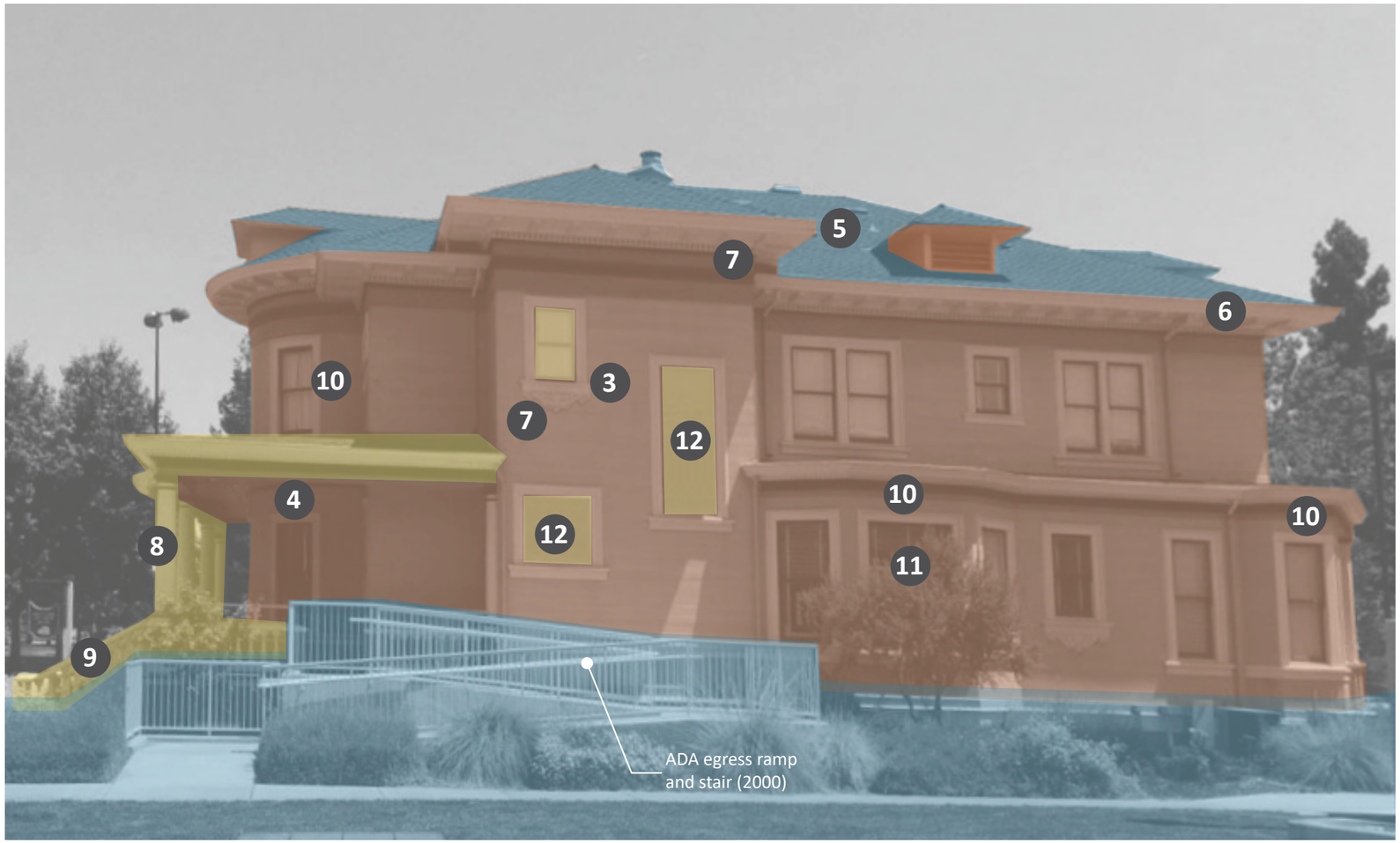
Site Aerial Photograph, depicting further redevelopment to south, 1980
(historicaerials.com)



Site Aerial Photograph, depicting pedestrianization of the Paseo, 1998
(historicaerials.com)

HISTORIC SIGNIFICANCE DIAGRAMS

This section contains a series of diagrams illustrating the relative areas of historical significance at the Associated Students House. For the purposes of this analysis, Page & Turnbull reviewed as-built drawings, historic photographs, surveyed the building, including all exterior façades and interior spaces, and evaluated their relative significance organized into three categories: Primary Significance, Secondary Significance, and Non-Contributing. These categories are further defined at the right. The period of significance for the building is 1904-1915, beginning at its construction through Victor Scheller's occupancy of the house.



Southwest Facade

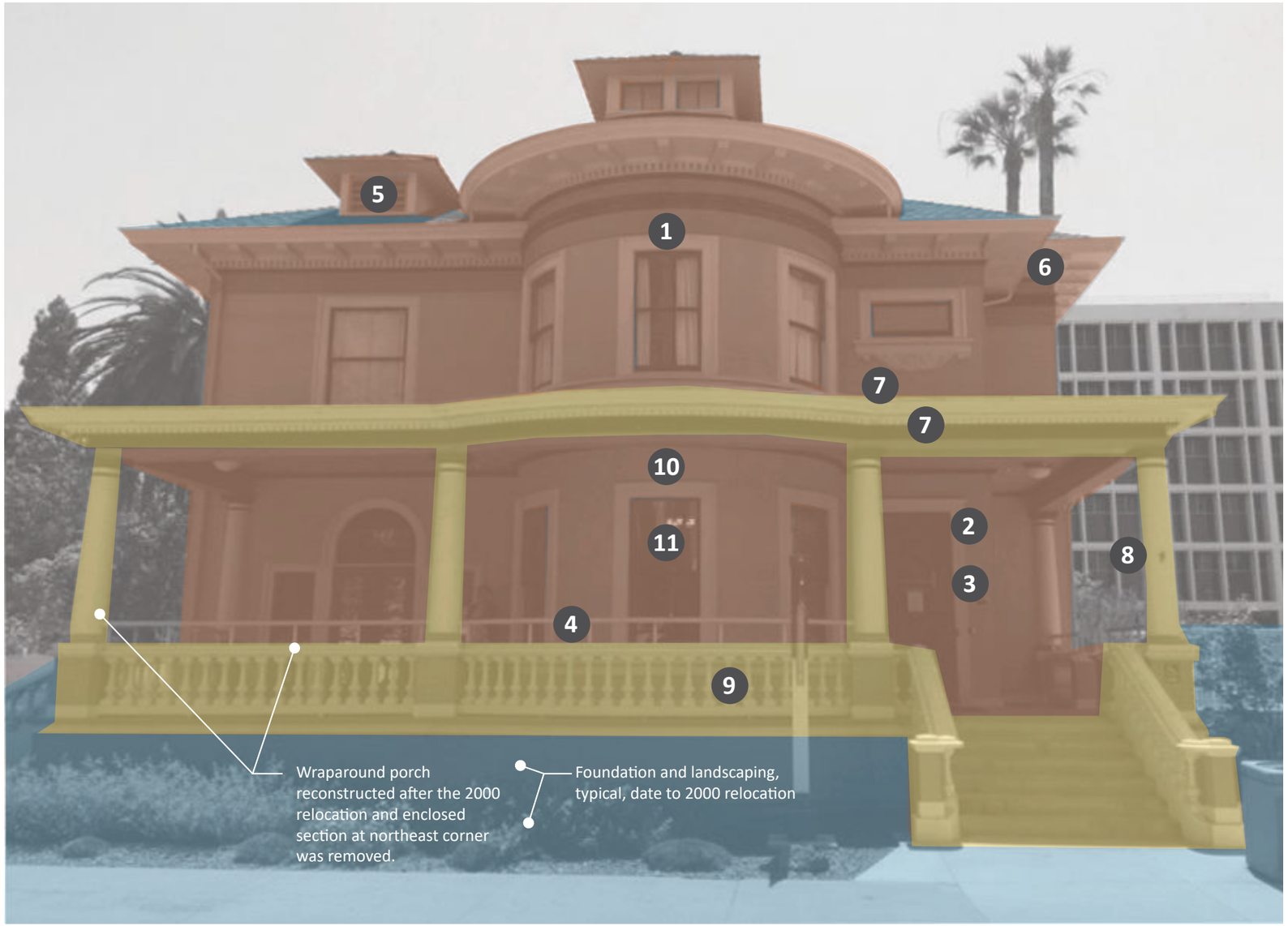
PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows



Primary (Northwest) Facade

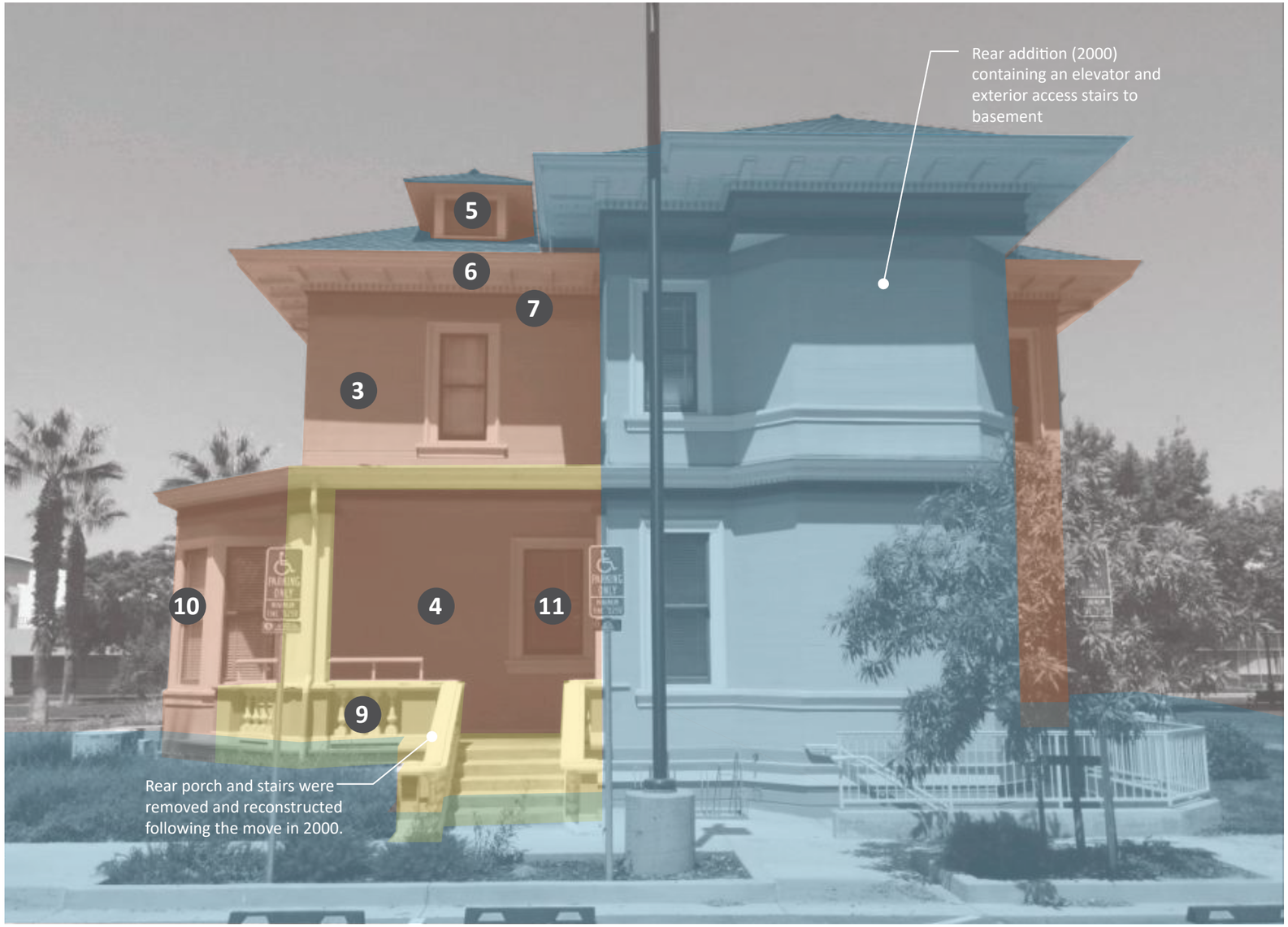
PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows



Rear (Southwest) Facade

PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows

Southeast Facade

PRIMARY SIGNIFICANCE
delineates features/spaces that date to the Period of Significance (POS) and are the most historically significant components of the building

SECONDARY SIGNIFICANCE
delineates features/spaces that were reconstructed or restored in-kind after the POS, cumulatively contributing to the overall character of the building.

NON-CONTRIBUTING
features or spaces that were constructed after the POS and were not original to the building.

CHARACTER-DEFINING FEATURES

1. Two-story residence with semi-circular tower
2. Asymetrical massing and floor plan
3. Shiplap siding
4. Wrap-around porch
5. Hipped roof with dormers (Roofing material has been replaced)
6. Wide boxed eaves with exposed rafter tails
7. Modillions, dentils, classical frieze
8. Rounded columns
9. Spindle-post balustrade
10. Bay windows
11. Double-hung wood windows
12. Art glass windows

RELOCATION ANALYSIS

MOVING HISTORIC HOUSES: GOOD PRACTICES ANALYSIS SUMMARY

Page & Turnbull worked with Place Economics to prepare an analysis of historic building relocation strategies, entitled "Moving Historic Buildings: A Good Practices Analysis from American Cities That Have Done It," as part of a feasibility study in San Diego in 2009. The analysis considers fourteen "good practice examples," consisting of historic building relocation projects that have been successfully implemented in the past.

The analysis is entitled "Good Practices" because the examples are diverse and are influenced by a wide range of variables. Variables may include reasons for relocation, local policies, groups and organizations involved, financial backing, character of buildings and receiving sites, and extent of work to be undertaken. These variables strongly influence each individual case, and therefore every historic building relocation project should be addressed on an individual basis to determine the best approach; therefore, the Good Practices Analysis concludes that a concrete set of "best practices" is impossible to formulate. However, commonalities among the examples were identified, and they helped to inform a set of "good practices" that can serve as a general guide for other building relocation undertakings. The ten principles of good practice listed below can assist any building relocation project be completed successfully.

Prior to relocating a historic building, ask the following questions:

Why is the building endangered in its current location?

What makes it a candidate for relocation?

What public policy would be advanced by the relocation?

What criteria should be used for selecting a new site?

What parties will be involved, and what are their responsibilities?

The answers to these questions will help teams establish the most important goals for their projects.

1. *Select relocation only as a last resort*

In nearly every example considered in the analysis, the decision to relocate the historic building was not made until all other alternatives had been explored and found infeasible. This principle was followed regardless of whether the entity responsible for the decision was a historic preservation advocacy organization.

2. *Conduct thorough documentation*

In the good practice examples, communities thoroughly documented not just the buildings to be moved, including their site conditions, orientation, and other non-building components of the original location. In the case of the Associated Students House, it is recommended to thoroughly document both 2000 and anticipated 2018 moves.

3. *Establish design guidelines*

In most examples considered in the analysis, a historic building was relocated into a historic district. In some cases, the district was created after the building relocation was planned; in other cases, it was a pre-existing district. Regardless of whether or not a district was present, design guidelines were typically in place and affected any reconstruction or siting of the relocated building, and future infill construction. (In this case, the SJSU campus guidelines apply.)

4. *Ensure an appropriate new site context*

As has been noted above, good practice examples took considerable care to ensure that the relocated building fit seamlessly into its new urban and architectural context. (In this case, the new site context is the SJSU campus between the 9th St. Paseo and S. 10th Street.) Relevant considerations include age, scale, style, and lot size. In good practice examples, buildings were also frequently relocated to areas appropriate to their original and intended use.

5. *Ensure an appropriate new site plan*

Related to principle 4 above, the compatibility of a relocated building with its specific site was given considerable thought in the good practice examples. Important historic and aesthetic considerations included orientation and lot size similarity, as well as practical criteria such as access, context disruption, and the amount of demolition or utility removal required.

6. *Gain formal or informal assistance from the preservation community*

Moving historic buildings is generally not regarded favorably by the preservation community and is only considered acceptable when all other alternatives have been exhausted. However, in almost every good practice example, the preservation community was either a direct participant in the relocation efforts and/or actively engaged in developing the relocation plan. It was found that this level of involvement led to strong and favorable perceptions of project success by the community. In the case of the AS House, the local groups to inform would primarily be the SJSU campus community and the Preservation Action Council of San Jose (PACSJ), who were involved in the previous relocation.

7. *Gain local community support*

Support from preservation advocates does not necessarily translate to support from the broader community, particularly those who will be the neighbors of the relocated building (in this case the SJSU community). Similar to the preservation community, it is helpful to foster involvement and feedback from local community groups to increase support and favorable perceptions of the relocation efforts.

8. *Achieve a sale price within range of neighborhood market (Not applicable for AS House)*

9. *Consider all contributing factors affecting a relocation*

Good practice examples involved far more considerations than simply the questions, "Can we move that building?" and "Do we have a site to move it to?" A more comprehensive set of variables was considered, including the cost of the move, the route of the move, and disruption to the new surroundings. The aforementioned "fit" between the building to be moved and its new site context was a less tangible but crucial factor to be considered.

10. *Accept that time and effort must be invested before project is considered successful*

Only in rare occasions does the relocation of a historic building give the impression of instant success. More typically, the success of relocation can be determined 5 to 10 years after a building has been moved.

These principles of good practice concern both immediate and secondary actions in undertaking a historic building relocation. The Good Practices Analysis concludes that moving historic buildings should continue to be a "last resort" strategy, taken only after all other avenues have been exhausted. However, when that point has been reached, good practice examples prove that relocation strategies can be successful if they are supported by historic preservation advocates and advance both preservation and public policy goals. The potential relocation of the SJSU Associated Students House initially appears to meet both of these goals, and upon a decision to move forward, the project would benefit from engagement with the SJSU and local preservation communities to further its support.

EXISTING BUILDING CONDITIONS ASSESSMENT

Yellow haze on exterior and deteriorated boards on second level, 2017 (Page & Turnbull)

Typical deterioration of exterior boards at west facade due to sun exposure, 2017 (Page & Turnbull)

Architectural - Exterior

The Associated Students House is in good condition. Given the recent rehabilitation of the house after its move in 2000, the house remains in good form with the following minor issues. These items should be addressed after the move in addition to any damage sustained as a result of the move:

EXTERIOR SIDING: Good/Fair

- The west facade exhibits an increased level of deterioration in the exterior siding compared to the rest of the house due to its increased sun exposure.
  - There is a yellow haze on the exterior below the second level window shared in the Vice-President and Controller's offices. This haze was not evaluated at close range due to access. The source of the haze should be determined and the area repainted (and/or repaired) as needed.
  - Along the base of the second floor level, south of the historic stairwell and along to the rear of the house, there appears to be increased deterioration at the lowest two boards. Close range access was not available. The issue may be due to flashing in this location. After the move, the boards should be more closely evaluated and repaired, mitigating the cause as necessary.
  - The boards on the west façade have an increased level of separation in their paint coating. The façade should be repainted after the move to keep the siding watertight and prevent increases in these gaps.
  - The covered electrical outlet near the entry door on the north façade has a broken weather cover. Replace it (ideally before the move as it presents an electrical safety hazard).
- Utility ingress points exist on both the east and west facades near the current south facade. If these openings are not to be reused after the move, the boards will need to be repaired with Dutchman repairs and repainted to match the surrounding boards.

WINDOWS: Good/Fair

- Windows everywhere but at the west facade were in good condition. At the west facade, multiple window sills and bottom sash rails had paint delamination and the beginnings of UV deterioration in the exposed wood. Some sashes were starting to show joint separation. Exposed wood surfaces (and areas with discoloring due to UV damage) should be repainted as soon as possible to protect the wood windows, ideally pre-move.

West facade utility ingress locations, 2017 (Page & Turnbull)

SIll and window joint deterioation, 2017 (Page & Turnbull)

Nails used on the historic exterior should not be mild steel, 2017 (Page & Turnbull)

Possible deterioration of the exterior boards above the north porch , 2017 (Page & Turnbull)

- At the north façade, raw steel nails have been installed around the window and door frames (presumably to carry lights during the holiday season). These nails should be removed, or else replaced with galvanized or stainless alternatives to prevent any future rust bleeding onto the historic trim.
- A handful of windows have minor damage in sills or frame casing. Patch, repair, and repaint.
- Two windows, one at the east facade and one on the south façade had small mud nests, likely wasps. These locations are not active, but the mud should be removed.

GUTTERS: Good/Fair

- No water tests were conducted of the gutter system, but minimal water damage was visible on the building exterior near the downspouts. Notedly, at the southeast corner where the porch meets the front of the house, there was a darkening, indicating possible rot around the downspout at the exterior wall. The wood should be evaluated more closely after the move and repaired or replaced as necessary.

SOFFITS: Good

- There is broken board at the southeast corner of the roof; it should be fitted with a Dutchman repair.
- The north east corner at the roof line shows some breakage at the edge and a partially missing board; repair as required.

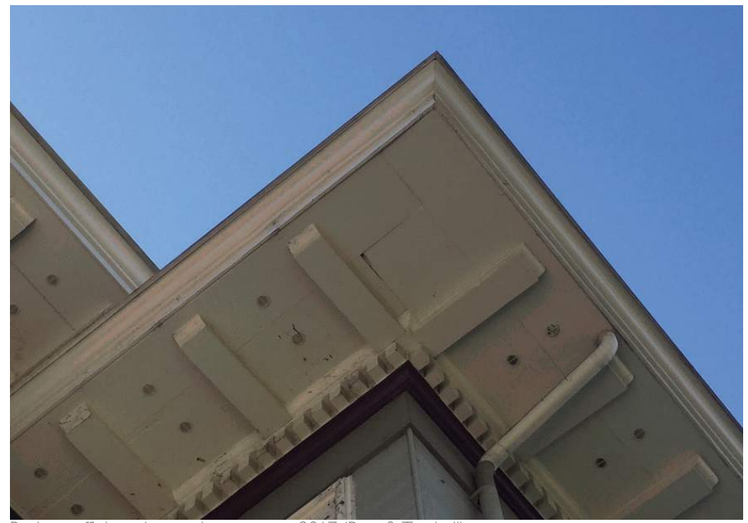
ROOF: Not evaluated

- Condition of the roof was not evaluated due to access, however, no water staining spots were visible on the house's interior.

PORCHES: (non-historic)

- The current non-historic porch railings are exhibiting two locations of major infestation damage, one at the north porch and one at the south. It appears that a burrowing insect has caused damage to the wood used in the porches since 2000. Other wood surfaces in the building do not show any signs of similar damage. Should the same plans be used for the porch recreation on the new site, an alternate wood variety should be selected to construct the porch details at the columns and balustrades.

Broken roof edge, 2017 (Page & Turnbull)



Broken soffit board at southeast corner, 2017 (Page & Turnbull)

Insect damage in porch railing, 2017 (Page & Turnbull)

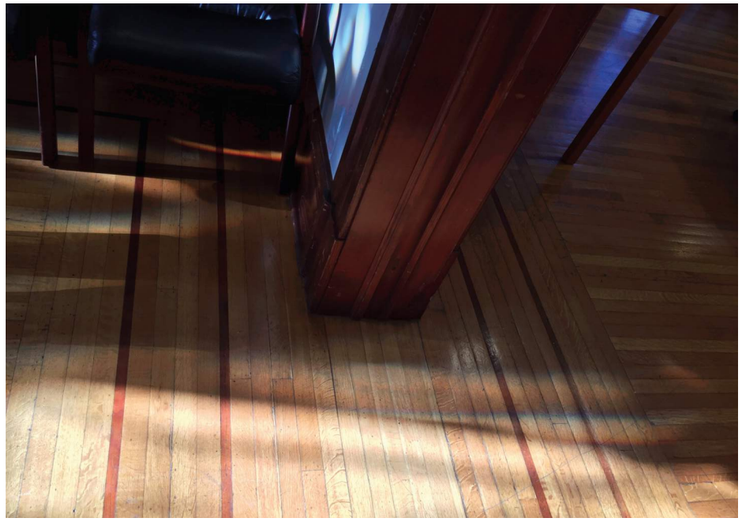
Architectural - Interior

The interior exhibits standard wear and tear issues of a well-used building: paint delamination and nicks and scratches of wall surfaces. The stained wood work appeared in great condition in all locations. The Ceramic tiles surrounding the fireplace in the first floor conference room were also in good condition with no cracks or breaks. All cove ceilings (where access was available) were in good condition with no visible cracks.

Should the building need to be separated into two pieces in order to accommodate the move, additional repair work will be necessary, including:

- Patching the boards in the historic first floor (in the foyer and other historic front rooms), matching the existing border framing in use.
- Repair to any damaged plaster cove ceilings. Schemes for separating the building include a break point that will have to occur within at least one room with a cove ceiling. The ceiling will need to be patched to match adjacent finish with appropriate compatible patching material.

The first floor fireplace is in good condition, 2017 (Page & Turnbull)



Historic flooring should be as undisturbed as possible or else patched to match in the event that the building has to be taken apart to be moved, 2017 (Page & Turnbull)

Typical cove ceilings, first floor conference room shown, 2017 (Page & Turnbull)

Structural Assessment

The existing timber framed structure includes two full floor levels plus a partial finished attic floor level and an elevator addition and partial basement which were added to the building as part of the 1999-2001 building relocation, in which the existing building was rotated 90 degrees and moved from a nearly adjacent building site. The original and renovated construction is conventional timber framed construction, supported by the new concrete foundation and basement walls. This type of construction has not changed significantly over the life of the structure and construction of similar light framed buildings continues to this day, using similar techniques though the use of manufactured timber framing and new framing hardware has grown more common over the past several decades.

The objective of the current project is to relocate the structure, while minimizing the disruption and cost of renovation of the existing superstructure (both structural and architectural). The move will require some removal of siding and exposure of the conditions at the base of the existing building, to erect a temporary framework necessary to lift and move the building. The front and rear porches will once again, likely be removed and reframed. Other timber framing of the structure above the base level is not intended, unless such work is necessary to repair timber damaged by termites or moisture or to make seismic improvements, if required by the relevant building code provisions and/or governing Building Officials.

Based on our meeting with University representatives and our brief walkthrough assessment, the building interiors and exterior appears to remain in relatively good condition, apart from some limited observed rot damage at the rear porch and possibly some areas of the front porch and we would not expect to find any other major gravity framing deficiencies in the building. As the construction begins we would expect some new rot or evidence of past insect infestation will be revealed, as is common for buildings of this type and age, which will require some localized repairs, and some funds should be set aside for this repair work, but we have no reason to expect more extensive repairs or replacement of framing will be necessary.

As part of the 2001 relocation project, it is our understanding that an architectural renovation was undertaken to improve the interior and exterior conditions of the building and front and rear porches were removed and then rebuilt following the move. Additionally, structural drawings were, prepared by "Dominique Chu, Consulting Structural Engineer," and dated 10.04.2000. These drawings depict the new basement and foundations, required to complete the move, and also suggest that the building was seismically retrofitted, though this could not be verified during our brief walkthrough with only limited access to the building and no access to the crawl space and basement areas. We propose to confirm this work was completed, to the extent that is readily visible, at the start of the next phase of work.

These previous structural construction drawings, include adding plywood over existing roof sheathing, adding plywood sheathing over existing stud walls and hardware to create interior shear walls. The drawings reference the 1996 Uniform Building Code but do not explicitly reference this code as the basis for seismic design. Further review and discussions with the University and the responsible Building Officials will be required to fully vet whether seismic study and improvements will be necessary.

Rear porch, southwest corner, 2017 (Page & Turnbull)

PROPOSED RELOCATION APPROACH

PRE-MOVE CONSULTANT COORDINATION

1) Several consultants, including the project architects, structural engineers, and building movers will be engaged by the University to provide design services for the new foundation and basement structure at the Receiver Site.
2) Structural team to provide global gravity and lateral analyses to determine design loads for the foundation and basement walls in compliance with CBC
3) Coordination between the engineers, architects, and building movers/ contractors, and University to develop the best strategy for new construction sequencing to determine realistic project schedule and cost
4) Depending on further review of Code provisions (Code Analysis pg. 30), other structural engineering services might be required (See Appendix C)

PRE-MOVE STABILIZATION AND DECONSTRUCTION

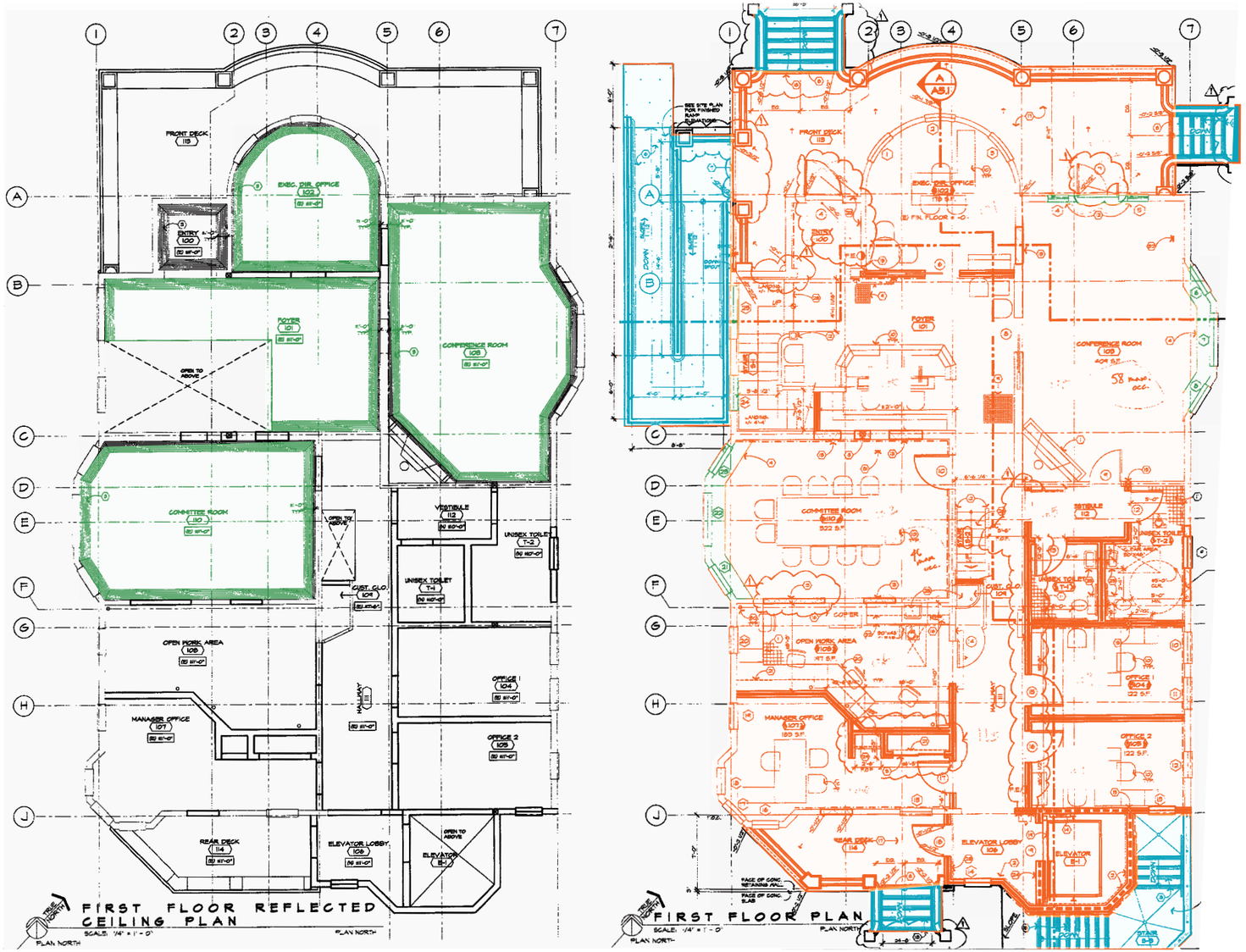
Since moving structures is a unique specialty and is a temporary condition during the construction period only, the contractor responsible for moving the structure is engaged either directly by the University or by a general contractor, and is expected to contract on a design-build basis to perform the following tasks.
(See Appendices B&C for complete Moving and Structural Scope of Work)

1) Associated Students department to vacate 30 days prior to move.
2) Remove perimeter site plantings and other removable infrastructure.
3) Remove front and rear steps and ramp (to be reconstructed); porches will remain because it was determined by Kelly Bros. that they will fit along specified route.
4) Stabilize cove ceilings and millwork (window seats) and/or temporarily remove art glass windows to be protected from damage during move.
5) Movers to disconnect plumbing where steel beams will be located.
6) Movers to disconnect any bolts or tie-downs so building can be raised on dolly.
7) Disconnect all utilities, including HVAC, other Plumbing (General Contractor).
8) Install steel beams, other structure and cribbing and jacking system to create a platform and raise the building onto it (about 5')
9) A dolly system will be used to move the building and metal plates will be laid down on areas of grass on Paseo before reaching S. 4th Street.
10) Demolish abandoned foundation and repair site as necessary.

POST-MOVE RECONSTRUCTION AND REHABILITATION

1) House to be resituated as designed on the Receiver Site and to be kept elevated at 5' from floor joist to the ground.
2) Movers will lower the building onto the new foundation, removing all equipment. Pockets in the foundation will remain to remove steel beams.
3) Connect utilities to building once in place (General Contractor).

See page 23 for Receiver Site preparation and Post-Relocation reconstruction, and page 24-25 for Analysis and Proposed Relocation Route.



NTS

These plans indicate the footprint of the AS House to be moved intactly (shaded orange), the elements to be removed pre-move and reconstructed at the Receiver Site (shaded blue), as well as interior features that will possibly require stabilization pre-move and rehabilitation following the relocation (e.g. cove ceilings, millwork in green).

LEGEND

- TO REMAIN INTACT DURING MOVE
- TO BE REMOVED & RECONSTRUCTED
- TO BE STABILIZED PRE-MOVE AND/OR RESTORED POST-MOVE

PROPOSED RELOCATION APPROACH

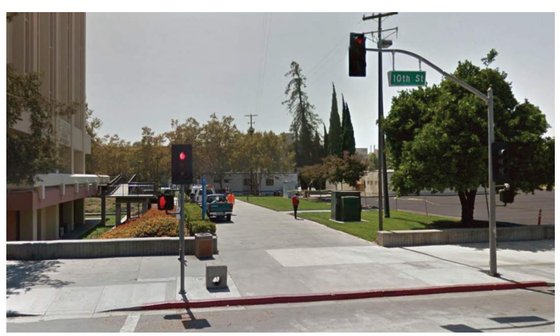
RECEIVER SITE DESCRIPTION

SJSU staff have determined the new location for the AS House to be in the northeast quadrant of the campus, directly north of the Business Tower and adjacent to the Student Union Plaza. The site is currently occupied by temporary modular building "F" (Building Number 140F) and an open lawn, which is directly adjacent to a surface parking lot. Relocation of the building to this Receiver Site will remove approximately 18-20 parking spaces from this lot. Preliminary analysis indicates a number of above ground utilities as well as buried gas, telecommunication and water lines will also need to be relocated. Preliminary analysis of the utilities indicates that the 'Receiver Site Plan-Alternate Scheme' (page 27) would minimize necessary utility relocations.

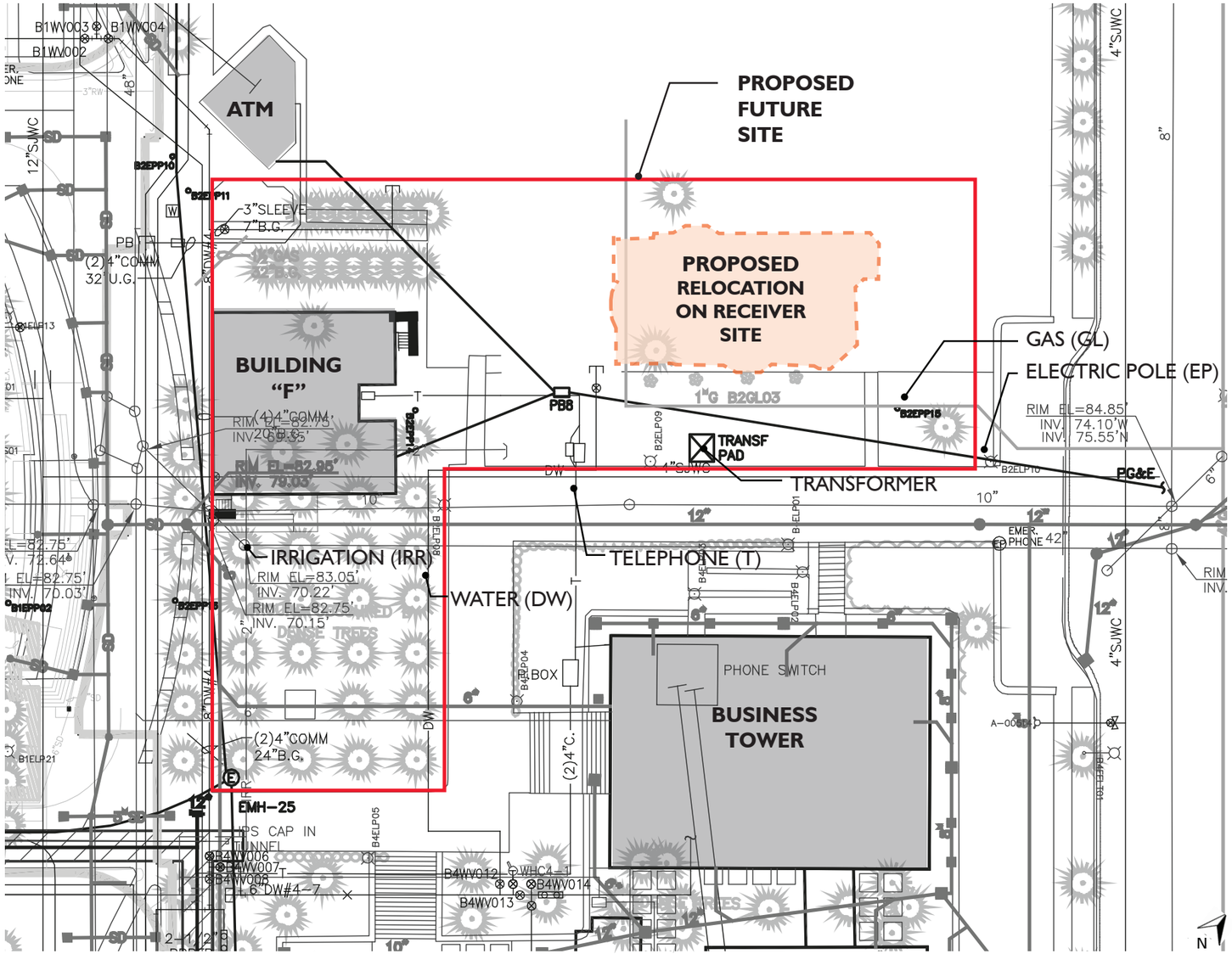
For the purposes of this feasibility study, SJSU provided a geotechnical report from 2008 that examined the area to the immediate west during expansion and renovation of the Student Union. A preliminary review of this report indicates that a high water table may be encountered at the Receiver Site. Ground water was encountered at the nearby site between 11.8 and 15 feet below the existing ground surface. While this study assumes adequate bearing capacity of the site to support the Associated Students House, it is recommended that SJSU undertake another geotechnical report to confirm the load bearing capacity of the soils.

RECEIVER SITE PREPARATION

1) Prepare geotechnical report to confirm soil conditions of Receiver Site.
2) Design & permitting of new foundation as required
3) Remove existing temporary buildings, trees, lighting, signage, and other infrastructure. Partial demolition of Adjacent parking lot.
4) Construct new basement foundations and/or deep pier foundation system (if recommended). Note: it is recommended that new basement walls be constructed after building has been moved into place by movers.
5) Prepare site utilities and hookups on new site (see Utility Siteplan at right).



Receiver Site, looking west from S. 10th Street, 2017 (Google Maps)



RECEIVER SITE UTILITY PLAN
SCALE: 1"=100'0"

RELOCATION ROUTES ANALYSIS

Several relocation route alternatives were initially identified in order to compare the varying site conditions and obstacles (see table below) and determine an appropriate and most 'feasible' route to analyze in greater depth. Page & Turnbull's observations were recorded for each route alternative, including the trees, overhead wires, traffic signals, telephone and cable poles, and campus gateways, etc. Different paving conditions, especially on routes internal to campus, were also noted. A site visit in March 2017 confirmed several measurements on the different routes to determine the feasibility of various path widths and existing infrastructure. Following this analysis and input from the building movers and structural team, route 1a-2 (bold in table below) was selected as the most feasible option based on the goals listed below:

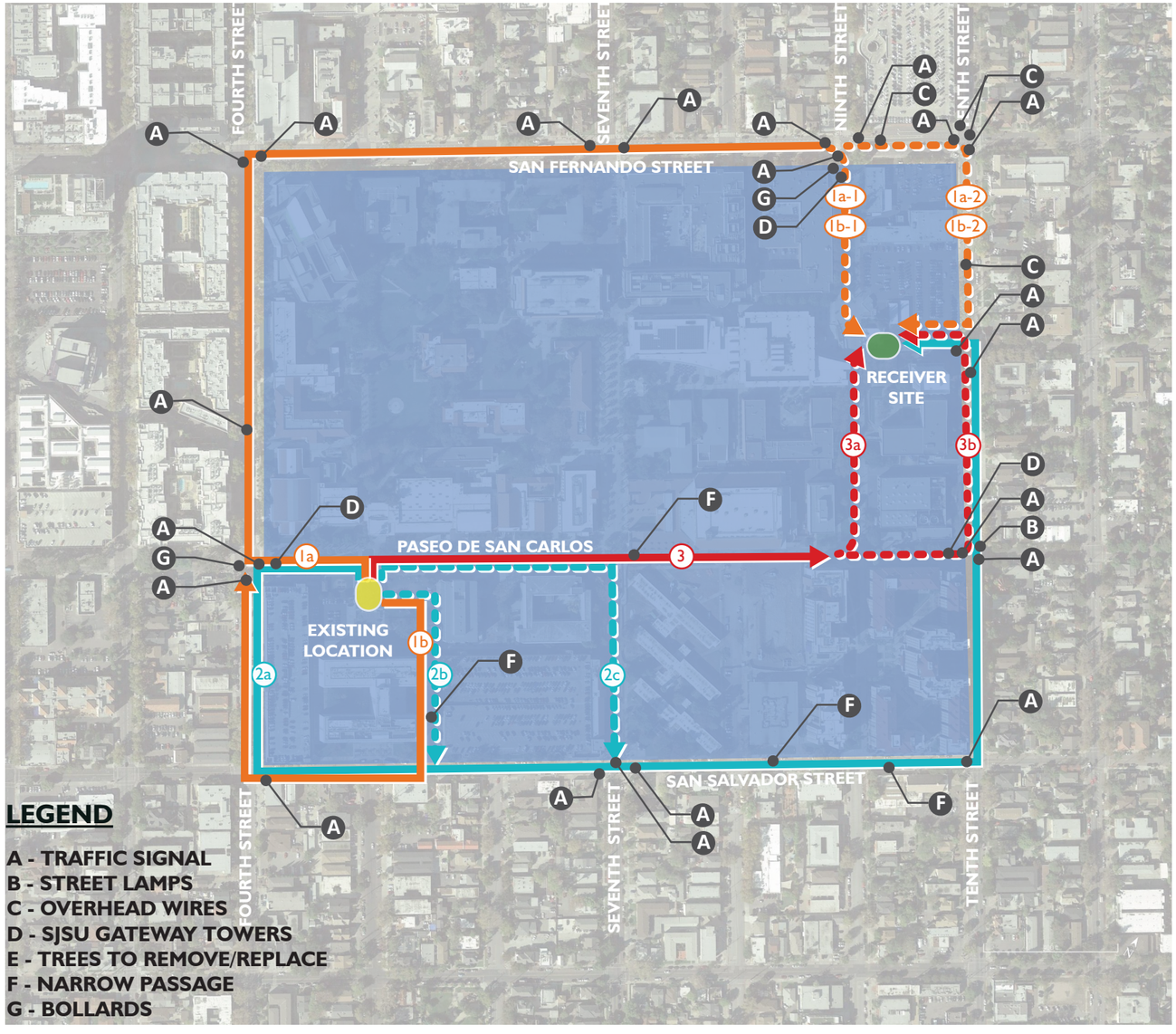
GOALS

- Move house on widest streets to avoid bisecting the house
- Minimize cutting down or temporarily removing trees
- Avoid varying paving conditions to maximize stability during move
- Avoid disrupting city utilities and infrastructure as much as possible
- Minimize the dismantling of campus gateways (not individual historic resources or contributor to the historic district) or other architectural features
- Establish a cost-effective strategy for relocation

ROUTES	Path Length (mi.)	a. Traffic Signals	b. Street Lamps*	c. O-H Wire Xing	d. SJSU Gateway	e. Trees to remove**	f. Narrow passage	g. Bollards
1a-1	.75	6	38	0	2	Yes	1	10
1a-2	**.91**	**12**	**55**	**10**	**1**	**No**	**0**	**7**
1b-1	1.01	9	48	0	2	Yes	2	10
1b-2	1.20	14	54	10	1	Yes	1	7

* Number of street lamps shown indicates the total quantity along the routes and a 'worst case scenario' for removal; actual widths between lamps will be verified at a later time, and it is possible that not all street lamps will need to be removed.

** Number of trees to remove does not include those at the Receiver Site.



scale: 1″ = 400′

PROPOSED RELOCATION ROUTE

PROPOSED MOVE SEQUENCE

The following route (1a-2) was determined to be most feasible following Page & Turnbull's site visit survey and observations by the Kelly Brothers House Movers and the Daedelus structural engineering team, based on their analysis of the route obstacles and extensive experience in historic house relocation.

The diagram (right) was prepared to indicate the footprint of the Associated Students House moving intactly (exterior stairs and ADA ramp to be removed and reconstructed) along the recommended move route. The following sequence was proposed by Kelly Brothers House Movers (See Appendix B).

1. Building to be moved forward, pivoted, and moved west onto the **Paseo de San Carlos**, fitting between the two rows of palm trees at the Paseo perimeter.

2. Dismantle panelized concrete SJSU Gateway (by SJSU); to be reconstructed. The Gateway is not an individual historic resource or contributor to the historic district.

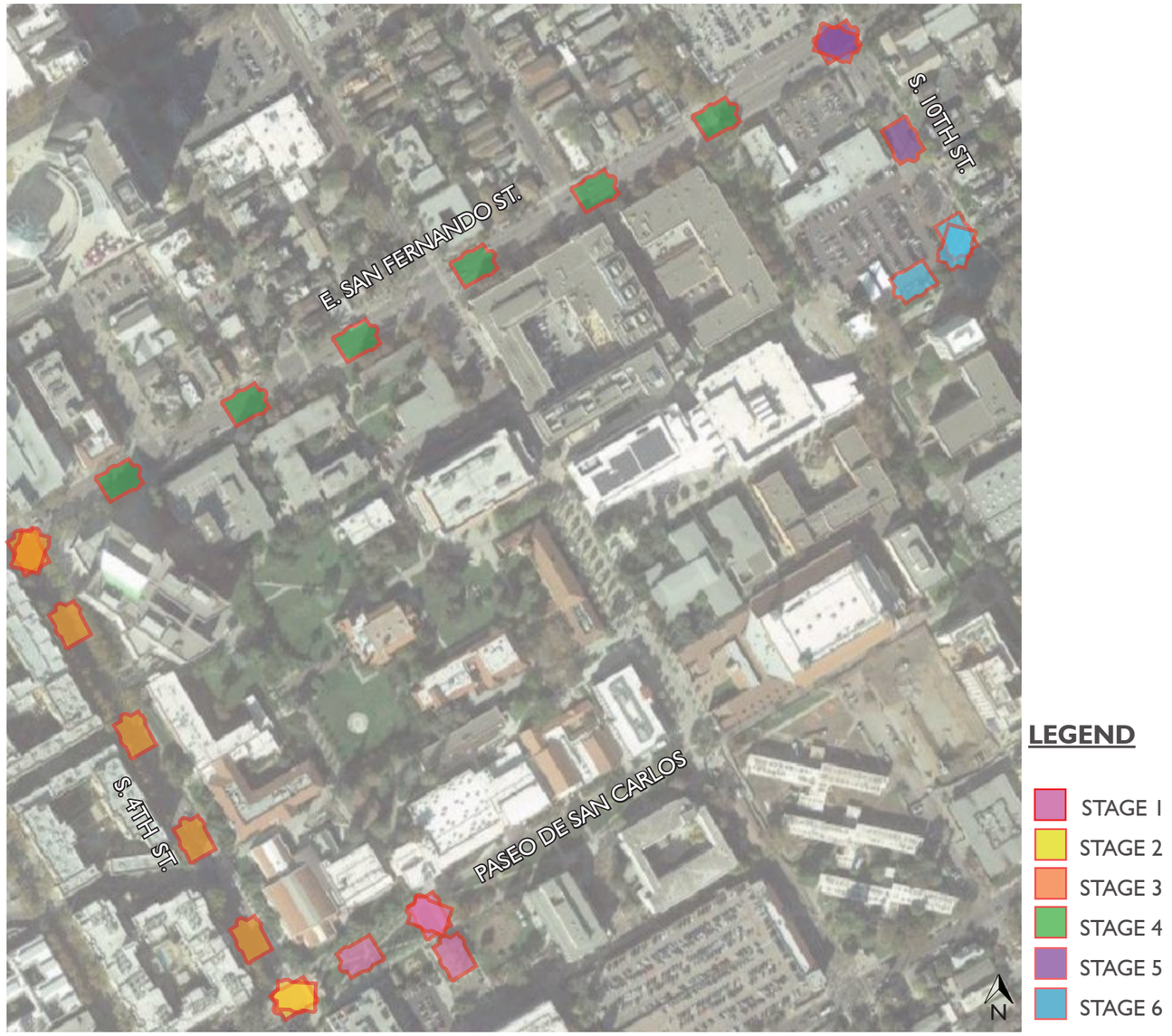
3. Turn right (northeast) onto **S. 4th Street.**

4. Turn right (east) onto **E. San Fernando Street.** Remove signal lights on E. San Fernando Street and approaching 9th and 10th Street intersections, the crossing overhead cables and hot lines must be lowered to allow access (by City). Tree trimming will also be required, but likely not removal.

5. Turn right (southeast) onto **S. 10th Street.** Service lines to residential properties must be temporarily removed (by City), and trees trimmed. Traveling southwest on 10th Street, all electric, phone and cable service lines to residences must be removed. The **intersection at E. San Fernando and 10th Streets** will required additional utility coordination due to the complexity of overhead wires.

6. At Parking Lot 4, at the edge of campus, the house will again pivot 90 degrees to face west towards the main campus, the Paseo, and the Student Union and be moved into position above the new foundation at the **Receiver Site**.

Depending on the logistics and cost, following coordination with the University, the City of San Jose and Utility companies, the building may be moved in either one or two sections. It is preferable to move the building as a single piece to reduce the time and cost of the move and to eliminate the need to reconnect two pieces. However, the logistics and obstructions along the move may require moving the building in two pieces. An additional cost for moving in two pieces has been provided by the move contractor consulting for this feasibility study and is included in the cost estimate. Similarly, Kelly Brothers has provided an estimate of added cost if the building is moved over a partial basement and a separate price estimate if moved over a full basement.



Proposed Relocation Route (Daedalus Structural Engineering, Edited by Page & Turnbull).

PROPOSED RELOCATION ROUTE

Paseo de San Carlos SJSU Gateway, 2017 (Page & Turnbull)

E. San Fernando Street, 2017 (Page & Turnbull)

RELOCATION ROUTE CONTEXT DESCRIPTION

The streets surrounding the SJSU campus are predominantly commercial and high-density with large institutional buildings on the campus sides of the streets and some commercial and residential on the opposite sides. In comparison to routes internal to the campus, the public streets are wider and will involve less removal of trees and other campus architectural features or utilities. The Kelly Brothers recommend having utility crews present during the move, including electrical, telephone, cable, etc., as well as a tree trimming crew to remove unforeseen obstacles.

Streetscape Features

- Mixed Use, with Commercial corridors on S. 4th and E. San Fernando Streets and Residential corridors on E. San Fernando and S. 10th Streets
- Varying medium to large setbacks from sidewalks for commercial, residential, and institutional properties
- SJSU Gateway Arch between the Paseo de San Carlos and S. 4th Street (would be required to be dismantled and reconstructed following the move)
- Few garages, limited off-street parking; on-street parking on all streets along route would need to be coordinated and cleared before the move
- Wide sidewalks
- Sidewalks separated from street by planting zones or scattered trees (deciduous and palm trees along campus side) on S. 4th and S. 10th streets
- Overhead wire crossings on S. 4th Street, San Fernando and 10th Streets
- Large parking lot adjacent to Receiver Site on north side

Lighting

- City street lights lining all streets external to campus
- Standard traffic lights at intersections (to be temporarily removed by City)

Neighborhood Identity

- SJSU Gateways at every entry point to campus at transition from sidewalk; (Recommended route only requires the dismantling of one Gateway)
- Campus signage along route

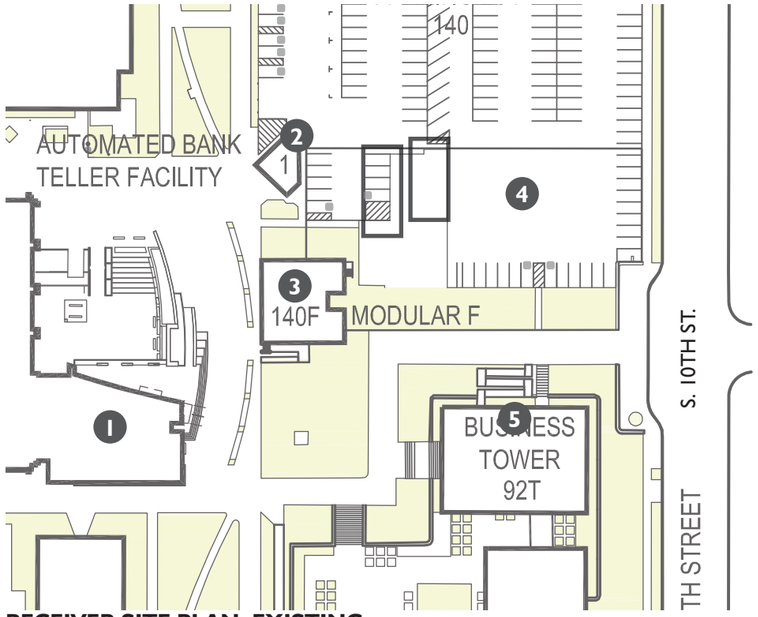
Buildings

- 1-3 story, mixed-use and institutional campus buildings are most common along route with some residential along E. San Fernando and 10th streets
- Stuccoed and brick-clad commercial and institutional buildings and wood-clad residences are most typical
- Flat, gabled & hipped roofs
- Modern or vernacular styles most common

S. 10th Street, 2017 (Page & Turnbull)

Receiver Site and adjacent lawn, 2017 (Page & Turnbull)

ANALYSIS OF RECEIVER SITE PLAN



RECEIVER SITE PLAN, EXISTING
SCALE: 1"=100'0"

RECEIVER SITE FEATURES:

1. STUDENT UNION
2. ATM KIOSK
3. MODULAR BUILDING "F" (to be removed)
4. PARKING LOT (to be reconfigured)
5. BUSINESS TOWER

RECEIVER SITE PLAN, AS PROPOSED BY SJSU
SCALE: 1"=100'0"

PROS:
- Event lawn remains the current size
- House is directly accessible from the Paseo

CONS:
- Indirect relationship between the Paseo, Student Union, and Lawn A
- House has no green space in front
- Event lawn is disconnected from campus core and next to a busy street
- Requires more relocation of site utilities

RECEIVER SITE AREAS (+/- s.f.)

	EXISTING	PROPOSED	ALTERNATE
LAWN A	14,000	14,400	11,000
LAWN B	4,800	8,300	7,200
GARDEN	not included	not included	4,300

RECEIVER SITE PLAN ALTERNATE SCHEME
SCALE: 1"=100'0"

PROS:
- Both Lawns (A & B) have a direct relationship with the Paseo and Student Union, and are perceived as one larger open space
- Lawn A provides a welcoming foreground for the House
- House features a rear and side garden as buffer between 10th Street
- Minimizes relocation of site utilities

CONS:
- Event Lawn slightly smaller than current size
- House not directly located on the Paseo

RECEIVER SITE AREAS (+/- s.f.)

	EXISTING	PROPOSED	ALTERNATE
LAWN A	14,000	14,400	11,000
LAWN B	4,800	8,300	7,200
GARDEN	not included	not included	4,300

PRELIMINARY CODE ANALYSIS

APPLICABLE BUILDING CODES

This project, which includes new foundation and basement construction, the relocation of the structure and any necessary improvements, must be designed and constructed as required by the 2016 California Building Code (CBC), Title 24, incorporating provisions adopted by the California Building Standards Commission (BSC) as defined in the California Building Code adoption matrix. Specifically, the project must comply with the California Historical Building Code (Part 8), the California Existing Building Code (Part 10) and other relevant sections of the Code referenced in these two parts. No changes of use are proposed for the property on the Receiver Site. It will continue to be used as the administrative office space of the Associated Students department for San Jose State University.

More extensive Code excerpts are included as Appendix C at the end of this report but discussion of the more relevant and fundamental provisions that have the greatest influence on project feasibility and cost are briefly summarized below. This discussion is not intended to draw definitive conclusions but provides the necessary framework for further discussion and evaluation.

California Existing Building Code (CBC), 2016

The following sections indicate that the proposed work will require seismic evaluation and strengthening design. Exception (1) implies that the Building official can allow existing construction complying with standards in force at the time of construction (or more likely in this case seismic improvements that appear to have been made as part of the 1999-2001 structure relocation project in compliance with the then current 1996 Uniform Building Code) to be considered "alterations" (i.e. work that is part of the move) in compliance with the current code if structural alterations are limited. This is entirely at the discretion of the Building Official. If seismic work is required by the Building Official, the relocated building must comply with Seismic provisions of Sections 317-322.

301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections **301.1.1** through **301.1.3** as selected by the applicant. **Sections 301.1.1** through **301.1.3** shall not be applied in combination with each other. Where this code requires consideration of the seismic force- resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on **Section 301.1.4** regardless of which compliance method is used.

Exceptions:
1. Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in ***Section 907.4.4****. New structural members added as part of the alteration shall comply with the California Building Code.*

2. ***Existing state-owned structures.*** *[BSC] The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of* ***Sections 317 through 322*** *as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, the California State University, or the Judicial Council. The provisions of* ***Sections 317 through 322*** *may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings. 317.3 Applicability.*

The following excerpt might provide an opportunity to satisfy Building Code requirements without the need for seismic evaluation and retrofit and the associated cost of this work. Provided that the cost of the relocation does not exceed 25% of the "building replacement cost," seismic work may not be required. However the interpretation of this is not entirely clear with two uncertainties as follows: (1) this provision mentions structures that are retrofitted, repaired or modified but does not explicitly refer to structure "relocation." In a number of other sections of the code, relocation is mentioned along with the terms retrofitted, repaired or modified, so it is not clear whether this is an intentional omission or an error. Therefore, this would presumably be at the discretion of the Building Official. (2), what costs must be included in the calculations of the relocation cost for comparison with the replacement cost is not clear. For example, must the cost of temporary utility relocations, the demolition of the existing foundations, etc. be included in the cost of the relocation project? Also, costs are cumulative and may include the cost or portions of the cost of the work done after 1995 for the previous relocation project. However, if previous work mandated seismic retrofit than this cost need not be included but it is not clear whether this exception pertains to only cost related to seismic retrofit or the cost of the entire project.
These provisions will require further review and interpretation by the University representatives and/or Building Officials. The current cost estimate for this feasibility study suggests that with a full basement the project cost may approach or exceed this 25% of replacement cost value (estimated to be $4,000,000). Therefore, pending further review by the Building Official and further cost analyses, the project program might want to be limited to only a partial basement, Also if the cost of the previous relocation project must be included, than this 25% threshold is almost certain to be exceeded.

317.3.1 Existing state-owned buildings. [BSC] For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:
1. Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit.

A further excerpt from of the California Existing Building Code indicates that seismic evaluation and design can either follow the procedures of the "California Building Code" or "ASCE 41 Seismic Evaluation and Retrofit of Existing Buildings" which is the prevailing and more detailed standard on which the California Existing Building Code is based.

[BS] 301.1.4 Seismic evaluation and design procedures.
The seismic evaluation and design shall be based on the procedures specified in the California Building Code or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

In ASCE 41, table 4-6 includes a list of "Benchmark Buildings," and the paragraph 4.3, that precedes the table, specifies that buildings designed and built in accordance with the specified code and after the specified date, do not require seismic evaluation (and by inference) retrofit. Based on table ASCE 41 table 3-2, the Associate Student House structure is characterized as a "wood frame, wood shear panel structure (Types W1 and W2)" and since a retrofit was performed in 2001 well after the Benchmark Building seismic provisions of the 1976 UBC, no evaluation or retrofit should be required.

4.3 BENCHMARK BUILDINGS
A structural seismic evaluation using this standard need not be performed for buildings designed and constructed or evaluated in accordance with the benchmark provisions of this section. However, an evaluation of nonstructural elements in accordance with Section 16.17 is still required. Buildings that meet the provisions of this section satisfy BSE-1E for the designated Performance Level.
However, the following excerpt appears very direct and clearly requires that the "moved structure" fully complies with the current 2016 Building Code provisions for new structures. However, this seems to contradict the previous excerpts and again would require further evaluation and interpretation by University Building Officials.

APPLICABLE BUILDING CODES, CONTINUED

SECTION 409 MOVED STRUCTURES
409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

If the cost of the project exceeds 25% of replacement cost discussed above, or the Building Official rules that the "Moved Structures" provision does not apply, then refer to **Section 317.3.1**, indicating that a seismic evaluation by a structural engineer and a subsequent peer review will be required (Appendix C).

317.4 Evaluation required. If the criteria in **Section 317.3** apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with **Section 317** to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by **Section 317.5** is evaluated as satisfactory and the peer reviewer(s), when Method B of **Section 321** is used, concur, then no structural retrofit is required.

California Historic Building Code (CHBC), 2016

The California Historical Building Code (CHBC) provides dispensation of alternative approaches that provide reasonable occupant safety and cost effective solutions in the interest of preservation of historic buildings. This is described in the following provisions.

Section 8-102.1.2 - Relocation. "Relocated qualified historical buildings or properties shall be sited to comply with the regular code or with the solutions listed in the CHBC. Nonhistorical new construction related to relocation shall comply with the regular code. Reconstruction and restoration related to relocation is permitted to comply with the provisions in the CHBC."

Section 8-102.1.4 - Continued use. "Qualified historical buildings or properties may have their existing use or occupancy continued if such use or occupancy conformed to the code or to the standards of construction in effect at the time of construction, and such use or occupancy does not constitute a distinct hazard to life safety as defined in the CHBC."

Section 8-102.1.6 - Additional Work. "Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC."

The following excerpt makes clear, as expected, that any new partial or full basement must comply with building code requirement for new buildings. The new basement will not have any influence or impact on the evaluation or strengthening design for the existing historic building above.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, provided nonhistorical additions shall conform to the requirements of the regular code. See **Chapter 8-2**.

The following excerpts indicate that "unsafe building" requirements of the CHBC are applicable to correct the unsafe condition but that full compliance with the regular code, beyond correction of the unsafe condition, is not required. While these code provisions do not explicitly refer to seismic safety, seismic safety is implicitly applicable. Based on provision **8-705.1** the gravity load carrying system in the building is sufficient and should not require significant, if any, structural strengthening. **Section 8-705.2** clearly specifies that the building should be evaluated for wind and seismic loads but provides some relief allowing for 75% (or a 25% reduction) of wind loads considered for new construction.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code.

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

Provisions 8.705.2.1 (and by reference **8-701.2**) attempt to provide some relief for seismic performance provided that a minimum standard is met, in which the risk of life-threatening injury due to partial or total structural collapse is low. It is this author's opinion that the idea that a partial or total collapse could be allowed without risk of life-threatening injury seems folly and therefore it is recommend that the prevention of either partial or total collapse be the minimum allowed standard (See Appendix C for code excerpts).

Similar to the 25% reduction in wind forces that may be considered, and described previously, the following excerpt allows a similar 25% reduction in seismic forces prescribed by the regular code.

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the R-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such R-values exist. Where such R-values do not exist, an appropriate R- value shall be rationally assigned considering the structural detailing of the members.

Exceptions:
1. The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.

Americans with Disabilities Act (ADA), 2013

Per Section 202.5 - Alterations to Qualified Historic Buildings and Facilities. "Alterations to a qualified historic building or facility shall comply with **202.3** and **202.4.**

Advisory 202.5 - Alterations to Qualified Historic Buildings and Facilities Exception. "...There are exceptions for alterations to qualified historic buildings and facilities for accessible routes, entrances, and toilet facilities. When an entity believes that compliance with the requirements for any of these elements would threaten or destroy the historic significance of the building or facility, the entity should consult with the State Historic Preservation Officer. If the Officer agrees that compliance would threaten or destroy the significance, use of the exception is permitted."

Chapter 4: Accessible Routes
403.2 Floor or Ground Surface.
403.3 Slope
403.5 Clearances and 403.5.1 Clear Width
404 Doors, Doorways, and Gates
405 Ramps

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PRELIMINARY COST ESTIMATE

DESCRIPTION OF COST ESTIMATE

JR Conkey has provided a conceptual cost estimate to move the Associated Students House from its current location to the proposed Receiver Site in the northeast quadrant of the SJSU campus, utilizing the recommended route and the alternative site plan identified in this study. This preliminary cost estimate was completed without consultation of the City of San Jose and utility companies, at the request of SJSU staff. The estimate considers three main options:

- Building Relocation as-is with no additional basement
- Building Relocation plus 1,200 sf basement
- Building Relocation plus full basement

The cost estimate includes building mover costs provided by Kelly Brothers, dismantling and reassembly of the SJSU gateway signage along South 4th Street, tree trimming, temporary removal and replacement of street lamps and traffic signals, overhead wire crossings, and anticipated utility relocation at the Receiver Site. Additional costs have been itemized, such as seismic upgrades, as well as contingencies that include unforeseen costs, such as city permitting, off-duty police, or unknown utilities. Consultant Team fees have not been included. See Appendix A for the complete preliminary cost estimate.

SJSU Gateway Arch at Paseo de San Carlos and S. Fourth Street, 2017 (Page & Turnbull)

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION**
BUILDING: **SUMMARY**
PHASE: **FEASIBILITY STUDY**
PREPARED BY: JR CONKEY & ASSOCIATES
PREPARED FOR: PAGE & TURNBULL

PRINT DATE: 3/31/2017
PRINT TIME: 3:24 PM
PAGE 1 OF 7
SJSU Assoc Students House Relo Feasibility Study Cost Estimate 3_31_17_R1

ESTIMATE DATE: **MARCH 31, 2017**

SUMMARY

BUILDING	NO. OF UNITS	SF PER UNIT	TOTAL SF	CURRENT COST PER UNIT	TOTAL COST	COST / SF
MOVE WITH NO ADDITIONAL BASEMENT AT RECEIVER SITE					$996,244	
CONSTRUCTION CONTINGENCY					$45,000	
SPECIAL INSPECTIONS & TESTING					$15,000	
TOTAL WITH NO ADDITIONAL BASEMENT					$1,056,244	
ADD 1,200 SF BASEMENT AT RECEIVER SITE				ADD	$95,449	
TOTAL WITH 1,200 SF ADDITIONAL BASEMENT					$1,151,694	
ADD FULL BASEMENT AT RECEIVER SITE				ADD	$219,940	
TOTAL WITH FULL BASEMENT					$1,276,184	

MOVE THE HOUSE IN TWO PIECES	ADD	$61,558
CITY/ UTILITY COSTS ARE NOT COORDINATED WITH THE CITY OF SAN JOSE PER SJSU REQUEST		
SEISMIC UPGRADE IF REQUIRED @ $45/ SF	ADD	$308,700

REPLACEMENT COST ESTIMATE:

LEVEL	AREA (GSF)
BASEMENT CRAWL SPACE	2,396
BASEMENT ELEVATOR PIT	84
BASEMENT MECH AND MACHINE ROOM	337
FIRST FLOOR	2,714
SECOND FLOOR	2,498
ATTIC	1,310
TOTAL OCCUPIABLE SPACE	6,859
HYDRAULIC ELEVATOR	$140,000
ELEC SYSTEM UPGRADE	$10,000
LANDSCAPE TREATMENT	$25,000
REPLACEMENT VALUE @ $600/ SF	**$4,290,000**

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NEXT STEPS

The Page & Turnbull Consultant Team recommends that SJSU evaluate our analysis of the proposed move route and approach to reconstruction on the Receiver Site. The conceptual estimate indicates that the total cost ($1,056,244) to move the Associated Students House is less than 25% of the estimated Replacement Value ($4,290,000), and that in addition to providing an appropriate new location for the Associated Students Department, relocation of the building will not jeopardize its historic status as eligible for listing in the California Register of Historic Resources.

If SJSU moves forward with the project, we recommend they engage a qualified Historic Preservation Architectural Consultant Team to generate a work plan, coordinate the relocation and provide for subsequent restoration work as required to minimize displacement of the Associated Students staff during the relocation. The Consultant Team will include architects, structural engineers, the building mover, cost estimator, and other consultants, such as Landscape, Civil and MEP. It should be anticipated that a geotechnical report and civil survey of the Receiver Site will also be required prior to beginning the work.

Primary facade second story, 2017 (Page & Turnbull)

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APPENDICES

APPENDIX TABLE OF CONTENTS

PROJECT TEAM

Client Team

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003
Richard Daulton
Shannon Carmack

San Jose State University (Planning Design & Construction)
Facilities Development and Operations
One Washington Square
San Jose, CA 95192
Daniel No

Consultant Team

Page & Turnbull, Inc. (Prime Consultant)
417 Montgomery St. 8th Floor
San Francisco, CA 94104
Ruth Todd, Principal
Greg Yanito
Cassie Rogg
Caitlin Turner

Daedalus Engineering, Inc. (Project Structural Engineer)
18805 Cox Avenue
Saratoga, CA 95070
Doug Robertson
Bryan Cortnik

Kelly Brothers House Movers (Project Building Movers)
2269 Will Wood Dr.
San Jose, CA 95112
Howard Kelly

J.R. Conkey & Associates (Project Cost Estimator)
735 Sunrise Avenue, Suite 200
Roseville, CA 95661-4596
Scott Ransdell

Front entry stairway and art glass window reflections, 2017 (Page & Turnbull)

APPENDIX A. COST ESTIMATE

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION**
BUILDING: **SUMMARY**
PHASE: **FEASIBILITY STUDY**
PREPARED BY: JR CONKEY & ASSOCIATES
PREPARED FOR: PAGE & TURNBULL

PRINT DATE: 3/31/2017
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PAGE 1 OF 7
SJSU Assoc Students House Relo Feasibility Study Cost Estimate 3_31_17_R1

ESTIMATE DATE: **MARCH 31, 2017**

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TOTAL WITH 1,200 SF ADDITIONAL BASEMENT					$1,151,694	
ADD FULL BASEMENT AT RECEIVER SITE				ADD	$219,940	
TOTAL WITH FULL BASEMENT					$1,276,184	

MOVE THE HOUSE IN TWO PIECES — ADD $61,558

CITY/ UTILITY COSTS ARE NOT COORDINATED WITH THE CITY OF SAN JOSE PER SJSU REQUEST

SEISMIC UPGRADE IF REQUIRED @ $45/ SF — ADD $308,700

REPLACEMENT COST ESTIMATE:

LEVEL	AREA (GSF)
BASEMENT CRAWL SPACE	2,396
BASEMENT ELEVATOR PIT	84
BASEMENT MECH AND MACHINE ROOM	337
FIRST FLOOR	2,714
SECOND FLOOR	2,498
ATTIC	1,310
TOTAL OCCUPIABLE SPACE	6,859
HYDRAULIC ELEVATOR	$140,000
ELEC SYSTEM UPGRADE	$10,000
LANDSCAPE TREATMENT	$25,000
REPLACEMENT VALUE @ $600/ SF	**$4,290,000**

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - NO ADDITIONAL BASEMENT OPTION**
PHASE: **FEASIBILITY STUDY**
ESTIMATE DATE **MARCH 31, 2017**
BID DATE: **ASSUME 7/2018**
PREPARED BY: JR CONKEY & ASSOCIATES

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3/31/2017
3:24 PM
SJSU Assoc Students House Relo Feasibility Study Cost Estimate 3_31_17_R1

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
2	SITEWORK					
	A	VERTICAL OBSTRUCTIONS FOR MOVE				
		1 DISMANTLE GATEWAY SIGNAGE	160	MH	$90.00	$14,400
		2 RE-ASSEMBLE/REPAIR GATEWAY SIGNAGE	320	MH	$90.00	$28,800
		3 COBRA LIGHT FIXTURES (REMOVE & REPLACE)	55	EA	$600.00	$33,000
		4 TRAFFIC SIGNALS (REMOVE & REPLACE)	12	EA	$1,200.00	$14,400
		5 OVERHEAD WIRE CROSSINGS	10	EA	$400.00	$4,000
		6 TRIM TREES	67	EA	$100.00	$6,700
		7 REMOVE & REPLACE BOLLARDS	7	EA	$600.00	$4,200
	B	HOUSE MOVING (ASSUME NO BASEMENT AT RECEIVER SITE)				
		1 HOUSE MOVING - ONE PIECE	1	LS	$198,200.00	$198,200
		2 IF THERE IS A 1,200 SF BASEMENT ADD $13,200	0	LS	$13,200.00	$0
		3 IF THERE IS A FULL BASEMENT ADD $28,600	0	LS	$28,600.00	$0
	C	SITE UTILITIES EXISTING SITE - DISCONNECT ALLOWANCE	1	LS	$2,500.00	$2,500
	D	SITE UTILITIES RECEIVER SITE				
		1 RELOCATE TRANSFORMER	1	EA	$4,000.00	$4,000
		2 RELOCATE POWER POLES & O/H WIRE	2	EA	$2,000.00	$4,000
		3 LIGHT POST (NEW)	2	EA	$5,000.00	$10,000
		4 RELOCATE 2" DOMESTIC WATER	1	LS	$4,500.00	$4,500
		5 RELOCATE TEL/COM	1	LS	$2,500.00	$2,500
	E	FOUNDATION AND BASEMENT (IF REQUIRED)				
		1 NEW PERIMETER FOUNDATION AND INTERIOR PIERS	126	CY	$450.00	$56,600
		2 BASEMENT - MECHANICAL AND ELEV. MACHINE ROOM	337	SF	$35.00	$11,795
		3 ADD HALF BASEMENT	0	SF	$35.00	$0
		4 ADD FULL BASEMENT	0	Sf	$35.00	$0
	F	RECEIVER SITE - OTHER				
		1 LANDSCAPING				
		a NEW TREES - MEDIUM	1	EA	$500.00	$500
		b NEW TREES - SMALL	5	EA	$200.00	$1,000
		c MISC	1	LS	$500.00	$500
		2 CONCRETE BENCH	60	LF	$150.00	$9,000
		3 BIKE RACK	1	EA	$3,500.00	$3,500
		4 BOLLARD	1	EA	$750.00	$750

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - NO ADDITIONAL BASEMENT OPTION**

PHASE: **FEASIBILITY STUDY**

ESTIMATE DATE **MARCH 31, 2017**

BID DATE: **ASSUME 7/2018**

PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
	5	SIGN POSTS	6	EA	$150.00	$900
	6	CONCRETE RAMP	240	SF	$35.00	$8,400
	G	CONSTRUCTION TRAILER & OUT BUILDING	2	EA	$3,500.00	$7,000
	H	MISCELLANEOUS				
	1	PHASING	1	LS	$10,000.00	$10,000
	2	WORK AROUND PUBLIC	1	LS	$10,000.00	$10,000
	3	EXISTING ELEVATOR DISASSEMBLY, NEW PIT, REINSTALL	2	FLT	$25,000.00	$50,000
9	FINISHES					
	A	MISC REPAIRS AND PAINT @ $11.5/ SF	1	LS	$75,000.00	$75,000
	SUBTOTAL HARD COSTS					**$576,145**
	CONTINGENCY					
		ESTIMATING CONTINGENCY	15.00%			**$86,422**
	SUBTOTAL CONSTRUCTION COSTS					**$662,567**
	MARK-UPS					
		GENERAL CONDITIONS	20.00%			$132,513
		OVERHEAD & PROFIT	15.00%			$119,262
		INSURANCE & BONDS	2.50%			$22,859
	SUBTOTAL MARK-UPS					**$274,634**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS					**$937,201**
	ESCALATION					
	ESCALATION TO BID	15 MONTHS AT 5% PER DOF	6.30%		TO JULY 2018	**$59,044**
	ESCALATION FROM BID		0.00%		N/A	**$0**
	TO MIDPOINT OF CONSTRUCTION					
	TOTAL ESTIMATE - NO ADDITIONAL BASEMENT OPTION:					**$996,244**

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - 1,200 SF BASEMENT OPTION**

PHASE: **FEASIBILITY STUDY**

ESTIMATE DATE **MARCH 31, 2017**

BID DATE: **ASSUME 7/2018**

PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
2	SITEWORK					
	A	VERTICAL OBSTRUCTIONS FOR MOVE				
	1	DISMANTLE GATEWAY SIGNAGE	160	MH	$90.00	$14,400
	2	RE-ASSEMBLE/REPAIR GATEWAY SIGNAGE	320	MH	$90.00	$28,800
	3	COBRA LIGHT FIXTURES (REMOVE & REPLACE)	55	EA	$600.00	$33,000
	4	TRAFFIC SIGNALS (REMOVE & REPLACE)	12	EA	$1,200.00	$14,400
	5	OVERHEAD WIRE CROSSINGS	10	EA	$400.00	$4,000
	6	TRIM TREES	67	EA	$100.00	$6,700
	7	REMOVE & REPLACE BOLLARDS	7	EA	$600.00	$4,200
	B	HOUSE MOVING (ASSUME NO BASEMENT AT RECEIVER SITE)				
	1	HOUSE MOVING - ONE PIECE	1	LS	$198,200.00	$198,200
	2	IF THERE IS A 1,200 SF BASEMENT ADD $13,200	1	LS	$13,200.00	$13,200
	3	IF THERE IS A FULL BASEMENT ADD $28,600	0	LS	$28,600.00	$0
	C	SITE UTILITIES EXISTING SITE - DISCONNECT ALLOWANCE	1	LS	$2,500.00	$2,500
	D	SITE UTILITIES RECEIVER SITE				
	1	RELOCATE TRANSFORMER	1	EA	$4,000.00	$4,000
	2	RELOCATE POWER POLES & O/H WIRE	2	EA	$2,000.00	$4,000
	3	LIGHT POST (NEW)	2	EA	$5,000.00	$10,000
	4	RELOCATE 2" DOMESTIC WATER	1	LS	$4,500.00	$4,500
	5	RELOCATE TEL/COM	1	LS	$2,500.00	$2,500
	E	FOUNDATION AND BASEMENT (IF REQUIRED)				
	1	NEW PERIMETER FOUNDATION AND INTERIOR PIERS	126	CY	$450.00	$56,600
	2	BASEMENT - MECHANICAL AND ELEV. MACHINE ROOM	337	SF	$35.00	$11,795
	3	ADD HALF BASEMENT	1,200	SF	$35.00	$42,000
	4	ADD FULL BASEMENT	0	Sf	$35.00	$0
	F	RECEIVER SITE - OTHER				
	1	LANDSCAPING				
	a	NEW TREES - MEDIUM	1	EA	$500.00	$500
	b	NEW TREES - SMALL	5	EA	$200.00	$1,000
	c	MISC	1	LS	$500.00	$500
	2	CONCRETE BENCH	60	LF	$150.00	$9,000
	3	BIKE RACK	1	EA	$3,500.00	$3,500
	4	BOLLARD	1	EA	$750.00	$750

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - 1,200 SF BASEMENT OPTION**
PHASE: **FEASIBILITY STUDY**
ESTIMATE DATE **MARCH 31, 2017**
BID DATE: **ASSUME 7/2018**
PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
	5	SIGN POSTS	6	EA	$150.00	$900
	6	CONCRETE RAMP	240	SF	$35.00	$8,400
	G	CONSTRUCTION TRAILER & OUT BUILDING	2	EA	$3,500.00	$7,000
	H	MISCELLANEOUS				
	1	PHASING	1	LS	$10,000.00	$10,000
	2	WORK AROUND PUBLIC	1	LS	$10,000.00	$10,000
	3	EXISTING ELEVATOR DISASSEMBLY, NEW PIT, REINSTALL	2	FLT	$25,000.00	$50,000
9	FINISHES					
	A	MISC REPAIRS AND PAINT @ $11.5/ SF	1	LS	$75,000.00	$75,000
	SUBTOTAL HARD COSTS					**$631,345**
	CONTINGENCY					
		ESTIMATING CONTINGENCY	15.00%			**$94,702**
	SUBTOTAL CONSTRUCTION COSTS					**$726,047**
	MARK-UPS					
		GENERAL CONDITIONS	20.00%			$145,209
		OVERHEAD & PROFIT	15.00%			$130,688
		INSURANCE & BONDS	2.50%			$25,049
	SUBTOTAL MARK-UPS					**$300,946**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS					**$1,026,993**
	ESCALATION					
	ESCALATION TO BID	15 MONTHS AT 5% PER DOF	6.30%	TO JULY 2018		**$64,701**
	ESCALATION FROM BID		0.00%	N/A		**$0**
	TO MIDPOINT OF CONSTRUCTION					
	TOTAL ESTIMATE - 1,200 SF BASEMENT OPTION:					**$1,091,694**

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - FULL BASEMENT OPTION**
PHASE: **FEASIBILITY STUDY**
ESTIMATE DATE **MARCH 31, 2017**
BID DATE: **ASSUME 7/2018**
PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
2	SITEWORK					
	A	VERTICAL OBSTRUCTIONS FOR MOVE				
	1	DISMANTLE GATEWAY SIGNAGE	160	MH	$90.00	$14,400
	2	RE-ASSEMBLE/REPAIR GATEWAY SIGNAGE	320	MH	$90.00	$28,800
	3	COBRA LIGHT FIXTURES (REMOVE & REPLACE)	55	EA	$600.00	$33,000
	4	TRAFFIC SIGNALS (REMOVE & REPLACE)	12	EA	$1,200.00	$14,400
	5	OVERHEAD WIRE CROSSINGS	10	EA	$400.00	$4,000
	6	TRIM TREES	67	EA	$100.00	$6,700
	7	REMOVE & REPLACE BOLLARDS	7	EA	$600.00	$4,200
	B	HOUSE MOVING (ASSUME NO BASEMENT AT RECEIVER SITE)				
	1	HOUSE MOVING - ONE PIECE	1	LS	$198,200.00	$198,200
	2	IF THERE IS A 1,200 SF BASEMENT ADD $13,200	0	LS	$13,200.00	$0
	3	IF THERE IS A FULL BASEMENT ADD $28,600	1	LS	$28,600.00	$28,600
	C	SITE UTILITIES EXISTING SITE - DISCONNECT ALLOWANCE	1	LS	$2,500.00	$2,500
	D	SITE UTILITIES RECEIVER SITE				
	1	RELOCATE TRANSFORMER	1	EA	$4,000.00	$4,000
	2	RELOCATE POWER POLES & O/H WIRE	2	EA	$2,000.00	$4,000
	3	LIGHT POST (NEW)	2	EA	$5,000.00	$10,000
	4	RELOCATE 2" DOMESTIC WATER	1	LS	$4,500.00	$4,500
	5	RELOCATE TEL/COM	1	LS	$2,500.00	$2,500
	E	FOUNDATION AND BASEMENT (IF REQUIRED)				
	1	NEW PERIMETER FOUNDATION AND INTERIOR PIERS	126	CY	$450.00	$56,600
	2	BASEMENT - MECHANICAL AND ELEV. MACHINE ROOM	337	SF	$35.00	$11,795
	3	ADD HALF BASEMENT	0	SF	$35.00	$0
	4	ADD FULL BASEMENT	2,817	Sf	$35.00	$98,595
	F	RECEIVER SITE - OTHER				
	1	LANDSCAPING				
	a	NEW TREES - MEDIUM	1	EA	$500.00	$500
	b	NEW TREES - SMALL	5	EA	$200.00	$1,000
	c	MISC	1	LS	$500.00	$500
	2	CONCRETE BENCH	60	LF	$150.00	$9,000
	3	BIKE RACK	1	EA	$3,500.00	$3,500
	4	BOLLARD	1	EA	$750.00	$750

ESTIMATE WORKSHEET

SAN JOSE STATE UNIVERSITY

PROJECT: **ASSOCIATED STUDENTS HOUSE RELOCATION - FULL BASEMENT OPTION**

PHASE: **FEASIBILITY STUDY**

ESTIMATE DATE **MARCH 31, 2017**

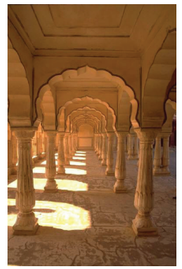
BID DATE: **ASSUME 7/2018**

PREPARED BY: JR CONKEY & ASSOCIATES

Division		DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
	5	SIGN POSTS	6	EA	$150.00	$900
	6	CONCRETE RAMP	240	SF	$35.00	$8,400
	G	CONSTRUCTION TRAILER & OUT BUILDING	2	EA	$3,500.00	$7,000
	H	MISCELLANEOUS				
	1	PHASING	1	LS	$10,000.00	$10,000
	2	WORK AROUND PUBLIC	1	LS	$10,000.00	$10,000
	3	EXISTING ELEVATOR DISASSEMBLY, NEW PIT, REINSTALL	2	FLT	$25,000.00	$50,000
9	FINISHES					
	A	MISC REPAIRS AND PAINT @ $11.5/ SF	1	LS	$75,000.00	$75,000
	SUBTOTAL HARD COSTS					**$703,340**
	CONTINGENCY					
		ESTIMATING CONTINGENCY	15.00%			**$105,501**
	SUBTOTAL CONSTRUCTION COSTS					**$808,841**
	MARK-UPS					
		GENERAL CONDITIONS	20.00%			$161,768
		OVERHEAD & PROFIT	15.00%			$145,591
		INSURANCE & BONDS	2.50%			$27,905
	SUBTOTAL MARK-UPS					**$335,265**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS					**$1,144,106**
	ESCALATION					
	ESCALATION TO BID	15 MONTHS AT 5% PER DOF	6.30%	TO JULY 2018		**$72,079**
	ESCALATION FROM BID		0.00%	N/A		**$0**
	TO MIDPOINT OF CONSTRUCTION					
	TOTAL ESTIMATE - FULL BASEMENT OPTION:					**$1,216,184**

APPENDIX B. MOVE NARRATIVE

Kelly Bros. House Movers



2306 Almaden RD ste 160/pmb
161
San Jose, CA 95125
Email-kellybrothers@mail.com
Phone 408-287-9755

Two Sections
If building is cut in two sections and moved to new site with all necessary bracing and false walls, the total amount will be $233,800.00
Additional
If the building is moved over a 1200 sq ft. basement there will be a $13,200.00 additional charge. If the building is moved over a full basement, there will be a $28,600.00 additional charge.
Not Included
Tree removal,trimming of branches or limbs, moving or removal of utility lines or signal lights,structural engineering, or reconstruction of cut area of building if building is cut.

Sincerely
Howard Kelly

Kelly Brothers

Kelly Bros. House Movers

2306 Almaden RD ste 160/pmb
161
San Jose, CA 95125
Email-kellybrothers@mail.com
Phone 408-287-9755

Route

The building will be moved forward, pivoted, and then moved down the center of a row of palm trees to entrance.(The entrance will be removed by others.) After moving past the entrance, the building will move to the right down 4th Street, then right again on East San Fernando Street to 10th Street, then right on 10th Street to destination on 10th Street.

All signal lights along the route on East San Fernando Street must be removed. Approaching 9th Street on East San Fernando Street to 10th street, cables and hot lines that cross East San Fernando Street must be removed. Major tree trimming on East San Fernando Street will be required. The corner of East San Fernando Street and 10th Street must be clean of all cables, signals, wires, and obstructing trees. Traveling South on 10th Street all service lines to residences must be removed. Movers are not resonsible for moving signal lights, cables,wires, tree trimming or any other work required to clear the route.

We recommend having utility crews present during the move. (Electrical,telephone, cable, etc.) We also recommend having a tree trimming crew present during the move, and that obstructing trees on the new site or at the entrance to the new site be removed.

Sincerely
Howard Kelly

Kelly Brothers

Kelly Bros. House Movers

2306 Almaden RD ste 160/pmb
161
San Jose, CA 95125
Email-kellybrothers@mail.com
Phone 408-287-9755

Prep Work

1. Remove siding and shrubs.
2. Remove front and rear steps and handicap ramp.
3. Mover will load and transport all movers materials and equipment to and from job site.
4. Disconnect plumbing where steel beams will be located, but we do not reconnect.
5. Disconnect any bolts or tie downs so building can be raised.
6. General Contractor will disconnect all ulities. (Air conditioner, heating,etc.)

Scope of Work

1. Install steel beams, cross beams sub-seal, cribbing and jacking system to raise building.(Create a platform under building).
2. Mover will raise the building approximately five feet..
3. A dolly system will be placed to move building as per plan.
4. Mover will lay metal plates down on the lawn to move building across the lawn to street

New Site

1. Building will be located as per plan and kept at five feet from floor joist to ground.Upon installation of new perimeter foundation, mudplate and pier system by others, movers will lower building and remove all equipment. It will be necessary to leave pockets in the foundation for the steel beams to be removed.
2. The estimate amount will be $ 198,200.00 This is only an estimate until final plans and requirements has been approved.

Sincerely
Howard Kelly

Kelly Brothers

APPENDIX C. STRUCTURAL

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San Jose State University Associated Students House Relocation
San Jose, California

Structural Engineering Narrative

For Page and Turnbull

April 26, 2017

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EXISTING STRUCTURE AND CONDITION

The existing timber framed structure includes two full floor levels plus a partial finished attic floor level and an elevator addition and partial basement which were added to the building as part of the 1999-2001 building relocation, in which the existing building was rotated 90 degrees and moved from a nearly adjacent building site. The original and renovated construction is conventional timber framed construction, supported by the new concrete foundation and basement walls. This type of construction has not changed significantly over the life of the structure and construction of similar light framed buildings continues to this day, using similar techniques though the use of manufactured timber framing and new framing hardware has grown more common over the past several decades.

The objective of the current project is to relocate the structure, while minimizing the disruption and cost of renovation of the existing superstructure (both structural and architectural). The move will require some removal of siding and exposure of the conditions at the base of the existing building, to erect a temporary framework necessary to lift and move the building. The front and rear porches will once again, likely be removed and reframed. Other timber framing of the structure above the base level is not intended, unless such work is necessary to repair timber damaged by termites or moisture or to make seismic improvements, if required by the relevant building code provisions and/or governing Building Officials.

Based on our meeting with University representatives and our brief walkthrough assessment, the building interiors and exterior appears to remain in relatively good condition, apart from some limited observed rot damage at the rear porch and possibly some areas of the front porch and we would not expect to find any other major gravity framing deficiencies in the building. As the construction begins we would expect some new rot or evidence of past insect infestation will be revealed, as is common for buildings of this type and age, which will require some localized repairs, and some funds should be set aside for this repair work, but we have no reason to expect more extensive repairs or replacement of framing will be necessary.

As part of the 2001 relocation project, it is our understanding that an architectural renovation was undertaken to improve the interior and exterior conditions of the building and front and rear porches were removed and then rebuilt following the move. Additionally, structural drawings were prepared by "Dominique Chu, Consulting Structural Engineer," and dated 10.04.2000. These drawings depict the new basement and foundations, required to complete the move, and also suggest that the building was seismically retrofitted, though this could not be verified during our brief walkthrough with only limited access to the building and no access to the crawl space and basement areas. We propose to confirm this work was completed, to the extent that is readily visible, at the start of the next phase of work.

These previous structural construction drawings, include adding plywood over existing roof sheathing, adding plywood sheathing over existing stud walls and hardware to create interior shear walls. The drawings reference the 1996 Uniform Building Code but do not explicitly reference this code as the basis for seismic design. Further review and discussions with the University and the responsible Building Officials will be required to fully vet whether seismic study and improvements will be necessary.

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CODE ANALYSIS RELEVANT TO STRUCTURAL DESIGN

This project, which includes new foundation and basement construction, the relocation of the structure and any necessary improvements, must be designed and constructed as required by the 2016 California Building Code (CBC), Title 24, incorporating provisions adopted by the California Building Standards Commission (BSC) as defined in the California Building Code adoption matrix. Specifically, the project must comply with the California Historical Building Code (Part 8), the California Existing Building Code (Part 10) and other relevant sections of the Code referenced in these two parts.

More extensive Code excerpts are included as Appendix A at the end of this report but discussion of the more relevant and fundamental provisions that have the greatest influence on project feasibility and cost are briefly summarized below. This discussion is not intended to draw definitive conclusions but provides the necessary framework for further discussion and evaluation.

California Existing Building Code (Part 10) Provisions

The following sections indicate that the proposed work will require seismic evaluation and strengthening design. Exception (1) implies that the Building official can allow existing construction complying with standards in force at the time of construction (or more likely in this case seismic improvements that appear to have been made as part of the 1999-2001 structure relocation project in compliance with the then current 1996 Uniform Building Code) to be considered "alterations" (i.e. work that is part of the move) in compliance with the current code if structural alterations are limited. This is entirely at the discretion of the Building Official. If seismic work is required by the Building Official, the relocated building must comply with Seismic provisions of Sections 317-322.

> 301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic force- resisting system of an existing building subject to repair, alteration, change of occupancy, addition or **relocation** of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.
>
> *Exceptions:*
>
> 1. *Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.4. New structural members added as part of the alteration shall comply with the California Building Code. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3.*
>
> 2. *Existing state-owned structures. [BSC] The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of Sections 317 through 322 as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, the California State University, or the Judicial Council. The provisions of Sections 317 through 322 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings. 317.3 Applicability.*

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The following excerpt might provide an opportunity to satisfy Building Code requirements without the need for seismic evaluation and retrofit and the associated cost of this work. Provided that the cost of the relocation does not exceed 25% of the "building replacement cost," seismic work may not be required. However the interpretation of this is not entirely clear with two uncertainties as follows: (1) this provision mentions structures that are retrofitted, repaired or modified but does not explicitly refer to structure "relocation." In a number of other sections of the code, relocation is mentioned along with the terms retrofitted, repaired or modified, so it is not clear whether this is an intentional omission or an error. Therefore, this would presumably be at the discretion of the Building Official. (2), what costs must be included in the calculations of the relocation cost for comparison with the replacement cost is not clear. For example, must the cost of temporary utility relocations, the demolition of the existing foundations, etc. be included in the cost of the relocation project? Also, costs are cumulative and may include the cost or portions of the cost of the work done after 1995 for the previous relocation project. However, if previous work mandated seismic retrofit than this cost need not be included but it is not clear whether this exception pertains to only cost related to seismic retrofit or the cost of the entire project.

These provisions will require further review and interpretation by the University representatives and/or Building Officials. The current cost estimate for this feasibility study suggests that with a full basement the project cost may approach or exceed this 25% of replacement cost value (estimated to be $4,000,000). Therefore, pending further review by the Building Official and further cost analyses, the project program might want to be limited to only a partial basement, Also if the cost of the previous relocation project must be included, than this 25% threshold is almost certain to be exceeded.

> 317.3.1 Existing state-owned buildings. [BSC] For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:
>
> 1. *Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit*

A further excerpt from of the California Existing Building Code indicates that seismic evaluation and design can either follow the procedures of the "California Building Code" or "ASCE 41 Seismic Evaluation and Retrofit of Existing Buildings" which is the prevailing and more detailed standard on which the California Existing Building Code is based.

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[BS] 301.1.4 Seismic evaluation and design procedures.

The seismic evaluation and design shall be based on the procedures specified in the California Building Code or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

In ASCE 41, table 4-6 includes a list of "Benchmark Buildings," and the paragraph 4.3, that precedes the table, specifies that buildings designed and built in accordance with the specified code and after the specified date, do not require seismic evaluation (and by inference) retrofit. Based on table ASCE 41 table 3-2, the Associate Student House structure is characterized as a "wood frame, wood shear panel structure (Types W1 and W2)" and since a retrofit was performed in 2001 well after the Benchmark Building seismic provisions of the 1976 UBC, no evaluation or retrofit should be required.

4.3 BENCHMARK BUILDINGS

A structural seismic evaluation using this standard need not be performed for buildings designed and constructed or evaluated in accordance with the benchmark provisions of this section. However, an evaluation of nonstructural elements in accordance with Section 16.17 is still required. Buildings that meet the provisions of this section satisfy BSE-1E for the designated Performance Level.

However, the following excerpt appears very direct and clearly requires that the "moved structure" fully complies with the current 2016 Building Code provisions for new structures. However, this seems to contradict the previous excerpts and again would require further evaluation and interpretation by University Building Officials.

SECTION 409 MOVED STRUCTURES

409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

If the cost of the project exceeds 25% of replacement cost per 317.3.1, discussed above, or the Building Official rules that the "Moved Structures" provision does not apply, then the following code provision will require a seismic evaluation by a structural engineer and a subsequent peer review. Furthermore, subsequent code provisions require that if the evaluation finds that the building does not meet the seismic performance objectives established through the peer review process, a seismic retrofit will then be required.

317.4 Evaluation required. *If the criteria in Section 317.3 apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with Section 317 to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by Section 317.5 is evaluated as satisfactory and the peer reviewer(s), when Method B of Section 321 is used, concur, then no structural retrofit is required.*

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If a seismic evaluation and possible retrofit is required the following excerpt requires an existing conditions survey and properties assessment.

319.2 Existing conditions. *The existing condition and properties of the entire structure must be determined and documented by thorough inspection of the structure and site, review of all available related construction documents, review of geotechnical and engineering geologic reports, and performance of necessary testing and investigation. Where samples from the existing structure are taken*

California Historical Building Code (Part 8) Provisions

The California Historical Building Code (CHBC) provides dispensation for alternative approaches that provide reasonable occupant safety and cost effective solutions in the interest of preservation of historic buildings. This is described in the following provisions.

8-101.2 Purpose. The purpose of the CHBC is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties (Chapter 8-2). The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties.

The following excerpt makes clear, as expected, that any new partial or full basement must comply with building code requirement for new buildings. The new basement will not have any influence or impact on the evaluation or strengthening design for the existing historic building above.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, provided nonhistorical additions shall conform to the requirements of the regular code. See Chapter 8-2.

The following excerpts indicate that "unsafe building" requirements of the CHBC are applicable to correct the unsafe condition but that full compliance with the regular code, beyond correction of the unsafe condition, is not required. While these code provisions do not explicitly refer to seismic safety, seismic safety is implicitly applicable.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified

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historical building or property into compliance with regular code.

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

Based on the following code provision we currently believe the gravity load carrying system in the building is sufficient and should not require significant, if any, structural strengthening.

8-705.1 Gravity loads. The capacity of the structure to resist gravity loads shall be evaluated and the structure strengthened as necessary. The evaluation shall include all parts of the load path. Where no distress is evident, and a complete load path is present, the structure may be assumed adequate by having withstood the test of time if anticipated dead and live loads will not exceed those historically present.

This excerpt clearly specified that the building should be evaluated for wind and seismic loads but provides some relief allowing for 75% (or a 25% reduction) of wind loads considered for new construction.

8-705.2 Wind and seismic loads. The ability of the structure to resist wind and seismic loads shall be evaluated. Wind loads shall be considered when appropriate, but need not exceed 75% of the wind loads prescribed by the regular code. The evaluation shall be based on the requirements of Section 8-706.

This provision (and by reference 8-701.2) attempts to provide some relief for seismic performance provided that a minimum standard is met, in which the risk of life-threatening injury due to partial or total structural collapse is low. It is this author's opinion that the idea that a partial or total collapse could be allowed without risk of life-threatening injury seems folly and therefore it is recommended that the prevention of either partial or total collapse be the minimum allowed standard.

8.705.2.1 Any unsafe conditions in the lateral-load-resisting system shall be corrected, or alternative resistance shall be provided. When strengthening is required, additional resistance shall be provided to meet the minimum requirements of the CHBC. The strengthening measures shall be selected with the intent of meeting the performance objectives set forth in Section 8-701.2. The evaluation of structural members and structural systems for seismic loads shall consider the inelastic performance of structural members and their ability to maintain load-carrying capacity during the seismic loadings prescribed by the regular code.

8-701.2 Intent. The intent of this chapter is to encourage the preservation of qualified historical buildings or structures while providing standards for a minimum level of building performance with the objective of preventing partial or total structural collapse such that the overall risk of life-threatening injury as a result

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of structural collapse is low.

Similar to the 25% reduction in wind forces that may be considered, and described above, the following excerpt allows a similar 25% reduction in seismic forces prescribed by the regular code.

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the R-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such R-values exist. Where such R-values do not exist, an appropriate R- value shall be rationally assigned considering the structural detailing of the members.

Exceptions:

1. The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.

STRUCTURAL CONSULTANT SCOPE OF WORK

At a minimum, a structural engineering consultant will be engaged by the project architect or directly by the University to provide engineering design services for the new foundation and basement structure at the receiving site. Since the building is being relocated, the consultant would be required to prepare global gravity and lateral analyses to determine the design loads for the foundation and basement walls in order support the existing building and to design the connections of the existing structure to the new supporting structure for full compliance with the current code 2016 CBC for both gravity and lateral loads.

The Structural engineer will need to coordinate the with the general/move contractor, architect, and the university to develop the best strategy for foundation and basement placement construction sequencing which will influence the project schedule and cost. This is explained in more detail under the Move scope of work.

Additionally, pending further review of the code provisions described previously (and additional excerpts provided in Appendix A) other structural engineering services might be required including: (1) testing and investigation of existing building structure and materials (2) development of a proposed seismic evaluation and strengthening approach for review by a Peer Reviewer and campus Building Officials (3) Seismic Evaluation (again for review by a structural Peer Review firm and University) (4) Seismic strengthening design and preparation of Construction Documents and (5) Construction Administration services.

It is this authors opinion, based on all the above described code excerpts, that further seismic evaluation and retrofit construction, above the new proposed basement/foundation level should not be required for this project. However, code provisions are complicated and many are contradictory and therefore

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the University and University Building Officials must review these relevant code sections and decide whether further seismic work should be considered.

STRUCTURE MOVER SCOPE OF WORK

Since moving structures is a unique specialty and is a temporary condition during the construction period only, this work is contractually part of the Contractors "Means and Methods of Construction." Therefore, the contractor responsible for moving the structure, engaged either directly by the University or by a general contractor, is expected to contract on a design-build basis to perform the following tasks.

Temporary Framing Structural Design

1. Contractor is expected to engage their own structural engineering firm to provide analysis and design of the temporary support framing and lateral bracing system required to lift, move, and support the existing building structure over the receiving site during any preparation of the new foundation and basement structure.

Prep Work

2. Coordinate, in concert with the University, the move strategy, schedule and logistics with University, City of San Jose, and public utility companies.
3. Provide all necessary protection to maintain primary existing improvements (sidewalks, roads, grass areas, etc.) that might be affected by bringing in materials to the existing site, the path of travel for the move itself and by bringing in and removing materials and equipment from receiving site. Features affected by the move that are outside of the mover's scope of work but are the responsibility of the University, City of San Jose, or public utilities includes (street lights, traffic lights, parking meters (if any), power and telephone lines, power poles (if any), etc.).
4. Remove siding at the foundation level and shrubs surrounding the building at the current site as required to erect the temporary support framing system to lift and move the structure.
5. Remove front and rear steps and handicap ramp. (Note that the rear porch should either be selectively repaired or replaced entirely based on observed rot damage. Extent of rot is unknown at this time).
6. Mover will load and transport all mover's materials and equipment to and from current building site and new receiving site.
7. Disconnect plumbing where temporary steel beams will be located. General Contractor will disconnect all utilities. (Air conditioner, heating, electrical, etc.) Reconnection of all utilities at the receiver site will also be by the General Contractors.
8. Disconnect any bolts or tie downs so building can be raised.

Scope of Work

9. Install steel beams, secondary purlins, cribbing and jacking system to raise building. (Create a platform under building).
10. Mover will raise the building approximately five feet.
11. A dolly system will be placed below the building to move building as per plan. Support framing system is not expected to encroach beyond the eave lines of the existing building.
12. Mover will place metal plates down over the lawn and sidewalks to move building across the current surrounding site to get to the street.

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New Receiving Site

13. General Contractor will construct a new basement foundations to receive the structure and deep pier foundation system (if recommended by the geotechnical engineering consultant) outside of the basement footprint.
14. Mover will construct a temporary platform at exterior grade level, over the new partial or full basement to move the building over the basement and to the new plan locations.
15. Mover will place the building over the new basement located as per plan and will keep the building a maximum height of five feet from bottom of floor joist to existing ground elevation.
16. General Contractor will construct new basement walls and new grade beams (or mat) beyond basement footprint.
17. Following placement of new supporting concrete walls and foundation, sill plate and pier system by General Contractor, mover will lower building and remove all equipment. It will be necessary to leave pockets in the foundation for the steel beams to be removed.
18. If building is moved in two pieces rather than in one piece, General Contractor will make structure connections and cosmetic repairs to reconnect the two pieces.

STRUCTURE MOVE ROUTE

The building will be moved forward (northwest), pivoted 90 degrees counter clockwise to the west, and then moved down the center of Paseo de San Carlos between palm trees to the campus entrance at 4th street. Temporary dismantling/deconstruction of the entry arch structure and reinstallation/restoration after the move would be performed as part of the General Contractor scope of work. After moving past the entrance, the building will be moved northwest down 4th Street, pivoted 90 degrees clockwise and moved northeast down East San Fernando Street, pivoted 90 degrees clockwise and moved down 10th Street, pivoted 90 degrees one last time and moved southwest on the campus to destination site off of 10th Street.

MOVING THE STRUCTURE

Depending on the logistics and cost, following coordination with University, City of San Jose and Utility companies, the building may be moved in either one or two sections. It is preferable to move the building as a single piece to reduce the time and cost of the move and to eliminate the need to reconnect two pieces. However, the logistics and obstructions along the move round may dictate moving the building in two pieces. An additional cost for moving in two pieces has been provided by the move contractor consulting for this feasibility study and is included in the cost estimate.
Similarly, the mover contractor consultant has provided an estimate of added cost if the building is moved over a 1200 sq ft. basement and a separate added price estimate if the building is moved over a full basement.

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Expected General Contractor/Mover Exclusions

The following items are known features along the move route, all or some of which will require work by the City of San Jose Public Works, San Jose State University facilities department, public utilities companies or other parties.

- All signal lights along the route on East San Fernando Street must be removed.
- Approaching 9th Street on East San Fernando Street to 10th street, cables and hot electric lines that cross East San Fernando Street must be removed and replaced.
- Major tree trimming on East San Fernando Street will be required.
- The corner of East San Fernando Street and 10th Street all cables, signals, and wires must be removed and replaced. Also, all obstructing trees must be cut back.
- Traveling southwest on 10th Street, all electric, phone and cable service lines to residences must be removed.

Utility crews should be present and on standby during the move should additional lines interfere with move, requiring additional removal (Electrical, telephone, cable, etc.). Additionally, a tree trimming crew should also be present during the move so that additional obstructing trees or branches adjacent the move route, at the entrance to the new site, or on the new site may be removed as needed.

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APPENDIX A
APPLICABLE CALIFORNIA BUILDING CODE EXCERPTS

The following relevant excerpts have been extracted from the 2016 California Building Code, Part 10 (Existing Building Code) and Part 8 (Historical Building Code). Excerpts relevant the immediate scope of work for the feasibility study are highlighted in blue, excerpts that have no relevance to this project have been removed, excerpts followed by "N/A" are non-applicable but have been retained to maintain the format and numbering system of the code (e.g. DSA, Concrete or masonry construction, etc.), and all remaining text may be relevant to the future project for the design and building relocations pending further evaluation of whether further engineering evaluation and upgrade work is required.

SECTION 301 ADMINISTRATION

301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic force- resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.

Exceptions:

1. Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.4. New structural members added as part of the alteration shall comply with the *California Building Code*. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3.

2. ***Existing state-owned structures. [BSC]*** *The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of Sections 317 through 322 as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, the California State University, or the Judicial Council. The provisions of Sections 317 through 322 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.*

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[BS] 301.1.4 Seismic evaluation and design procedures.

The seismic evaluation and design shall be based on the procedures specified in the *California Building Code* or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.

[BS] 301.1.4.1 Compliance with International Building Code-level seismic forces. Where compliance with the seismic design provisions of the *California Building Code* is required, the criteria shall be in accordance with one of the following:

1. *One-hundred percent of the values in the California Building Code. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω0 and Cd used for analysis in accordance with Chapter 16 of the California Building Code shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.*
2. *2. ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category.*

[BS] 301.1.4.2 Compliance with reduced International Building Code-level seismic Forces. Where seismic evaluation and design is permitted to meet reduced *California Building Code* seismic force levels, the criteria used shall be in accordance with one of the following:

1. The *California Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 301.1.4.1 of this code.
2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.

   2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Risk Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1. (N/A)

   2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Risk Category I or II are permitted to be based on the procedures specified in Chapter A2. (N/A)

   2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A3.

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   2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A4. (N/A)

   2.5. Seismic evaluation and design of concrete buildings assigned to Risk Category I, II or III are permitted to be based on the procedures specified in Chapter A5. (N/A)

3. ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category.

SECTION 317 EARTHQUAKE EVALUATION AND DESIGN FOR RETROFIT OF EXISTING BUILDINGS

317.1 Purpose.

317.1.1 Existing state-owned structures. [BSC] *The provisions of Sections 317 through 322 establish minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California and the California State University.*

The provisions of Sections 317 through 323 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.

317.2 Scope. *All modifications, structurally connected additions and/or repairs to existing structures or portions thereof shall, at a minimum, be designed and constructed to resist the effects of seismic ground motions as provided in this section. The structural system shall be evaluated by a registered design professional and, if not meeting or exceeding the minimum seismic design performance requirements of this section, shall be retrofitted in compliance with these requirements.*

Exception: *Those structures for which Section 317.3 determines that assessment is not required, or for which Section 317.4 determines that retrofit is not needed, then only the requirements of Section 317.11 apply.*

317.3 Applicability.

317.3.1 Existing state-owned buildings. [BSC] *For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:*

1. Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building. The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit

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2. *There are changes in risk category. (N/A)*

3. *The modification to the structural components increases the seismic forces in or strength requirements of any structural component of the existing structure by more than 10 percent cumulative since the original construction, unless the component has the capacity to resist the increased forces determined in accordance with Section 319. If the building's seismic base shear capacity has been increased since the original construction, the percent change in base shear may be calculated relative to the increased value. (N/A)*

317.4 Evaluation required. *If the criteria in Section 317.3 apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with Section 317 to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by Section 317.5 is evaluated as satisfactory and the peer reviewer(s), when Method B of Section 321 is used, concur, then no structural retrofit is required.*

317.5 Minimum seismic design performance levels for structural and nonstructural components. *Following the notations of ASCE 41, the seismic requirements for design and assessment are based upon a prescribed Earthquake Hazard Level (BSE-1N, BSE-2N, BSE-1E, BSE-R or BSE-C), a specified structural performance level (S-1 through S- 5) and a non-structural performance level (N-A through N-D). The minimum seismic performance criteria are given in Table 317.5 according to the Building Regulatory Authority and the Risk Category as determined in Chapter 16 of the California Building Code or by the regulatory authority. The building shall be evaluated in accordance with a Tier 3 Systematic Evaluation and Retrofit per ASCE 41 Chapter 6 for both the Level 1 and Level 2 performance levels, and the more restrictive requirements shall apply.*

TABLE 317.5 SEISMIC PERFORMANCE REQUIREMENTS BY BUILDING REGULATORY AUTHORITY AND RISK CATEGORY.

		PERFORMANCE CRITERIA	
Building Regulatory Authority	***Risk Category***	***Level 1***	***Level 2***
State-Owned [BSC]	*I, II, III*	*BSE-R, S-3, N-C*	*BSE-C, S-5, N-D*
State-Owned [BSC]	*IV*	*BSE-R, S-2, N-B*	*BSE-C, S-4, N-D*

1. ASCE 41 provides acceptance criteria (e.g. m, rotation) for Immediate Occupancy (S1), Life Safety (S3), and Collapse Prevention (S5), and specifies in Section 2.3.1.2.1 and 2.3.1.4.1 the method to interpolate values for S-2 and S-4, respectively. For nonstructural components, N-A corresponds to the Operational level, N-B to the Position Retention, and N-C to the Life Safety level, and N-D to the Not Considered.

2. Buildings evaluated and retrofitted to meet the requirements for a new building, Chapter 16 of the California Building Code, in accordance with the exception in Section 319.1, are deemed to meet the seismic performance requirements of this section.

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317.6 Retrofit required. *Where the evaluation indicates the building does not meet the required performance objectives of this section, the owner shall take appropriate steps to ensure that the building's structural system is retrofitted in accordance with the provisions of Section 317. Appropriate steps are either: 1) undertake the seismic retrofit as part of the additions, modifications and/or repairs of the structure; or 2) provide a plan, acceptable to the building official, to complete the seismic retrofit in a timely manner. The relocation or moving of an existing building is considered to be an alteration requiring filing of the plans and specifications approved by the building official.*

317.7 *The additions, modification or repair to any existing building are permitted to be prepared in accordance with the requirements for a new building, Chapter 16 of the California Building Code, applied to the entire building.*

317.8 *The requirements of ASCE 41 Chapter 14 are to apply to the use of seismic isolation or passive energy systems for the repair, modification or retrofit of an existing structure. When seismic isolation or passive energy dissipation is used, the project must have project peer review as prescribed in Section 322. (N/A)*

317.9 *Any construction required by this chapter shall include structural observation by the registered design professional who is responsible for the structural design in accordance with Section 319.10.*

317.10 *Where Method B of Section 321 is used or is required by Section 319.7, the proposed method of building evaluation and design procedures must be accepted by the building official prior to the commencement of the work.*

317.11 Voluntary lateral-force-resisting system modifications. *Where the exception of Section 317.2 applies, modifications of existing structural components and additions of new structural components that are initiated for the purpose of improving the seismic performance of an existing structure and that are not required by other portions of this chapter are permitted under the requirements of Section 319.12.*

SECTION 318 DEFINITIONS

318.1 *In addition to the definitions given in Section 202, for the purposes of Sections 317 through 323, certain terms are defined as follows:*

ADDITION *means any work that increases the floor or roof area or the volume of enclosed space of an existing building, and is structurally attached to the existing building by connections that are required for transmitting vertical or horizontal loads between the addition and the existing structure.*

ALTERATION *means any change within or to an existing building, which does not increase and may decrease the floor or roof area or the volume of enclosed space.*

BSE-C RESPONSE ACCELERATION PARAMETERS [BSC] *are the parameters (S_{XS} and S_{X1}) taken from 5-percent/ 50-year maximum direction spectral response acceleration curves or by a Site Specific*

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Response Spectrum developed in accordance with ASCE 41, Section 2.4.2.1.

BSE-R RESPONSE ACCELERATION PARAMETERS [BSC] *are the parameters (S_{XS} and S_{X1}) taken from 20-percent /50-year maximum direction spectral response acceleration curves or by a Site Specific Response Spectrum developed in accordance with ASCE 41, Section 2.4.2.1.*

BUILDING OFFICIAL *is that individual within the agency or organization charged with responsibility for compliance with the requirements of this code. For some agencies this person is termed the "enforcement agent."*

DESIGN *is the procedure that includes both the evaluation and retrofit design of an existing component, element or structural system, and design of a new component, element or structural system.*

ENFORCEMENT AGENCY *(Authority Having Jurisdiction in ASCE 41) is the agency or organization charged with responsibility for agency or organization compliance with the requirements of this code.*

METHOD A *refers to the procedures prescribed in Section 320.*

METHOD B *refers to the procedures allowed in Section 321.*

MODIFICATIONS. *For this chapter, modification is taken*

to include repairs to structures that have been damaged.

N-A, N-B, N-C, N-D *are seismic nonstructural component performance measures as defined in ASCE 41. N-A corresponds to the highest performance level, and N-C the lowest, while N-D is not considered.*

PEER REVIEW *refers to the procedures contained in Section 322.*

REPAIR *as used in this chapter means the design and construction work undertaken to restore or enhance the structural and nonstructural load-resisting system participating in the lateral response and stability of a structure that has experienced damage from earthquakes or other destructive events.*

S-1, S-2, S-3, S-4, S-5, S-6 *are seismic structural performance measures as defined in ASCE 41. S-1 corresponds to the highest performance level, and S-5 the lowest, while S-6 is not considered.*

SPECIFIC PROCEDURES *are the procedures listed in Section 319.1.1.*

STRUCTURAL REPAIRS *are any changes affecting existing or requiring new structural components primarily intended to correct the effects of damage, deterioration or impending or actual failure, regardless of cause.*

SECTION 319 SEISMIC CRITERIA SELECTION FOR EXISTING BUILDINGS

319.1 Basis for evaluation and design. *This section determines what technical approach is to be used for*

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the seismic evaluation and design for existing buildings. For those buildings or portions of buildings for which Section 317 requires action, the procedures and limitations for the evaluation of existing buildings and design of retrofit systems and/or repair thereof shall be implemented in accordance with this section.

One of the following approaches must be used:

1. *Method A of Section 320;*
2. *Method B of Section 321, with independent review of a peer reviewer as required in Section 322; or*
3. *For state-owned buildings only, the use of one of the specific procedures listed in Section 319.1.1. When Method B is chosen it must be approved by the*

building official, and, where applicable, by the peer reviewer. All referenced standards in ASCE 41 shall be replaced by referenced standards listed in Chapter 35 of the California Building Code.

319.1.1 Specific procedures. [BSC] *For state-owned buildings, the following specific procedures located in Appendix A may be used, without peer review, for their respective types of construction to comply with the seismic performance requirements for Risk Category I, II or III buildings:*

1. *Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings (Chapter A1). (N/A)*
2. *Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light Wood-Frame, Residential Buildings (Chapter A3).*
3. *Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms (Chapter A2). (N/A)*

319.1.2 *When a design project is begun under Method B the selection of the peer reviewer is subject to the approval of the building official. Following approval by the peer reviewer, the seismic criteria for the project and the planned evaluation provisions must be approved by the building official. The approved seismic criteria and evaluation provisions shall apply. Upon approval of the building official these are permitted to be modified.*

319.2 Existing conditions. *The existing condition and properties of the entire structure must be determined and documented by thorough inspection of the structure and site, review of all available related construction documents, review of geotechnical and engineering geologic reports, and performance of necessary testing and investigation. Where samples from the existing structure are taken or in situ tests are performed, they shall be selected and interpreted in a statistically appropriate manner to ensure that the properties determined and used in the evaluation or design are representative of the conditions and structural circumstances likely to be encountered in the structure as a whole. Adjacent*

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structures or site features that may affect the retrofit design shall be identified.

The entire load path of the seismic-force-resisting system shall be determined, documented and evaluated. The load path includes all the horizontal and vertical elements participating in the structural response: such as diaphragms, diaphragm chords, diaphragm collectors, vertical elements such as walls frames, braces; foundations and the connections between the components and elements of the load path. Repaired or retrofitted elements and the standards under which the work was constructed shall be identified.

Data collection in accordance with ASCE 41 Section 6.2 shall meet the following minimum levels:

1. ***[BSC]*** *For state-owned buildings, the requirements shall be met following the data collection requirements of ASCE 41, Section 6.2.*

Exceptions:

1. The number of samples for data collection may be adjusted with approval of the enforcement agency when it has been determined that adequate information has been obtained or additional information is required. [1 SEP]

Where original building plans and specifications are not available, "as-built" plans shall be prepared that depict the existing vertical and lateral structural systems, exterior elements, foundations and nonstructural systems in sufficient detail to complete the design.

Data collection shall be directed and observed by the project structural engineer or design professional in charge of the design.

319.3 Site geology and soil characteristics. *Soil profile shall be assigned in accordance with the requirements of Chapter 18 of the California Building Code.*

319.4 Risk categories. *For purposes of earthquake-resistant design, each structure shall be placed in one of the risk categories in accordance with the requirements of the California Building Code.*

319.5 Configuration requirements. *Each structure shall be designated structurally regular or irregular in accordance with the requirements of ASCE 41, Sections 7.3.1.1.1 to 7.3.1.1.4.*

319.6 General selection of the design method. *The requirements of Method B (Section 321) may be used for any existing building.*

319.7 Prescriptive selection of the design method. *The requirements of Method A (Section 320) or the specific procedures for applicable building types given in Section 319.1.1 are permitted to be used except under the following conditions, where the requirements of Method B (Section 321) must be used.*

319.7.2*When the building is classified as irregular in vertical or horizontal plan by application of ASCE 7, Section 12.3 and/or ASCE 41, Sections 7.3.1.1.1 to 7.3.1.1.4, unless the irregularity is demonstrated*

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not to affect the seismic performance of the building.

Exception: *If the retrofit design removes the configurational attributes that caused the building to be classified as irregular, then Section 319.7.2 does not apply and Method A may be used.*

319.7.3 *For any building that is assigned to Risk Category IV.*

319.7.4 *For any building using undefined or hybrid structural systems. (N/A)*

319.7.5 *When seismic isolation or energy dissipation systems are used in the retrofit or repair, either as part of the existing structure or as part of the modifications. (N/A)*

319.7.6 *When the height of the structure exceeds 240 feet (73 152 mm). (N/A)*

319.7.7 *When ASCE 41 is the evaluation standard and its application requires the use of nonlinear procedures. (N/A)*

319.8 Strength requirements. *All components of the lateral force-resisting system must have the strength to meet the acceptance criteria prescribed in ASCE 41, Chapter 7 or as prescribed in the applicable Appendix A chapter of this code if a specific procedure in Section 319.1.1 is used. Any component not having this strength shall have its capacity increased by modifying or supplementing its strength so that it exceeds the demand, or the demand is reduced to less than the existing strength by making other modifications to the structural system.*

Exception: *A component' s strength is permitted to be less than that required by the specified seismic load combinations if it can be demonstrated that the associated reduction in seismic performance of the component or its removal due to the failure does not result in a structural system that does not comply with the required performance objectives of Section 317. If this exception is taken for a component, then it cannot be considered part of the primary lateral-load- resisting system.*

319.9 Nonstructural component requirements. *Where the nonstructural performance levels required by Section 317, Table 317.5 are N-C or higher, mechanical, electrical and plumbing components shall comply with the provisions of ASCE 41, Chapter 13, Section 13.2.*

Exception: *Modifications to the procedures and criteria may be made subject to approval by the building official, and concurrence of the peer reviewer if applicable. All reports and correspondence shall also be forwarded to the building official.*

319.10 Structural observation, testing and inspection. *Structural, geotechnical and construction observation, testing and inspection as used in this section shall mean meeting the requirements of Chapter 17 of the California Building Code, with a minimum allowable level of investigation corresponding to seismic design category (SDC) D. At a minimum the project site will be visited by the responsible design professional to observe existing conditions and to review the construction work for general compliance with approved plans, specifications and applicable structural regulations. Such visits*

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shall occur at significant construction stages and at the completion of the structural retrofit. Structural observation shall be provided for all structures. The plan for testing and inspection shall be submitted to the building official for review and approval with the application for permit.

Additional requirements: *For public schools and community colleges, construction material testing, inspection and observation during construction shall also comply with Section 4-333 of the California Administrative Code. (N/A)*

319.10.1 *The registered design professional, or their designee, responsible for the structural design shall be retained to perform structural observation and independently report to the owner of observations and findings as they relate to adherence to the permitted plans and good workmanship.*

319.10.2 *At the conclusion of construction, the structural observer shall submit to the enforcement agency and the owner a final written statement that the required site visits have been made, that the work, to the best of the structural observers knowledge and belief, is or is not in general conformity to the approved plans and that the observed structural deficiencies have been resolved and/or listing those that, to the best of the structural observers knowledge and belief, have not been satisfactorily corrected.*

319.10.2.1 *The requirement for structural observation shall be noted and prominently displayed on the front sheet of the approved plans and incorporated into the general notes on the approved plans.*

319.10.2.2 Preconstruction meeting. *A preconstruction meeting is mandatory for all projects which require structural observation. The meeting shall include, but is not limited to, the registered design professional, structural observer, general constructor, affected subcontractors, the project inspector and a representative of the enforcement agency (designated alternates may attend if approved by the structural observer). The structural observer shall schedule and coordinate this meeting. The purpose of the meeting is to identify and clarify all essential structural components and connections that affect the lateral and vertical load systems and to review scheduling of the required observations for the project's structural system retrofit.*

319.11 Temporary actions. *When compatible with the building use, and the time phasing for both use and the retrofit program, temporary shoring or other structural support is permitted to be considered. Temporary bracing, shoring and prevention of falling hazards are permitted to be used to qualify for Exception 1 in Section 319.12 that allows inadequate capability in some existing components, as long as the required performance levels given in Section 317 can be provided by the permanent structure. The consideration for such temporary actions shall be noted in the design documents.*

319.12 Voluntary modifications to the lateral-force resisting system. *Where modifications of existing structural components and additions of new structural components are initiated for the purpose of improving the lateral-force resisting strength or stiffness of an existing structure and they are not required by other sections of this code, then they are permitted to be designed to meet an approved seismic performance criteria provided that an engineering analysis is submitted that follows:*

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1. *The capacity of existing structural components required to resist forces is not reduced, unless it can be demonstrated that reduced capacity meets the requirements of Section 319.8.*
2. *The lateral loading to or strength requirement of existing structural components is not increased beyond their capacity.*
3. *New structural components are detailed and connected to the existing structural components as required by the California Building Code.*
4. *New or relocated nonstructural components are detailed and connected to existing or new structural components as required by the California Building Code.*
5. *A dangerous condition is not created.*

Use of ASCE 41 Tier 1 and Tier 2 deficiency only retrofit procedures are pre-approved for use where Section 317.3 does not require an assessment.

319.12.1 State-owned buildings. [BSC] *Voluntary modifications to lateral force-resisting systems conducted in accordance with Appendix A of this code and the referenced standards of the California Building Code shall be permitted.*

319.12.1.1 Design documents. [BSC] *When Section 319.12 is the basis for structural modifications, the approved design documents must clearly state the scope of the seismic modifications and the accepted criteria for the design. The approved design documents must clearly have the phrase "The seismic requirements of the California Existing Building Code have not been checked to determine if these structural modifications meet the full seismic evaluation and strengthening requirements of Sections 317-322: the modifications proposed are to a different seismic performance standard than would be required in Section 319 if they were not voluntary as allowed in Section 319.12."*

SECTION 320 METHOD A

320.1 General. *The retrofit design shall employ the Linear Static or Linear Dynamic Procedures of ASCE 41, Section 7.4.1 or 7.4.2, and comply with the applicable general requirements of ASCE 41, Chapters 6 and 7. The earthquake hazard level and performance level given specified in Section 317.5 for the building's risk category shall be used. Structures shall be designed for seismic forces coming from any horizontal direction.*

SECTION 321 METHOD B

321.1 *The existing or retrofitted structure shall be demonstrated to have the capability to sustain the deformation response due to the specified earthquake ground motions and meet the seismic performance requirements of Section 317. The registered design professional shall provide an evaluation of the response of the existing structure in its modified configuration and condition to the ground motions*

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specified. If the building' s seismic performance is evaluated as satisfactory and the peer reviewer(s,) and the enforcement agency concurs, then no further structural modifications of the lateral load-resisting system are required.

When the evaluation indicates the building does not meet the required performance levels given in Table 317.5 for the risk category, then a retrofit and/or repair design shall be prepared that provides a structure that meets these performance objectives and reflects the appropriate consideration of existing conditions. Any approach to analysis and design is permitted to be used, provided that the approach shall be rational, shall be consistent with the established principals of mechanics and shall use the known performance characteristics of materials and assemblages under reversing loads typical of severe earthquake ground motions.

***Exception:** Further consideration of the structure's seismic performance may be waived by the enforcement agency if both the registered design professional and peer reviewer(s) conclude that the structural system can be expected to perform at least as well as required by the provisions of this section without completing an analysis of the structure's compliance with these requirements. A detailed report shall be submitted to the responsible building official that presents the reasons and basis for this conclusion. This report shall be prepared by the registered design professional. The peer reviewer(s) shall concur in this conclusion and affirm to it in writing. The building official shall either approve this decision or require completion of the indicated work specified in this section prior to approval.*

***321.2** The approach, models, analysis procedures, assumptions on material and system behavior and conclusions shall be peer reviewed in accordance with the requirements of Section 322 and accepted by the peer reviewer(s).*

Exceptions:

1. The enforcement agency may perform the work of peer review when qualified staff is available within the jurisdiction.

2. The enforcement agency may modify or waive the requirements for peer review when appropriate.

***321.2.1** The approach used in the development of the design shall be acceptable to the peer reviewer and the enforcement agency and shall be the same method as used in the evaluation of the building. Approaches that are specifically tailored to the type of building, construction materials and specific building characteristics may be used, if they are acceptable to the independent peer reviewer. The use of Method A allowed procedures may also be used under Method B.*

***321.2.2** Any method of analysis may be used, subject to acceptance by the peer reviewer(s) and the building official. The general requirements given in ASCE 41, Chapters 6 and 7, shall be complied with unless exceptions are accepted by the peer reviewer(s) and building official. Use of other than ASCE 41 procedures in Method B requires building official concurrence before implementation.*

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***321.2.3** Prior to implementation, the procedures, methods, material assumptions and acceptance/rejection criteria proposed by the registered design professional will be peer reviewed as provided in Section 322. Where nonlinear procedures are used, prior to any analysis, the representation of the seismic ground motion shall be reviewed and approved by the peer reviewer(s) and the building official.*

***321.2.4** The conclusions and design decisions shall be reviewed and accepted by the peer reviewer(s) and the building official.*

SECTION 322 - PEER REVIEW REQUIREMENTS

***322.1 General.** Independent peer review is an objective, technical review by knowledgeable reviewer(s) experienced in the structural design, analysis and performance issues involved. The reviewer(s) shall examine the available information on the condition of the building, the basic engineering concepts employed and the recommendations for action.*

***322.2 Timing of independent review.** The independent reviewer(s) shall be selected prior to initiation of substantial portions of the design and/or analysis work that is to be reviewed, and review shall start as soon as practical after Method B is adopted and sufficient information defining the project is available.*

***322.3 Qualifications and terms of employment.** The reviewer(s) shall be independent from the design and construction team.*

***322.3.1** The reviewer(s) shall have no other involvement in the project before, during or after the review, except in a review capacity.*

***322.3.2** The reviewer(s) shall be selected and paid by the owner and shall have technical expertise in the evaluation and retrofit of buildings similar to the one being reviewed, as determined by the enforcement agency.*

***322.3.3** The reviewer (or in the case of review teams, the chair) shall be a California-licensed structural engineer who is familiar with the technical issues and regulations governing the work to be reviewed.*

***Exception:** Other individuals with acceptable qualifications and experience may be a peer reviewer(s) with the approval of the building official.*

***322.3.4** The reviewer shall serve through completion of the project and shall not be terminated except for failure to perform the duties specified herein. Such termination shall be in writing with copies to the enforcement agency, owner and the registered design professional. When a reviewer is terminated or resigns, a qualified replacement shall be appointed within 10 working days, and the reviewer shall submit copies of all reports, notes and correspondence to the responsible building official, the owner and the registered design professional within 10 working days of such termination.*

***322.3.5** The peer reviewer shall have access in a timely manner to all documents, materials and*

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information deemed necessary by the peer reviewer to complete the peer review.

322.4 Scope of review. *Review activities shall include, where appropriate, available construction documents, design criteria and representative observations of the condition of the structure, all inspection and testing reports, including methods of sampling, analytical models and analyses prepared by the registered design professional and consultants, and the retrofit or repair design. Review shall include consideration of the proposed design approach, methods, materials, details and constructability.*

Changes observed during construction that affect the seismic-resisting system shall be reported to the reviewer in writing for review and recommendation.

322.5 Reports. *The reviewer(s) shall prepare a written report to the owner and building official that covers all aspects of the review performed, including conclusions reached by the reviewer(s). Reports shall be issued after the schematic phase, during design development, and at the completion of construction documents but prior to submittal of the project plans to the enforcement agency for plan review. When acceptable to the building official, the requirement for a report during a specific phase of the project development may be waived.*

Such reports should include, at the minimum, statements of the following:

1. Scope of engineering design peer review with limitations defined.

2. The status of the project documents at each review stage.

3. Ability of selected materials and framing systems to meet performance criteria with given loads and configuration.

4. Degree of structural system redundancy and the deformation compatibility among structural and nonstructural components.

5. Basic constructability of the retrofit or repair system.

6. Other recommendations that would be appropriate to the specific project.

7. Presentation of the conclusions of the reviewer identifying any areas that need further review, investigation and/or clarification.

8. Recommendations.

The last report prepared prior to submittal of permit documents to the enforcement agency shall include a statement indicating that the design is in conformance with the approved evaluation and design criteria.

322.6 Response and resolutions. *The registered design professional shall review the report from the reviewer(s) and shall develop corrective actions and responses as appropriate. Changes observed during*

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construction that affect the seismic-resisting system shall be reported to the reviewer in writing for review and recommendations. All reports, responses and resolutions prepared pursuant to this section shall be submitted to the responsible enforcement agency and the owner along with other plans, specifications and calculations required. If the reviewer resigns or is terminated prior to completion of the project, then the reviewer shall submit copies of all reports, notes and correspondence to the responsible building official, the owner and the registered design professional within 10 working days of such termination.

322.7 Resolution of conflicts. *When the conclusions and recommendations of the peer reviewer conflict with the registered design professional' s proposed design, the enforcement*

agency shall make the final determination of the requirement for the design.

SECTION 402 ADDITIONS

402.1. **General.** ***[BSC & HCD]*** Additions to any building or structure shall comply with the requirements of the *California Building Code* or *California Residential Code, as applicable*, for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are no less conforming to the provisions of the *California Building Code* or *California Residential Code*, *as applicable,* than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and area provisions of Chapter 5 of the *California Building Code or the height provisions of Chapter 3 of the California Residential Code, as applicable.*

Exception: [BSC] *For state-owned buildings, including those owned by the University of California and the California State University and the Judicial Council, the requirements of Sections 402.3 and 402.4 are replaced by the requirements of Sections 317 through 322.*

SECTION 403 ALTERATIONS

403.1 General. Except as provided by Section 401.2 or this section, alterations to any building or structure shall comply with the requirements of the *California Building Code* or *California Residential Code*, as applicable, for new construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of the *California Building Code* or *California Residential Code,* as applicable, than the existing building or structure was prior to the alteration.

SECTION 409 MOVED STRUCTURES

409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

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PART 8 CONTAINS ALTERNATIVE REGULATIONS FOR QUALIFIED HISTORICAL BUILDINGS

The *California Historical Building Code* (CHBC) is unique among state regulations. The authoring of the original CHBC required state agencies promulgating regulations for building construction to work in harmony with representatives of other design and construction disciplines. The result was a totally new approach to building codes for historical structures, which maintains currently acceptable life–safety standards.

These regulations are also unique in that they are performance oriented rather than prescriptive. The provisions of the CHBC are to be applied by the enforcing authority of every city, county, city and county, or state agency in permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use or continued use of a qualified historical building.

The authority for use of the CHBC is vested in Sections 18950 through 18961 of the Health and Safety Code. Section 18954 states, "The building department of every city or county shall apply the provisions of alternative building standards and building regulations adopted by the CHBC Board pursuant to Section 18959.5 in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, moving or continued use of an historical building or structure. A state agency shall apply the alternative building regulations adopted by the CHBC Board pursuant to Section 18959.5 in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, moving or continued use of an historical building or structure."

However, be aware that in order to use the CHBC, the structure under consideration must be qualified by being designated as an historical building or structure. Section 18955 states, "For the purposes of this part, a qualified historical building or structure is any structure or collection of structures, and their associated sites deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This shall include structures on existing or future national, state or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories of historical or architecturally significant sites, places, historic districts or landmarks."

The regulations of the CHBC have the same authority as state law and are to be considered as such. Liability is the same as for prevailing law.

The intent of the CHBC is to save California's architectural heritage by recognizing the unique construction problems inherent in historical buildings and by providing a code to deal with these problems.

The background of the *California Historical Building Code* can be traced to December 1973, when the State Department of Parks and Recreation published the California History Plan, Volume I, in which

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Recommendation No. 11 was proposed by the then California Landmarks Advisory Committee (later to become The State Historical Resources Commission). This proposal expressed a need for a new building code to meet the intent of protecting the public health and safety and also retain "enough flexibility to allow restoration of a Historic feature while still retaining its Historic integrity." No. 11 of this History Plan supported this need by stating that ". . . restoration . . . is frequently made difficult by unnecessarily rigid interpretation of building . . . codes."

In March of 1974, the Landmarks Committee by resolution recommended that the Director of the State Department of Parks and Recreation and the State Architect initiate a study to develop this needed code. These two officials accepted this concept and jointly called a statewide meeting in Sacramento on May 14th of that year. Attending were representatives from both the public and private sectors, such as members of the building industry, design professions, local and state building officials, and others interested in this problem.

Out of this open conference, a steering committee was formed to explore in depth the ways and means of implementing the new historical building code concept. This ad hoc committee was chaired by a representative from the California Council, American Institute of Architects and composed of a comprehensive cross section of the professional organizations and government agencies concerned with design and code enforcement.

Meetings began late in 1974 and continued into early 1975. By April of that year, a legislative subcommittee of the ad hoc group drafted a sample bill for the proposed code and requested that it be carried by Senator James R. Mills, President Pro Tempore of the Senate. After further development and refinement, the enacting legislation to create the authority for the code and an advisory board to prepare regulations to implement it (SB 927, Mills) was supported by both the legislature and the public. It was signed by the governor in September 1975, and became effective January 1, 1976.

The members of the advisory board, which were required by law to include local and state building officials, individuals from the building industry and design professions, as well as representatives from city and county governments, were appointed and held their first session in Sacramento, February 24, 1976. This Board's duties included the preparation of code regulations and the review of specific historic building cases, when officially requested by governing bodies.

Several of the Board's members were a part of the original ad hoc steering committee and thus provided a continuity and smooth transition from the inception of the code's philosophy to its pragmatic implementation in these performance–oriented regulations.

The first comprehensive regulations were codified in August and October 1979, after years of careful deliberation. Those regulations allowed all jurisdictions to utilize them at their discretion in replacing or modifying details of prevailing prescriptive codes.

Changes made in law in 1984 and 1991, and to the code, make the application of the *California Historical Building Code* statutes and regulations applicable for all agencies and at the discretion of the owner for

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local jurisdictions when dealing with qualified historical buildings.

These current performance regulations were adopted by the Board on June 23, 1998, and approved by the California Building Standards Commission on December 12, 2013.

CHAPTER 8-1 ADMINISTRATION

Note: The *California Historical Building Code,* Part 8 of Title 24, governs for all qualified historical buildings or properties in the State of California.

SECTION 8-101 TITLE, PURPOSE AND INTENT

8-101.1 Title. These regulations shall be known as the *California Historical Building Code* and will be referred to herein as "the CHBC."

8-101.2 Purpose. The purpose of the CHBC is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties (Chapter 8-2). The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties.

8-101.3 Intent. The intent of the CHBC is to facilitate the preservation and continuing use of qualified historical buildings or properties while providing reasonable safety for the building occupants and access for persons with disabilities.

SECTION 8-102 APPLICATION

8-102.1 Application. The CHBC is applicable to all issues regarding code compliance for qualified historical buildings or properties. The CHBC may be used in conjunction with the regular code to provide solutions to facilitate the preservation of qualified historical buildings or properties. The CHBC shall be used by any agency with jurisdiction and whenever compliance with the code is required for qualified historical buildings or properties.

1. The state or local enforcing agency shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstruction, rehabilitation, relocation or continued use of a qualified historical building or property when so elected by the private property owner.

2. **State agencies.** All state agencies shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, safety, relocation, reconstruction or continued use of qualified historical buildings or properties.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, provided nonhistorical additions shall conform to the requirements of the regular code. See Chapter 8-2.

8-102.1.2 Relocation. Relocated qualified historical buildings or properties shall be sited to comply with the regular code or with the solutions listed in the CHBC. Nonhistorical new construction related to relocation shall comply with the regular code. Reconstruction and restoration related to relocation is permitted to comply with the provisions in the CHBC.

8-102.1.3 Change of occupancy. For change of use or occupancy, see Chapter 8-3, Use and Occupancy.

8-102.1.4 Continued use. Qualified historical buildings or properties may have their existing use or occupancy continued if such use or occupancy conformed to the code or to the standards of construction in effect at the time of construction, and such use or occupancy does not constitute a distinct hazard to life safety as defined in the CHBC.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code.

8-102.1.6 Additional work. Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC.

SECTION 8-103 ORGANIZATION AND ENFORCEMENT

8-103.1 Authority. The state or local enforcing agency, pursuant to authority provided under Section 18954 of the Health and Safety Code, shall administer and enforce the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstruction, rehabilitation, relocation or continued use of a qualified historical building or property.

8-103.2 State enforcement. All state agencies pursuant to authority provided under Section 18954 and Section 18961 of the Health and Safety Code shall administer and enforce the CHBC with respect to qualified historical buildings or properties under their respective jurisdiction.

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8-103.3 Liability. Prevailing law regarding immunity of building officials is unaffected by the use and enforcement of the CHBC.

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SECTION 8-104 REVIEW AND APPEALS

8-104.1 State Historical Building Safety Board (SHBSB).

In order to provide for interpretation of the provisions of the CHBC and to hear appeals, the SHBSB shall act as an appeal and review body to state and local agencies or any affected party.

8-104.2 SHBSB review. When a proposed design, material or method of construction is being considered by the enforcing agency, the agency chief, the building official or the local board of appeals may file a written request for opinion to the SHBSB for its consideration, advice or findings. In considering such request, the SHBSB may seek the advice of other appropriate private or public boards, individuals, or state or local agencies. The SHBSB shall, after considering all of the facts presented, including any recommendation of other appropriate boards, agencies or other parties, determine if, for the purpose intended, the proposal is reasonably equivalent to that allowed by these regulations in proposed design, material or method of construction, and it shall transmit such findings and its decision to the enforcing agency for its application. The Board may recover the costs of such reviews and shall report the decision in printed form, copied to the California Building Standards Commission.

8-104.2.1 State agencies. All state agencies with ownership of, or that act on behalf of state agency owners of, qualified historical buildings or properties, shall consult and obtain SHBSB review prior to taking action or making decisions or appeals that affect qualified historical buildings or properties, per Section 18961 of the Health and Safety Code.

8-104.2.2 Imminent threat. Where an emergency is declared and a qualified historical building or property is declared an imminent threat to life and safety, the state agency assessing such a threat shall consult with the SHBSB before any demolition is undertaken, per Section 18961 of the Health and Safety Code.

8-104.3 SHBC appeals. If any local agency administering and enforcing the CHBC or any person adversely affected by any regulation, rule, omission, interpretation, decision or practice of the agency enforcing the CHBC wishes to appeal the issue for resolution to the SHBSB, either of these parties may appeal directly to the Board. The Board may accept the

appeal only if it determines that issues involved are of statewide significance. The Board may recover the costs of such reviews and shall make available copies of decisions in printed form at cost, copied to the California Building Standards Commission.

8-104.4 Local agency fees. Local agencies, when actively involved in the appeal, may also charge affected persons reasonable fees not to exceed the cost of obtaining reviews and appeals from the Board.

SECTION 8-105 CONSTRUCTION METHODS AND MATERIALS

8-105.1 Repairs. Repairs to any portion of a qualified historical building or property may be made in-kind with historical materials and the use of original or existing historical methods of construction,

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subject to conditions of the CHBC. (See Chapter 8-8.)

8-105.2 Solutions to the *California Historical Building Code*. Solutions provided in the CHBC, or any other acceptable regulation or methodology of design or construction and used in whole or in part, with the regular code, or with any combination of the regular code and the CHBC, shall be allowed. The CHBC does not preclude the use of any proposed alternative or method of design or construction not specifically prescribed or otherwise allowed by these regulations. Any alternative may be submitted for evaluation to the appropriate enforcing agency for review and acceptance. The enforcing agency may request that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding such solutions. Any alternative offered in lieu of that prescribed or allowed in the CHBC shall be reasonably equivalent in quality, strength, effectiveness, durability and safety to that of the CHBC.

SECTION 8-106 SHBSB RULINGS

8-106.1 General. Rulings of the SHBSB (i.e., formal appeals, case decisions, code interpretations and administrative resolutions, etc.) that are issues of statewide application are required to be submitted to the California Building Standards Commission in printed form. These rulings may be used to provide guidance for similar cases or issues.

SECTION 8-201 DEFINITIONS

For the purpose of the CHBC, certain terms and phrases, words and their derivatives shall be construed as specified in this chapter. Additional definitions and/or terms may appear in the various other chapters relative to terms or phrases primarily applicable thereto. Any reference to "authority having jurisdiction" does not necessarily preclude the appellate process of Section 8-104.3.

ADDITION. A nonhistorical extension or increase in floor area or height of a building or property.

ALTERATION. A modification to a qualified historical building or property that affects the usability of the building or property, or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historical restoration, changes or rearrangement of the structural parts or elements, and changes or rearrangements in the plan configuration of walls and full-height partitions.

BUILDING STANDARD. Any guideline, regulation or code that may be applied to a qualified historical building or property.

CHARACTER-DEFINING FEATURE. Those visual aspects and physical elements that comprise the appearance of a historical building or property, and that are significant to its historical, architectural and cultural values, including the overall shape of the historical building or property, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment.

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CULTURAL RESOURCE. Building, site, property, object or district evaluated as having significance in prehistory or history.

DISTINCT HAZARD. Any clear and evident condition that exists as an immediate danger to the safety of the occupants or public right of way. Conditions that do not meet the requirements of current regular codes and ordinances do *not*, of themselves, constitute a distinct hazard. Section 8-104.3, SHBC appeals, remains applicable.

ENFORCING AGENCY, Authority Having Jurisdiction, Local Agency with Jurisdiction. An entity with the responsibility for regulating, enforcing, reviewing or otherwise that exerts control of or administration over the process of granting permits, approvals, decisions, variances, appeals for qualified historical buildings or properties.

EXIT LADDER DEVICE. An exit ladder device is a permanently installed, fixed, folding, retractable or hinged ladder intended for use as a means of emergency egress from areas of the second or third stories. Unless approved specifically for a longer length, the ladder shall be limited to 25 feet (7620 mm) in length. Exit ladders are permitted where the area served by the ladder has an occupant load less than 10 persons.

FIRE HAZARD. Any condition which increases or may contribute to an increase in the hazard or menace of fire to a greater degree than customarily recognized by the authority having jurisdiction, or any condition or act which could obstruct, delay, hinder or interfere with the operations of firefighting personnel or the egress of occupants in the event of fire. Section 8-104.3, SHBC appeals, remains applicable.

HISTORICAL FABRIC OR MATERIALS. Original and later-added historically significant construction materials, architectural finishes or elements in a particular pattern or configuration which form a qualified historical property, as determined by the authority having jurisdiction.

HISTORICAL SIGNIFICANCE. Importance for which a property has been evaluated and found to be historical, as determined by the authority having jurisdiction.

IMMINENT THREAT. Any condition within or affecting a qualified historical building or property which, in the opinion of the authority having jurisdiction, would qualify a building or property as dangerous to the extent that the life, health, property or safety of the public, its occupants or those performing necessary repair, stabilization or shoring work are in immediate peril due to conditions affecting the building or property. Potential hazards to persons using, or improvements within, the right-of-way may not be construed to be "imminent threats" solely for that reason if the hazard can be mitigated by shoring, stabilization, barricades or temporary fences.

INTEGRITY. Authenticity of a building or property's historical identity, evidenced by the survival of physical characteristics that existed during the property's historical or prehistorical period of significance.

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LIFE-SAFETY EVALUATION. An evaluation of the life-safety hazards of a qualified historical building or property based on procedures similar to those contained in NFPA 909, *Standard for the Protection of Cultural Resources, Appendix B, Fire Risk Assessment in Heritage Premises.*

LIFE SAFETY HAZARD. See Distinct Hazard.

PERIOD OF SIGNIFICANCE. The period of time when a qualified historical building or property was associated with important events, activities or persons, or attained the characteristics for its listing or registration.

PRESERVATION. The act or process of applying measures necessary to sustain the existing form, integrity and materials of a qualified historical building or property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-related work to make properties functional is appropriate within a preservation project.

QUALIFIED HISTORICAL BUILDING OR PROPERTY. As defined in Health and Safety Code Section 18955 as "Qualified Historical Building or Property." Any building, site, object, place, location, district or collection of structures, and their associated sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state or federal governmental jurisdiction. This shall include historical buildings or properties on, or determined eligible for, national, state or local historical registers or inventories, such as the National Register of Historic Places, California Register of Historical Resources, State Historical Landmarks, State Points of Historical Interest, and city or county registers, inventories or surveys of historical or architecturally significant sites, places or landmarks.

RECONSTRUCTION. The act or process of depicting, by means of new construction, the form, features and detailing of a nonsurviving site, landscape, building, property or object for the purpose of replicating its appearance at a specific period of time.

REGULAR CODE. The adopted regulations that govern the design and construction or alteration of nonhistorical buildings and properties within the jurisdiction of the enforcing agency.

REHABILITATION. The act or process of making possible a compatible use for qualified historical building or property through repair, alterations and additions while preserving those portions or features which convey its qualified historical, cultural or architectural values.

RELOCATION. The act or process of moving any qualified historical building or property or a portion of a qualified historical building or property to a new site, or a different location on the same site.

REPAIR. Renewal, reconstruction or renovation of any portion of an existing property, site or building for the purpose of its continued use.

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RESTORATION. The act or process of accurately depicting the form, features and character of a qualified building or property as it appeared at a particular period of time by the means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code required work to make properties functional is appropriate within a restoration project.

STRUCTURE. That which is built or constructed, an edifice or a building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

TREATMENT. An act of work to carry out preservation, restoration, stabilization, rehabilitation or reconstruction.

SECTION 8-301 PURPOSE AND SCOPE

8-301.1 Purpose. The purpose of the CHBC is to provide regulations for the determination of occupancy classifications and conditions of use for qualified historical buildings or properties.

8-301.2 Scope. Every qualified historical building or property for which a permit or approval has been requested shall be classified prior to permit issuance according to its use or the character of its occupancy in accordance with the regular code and applicable provisions of this chapter.

SECTION 8-302 GENERAL

8-302.1 Existing use. The use or character of occupancy of a qualified historical building or property, or portion thereof, shall be permitted to continue in use regardless of any period of time in which it may have remained unoccupied or in other uses, provided such building or property otherwise conforms to all applicable requirements of the CHBC.

8-302.2 Change in occupancy. The use or character of the occupancy of a qualified historical building or property may be changed from or returned to its historical use or character, provided the qualified historical building or property conforms to the requirements applicable to the new use or character of occupancy as set forth in the CHBC. Such change in occupancy shall not mandate conformance with new construction requirements as set forth in regular code.

8-302.3 Occupancy separations. Required occupancy separations of more than one hour may be reduced to one-hour fire-resistive construction with all openings protected by not less than three-fourths-hour fire-resistive assemblies of the self-closing or automatic-closing type when the building is provided with an automatic sprinkler system throughout the entire building in accordance with Section 8-410.2. Doors equipped with automatic-closing devices shall be of a type which will function upon activation of a device which responds to products of combustion other than heat.

Required occupancy separations of one hour may be omitted when the building is provided with an automatic sprinkler system throughout.

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8-302.4 Maximum floor area. Regardless of the use or character of occupancy, the area of a one-story qualified historical building or property may have, but shall not exceed, a floor area of 15,000 square feet (1393.5 m^2) unless such an increase is otherwise permitted in regular code. Multistory qualified historical buildings (including basements and cellars) shall be in accordance with regular code requirements.

Exception: Historical buildings may be unlimited in floor area without fire-resistive area separation walls:

1. When provided with an automatic sprinkler, or

2. Residential occupancies of two stories or less when provided with a complete fire alarm and annunciation system and where the exiting system conforms to regular code.

8-302.5 Maximum height. The maximum height and number of stories of a qualified historical building or property shall not be limited because of construction type, provided such height or number of stories does not exceed that of its historical design.

8-302.5.1 High-rise buildings. Occupancies B, F-1, F-2 or S in high-rise buildings with floors located more than 75 feet above the lowest floor level having building access may be permitted with only the stories over 75 feet provided with an automatic fire sprinkler system if:

1. The building construction type and the exits conform to regular code, and

2. A complete building fire alarm and annunciation system is installed, and

3. A fire barrier is provided between the sprinklered and nonsprinklered floors.

8-302.6 Fire-resistive construction. See Chapter 8-4.

8-302.7 Light and ventilation. Existing provisions for light and ventilation which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain. See Section 8303.6 for residential requirements. See Section 8-503 for Escape or Rescue Windows and Doors.

SECTION 8-303 RESIDENTIAL OCCUPANCIES

8-303.1 Purpose. The purpose of this section is to provide regulations for those buildings designated as qualified historical buildings or properties and classified as residential occuancies. The CHBC requires enforcing agencies to accept any reasonably equivalent alternative to the regular code when dealing with qualified historical buildings and properties.

8-303.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings and properties while maintaining a reasonable degree of protection of life, health and safety for the occupants.

8-303.3 Application and scope. The provisions of this section shall apply to all qualified historical

buildings used for human habitation. Those dwelling units intended only for display, or public use with no residential use involved, need not comply with the requirements of this section.

8-303.4 Fire escapes. See Chapter 8-5.

8-303.5 Room dimensions. Rooms used for sleeping purposes may contain a minimum of 50 square feet (4.6 m^2) floor area, provided there is maintained an average ceiling height of 7 feet (2134 mm). Other habitable rooms need only be of adequate size to be functional for the purpose intended.

8-303.6 Light and ventilation. Windows in habitable rooms shall have an area of 6 percent of the floor area, or 6 square feet (0.56 m^2), whichever is greater. Windows in sleeping rooms shall be openable (see Section 8-503). Residential occupancies need not be provided with electrical lighting.

8-303.7 Alteration and repair. The alteration and repair of qualified historical buildings or properties may permit the replacement, retention and extension of original materials and the continued use of original methods of construction, provided a life-safety hazard is not created or continued. Alterations and repairs shall be consistent with the CHBC. The amount of alterations and repairs is not limited, provided there is no nonhistorical increase in floor area, volume or size of the building or property.

8-303.8 Exiting. See Chapter 8-5.

SECTION 8-401 PURPOSE, INTENT AND SCOPE

8-401.1 Purpose. The purpose of this chapter is to provide regulations for fire protection of qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-401.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings or properties while maintaining a reasonable degree of fire protection based primarily on the life safety of the occupants and firefighting personnel.

8-401.3 Scope. This chapter shall apply when required by the provisions of Section 8-102.

SECTION 8-402 FIRE-RESISTIVE CONSTRUCTION

8-402.1 Exterior wall construction. The fire-resistance requirement for existing exterior walls and existing opening protection may be satisfied when an automatic sprinkler system designed for exposure protection is installed per the CHBC. The automatic sprinklers may be installed on the exterior with at least one sprinkler located over each opening required to be protected. Additional sprinklers shall also be distributed along combustible walls under the roof lines that do not meet the fire-resistive requirement due to relationship to property lines as required by regular code. Such sprinkler systems may be connected to the domestic water supply on the supply-main side of the building shut-off valve. A shutoff valve may be installed for the sprinkler system, provided it is locked in an open position.

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8-402.2 One-hour construction. Upgrading an existing qualified historical building or property to one-hour fire-resistive construction and one-hour fire-resistive corridors shall not be required regardless of construction or occupancy when one of the following is provided:

1. An automatic sprinkler system throughout. See Section 8-410 for automatic sprinkler systems. SEP

2. An approved life-safety evaluation. SEP

3. Other alternative measures as approved by the enforcing agency. SEP

8-402.3 Openings in fire-rated systems. Historical glazing materials and solid wood unrated doors in interior walls required to have one-hour fire rating may be approved when operable windows and doors are provided with appropriate smoke seals and when the area affected is provided with an automatic sprinkler system. See Section 8-410 for automatic sprinkler systems.

SECTION 8-403 INTERIOR FINISH MATERIALS

New non-historical interior wall and ceiling finishes shall conform to the provisions of the regular code. Existing nonconforming materials used in interior walls and finishes may be surfaced with an approved fire-retardant to increase the rating of the natural finish to within reasonable proximity of the required rating. For wood lath and plaster walls, see Section 8-404.

Exception: When an automatic sprinkler system is provided throughout the building, existing finishes shall be approved.

SECTION 8-404 WOOD LATH AND PLASTER

Wood lath and plaster walls may be considered in accordance with codes, standards and listings published prior to 1943 whereby a wood stud wall assembly with gypsum or lime plaster on hand split or sawn wooden lath obtains a one-half hour fire-resistive rating. This rating may be increased for interior walls to as much as one hour by filling the wall with mineral fiber or glass fiber.

SECTION 8-405 OCCUPANCY SEPARATION

See Chapter 8-3.

SECTION 8-406 MAXIMUM FLOOR AREA

See Chapter 8-3.

SECTION 8-407 VERTICAL SHAFTS

Vertical shafts need not be enclosed when such shafts are blocked at every floor level by the installation of not less than 2 full inches (51 mm) of solid wood or equivalent construction to prevent the initial

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passage of smoke and flame. Automatic sprinkler systems or other solutions may be considered on a case-by-case basis, in lieu of enclosure of vertical shafts and stairwells.

SECTION 8-408 ROOF COVERING

Existing or original roofing materials may be repaired or reconstructed subject to the following requirements:

1. The original or historical roofing system shall be detailed or modified as necessary in order to be capable

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of providing shelter while preserving the historical materials and appearance of the roof.

2. Wooden roof materials may be utilized where fire resistance is required, provided they are treated with fire- retardant treatments to achieve a Class “B” roof covering rating. Wood roofing in state designated Urban Wildland and High Fire Zones shall be permitted when installed in class “A” assemblies.

3. Jurisdictions that prohibit wood roofing materials for application as roof coverings and roof assemblies shall submit documentation for the adoption. Express Terms, statement of reasons and minutes of the action by the adopting authority Health and Safety Code, Section 18959(f).

SECTION 8-409 FIRE ALARM SYSTEMS

Every qualified historical building or property shall be provided with fire alarm systems as required for the use or occupancy by the regular code or other approved alternative.

SECTION 8-410 AUTOMATIC SPRINKLER SYSTEMS

8-410.1 Every qualified historical building or property which cannot be made to conform to the construction requirements specified in the regular code for the occupancy or use, and which constitutes a distinct fire hazard (for definition of “distinct hazard,” see Chapter 8-2), shall be deemed to be in compliance if provided with an automatic sprinkler system or a life-safety system or other technologies as approved by the enforcing agency. (“Automatic” is defined in the regular code. Sprinkler System is defined in this section.)

8-410.2 When required by the CHBC, an automatic sprinkler system is defined by the following standards as adopted by the State Fire Marshal (for nonhazardous occupancies).

8-410.3 Automatic sprinkler systems shall not be used to substitute for or act as an alternate to the required number of exits from any facility. (See Chapter 8-5 for exiting requirements.)

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8-410.4 An automatic sprinkler system shall be provided in all detention facilities.

SECTION 8-411 OTHER TECHNOLOGIES

Fire alarm systems, smoke and heat detection systems, occupant notification and annunciation systems, smoke control systems and fire modeling, timed egress analysis and modeling, as well as other engineering methods and technologies may be accepted by the enforcing agency to address areas of nonconformance.

SECTION 8-412 HIGH-RISE BUILDINGS

Qualified historical buildings having floors for human occupancy located more than 75 feet above the lowest floor level having building access shall conform to the provisions of the regular code for existing high-rise buildings as amended by the CHBC.

1. Buildings of four stories or less: NFPA 13R.

2. For floors above the fourth, NFPA 13.

3. Buildings with floors above 75 feet, NFPA 13.

4. When the building is free standing or with property line separation, two floors and 1500 sf per floor or less, NFPA 13D.

5. For exterior wall and opening protection. As required by this chapter.

Exception: When the automatic sprinkler systems are used to reach compliance using this code, in three or more occasions, NFPA 13D standard shall be increased to NFPA 13R standard, or NFPA 13R standard shall be increased to a NFPA 13 standard.

SECTION 8-501 PURPOSE, INTENT AND SCOPE

8-501.1 Purpose. The purpose of this chapter is to establish minimum means of egress regulations for qualified historical buildings or properties. The CHBC requires enforcing agencies to accept reasonably equivalent alternatives to the means of egress requirements in the regular code.

8-501.2 Intent. The intent of these regulations is to provide an adequate means of egress.

8-501.3 Scope. Every qualified historical building or portion thereof shall be provided with exits as required by the CHBC when required by the provisions of Section 8-102.

SECTION 8-502 GENERAL

8-502.1 General. The enforcing agency shall grant reasonable exceptions to the specific provisions of

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applicable egress regulations where such exceptions will not adversely affect life safety.

8-502.2. Existing door openings and corridor widths of less than dimensions required by regular code shall be permitted where there is sufficient width and height for the occupants to pass through the opening or traverse the exit.

8-502.3 Stairs. Existing stairs having risers and treads or width at variance with the regular code are allowed if determined by the enforcing agency to not constitute a distinct hazard. Handrails with nonconforming grip size or extensions are allowed if determined by the enforcing agency to not constitute a distinct hazard.

8-502.4 Main entry doors. The front or main entry doors need not be rehung to swing in the direction of exit travel, provided other means or conditions of exiting, as necessary to serve the total occupant load, are provided.

8-502.5 Existing fire escapes. Existing previously approved fire escapes and fire escape ladders shall be acceptable as one of the required means of egress, provided they extend to the ground and are easily negotiated, adequately signed and in good working order. Access shall be by an opening having a minimum width of 29 inches (737 mm) when open with a sill no more than 30 inches (762 mm) above the adjacent floor, landing or approved step.

8-502.6 New fire escapes and fire escape ladders. New fire escapes and fire escape ladders which comply with this section shall be acceptable as one of the required means of egress. New fire escapes and new fire escape ladders shall comply with the following:

1. Access from a corridor shall not be through an intervening room.

2. All openings within 10 feet (3048 mm) shall be protected by three-fourths-hour fire assemblies. When

located within a recess or vestibule, adjacent enclosure walls shall be of not less than one-hour fire-resistive construction.

3. Egress from the building shall be by a clear opening having a minimum dimension of not less than 29 inches (737 mm). Such openings shall be openable from the inside without the use of a key or special knowledge or effort. The sill of an opening giving access shall not be more than 30 inches (737 mm) above the floor, step or landing of the building or balcony.

4. Fire escape stairways and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.79 kN/m^2) and shall be provided with a top and intermediate handrail on each side. The pitch of the stairway shall not exceed 72 degrees with a minimum width of 18 inches (457 mm). Treads shall not be less than 4 inches (102 mm) in width, and the rise between treads shall not exceed 10 inches (254 mm). All stair and balcony railings shall support a horizontal force of not less than 50 pounds per lineal foot (729.5 N/m^2) of railing.

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5. Balconies shall not be less than 44 inches (1118 mm) in width with no floor opening other than the stairway opening greater than $^5/_8$ inch (15.9 mm) in width. Stairway openings in such balconies shall not be less than 22 inches by 44 inches (559 by 1118 mm). The balustrade of each balcony shall not be less than 36 inches (914 mm) high with not more than 9 inches (287 mm) between balusters.

6. Fire escapes shall extend to the roof or provide an approved gooseneck ladder between the top floor landing and the roof when serving buildings four or more stories in height having roofs with less than 4 units vertical in 12 units horizontal (33.3 percent slope). Fire escape ladders shall be designed and connected to the building to withstand a horizontal force of 100 pounds (445 N) placed anywhere on the rung. All ladders shall be at least 15 inches (381 mm) wide, located within 12 inches (305 mm) of the building. Ladder rungs shall be $^3/_4$ inch (19.1 mm) in diameter and shall be located 12 inches (305 mm) on center. Openings for roof access ladders through cornices and similar projections shall have minimum dimensions of 30 inches by 33 inches (762 by 838 mm).

The length of fire escapes and exit ladder devices shall be limited to that approved by the building official based on products listed by a recognized testing laboratory.

7. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escapes shall extend to the ground or be provided with counterbalanced stairs reaching to the ground.

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8. Fire escapes shall not take the place of stairways required by the codes under which the building was constructed.

9. Fire escapes shall be kept clear and unobstructed at all times and maintained in good working order.

SECTION 8-503 ESCAPE OR RESCUE WINDOWS AND DOORS

Basements in dwelling units and every sleeping room below the fourth floor shall have at least one openable window or door approved for emergency escape which shall open directly into a public street, public way, yard or exit court. Escape or rescue windows or doors shall have a minimum clear area of 3.3 square feet (0.31 m^2) and a minimum width or height dimension of 18 inches (457 mm) and be operable from the inside to provide a full, clear opening without the use of special tools.

SECTION 8-504 RAILINGS AND GUARDRAILS

The height of railings and guard railings and the spacing of balusters may continue in their historical height and spacing unless a distinct hazard has been identified or created by a change in use or occupancy.

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SECTION 8-601 PURPOSE, INTENT AND SCOPE

8-601.1 Purpose. The purpose of the CHBC is to provide alternative regulations to facilitate access and use by persons with disabilities to and throughout facilities designated as qualified historical buildings or properties. These regulations require enforcing agencies to accept alternatives to regular code when dealing with qualified historical buildings or properties.

8-601.2 Intent. The intent of this chapter is to preserve the integrity of qualified historical buildings and properties while providing access to and use by persons with disabilities.

8-601.3 Scope. The CHBC shall apply to every qualified historical building or property that is required to provide access to persons with disabilities.

1. Provisions of this chapter do not apply to new construction or reconstruction/replicas of historical buildings.

2. Where provisions of this chapter apply to alteration of qualified historical buildings or properties, alteration is defined in *California Building Code* (CBC), Chapter 2, Definitions and Abbreviations. 202 – A. Alter or Alteration.

8-601.4 General application. The provisions in the CHBC apply to local, state and federal governments (Title II entities); alteration of commercial facilities and places of public accommodation (Title III entities); and barrier removal in commercial facilities and places of public accommodation (Title III entities). Except as noted in this chapter.

SECTION 8-602 BASIC PROVISIONS

8-602.1 Regular code. The regular code for access for people with disabilities (Title 24, Part 2, Vol. 1, Chapter 11B) shall be applied to qualified historical buildings or properties unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property.

8-602.2 Alternative provisions. If the historical significance or character-defining features are threatened, alternative provisions for access may be applied pursuant to this chapter, provided the following conditions are met:

1. These provisions shall be applied only on an item-by-item or a case-by-case basis.

2. Documentation is provided, including meeting minutes or letters, stating the reasons for the application of the alternative provisions. Such documentation shall be retained in the permanent file of the enforcing agency.

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SECTION 8-603 ALTERNATIVES

8-603.1 Alternative minimum standards. The alternative minimum standards for alterations of qualified historical buildings or facilities are referenced in Section 202.5 of the 2010 ADA Standards for Accessible Design, as incorporated and set forth in federal regulation 28 CFR Pt. 36.

8-603.2 Entry. These alternatives do not allow exceptions for the requirement of level landings in front of doors, except as provided in Section 8-603.4.

1. Access to any entrance used by the general public and no further than 200 feet (60 960 mm) from the primary entrance.

2. Access at any entrance not used by the general public but open and unlocked with directional signs at the primary entrance and as close as possible to, but no further than 200 feet (60 960 mm) from, the primary entrance.

3. The accessible entrance shall have a notification system. Where security is a problem, remote monitoring may be used.

8-603.3 Doors. Alternatives listed in order of priority are:1. Single-leaf door which provides a minimum 30

inches (762 mm) of clear opening.

2. Single-leaf door which provides a minimum $29^{1}/_{2}$ inches (749 mm) clear opening

3. Double door, one leaf of which provides a minimum $29^{1}/_{2}$ inches (749 mm) clear opening.

4. Double doors operable with a power-assist device to provide a minimum $29^{1}/_{2}$ inches (749 mm) clear opening when both doors are in the open position.

8-603.4 Power-assisted doors. Power-assisted door or doors may be considered an equivalent alternative to level landings, strikeside clearance and door-opening forces required by the regular code.

8-603.5 Toilet rooms. In lieu of separate-gender toilet facilities as required in the regular code, an accessible unisex toilet facility may be designated.

8-603.6 Exterior and interior ramps and lifts. Alternatives listed in order of priority are:

1. A lift or a ramp of greater than standard slope but no greater than 1:10, for horizontal distances not to exceed 5 feet (1525 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope.

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2. Access by ramps of 1:6 slope for horizontal distance not to exceed 13 inches (330 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope. Use of other designs and technologies, or deviation from particular technical and scoping requirements, are permitted if the application of the alternative provisions contained in Section 8-603 would threaten or destroy the historical significance or character-defining features of the historical building or property.

1. Such alternatives shall be applied only on an item-by- item or a case-by-case basis.
2. Access provided by experiences, services, functions, materials and resources through methods including, but not limited to, maps, plans, videos, virtual reality and related equipment, at accessible levels. The alternative design and/or technologies used will provide substantially equivalent or greater accessibility to, and usability of, the facility.
3. The official charged with the enforcement of the standards shall document the reasons for the application of the design and/or technologies and their effect on the historical significance or character-defining features. Such documentation shall be in accordance with Section 8-602.2, Item 2, and shall include the opinion and comments of state or local accessibility officials, and the opinion and comments of representative local groups of people with disabilities. Such documentation shall be retained in the permanent file of the enforcing agency. Copies of the required documentation should be available at the facility upon request. **Note:** For commercial facilities and places of public accommodation (Title III entities).

Equivalent facilitation for an element of a building or property when applied as a waiver of an ADA accessibility requirement will not be entitled to the Federal Department of Justice certification of this code as rebuttable evidence of compliance for that element.

SECTION 8-701 PURPOSE, INTENT AND SCOPE

8-701.1 Purpose. The purpose of the CHBC is to provide alternative regulations to the regular code for the structural safety of buildings designated as qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-701.2 Intent. The intent of this chapter is to encourage the preservation of qualified historical buildings or structures while providing standards for a minimum level of building performance with the objective of preventing partial or total structural collapse such that the overall risk of life-threatening injury as a result of structural collapse is low.

8-701.3 Application. The alternative structural regulations provided by Section 8-705 are to be applied in conjunction with the regular code whenever a structural upgrade or reconstruction is undertaken for qualified historical buildings or properties.

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SECTION 8-702 GENERAL

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

8-702.2 Nothing in these regulations shall prevent voluntary and partial seismic upgrades when it is demonstrated that such upgrades will improve life safety and when a full upgrade would not otherwise be required.

SECTION 8-703 STRUCTURAL SURVEY

8-703.1 Scope. When a structure or portion of a structure is to be evaluated for structural capacity under the CHBC, it shall be surveyed for structural conditions by an architect or engineer knowledgeable in historical structures. The survey shall evaluate deterioration or signs of distress. The survey shall determine the details of the structural framing and the system for resistance of gravity and lateral loads. Details, reinforcement and anchorage of structural systems and veneers shall be determined and documented where these members are relied on for seismic lateral resistance.

8-703.2 The results of the survey shall be utilized for evaluating the structural capacity and for designing modifications to the structural system to reach compliance with this code.

8-703.3 Historical records. Past historical records of the structure or similar structures may be used in the evaluation, including the effects of subsequent alterations.

SECTION 8-704 NONHISTORICAL ADDITIONS AND NONHISTORICAL ALTERATIONS

8-704.1 New nonhistorical additions and nonhistorical alterations which are structurally separated from an existing historical building or structure shall comply with regular code requirements.

8-704.2 New nonhistorical additions which impose vertical or lateral loads on an existing structure shall not be permitted unless the affected part of the supporting structure is evaluated and strengthened, if necessary, to meet regular code requirements.

Note: For use of archaic materials, see Chapter 8-8.

SECTION 8-705 STRUCTURAL REGULATIONS

8-705.1 Gravity loads. The capacity of the structure to resist gravity loads shall be evaluated and the structure strengthened as necessary. The evaluation shall include all parts of the load path. Where no distress is evident, and a complete load path is present, the structure may be assumed adequate by having withstood the test of time if anticipated dead and live loads will not exceed those historically present.

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8-705.2 Wind and seismic loads. The ability of the structure to resist wind and seismic loads shall be evaluated. Wind loads shall be considered when appropriate, but need not exceed 75% of the wind loads prescribed by the regular code. The evaluation shall be based on the requirements of Section 8-706.

8.705.2.1 Any unsafe conditions in the lateral-load-resisting system shall be corrected, or alternative resistance shall be provided. When strengthening is required, additional resistance shall be provided to meet the minimum requirements of the CHBC. The strengthening measures shall be selected with the intent of meeting the performance objectives set forth in Section 8-701.2. The evaluation of structural members and structural systems for seismic loads shall consider the inelastic performance of structural members and their ability to maintain load-carrying capacity during the seismic loadings prescribed by the regular code.

8.705.2.2 The architect or engineer shall consider additional measures with minimal loss of, and impact to, historical materials which will reduce damage and needed repairs in future earthquakes to better preserve the historical structure in perpetuity. These additional measures shall be presented to the owner for consideration as part of the rehabilitation or restoration.

SECTION 8-706 LATERAL LOAD REGULATIONS

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the *R*-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such *R*-values exist. Where such *R*-values do not exist, an appropriate *R*- value shall be rationally assigned considering the structural detailing of the members.

Exceptions:

1 The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.
2 For Risk Category I, II or III structures, near-fault increases in ground motion (maximum considered earthquake ground motion of 0.2 second spectral response greater than 150 percent at 5 percent damping) need not be considered when the fundamental period of the building is 0.5 seconds in the direction under consideration.
3 For Risk Category I or II structures, the seismic base shear need not exceed 0.30W.
4 For Risk Category III or IV structures, the seismic base shear need not exceed 0.40W.

8-706.1.1 When a building is to be strengthened with the addition of a new lateral force resisting system, the R value of the new system can be used when the new lateral force resisting system resists at least 75 percent of the building's base shear regardless of its relative rigidity.

8-706.1.2 Evaluation and seismic improvement of unreinforced masonry bearing wall buildings shall comply with the *California Existing Building Code* (CEBC), Appendix Chapter A1 2013 Edition, and as modified by the CHBC.

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Exceptions:

1. Alternative standards may be used on a case-by- case basis when approved by the authority having jurisdiction. It shall be permitted to exceed the strength limitation of 100 psi in Section A108.2 of the CEBC when test data and building configuration supports higher values subject to the approval of the authority having jurisdiction.
2. CEBC Section A102.2 shall not apply to Qualified Historical Buildings in Risk Category III buildings and other structures whose primary occupancies are public assembly with an occupancy load greater than 300.

8-706.1.3 All deviations from the detailing provisions of the lateral-force-resisting systems shall be evaluated for stability and the ability to maintain load-carrying capacity at the expected inelastic deformations.

8-706.2 Existing building performance. The seismic resistance may be based upon the ultimate capacity of the structure to perform, giving due consideration to ductility and reserve strength of the lateral-force-resisting system and materials while maintaining a reasonable factor of safety. Broad judgment may be exercised regarding the strength and performance of materials not recognized by regular code requirements. (See Chapter 8-8, Archaic Materials and Methods of Construction.)

8-706.2.1 All structural materials or members that do not comply with detailing and proportioning requirements of the regular code shall be evaluated for potential seismic performance and the consequence of non-compliance. All members that would be reasonably expected to fail and lead to collapse or life threatening injury when subjected to seismic demands shall be judged unacceptable, and appropriate structural strengthening shall be developed.

8-706.3 Load path. A complete and continuous load path, including connections, from every part or portion of the structure to the ground shall be provided for the required forces. It shall be verified that the structure is adequately tied together to perform as a unit when subjected to earthquake forces.

8-706.4 Parapets. Parapets and exterior decoration shall be investigated for conformance with regular code requirements for anchorage and ability to resist prescribed seismic forces.

An exception to regular code requirements shall be permitted for those parapets and decorations which are judged not to be a hazard to life safety.

8-706.5 Nonstructural features. Nonstructural features of historical structure, such as exterior veneer, cornices and decorations, which might fall and create a life-safety hazard in an earthquake, shall be evaluated. Their ability to resist seismic forces shall be verified, or the feature shall be strengthened with improved anchorage when appropriate.

8-706.5.1 Partitions and ceilings of corridors and stairways serving an occupant load of 30 or more shall be investigated to determine their ability to remain in place when the building is subjected to earthquake

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forces.

8-706.5.2 Seismic forces used to evaluate and improve nonstructural components and their anchorage, where required, shall comply with ASCE 41 or need not exceed 0.75 times the seismic forces prescribed by the requirements of the regular code.

STRUCTURAL REGULATIONS

CHAPTER 8-8 ARCHAIC MATERIALS AND METHODS OF CONSTRUCTION

SECTION 8-801 PURPOSE, INTENT AND SCOPE

8-801.1 Purpose. The purpose of the CHBC is to provide regulations for the use of historical methods and materials of construction that are at variance with regular code requirements or are not otherwise codified, in buildings or structures designated as qualified historical buildings or properties. The CHBC require enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-801.2 Intent. It is the intent of the CHBC to provide for the use of historical methods and materials of construction that are at variance with specific code requirements or are not otherwise codified.

8-801.3 Scope. Any construction type or material that is, or was, part of the historical fabric of a structure is covered by this chapter. Archaic materials and methods of construction present in a historical structure may remain or be reinstalled or be installed with new materials of the same class to match existing conditions.

SECTION 8-802 GENERAL ENGINEERING APPROACHES

Strength values for archaic materials shall be assigned based upon similar conventional codified materials, or on tests as hereinafter indicated. The archaic materials and methods of construction shall be thoroughly investigated for their details of construction in accordance with Section 8-703. Testing shall be performed when applicable to evaluate existing conditions. The architect or structural engineer in responsible charge of the project shall assign allowable stresses or strength levels to archaic materials. Such assigned strength values shall not be greater than those provided for in the following sections without adequate testing, and shall be subject to the concurrence of the enforcing agency.

SECTION 8-803 NONSTRUCTURAL ARCHAIC MATERIALS

Where nonstructural historical materials exist in uses which do not meet the requirements of the regular code, their continued use is allowed by this code, provided that any public health and life-safety hazards are mitigated subject to the concurrence of the enforcing agency.

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SECTION 8-804 ALLOWABLE CONDITIONS FOR SPECIFIC MATERIALS

Archaic materials which exist and are to remain in qualified historical buildings or structures shall be evaluated for their condition and for loads required by this code. The structural

survey required in Section 8-703 of the CHBC shall document existing conditions, reinforcement, anchorage, deterioration and other factors pertinent to establishing allowable stresses, strength levels and adequacy of the archaic materials. The remaining portion of this chapter provides additional specific requirements for commonly encountered archaic materials.

SECTION 8-805 MASONRY

For adobe, see Section 8-806.

8-805.1 Existing solid masonry. Existing solid masonry walls of any type, except adobe, may be allowed, without testing, a maximum ultimate strength of nine pounds per square inch (62.1 kPa) in shear where there is a qualifying statement by the architect or engineer that an inspection has been made, that mortar joints are filled and that both brick and mortar are reasonably good. The shear stress above applies to unreinforced masonry, except adobe, where the maximum ratio of unsupported height or length to thickness does not exceed 13, and where minimum quality mortar is used or exists. Wall height or length is measured to supporting or resisting elements that are at least twice as stiff as the tributary wall. Stiffness is based on the gross section. Shear stress may be increased by the addition of 10 percent of the axial direct stress due to the weight of the wall directly above. Higher-quality mortar may provide a greater shear value and shall be tested in accordance with Appendix A, Chapter A1 of the *California Existing Building Code* (CEBC) 2010 edition, and as modified by the CHBC.

8-805.2 Stone masonry.

8-805.2.1 Solid-backed stone masonry. Stone masonry solidly backed with brick masonry shall be treated as solid brick masonry as described in Section 8-805.1 and in the 2009 IEBC, provided representative testing and inspection verifies solid collar joints between stone and brick and that a reasonable number of stones lap with the brick wythes as headers or that steel anchors are present. Solid stone masonry where the wythes of stone effectively overlap to provide the equivalent header courses may also be treated as solid brick masonry.

8-805.2.2 Independent wythe stone masonry. Stone masonry with independent face wythes may be treated as solid brick masonry as described in Section 8-805.1 and the CEBC, provided representative testing and inspection verify that the core is essentially solid in the masonry wall and that steel ties are epoxied in drilled holes between outer stone wythes at floors, roof and not to exceed 4 feet (1219 mm) on center in each direction, between floors and roof. A reinforcing element shall exist or be provided at or near the top of all stone masonry walls.

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8-805.2.3 Testing of stone masonry. Testing of stone masonry shall be similar to the 2010 CEBC requirements for brick masonry, except that representative stones which are not interlocked shall be pulled outward from the wall and shear area appropriately calculated after the test.

8-805.3 Reconstructed walls. Totally reconstructed walls utilizing original brick or masonry, constructed similar to original, shall be constructed in accordance with the regular code. Repairs or infills may be constructed in a similar manner to the original walls without conforming to the regular code.

SECTION 8-807 WOOD

8-807.1 Existing wood diaphragms or walls. Existing wood diaphragms or walls of straight or diagonal sheathing shall be assigned shear resistance values appropriate with the fasteners and materials functioning in conjunction with the sheathing. The structural survey shall determine fastener details and spacings and verify a load path through floor construction. Shear values of Tables 8-8-A and 8-8-B.

8-807.2 Wood lath and plaster. Wood lath and plaster walls and ceilings may be utilized using the shear values referenced in Section 8-807.1.

8-807.3 Existing wood framing. Existing wood framing members may be assigned allowable stresses consistent with codes in effect at the time of construction. Existing or new replacement wood framing may be of archaic types originally used if properly researched, such as balloon and single wall. Wood joints such as dovetail and mortise and tenon types may be used structurally, provided they are well made. Lumber selected for use and type need not bear grade marks, and greater or lesser species such as low-level pine and fir, boxwood and indigenous hardwoods and other variations may be used for specific conditions where they were or would have been used.

Wood fasteners such as square or cut nails may be used with a maximum increase of 50 percent over wire nails for shear.

that are not specifically allowed by code may be used wherever applicable and wherever they have proven their worth under the considerable span of years involved with most qualified historical buildings or structures. Uplift capacity should be evaluated and strengthened where necessary. Fixed conditions or midheight lateral loads on cast iron columns that could cause failure should be taken into account. Existing structural wrought, forged steel or grey iron may be assigned the maximum working stress prevalent at the time of original construction.

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TABLE8-8A STRENGTH VALUES FOR EXISTING MATERIALS

ARCHAIC MATERIALS AND METHODS OF CONSTRUCTION

EXISTING MATERIALS OR CONFIGURATIONS OF MATERIALS[1]	STRENGTH LEVEL CAPACITY x14.594 for N/m
1. Horizontal diaphragms[2] . 1.1 Roofswithstraightsheathingandroofingapplieddirectlytothesheathing . 1.2 Roofswithdiagonalsheathingandroofingapplieddirectlytothesheathing . 1.3 Floors with straight tongue-and-groove sheathing . 1.4 Floors with straight sheathing and finished wood flooring with board edges offset or perpendicular . 1.5 Floors with diagonal sheathing and finished	300 lbs per foot for seismic shear 750 lbs per foot for seismic shear 300 lbs per foot for seismic shear 1,500 lbs per foot for seismic shear 1,800 lbs per foot for seismic shear
2. Crosswalls[2,3]2.1 Plaster on wood or metal lath2.2 Plaster on gypsum lath2.3 Gypsum wallboard, unblocked edges 2.4 Gypsum wallboard, blocked edges	Per side: 600 lbs per foot for seismic shear 550 lbs per foot for seismic shear200 lbs per foot for seismic shear400 lbs per foot for seismic shear
3. Existing footings, wood framing, structural steel and reinforcing steel 3.1 Plain concrete footings3.2 Douglas fir wood3.3 Reinforcing steel 3.4 Structural steel	f'_c = 1,500 psi (10.34 MPa) unless otherwise shown by tests[3] Allowable stress same as D.F. No. 1[3]f_t = 40,000 lbs per square inch (124.1 N/mm^2) maximumf_t = 33,000 lbs per square inch (137.9 N/mm^2) maximum

1 1 Material must be sound and in good condition.
2 2 Shear values of these materials may be combined, except the total combined value shall not exceed 900 pounds per foot (13,140 N/m).
3 3 Stresses given may be increased for combinations of loads as specified in the regular code.

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TABLE 8-8B STRENGTH VALUES OF NEW MATERIALS USED IN CONNECTION WITH EXISTING CONSTRUCTION

NEW MATERIALS OR CONFIGURATIONS OF MATERIALS	STRENGTH LEVEL CAPACITY[1]
1. Horizontal diaphragms[2] 1.1 $15/32$ inch minimum plywood sheathing fastened directly over existing straight sheathing with edges of plywood located on center of individual sheathing boards and fastened with minimum #8x $1\,1/4$ inch wood screws or nails with helical threads 0.13 inch min. diameter and $1\,1/4$ inch min. length at 4 inch centers all panel edges and 12 inch centers each way in field. 1.2 Same plywood and attachments as 1.1 fastened directly over existing diagonal sheathing. 1.3 $3/8$ inch plywood sheathing fastened directly over existing straight or diagonal sheathing with ends and edges on centers of individual sheathing boards and fastened with #6 wood screws or nails with helical threads 0.13 inch minimum diameter and $1\,1/4$ inch min. length at 6 inch centers tall panel edges and 12 inch centers each way in field.	1,500 lbs per foot 1,800 lbs per foot 900 lbs per foot
2. Shear walls: Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing	100 percent of the value specified in the regular code for shear walls
3. Crosswalls: (special procedure only) 3.1 Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing 3.2 Drywall or plaster applied directly over wood studs 3.3 Drywall or plaster applied to sheathing over existing wood studs	133 percent of the value specified in the regular code for shear walls 100 percent of the values in the regular code 50 percent of the values specified in the regular code
4. Tension bolts a. Bolts extending entirely through unreinforced masonry walls secured with bearing plates on far side of a three-wythe- minimum wall with at least 30 square inches (19 350 mm^2) of area[4,5] b. All thread rod extending to the exterior face of the wall installed in adhesive[9]	5,400 lbs (24,010 N) per bolt[6] 2,700 lbs (12,009 N) per bolt for two-wythe walls[6] 3,600 lbs (16,014 N) per bolt
5. Shear bolts: Bolts embedded a minimum of 8 inches (203 mm) into unreinforced masonry walls and centered in a $2\,1/2$-inch-diameter (63.5 mm) hole filled with dry-pack or nonshrink grout. Through bolts with first 8 inches (203 mm) as noted above and embedded all thread rod as noted in Item 4.b[5,7,9]	$1/2$ inch (12.7 mm) diameter = 1050 lbs (4671 N) $6\,5/8$ inch (15.9 mm) diameter = 1500 lbs (6672 N) $6\,3/4$ inch (19 mm) diameter = 2250 lbs (10,008 N)[6]
6. Infilled walls: Reinforced masonry infilled openings in existing unreinforced masonry walls. Provide keys or dowels to match reinforcing.	Same as values specified for unreinforced masonry walls
7. Reinforced masonry: Masonry piers and walls reinforced per the regular code	Same as values specified in the regular code[8]
8. Reinforced concrete: Concrete footings, walls and piers reinforced as specified in the regular code and designed for tributary loads	Same as values specified in the regular code[8]

4 Values are for strength level loads as defined in regular code standards.
5 Values may be adjusted for other fasteners when approved by the enforcing authority.
6 In addition to existing sheathing value.
7 Bolts to be $1/2$-inch (12.7 mm) minimum diameter.
8 Other bolt sizes, values and installation methods may be used provided a testing program is conducted in accordance with regular code standards. Bolt spacing shall not exceed 6 feet. (1830 mm) on center and shall not be less than 12 inches (305) mm) on center.
9 Other masonry based on tests or other substantiated data.
10 Embedded bolts to be tested as specified in regular code standards.
11 Stresses given may be increased for combinations of loads as specified in the regular code.
12 Adhesives shall be approved by the enforcing agency and installed in accordance with the manufacturer's recommendations. All drilling dust shall be removed from drilled holes prior to installation.

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CHAPTER 8-9 MECHANICAL, PLUMBING AND ELECTRICAL REQUIREMENTS

SECTION 8-901 PURPOSE, INTENT AND SCOPE

8-901.1 Purpose. The purpose of the CHBC is to provide regulations for the mechanical, plumbing and electrical systems of buildings designated as qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonable equivalent solutions to the regular code when dealing with qualified historical buildings or properties.

8-901.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings or properties while providing a reasonable level of protection from fire, health and life-safety hazards (hereinafter referred to as safety hazards) for the building occupants.

8-901.3 Scope. The CHBC shall be applied in conjunction with the regular code whenever compliance with the regular code is required for qualified historical buildings or properties.

8-901.4 Safety hazard. No person shall permit any safety hazard to exist on premises under their control,

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or fail to take immediate action to abate such hazard. Existing systems which constitute a safety hazard when operational may remain in place, provided they are completely and permanently rendered inoperative. Safety hazards created by inoperative systems shall not be permitted to exist. Requirements of the regular code concerning general regulations shall be complied with, except that the enforcing agency shall accept solutions which do not cause a safety hazard.

8-901.5 Energy conservation. Qualified historical buildings or properties covered by this part are exempted from compliance with energy conservation standards. When new nonhistorical lighting and space conditioning system components, devices, appliances and equipment are installed, they shall comply with the requirements of Title 24, Part 6, *The California Energy Code*, except where the historical significance or character-defining features are threatened.

SECTION 8-902 MECHANICAL

8-902.1 General. Mechanical systems shall comply with the regular code unless otherwise modified by this chapter.

8-902.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any heating, ventilating, air conditioning, domestic incinerators, kilns or miscellaneous heat-producing appliances or equipment within or attached to a historical building.

8-902.1.2 Existing systems which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-902.1.3 The enforcing agency may approve any alternative to the CHBC which would achieve equivalent life safety.

8-902.2 Heating facilities. All dwelling-type occupancies covered under this chapter shall be provided with heating facilities. Wood-burning or pellet stoves or fireplaces may be acceptable as heating facilities.

8-902.3 Fuel oil piping and tanks. Fuel oil piping and tanks shall comply with regular code requirements except that the enforcing agency may waive such requirements where the lack of compliance does not create a safety or environmental hazard.

8-902.4 Heat-producing and cooling equipment. Heat-producing and cooling equipment shall comply with the regular code requirements governing equipment safety, except that the enforcing agency may accept alternatives which do not create a safety hazard.

8-902.5 Combustion air

8-902.5.1 All fuel-burning appliances and equipment shall be provided a sufficient supply of air for proper fuel combustion, ventilation and draft hood dilution.

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8-902.5.2 The enforcing agency may require operational tests for combustion air systems which do not comply with applicable requirements of the regular code.

8-902.6 Venting of appliances.

8-902.6.1 Every appliance required to be vented shall be connected to an approved venting system. Venting systems shall develop a positive flow adequate to convey all combustion products to the outside atmosphere.

8-902.6.2 Masonry chimneys in structurally sound condition may remain in use for all fuel-burning appliances, provided the flue is evaluated and documentation provided that the masonry and grout are in good condition. Terra cotta chimneys and Type C metallic vents installed in concealed spaces shall not remain in use unless otherwise mitigated and approved on a case-by-case basis.

8-902.6.3 The enforcing agency may require operational tests for venting systems which do not comply with applicable requirements of the regular code.

8-902.7 Ducts.

8-902.7.1 New ducts shall be constructed and installed in accordance with applicable requirements of the regular code.

8-902.7.2 Existing duct systems which do not comply with applicable requirements of the regular code and do not, in the opinion of the enforcing agency, constitute a safety or health hazard may remain in use.

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8-902.8 Ventilating systems. **8-902.8.1** Ventilating systems shall be installed so that no

safety hazard is created.

8-902.8.2 Grease hoods and grease hood exhaust systems shall be furnished and installed in accordance with applicable requirements of the regular code. Existing systems which are altered shall comply with the regular code.

8-902.9 Miscellaneous equipment requirements.

8-902.9.1 The following appliances and equipment shall be installed so that no safety hazard is created: warm air furnaces, space heating equipment, vented decorative appliances, floor furnaces, vented wall furnaces, unit heaters, room heaters, absorption units, refrigeration equipment, duct furnaces, infrared radiant heaters, domestic incinerators, miscellaneous heat-producing appliances and water heaters.

8-902.9.2 Storage-type water heaters shall be equipped with a temperatureand pressure-relief valve in accordance with applicable requirements of the regular code.

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SECTION 8-903 PLUMBING

8-903.1 General. Plumbing systems shall comply with the regular code unless otherwise noted.

8-903.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any plumbing system or equipment within or attached to a historical building.

8-903.1.2 Existing systems which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-903.1.3 The enforcing agency may approve any alternative to these regulations which achieves reasonably equivalent life safety.

8-903.2 Residential occupancies

8-903.2.1 Where toilet facilities are provided, alternative sewage disposal methods may be acceptable if approved by the local health department. In hotels, where private facilities are not provided, water closets at the ratio of one for each 15 rooms may be acceptable.

8-903.2.2 Toilet facilities are not required to be on the same floor or in the same building as sleeping rooms. Water-flush toilets may be located in a building immediately adjacent to the sleeping rooms. When alternative sewage disposal methods are utilized, they shall be located a minimum distance from the sleeping rooms or other locations as approved by the local health department.

8-903.2.3 Kitchen sinks shall be provided in all kitchens. The sink and countertop may be of any smooth nonabsorbent finish which can be maintained in a sanitary condition.

8-903.2.4 Hand washing facilities shall be provided for each dwelling unit and each hotel guest room. A basin and

pitcher may be acceptable as adequate hand washing facilities.

8-903.2.5 Hot or cold running water is not required for each plumbing fixture, provided a sufficient amount of water is supplied to permit the fixture's normal operation.

8-903.2.6 Bathtubs and lavatories with filler spouts less than 1 inch (25.4 mm) above the fixture rim may remain in use, provided there is an acceptable overflow below the rim.

8-903.2.7 Original or salvage water closets, urinals and flushometer valves shall be permitted in qualified historical buildings or properties. Historically accurate reproduction, nonlow-consumption water closets, urinals and flushometer valves shall be permitted except where historically accurate fixtures that comply with the regular code are available.

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8-903.3 Materials. New nonhistorical materials shall comply with the regular code requirements. The enforcing agency shall accept alternative materials which do not create a safety hazard where their use is necessary to maintain the historical integrity of the building.

8-903.4 Drainage and vent systems. Plumbing fixtures shall be connected to an adequate drainage and vent system. The enforcing agency may require operational tests for drainage and vent systems which do not comply with applicable requirements of the regular code. Vent terminations may be installed in any location which, in the opinion of the enforcing agency, does not create a safety hazard.

8-903.5 Indirect and special wastes. Indirect and special waste systems shall be installed so that no safety hazard is created. Chemical or industrial liquid wastes which may detrimentally affect the sanitary sewer system shall be pretreated to render them safe prior to discharge.

8-903.6 Traps and interceptors. Traps and interceptors shall comply with the regular code requirements except that the enforcing agency shall accept solutions which do not increase the safety hazard. Properly maintained "S" and drum traps may remain in use.

8-903.7 Joints and connections

8-903.7.1 Joints and connections in new plumbing systems shall comply with applicable requirements of the regular code.

8-903.7.2 Joints and connections in existing or restored systems may be of any type that does not create a safety hazard.

8-903.8 Water distribution. Plumbing fixtures shall be connected to an adequate water distribution system. The enforcing agency may require operational tests for water distribution systems which do not comply with applicable requirements of regular code. Prohibited (unlawful) connections and cross connections shall not be permitted.

8-903.9 Building sewers and private sewage disposal systems. New building sewers and new private sewage disposal systems shall comply with applicable requirements of the regular code.

8-903.10 Fuel-gas piping. Fuel-gas piping shall comply with the regular code requirements except that the enforcing agency shall accept solutions which do not increase the safety hazard.

SECTION 8-904 ELECTRICAL

8-904.1 General. Electrical systems shall comply with the regular code unless otherwise permitted by this code, or approved by the authority having jurisdiction.

8-904.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any electrical system or portion thereof, the premise wiring, or equipment fixed in place as related to restoration within or attached to a qualified historical building or

property.

8-904.1.2 Existing systems, wiring methods and electrical equipment which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-904.1.3 The enforcing agency may approve any alternative to the CHBC which achieves equivalent safety.

8-904.1.4 Archaic methods that do not appear in present codes may remain and may be extended if, in the opinion of the enforcing agency, they constitute a safe installation.

8-904.2 Wiring methods

8-904.2.1 Where existing branch circuits do not include an equipment grounding conductor and, in the opinion of the enforcing agency, it is impracticable to connect an equipment grounding conductor to the grounding electrode system, receptacle convenience outlets may remain the nongrounding type.

8-904.2.2 Ground fault circuit interrupter (GFCI) protected receptacles shall be installed where replacements are made at receptacle outlets that are required to be so protected by the regular code in effect at the time of replacement. Metallic face plates shall either be grounded to the grounded metal outlet box or be grounded to the grounding-type device when used with devices supplied by branch circuits without equipment grounding conductors.

8-904.2.3 Grounding-type receptacles shall not be used without a grounding means in an existing receptacle outlet unless GFCI protected. Existing nongrounding receptacles shall be permitted to be replaced with nongrounding or grounding-type receptacles where supplied through a ground fault circuit interrupter.

8-904.2.4 Extensions of existing branch circuits without equipment-grounding conductors shall be permitted to supply grounding-type devices only when the equipment grounding conductor of the new extension is grounded to any accessible point on the grounding electrode system.

8-904.2.5 Receptacle outlet spacing and other related distance requirements shall be waived or modified if determined to be impracticable by the enforcing agency.

8-904.2.6 For the replacement of lighting fixtures on an existing nongrounded lighting outlet, or when extending an existing nongrounding lighting outlet, the following shall apply:

1. The exposed conductive parts of lighting fixtures shall be connected to any acceptable point on the grounding electrode system, or

2. The lighting fixtures shall be made of insulating material and shall have no exposed conductive parts. **Exception:** Lighting fixtures mounted on electrically nonconductive ceilings or walls where located not less than either 8 feet (2438 mm) vertically or 5 feet (1524 mm) horizontally from grounded surfaces.

8-904.2.7 Lighting load calculations for services and feeders may be based on actual loads as installed in lieu of the "watts per square foot" method.

8-904.2.8 Determination of existing loads may be based on maximum demand recordings in lieu of calculations, provided all of the following are met:

1. Recordings are provided by the serving agency.

2. The maximum demand data is available for a one-year period.

Exception: If maximum demand data for a one- year period is not available, the maximum demand data shall be permitted to be based on the actual amperes continuously recorded over a minimum 30-day period by a recording ammeter connected to the highest loaded phase of the feeder or service. The recording should reflect the maximum demand when the building or space is occupied and include the measured or calculated load at the peak time of the year, including the larger of the heating or cooling equipment load.

3. There has been no change in occupancy or character of load during the previous 12 months.

4. The anticipated load will not change, or the existing demand load at 125 percent plus the new load does not exceed the ampacity of the feeder or rating of the service.

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CHAPTER 8-10 QUALIFIED HISTORICAL DISTRICTS, SITES AND OPEN SPACES

SECTION 8-1001 PURPOSE AND SCOPE

8-1001.1 Purpose. The purpose of this chapter is to provide regulations for the preservation, rehabilitation, restoration and reconstruction of associated historical features of qualified historical buildings, properties or districts (as defined in Chapter 8-2), and for which Chapters 8-3 through 8-9 of the CHBC may not apply.

8-1001.2 Scope. This chapter applies to the associated historical features of qualified historical buildings or properties such as historical districts that are beyond the buildings themselves which include, but are not limited to, natural features and designed site and landscape plans with natural and manmade landscape elements that support their function and aesthetics. This may include, but will not be limited to:

1. Site plan layout configurations and relationships (pedestrian, equestrian and vehicular site circulation,

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topographical grades and drainage, and use areas).

2. Landscape elements (plant materials, site structures other than the qualified historical building, bridges and their associated structures, lighting, water features, art ornamentation, and pedestrian, equestrian and vehicular surfaces).

3. Functional elements (utility placement, erosion control and environmental mitigation measures).

SECTION 8-1002 APPLICATION

8-1002.1 The CHBC shall apply to all sites and districts and their features associated with qualified historical buildings or qualified historical districts as outlined in 8-1001.2 Scope.

8-1002.2 Where the application of regular code may impact the associated features of qualified historical properties beyond their footprints, by work performed secondarily, those impacts shall also be covered by the CHBC.

8-1002.3 This chapter shall be applied for all issues regarding code compliance or other standard or regulation as they affect the purpose of this chapter.

8-1002.4 The application of any code or building standard shall not unduly restrict the use of a qualified historical building or property that is otherwise permitted pursuant to Chapter 8-3 and the intent of the *State Historical Building Code,* Section 18956.

SECTION 8-1003 SITE RELATIONS

The relationship between a building or property and its site, or the associated features of a district (including qualified historical landscape), site, objects and their features are critical components that may be one of the criteria for these buildings and properties to be qualified under the CHBC. The CHBC recognizes the importance of these relationships. This chapter shall be used to provide context sensitive solutions for treatment of qualified historical buildings, properties, district or their associated historical features, or when work to be performed secondarily impacts the associated historical features of a qualified historical building or property.

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APPENDIX A

CHAPTER 8-6 TABLE 1—PROVISION APPLICABILITY

	Title II Public Entities	Title III Private Entities	Title III Barrier Removal
SECTION 8-601 PURPOSE, INTENT, SCOPE 8-601.1 Purpose. The purpose of the CHBC is to provide alternative regulations to facilitate access and use by persons with disabilities to and throughout facilities designated as qualified historical buildings or properties. These regulations require enforcing agencies to accept alternatives to regular code when dealing with qualified historical buildings or properties. **8-601.2 Intent.** The intent of this chapter is to preserve the integrity of qualified historical buildings and properties while providing access to and use by persons with disabilities. **8-601.3 Scope.** The CHBC shall apply to every qualified historical building or property that is required to provide access to persons with disabilities. 1. Provisions of this chapter do not apply to new construction or reconstruction/ replicas of historical buildings. 2. Where provisions of this chapter apply to alteration of qualified historical buildings or properties, alteration is defined in *California Building Code* (CBC), Chapter 2, Definitions and Abbreviations. 202 – A. Alter or Alteration. **8-601.4 General application.** The provisions in the CHBC apply to local, state and federal governments (Title II entities); alteration of commercial facilities and places of public accommodation (Title III entities); and barrier removal in commercial facilities and places of public accommodation (Title III entities). Except as noted in this chapter.	Applies	Applies	Applies
SECTION 8-602 — BASIC PROVISIONS 8-602.1 Regular code. The regular code for access for people with disabilities (Title 24, Part 2, Vol.1, Chapter 11B) shall be applied to qualified historical buildings or properties unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property. **8-602.2 Alternative provisions.** If the historical significance or character-defining features are threatened, alternative provisions for access may be applied pursuant to this chapter, provided the following conditions are met: 1. These provisions shall be applied only on an item-by-item or case-by-	Applies	Applies	Applies

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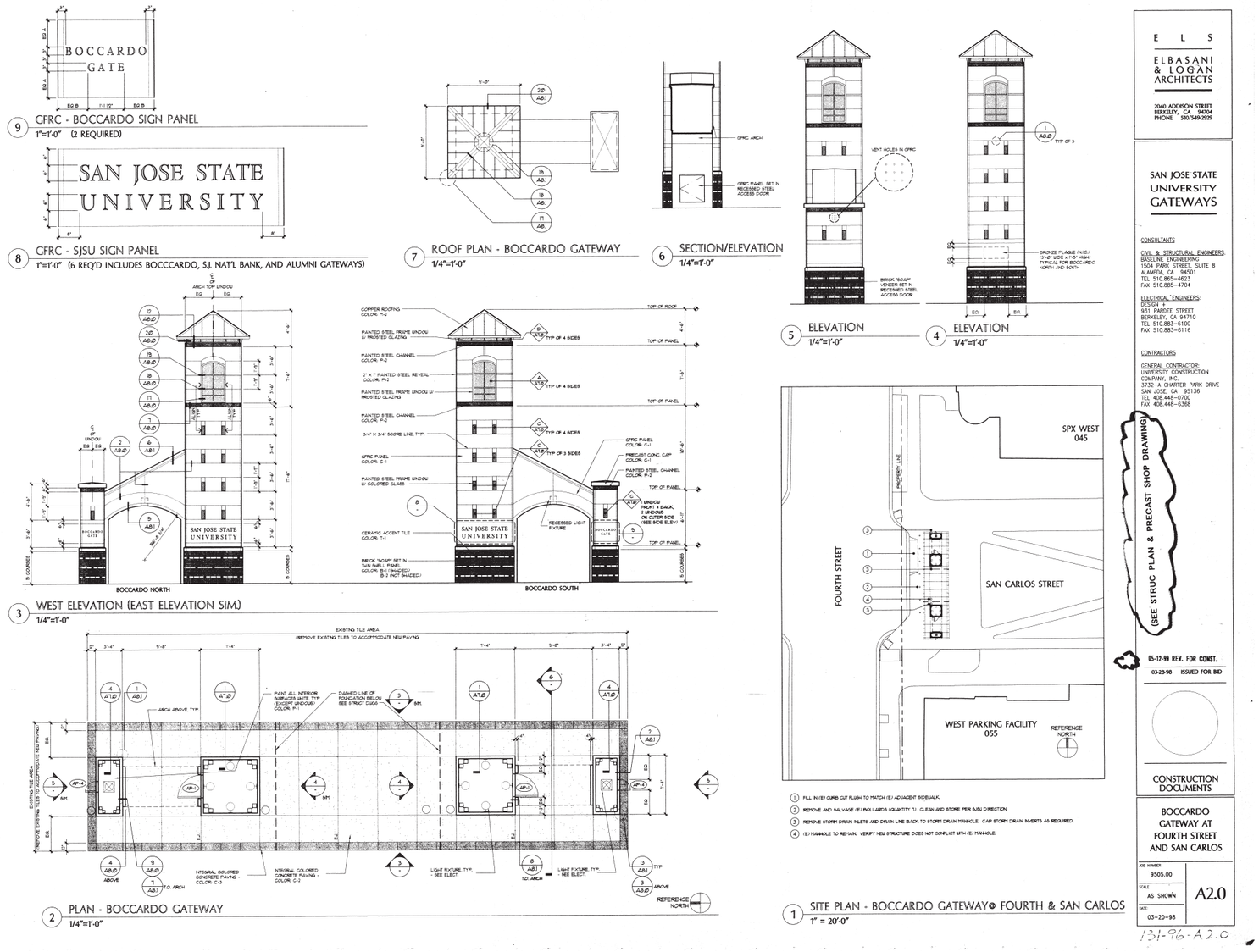
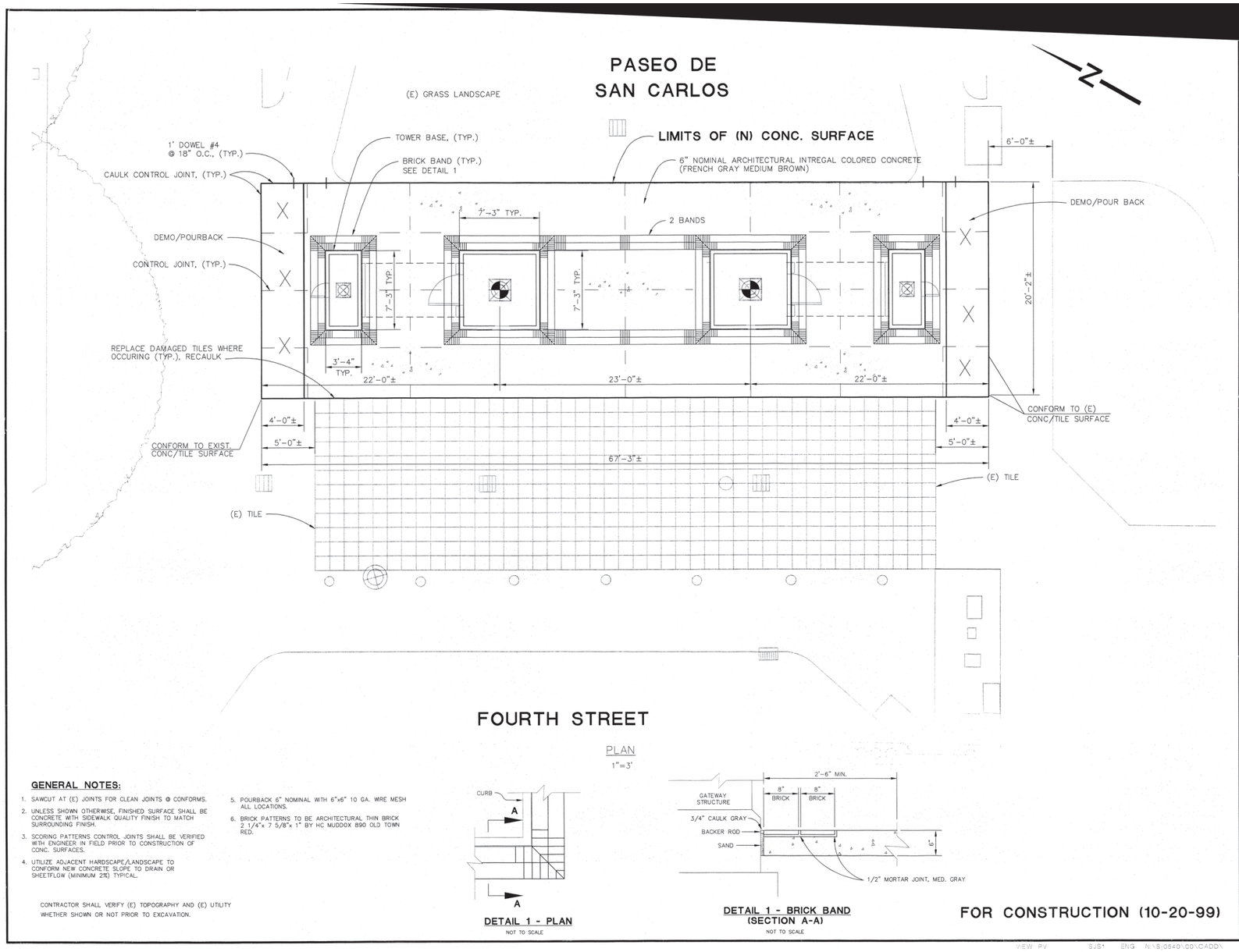
APPENDIX D. SJSU GATEWAY DRAWINGS




PASEO DE
SAN CARLOS
(E) GRASS LANDSCAPE
LIMITS OF (N) CONC. SURFACE
TOWER BASE, (TYP.)
BRICK BAND (TYP.)
SEE DETAIL 1
6" NOMINAL ARCHITECTURAL INTREGAL COLORED CONCRETE
(FRENCH GRAY MEDIUM BROWN)
1" DOWEL #4
@ 18" O.C., (TYP.)
CAULK CONTROL JOINT, (TYP.)
DEMO/POURBACK
CONTROL JOINT, (TYP.)
REPLACE DAMAGED TILES WHERE
OCCURING (TYP.), RECAULK
CONFORM TO EXIST.
CONC/TILE SURFACE
2 BANDS
7'-3" TYP.
3'-4" TYP.
22'-0"±
23'-0"±
6'-0"±
20'-2"±
4'-0"±
5'-0"±
67'-3"±
(E) TILE
CONFORM TO (E)
CONC/TILE SURFACE
FOURTH STREET
PLAN
1"=3'
GENERAL NOTES:
1. SAWCUT AT (E) JOINTS FOR CLEAN JOINTS @ CONFORMS.
2. UNLESS SHOWN OTHERWISE, FINISHED SURFACE SHALL BE CONCRETE WITH SIDEWALK QUALITY FINISH TO MATCH SURROUNDING FINISH.
3. SCORING PATTERNS CONTROL JOINTS SHALL BE VERIFIED WITH ENGINEER IN FIELD PRIOR TO CONSTRUCTION OF CONC. SURFACES.
4. UTILIZE ADJACENT HARDSCAPE/LANDSCAPE TO CONFORM NEW CONCRETE SLOPE TO DRAIN OR SHEETFLOW (MINIMUM 2%) TYPICAL.
5. POURBACK 6" NOMINAL WITH 6"x6" 10 GA. WIRE MESH ALL LOCATIONS.
6. BRICK PATTERNS TO BE ARCHITECTURAL THIN BRICK 2 1/4"x 7 5/8"x 1" BY HC MUDDOX 890 OLD TOWN RED.
CONTRACTOR SHALL VERIFY (E) TOPOGRAPHY AND (E) UTILITY WHETHER SHOWN OR NOT PRIOR TO EXCAVATION.
CURB
A
DETAIL 1 - PLAN
NOT TO SCALE
GATEWAY STRUCTURE
3/4" CAULK GRAY
BACKER ROD
SAND
2'-6" MIN.
8" BRICK
8" BRICK
1/2" MORTAR JOINT, MED. GRAY
DETAIL 1 - BRICK BAND
(SECTION A-A)
NOT TO SCALE
FOR CONSTRUCTION (10-20-99)
CAMPUS GATEWAYS PROJECT
BLDG. NO. - FIR NO. - ROOM NO. -
BOCCARDO GATEWAY
WORK ORDER FINISHED GRADING/SIDEWALK DETAILS
SJSU SAN JOSE STATE UNIVERSITY
JOB NO. SJ0540
DRAWN DMS
DESIGNED CPM
DATE 10/20/99 15:27
SCALE 1"=3'
APPROVED CPM
SHEET C-1
OF SHEETS
VIEW PV SJS1 ENG N:\SJ0540\00\CADD\ C1.DWG

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Appendix C

Geotechnical Evaluation

GEOTECHNICAL EVALUATION
NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY
ONE WASHINGTON SQUARE
SAN JOSE, CALIFORNIA

PREPARED FOR:
San Jose State University
One Washington Square
San Jose, California 95192

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
2149 O'Toole Avenue, Suite 30
San Jose, California 95131

July 12, 2016
Project No. 402814001

July 12, 2016
Project No. 402814001

Mr. Daniel S. No
Associate Director, Planning
Facilities Development & Operations
San Jose State University
One Washington Square
San Jose, California 95192

Subject: Geotechnical Evaluation
New Science Building
San Jose State University
One Washington Square
San Jose, California 95192

Dear Mr. No:

In accordance with your request, we have prepared this geotechnical evaluation report for the design and construction of the proposed San Jose State University New Science Building in San Jose, California. This report presents our geotechnical findings, conclusions, and recommendations regarding the proposed project.

As an integral part of our role as the geotechnical engineer-of-record, we request the opportunity to review the construction plans before they go to bid and to provide follow-up construction observation and testing services.

We appreciate the opportunity to be of service on this project.

Sincerely,
NINYO & MOORE

Ransom H. Hennefer, PE
Senior Staff Engineer

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RH/TPS/slm

Distribution: (1) Addressee (via e-mail)

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1. INTRODUCTION

In accordance with your request, we have performed a geotechnical evaluation for the proposed San Jose State University (SJSU) New Science Building in San Jose, California. The purpose of our study was to evaluate geotechnical conditions for the proposed improvements and provide recommendations for the design and construction of this project.

2. SCOPE OF SERVICES

Ninyo & Moore's scope of services for this project generally included review of pertinent geologic and geotechnical background data, performance of a site reconnaissance, subsurface evaluation, laboratory testing, engineering analysis with regard to the proposed construction, and preparation of this report. Specifically, we performed the following tasks:

- Review of background data listed in the References section of this report. The data reviewed included topographic maps, geologic data and maps, fault and seismic hazard maps, flood hazard maps, a site plan for the project, and previous reports.
- Conducted a site reconnaissance to observe site conditions including topographic features, drainage, surficial geologic conditions, and to select and mark the subsurface exploration locations for utility clearance.
- Coordinated with Underground Service Alert (USA) to locate underground utilities in the vicinity of the subsurface exploration locations.
- Performed a private utility survey to supplement the surveys performed by the utility owners.
- Procurement of a subsurface drilling permit from the Santa Clara Valley Water District.
- Subsurface exploration consisting of three (3) hollow-stem auger borings and four (4) Cone Penetration Test (CPT) soundings advanced to depths of up to 100 feet. A representative of Ninyo & Moore logged the subsurface conditions exposed in the borings and collected bulk and relatively undisturbed soil samples for laboratory tests. The borings and soundings were backfilled in conformance with the drilling permit.
- Laboratory testing of selected samples were performed to evaluate the geotechnical properties of the subsurface materials including in-situ moisture content and dry density, particle size distribution, Atterberg limits, consolidation characteristics, expansion potential, soil corrosivity, and unconsolidated undrained triaxial shear strength.

- Compilation and engineering analysis of the field and laboratory data.
- Preparation of this report presenting our findings and conclusions regarding the subsurface conditions encountered at the project site, and our geotechnical recommendations for the design and construction of the proposed improvements.

3. SITE DESCRIPTION AND BACKGROUND

The proposed New Science Building is to be constructed at approximately 37.3331 degrees north latitude and 121.8826 degrees west longitude on the SJSU campus between South 4th Street, South 10th Street, East San Fernando Street, and East Salvador Street in San Jose, California (Figure 1). The proposed site is currently occupied by the Associated Students SJSU building, landscaped areas, and a paved parking lot that will be demolished (Figure 2). The site is bounded to the north by Paseo de San Carlos, Yoshihiro Uchida Hall, and Spartan Complex East, to the east by MacQuarrie Hall, to the south by the Duncan Hall, and to the west by the West Parking Garage. The site is relatively flat and the elevation ranges between 87 and 90 feet above mean sea level (MSL) (Google Earth, 2016).

4. PROJECT DESCRIPTION

We understand that the proposed development will consist of a new science building that will be constructed near the existing grade (±1 foot) with an approximate footprint of 52,000 square feet (Figure 2). The new building is anticipated to be up to eight stories with one basement level. We anticipate that column loads will be large due to the height of the building. Related site improvements will include underground utilities, entrance/exit driveways, and associated hardscape.

5. FIELD EXPLORATION AND LABORATORY TESTING

Our field exploration included a site reconnaissance and subsurface exploration of the project site. The subsurface exploration was conducted on June 2 and 3, 2016, and consisted of three (3) exploratory borings and four (4) CPT soundings. The locations of the boring and CPT soundings are presented on Figure 2.

The CPT soundings were advanced to depths of up to approximately 100 feet below ground surface using a track-mounted rig with 20-ton reaction capacity. Penetration and pore water pressure data was collected and recorded electronically at intervals of approximately 1 inch while the sounding was being performed. The soil behavior type of the material encountered was assessed using correlations (Robertson and Campanella, 1986) based on the penetration data. CPT data and the interpreted soil behavior type are presented in Appendix A. Estimates of soil behavior type index (I_c), undrained shear strength, and standard penetration test (SPT) $N_{1(60)}$-values based on the CPT data are also presented in Appendix A.

The borings were advanced to a depths of up to approximately 100 feet below the existing grade with a truck-mounted drill rig equipped with hollow-stem augers. A representative of Ninyo & Moore logged the subsurface conditions exposed in the borings and collected driven split-spoon and bulk soil samples from the borings. The samples were then transported to our geotechnical laboratory for testing. A representative of Ninyo & Moore also collected four discrete environmental soil samples from the upper 10 feet of borings B-2 and B-3. The soil samples were collected in glass jars and stored in a cooler with ice and transported to a California certified analytical laboratory under chain of custody documentation via a courier. The borings and soundings were backfilled in accordance with the Santa Clara Valley Water District permit shortly after drilling. Descriptions of the subsurface materials encountered are presented in the following sections. Detailed logs of the borings are presented in Appendix B.

Laboratory testing of soil samples recovered from the borings included in-situ moisture content and dry density, particle size distribution, Atterberg limits, consolidation characteristics, expansion potential, soil corrosivity, and unconsolidated undrained triaxial shear strength. The results of the in-situ moisture content and dry density tests are shown at the corresponding sample depths on the boring logs in Appendix B. The results of the other laboratory tests performed are presented in Appendix C.

Laboratory analytical testing on the four environmental soil samples was performed to evaluate the concentration of Title 22 Metals by Environmental Protection Agency (EPA) Method 6010; volatile organic compounds (VOCs) by EPA Method 8260B; total petroleum hydrocarbons

(TPH) as gasoline, diesel, and motor oil using EPA Method 8015B/8021; semi-volatile organic compounds (SVOCs) using EPA Method 8270C; polychlorinated biphenyls (PCBs) using EPA Method 8082; organochlorine pesticides (OCPs) using EPA Method 8081; and asbestos using OSHA Method CARB 435. Chromium levels were reported above Title 22 waste characterization guidelines and a waste extraction test (WET) for solubility analysis was conducted. The results of the analytical testing are presented in Appendix D.

6. GEOLOGY AND SUBSURFACE CONDITIONS

Our findings regarding regional and site geology, subsurface soil, and groundwater conditions at the subject site are provided in the following sections.

6.1. Regional Geology

The site is located on the south side of San Francisco Bay in the Coast Ranges geomorphic province of California. The Coast Ranges are comprised of several mountain ranges and structural valleys formed by tectonic processes commonly found around the Circum-Pacific belt. Basement rocks have been sheared, faulted, metamorphosed, and uplifted, and are separated by thick blankets of Cretaceous and Cenozoic sediments that fill structural valleys and line continental margins. The San Francisco Bay Area has several mountain ranges that trend northwest, parallel to major strike-slip faults such as the San Andreas, Hayward, and Calaveras. Major tectonic activity associated with these and other faults within this regional tectonic framework consists primarily of right-lateral, strike-slip movement.

6.2. Site Geology

Published geologic maps (Wentworth et al., 1999; and Helley et al., 1994) indicate that the site is underlain by Holocene flood plain deposits. Wentworth describes this unit as gray, dense, sandy to silty clay, with occasional lenses of silt and fine gravel. Helley indicates that the clay may contain lenses of silt, sand, and pebbles. A map of regional geology is presented as Figure 3.

6.3. Subsurface Conditions

The exploratory borings were advanced through asphalt pavement and alluvium. Generalized descriptions of the units encountered are provided in the subsequent sections. More detailed descriptions are presented on the boring logs in Appendix B. Cross sections depicting our interpretations of the subsurface conditions are presented in Figures 5 through 7.

6.3.1. Asphalt Pavement

Borings B-1 and B-2 and CPT-1 were advanced through asphalt concrete pavement. The pavement sections encountered in our borings and CPT consisted of approximately 4 to 8 inches of asphalt over 6 inches of aggregate base. Variations in thickness of asphalt, beyond the range observed, may be encountered due to past maintenance, utility work or other factors.

6.3.2. Alluvium

Alluvium was encountered in the borings and in the CPT soundings from below the asphalt pavement or ground surface to the depths explored. The alluvium generally consisted of moist to wet, soft to very stiff, lean clay, fat clay, and sandy clay, and moist to wet, loose to very dense, sand, silty sand, clayey sand, sandy silt, and silt. More detailed descriptions are presented on the boring logs in Appendix B. Soil Behavior Type classifications interpreted from CPT data are presented in Appendix A.

6.4. Groundwater

Groundwater was encountered in our exploratory borings and CPTs at depth of between approximately 12 and 18 feet below the existing ground surface. However, groundwater may rise to a higher level than observed in our borings and soundings due to the relatively low seepage rate in clay and the limited time for observation. Fluctuations in the groundwater level may occur due to seasonal precipitation, variations in topography or subsurface hydrogeologic conditions, or as a result of changes to nearby irrigation practices or groundwater pumping. In addition, seeps may be encountered at elevations above the historic high groundwater levels due to perched groundwater conditions, leaking pipes,

preferential drainage, or other factors not evident at the time of our exploration. Regional studies (CDMG, 2002b) indicate that the depth to historic high groundwater is around 10 feet below the ground surface.

A Geokon Model 4500S vibrating wire piezometer was installed in boring B-3 at a depth of 35 feet to further evaluate the depth to groundwater in the study area and fluctuation in groundwater levels. Measurements performed on July 6, 2016 indicated a groundwater level at a depth of approximately 12 feet below the existing ground surface.

7. GEOLOGIC ISSUES AND CONSIDERATIONS

This study considered a number of potential issues relevant to the proposed construction on the subject site, including seismic hazards, landsliding, regional ground subsidence, flood hazards, expansive soil, settlement of compressible soil layers, potential of on-site soil to corrode ferrous metals and promote sulfate attack on concrete, and excavation characteristics. These issues are discussed in the following subsections.

7.1. Seismic Hazards

The project site is located within a seismically active region. The seismic hazards considered in this study include the potential for ground surface rupture and ground shaking due to seismic activity, seismically induced liquefaction, dynamic settlement, ground subsidence related to sand boils, lateral spreading, tsunamis, and seiches. These potential hazards are discussed in the following subsections.

7.1.1. Faulting and Ground Surface Rupture

The numerous faults in northern California include active, potentially active, and inactive faults. As defined by the California Geological Survey (CGS), active faults are faults that have caused surface displacement within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of surface displacement during Quaternary time (approximately the last 1.6 million years) but for which evidence of Holocene displacement has not been established.

The site is not located within an Alquist-Priolo Fault Rupture Hazard Zone established by the state geologist (CGS, 2007) to delineate regions of potential ground surface rupture adjacent to active faults. However, the site is located in a seismically active area, as is the majority of northern California, and the potential for strong ground motion in the project area is considered significant during the design life of the proposed structure. The closest known active fault is the southern segment of Hayward fault (CDMG, 1982; SCC, 2012) that is approximately 4 miles northeast of the site. The moment magnitude associated with a rupture of the Southern Segment of Hayward fault is 6.7 (Cao et al., 2003). The moment magnitude associated with a combined rupture of the three component segments of the Hayward – Rodgers Creek fault system is approximately 7.3 (Field et al., 2008). An earthquake with a moment magnitude of 7.0 occurred on the Hayward fault in 1868 (Toppozada and Branum, 2004). The site is approximately 12 miles from the San Andreas Fault. An earthquake with a moment magnitude of 7.8 occurred on the San Andreas Fault in 1906 (Toppozada and Branum, 2004). The Silver Creek fault is located approximately 0.9 miles east of the site. For the evaluation of fault rupture hazards, this fault is not considered to be active as there is no evidence that surface displacement has occurred along the fault during Holocene time. Studies by Wentworth et al. (2010), however, suggest that two poorly constrained earthquakes in 1903 may have occurred on the Silver Creek. The approximate locations of major faults in the region and their geographic relationship to the project vicinity are shown on Figure 8.

Based on our review of the referenced geologic maps, the project site is not underlain by known active or potentially active faults (i.e., faults that exhibit evidence of surface displacement in the last 11,000 years and 1,600,000 years, respectively). Therefore, the potential for ground surface rupture because of faulting at the site is considered low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

7.1.2. Seismic Ground Motion

The 2013 California Building code (CBC) specifies that the potential for liquefaction and soil strength loss be evaluated, where applicable, for the Maximum Considered Earthquake Geometric Mean peak ground acceleration with adjustment for site class effects in accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard. The PGA for the site was evaluated using the tabulated value for the Level 2 Basic Service Earthquake (BSE-2) PGA in the California State University (CSU) Seismic Requirements (2016), which is consistent with the Maximum Considered Earthquake, and a site coefficient of 0.9 to adjust the PGA for Site Class D. The site adjusted PGA was computed as 0.54g from the tabulated value of 0.60g.

7.1.3. Liquefaction and Strain Softening

The strong vibratory motions generated by earthquakes can trigger a rapid loss of shear strength in saturated, loose, granular soils of low plasticity (liquefaction) or in wet, sensitive, cohesive soils (strain softening). Liquefaction and strain softening can result in a loss of foundation bearing capacity or lateral spreading of sloping or unconfined ground. Liquefaction can also generate sand boils leading to subsidence at the ground surface. Liquefaction (or strain softening) is generally not a concern at depths more than 50 feet below ground surface. The site is located within a liquefaction hazard zone established by the state geologist (CDMG, 2002a) and by Santa Clara County (SCC, 2012). The seismic hazard zones for the site vicinity are presented on Figure 9. Regional studies of liquefaction susceptibility (Witter et al., 2006) indicate that the liquefaction susceptibility at the site is moderate.

We encountered deposits of sand and fine-grained soil of low plasticity below the historic high groundwater level during our subsurface exploration. We evaluated the potential for liquefaction using in-house developed spreadsheets developed in accordance with the methods presented by Youd et al.(2001) and Zhang et al (2002) using the blow count and CPT data collected during our subsurface exploration and considering a seismic event producing a PGA of 0.54g resulting from a Magnitude 7.3

earthquake. The results of our analysis, presented in Appendix E, indicate that layers of granular soil up to about 10 feet thick and approximately 19 feet or more below the existing grade will liquefy following the considered ground motion. Consequently, liquefaction will be a design consideration for the building foundation. Other consequences of liquefaction, including dynamic settlement, ground subsidence, and lateral spreading, are addressed in the following sections.

Estimates of undrained and remolded shear strength based on CPT tip resistance and sleeve friction, respectively, were calculated using an in-house spreadsheet program (Ninyo & Moore, 2016) and are provided in Appendix E. The results indicate that the cohesive soils encountered during our subsurface exploration are not particularly sensitive. As such we do not regard seismically induced strain-softening behavior as a design consideration.

7.1.4. Dynamic Settlement

The strong vibratory motion associated with earthquakes can also dynamically compact loose granular soil leading to surficial settlements. Dynamic settlement may occur in both dry and saturated sand and silt. Cohesive soil is not typically susceptible to dynamic settlement. During our subsurface evaluation, we encountered very loose to medium dense granular soil near the ground surface. We evaluated the potential for dynamic settlement using the CPT data based on the procedure described by Zhang et al (2002) for saturated soil and by Robertson and Shao (2010) for dry soil. Our analysis considered a Magnitude 7.3 earthquake producing a PGA of 0.54g. The results of our analysis, presented in Appendix E, indicate that the site may undergo dynamic settlement on the order of 5½ inches (total) with a differential of approximately 2¾ inches over a lateral distance of about 30 feet. We anticipate that the proposed improvements can be designed with deep foundations to mitigate this level of dynamic settlement without collapse.

7.1.5. Ground Subsidence

Sand boils that occur when liquefied, near-surface soil escapes to the ground surface, can result in ground subsidence due to loss of material that is in addition to dynamic settlement. Based on the assumed PGA, case study data presented by Ishihara (1985), and the relative density, thickness and depth of the saturated, loose granular soil encountered during our subsurface exploration; we do not anticipate that sand boils or resulting ground subsidence will occur following a significant seismic event.

7.1.6. Lateral Spread

In addition to vertical displacements, seismic ground shaking can induce horizontal displacements as surficial soil deposits spread laterally by floating atop liquefied subsurface layers. Lateral spread can occur on sloping ground or on flat ground adjacent to an exposed face. Based on the level ground conditions on site and the relatively thin and discontinuous nature of the liquefiable soil encountered, we do not regard lateral spreading as a design consideration.

7.1.7. Tsunamis and Seiches

Tsunamis are long wavelength seismic sea waves (long compared to ocean depth) generated by the sudden movements of the ocean floor during submarine earthquakes, landslides, or volcanic activity. The project location is not within a tsunami inundation area as shown on the Tsunami Inundation Map for Emergency Planning Map (State of California, 2009). Seiches are waves generated in a large enclosed body of water. Based on the inland location of the site and considering that there are no large enclosed bodies of water nearby, the potential for damage due to tsunamis or seiches is not a design consideration.

7.2. Landsliding and Slope Stability

Based on our background review, the site is not within a mapped landslide. The site and surrounding areas are relatively flat and the proposed improvements do not include grading significant slopes. As such, we do not regard landsliding or slope stability as a design consideration.

7.3. Regional Ground Subsidence

Ground subsidence due to withdrawal of groundwater for agriculture and water supply was a regional concern in the Santa Clara Valley. The ground surface in downtown San Jose subsided approximately 12 feet between 1910 and 1967 following a drop in the groundwater level of about 235 feet due to sustained groundwater withdrawal (Galloway et al, 1999). Since 1969, management of the groundwater basin incorporating reduced withdrawals, importation of surface water, and groundwater recharge, has effectively halted regional subsidence in the valley (Galloway et al, 1999). Consequently, we do not regard regional ground subsidence due to groundwater withdrawal as a consideration for the project.

7.4. Flood Hazards

Our review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FEMA, 2009) found that the site is outside the 100 and 500 year flood zones.

7.5. Expansive Soil

Some clay minerals undergo volume changes upon wetting or drying. Unsaturated soil containing those minerals will shrink/swell with the removal/addition of water. The heaving pressures associated with this expansion can damage structures and flatwork. Laboratory testing was performed on a sample of the near-surface soil to evaluate the expansion index. The tests were performed in general accordance with the American Society of Testing and Materials (ASTM) Standard D 4829 (Expansion Index). The results of our laboratory test indicate that the expansion index of the sample tested was 45. This result is an indicative of a low expansion characteristic. Based upon this result, it is our opinion that special mitigation measures for expansive soil should not be needed.

7.6. Static Settlement

Although significant grade changes are not proposed, we anticipate that static settlement will be a concern because of the soft ground conditions where column and wall loads for the new science building are moderate to high. Recommendations for deep foundations are provided to support structures with moderate to high column and wall loads. Recommendations for footings are provided for minor ancillary improvements.

Although building loads were not available at the time of this report, we estimate that a mat slab foundation would experience a total settlement of approximately 5¼ inches with a differential of about 2¼ inches over a lateral span of 30 feet based on the allowable bearing capacity. As discussed in Section 7.1.4, the supported structure may be subject to an additional 5½ inches of total dynamic settlement following the MCE earthquake with a differential dynamic settlement of about 2¾ inch over a lateral distance of approximately 30 feet.

7.7. Corrosive/Deleterious Soil

An evaluation of the corrosivity of the on-site materials was conducted to assess the impact to concrete and metals. The corrosion impact was evaluated using the results of limited laboratory testing on a sample obtained during our subsurface study. Laboratory testing to evaluate electrical resistivity, chloride content, and soluble sulfate content was performed on the sample. The results of the corrosivity tests are presented in Appendix C.

California Department of Transportation (Caltrans) defines a corrosive environment as an area within 1,000 feet of brackish water or where the soil contains more than 500 parts per million (ppm) of chlorides, sulfates of 0.2 (2,000 ppm) percent or more, or a pH of 5.5 or less (Caltrans, 2012). The criteria used to evaluate the deleterious nature of soil on concrete are listed in Table 1. Based on these criteria, the soil on site does not meet the definition of a corrosive environment and the sulfate exposure to concrete is negligible. Ferrous metal will still undergo corrosion on site, but special mitigation measures are not needed.

Table 1 – Criteria for Deleterious Soil on Concrete

Sulfate Content Percent by Weight	Sulfate Exposure
0.0 to 0.1	Negligible
0.1 to 0.2	Moderate
0.2 to 2.0	Severe
> 2.0	Very Severe
Reference: American Concrete Institute (ACI) Committee 318 Table 4.3.1 (ACI, 2014)	

7.8. Excavation Characteristics

We anticipate that the proposed project will involve excavations of up to 15 feet in depth for installation of utilities, and construction of the basement level and foundations. The soil encountered during our subsurface exploration over this interval generally consisted of soft to stiff lean clay; and very loose to loose silty sand. Near-vertical cuts in the silty sand should not be considered stable. Near-vertical cuts in the clay up to 5 feet in depth above the groundwater table should remain stable for a limited period of time. However, sloughing of the materials exposed on the excavation sidewall may occur, particularly if the excavation extends below the groundwater level or if the sidewall is disturbed during construction operations or exposed to water. Groundwater was encountered at depths of about 12 to 18 feet below existing grade but could rise to shallower depths. Regional studies (CDMG, 2002b) indicate that the depth to historic high groundwater is around 10 feet below the ground surface. The subgrade of excavations extending near to or below groundwater may be unstable without dewatering to depress the water level. Recommendations for excavation stabilization and dewatering are presented in Section 9.1.

We anticipate that deeper excavations of up to approximately 90 feet below the existing grade will be needed to install cast-in-place pile foundations. The soil encountered during our subsurface exploration over this interval generally consisted of moist to wet, soft to very stiff, lean clay, fat clay, and sandy clay, and moist to wet, loose to very dense, sand, silty sand, clayey sand, sandy silt, and silt. Unsupported excavations in these materials below groundwater should not be considered stable. Recommendations for auger cast pile foundations, which utilize soil cuttings or the drilling tool to reduce potential for collapse of the foundation excavation during construction, are provided.

8. CONCLUSIONS

Based on our review of the referenced background data, our site field reconnaissance, subsurface evaluation, and laboratory testing, it is our opinion that proposed construction is feasible from a geotechnical standpoint. Geotechnical considerations include the following:

- The site could experience a relatively large degree of ground shaking during a significant earthquake on a nearby fault.

- Soft ground conditions were encountered during our subsurface exploration. Recommendations for deep foundations are provided to support structures with moderate to high column and wall loads. Recommendations for footings are provided for minor ancillary improvements.

- Groundwater was encountered at approximately 12 to 18 feet below the existing grade during our subsurface exploration. Variations in the groundwater level across the site and over time should be anticipated. Regional mapping indicates that the historic high groundwater level is near 10 feet below the existing grade. Piezometer measurements indicate that the groundwater level is approximately 12 feet below the existing ground surface.

- Deposits of sand and fine-grained soil of low plasticity were encountered below the historic high groundwater level during our subsurface exploration. We evaluated the potential for liquefaction and dynamic settlement. The results of our analysis, presented in Appendix E, indicate that layers of soil up to about 10 feet thick and 19 feet or greater below the existing ground surface will liquefy as a result of the considered ground motion. Liquefaction is a design consideration for the drilled piers that will support the building. Recommendations for reduced side friction and lateral bearing are provided to evaluate the impact of liquefaction on drilled pier foundations.

- The results of our dynamic settlement analysis, presented in Appendix E, indicate that the total dynamic settlement resulting from the considered ground motion will be about 5½ inches with a differential dynamic settlement of approximately 2¾ inches over a lateral distance of about 30 feet. We anticipate that the proposed improvements can be designed to accommodate this level of dynamic settlement without collapse.

- We anticipate that proposed project will involve excavations of up to 15 feet below the existing grade for installation of utilities and construction of the basement level and foundations; and up to 90 feet below the existing grade for installation of cast-in-place pile foundations. Stability of excavations will be a concern, particularly where excavations extend below groundwater, sidewalls are disturbed by construction operations, or where excavations are exposed to water. Recommendations for excavation stabilization and dewatering are provided.

9. RECOMMENDATIONS

The following guidelines should be used in the preparation of the construction plans. The project plans and specifications should be reviewed by Ninyo & Moore prior to construction bidding to check for consistency with these recommendations.

9.1. Earthwork

Earthwork should be performed in accordance with the requirements of applicable governing agencies and the recommendations presented below. The geotechnical consultant should observe earthwork operations. Evaluations performed by the geotechnical consultant during the course of operations may result in new recommendations, which could supersede the recommendations in this section.

9.1.1. Pre-Construction Conference

We recommend that a pre-construction conference be held to discuss the grading recommendations presented in the report. Representatives of San Jose State University, the architect, the engineer, Ninyo & Moore, and the contractor should be in attendance to discuss project schedule and earthwork requirements.

9.1.2. Site Preparation

Site preparation should begin with the removal of vegetation, utility lines, debris and other deleterious materials from areas to be graded. Tree stumps and roots should be removed to such a depth that organic material is generally not present. Clearing and grubbing should extend to the outside of the proposed excavation and fill areas. Rubble and excavated materials that do not meet criteria for use as fill should be disposed of in an appropriate landfill. Existing utilities in the work area should be relocated away from the proposed structures. Existing utilities to be abandoned should be removed, crushed in place, or backfilled with grout.

Excavations resulting from removal of buried utilities, tree stumps, or obstructions should be backfilled with compacted fill in accordance with the recommendations in the following sections.

9.1.3. Observation and Removals

Prior to placement of fill, or the placement of forms or reinforcement for foundations, the client should request an evaluation of the exposed subgrade by Ninyo & Moore. Materials that are considered unsuitable shall be excavated under the observation of

Ninyo & Moore in accordance with the recommendations in this section or supplemental recommendations by the geotechnical engineer.

Unsuitable materials include, but may not be limited to dry, loose, soft, wet, expansive, organic, or compressible natural soil; and undocumented or otherwise deleterious fill materials. Unsuitable materials should be removed from trench bottoms and below bearing surfaces to a depth at which suitable foundation subgrade, as evaluated in the field by Ninyo & Moore, is exposed.

9.1.4. Material Recommendations

Materials used during earthwork, grading, and paving operations should comply with the requirements listed in Table 2. Materials should be evaluated by the geotechnical engineer for suitability prior to use. The contractor should notify the geotechnical consultant 72 hours prior to import of materials or use of on-site materials to permit time for sampling, testing, and evaluation of the proposed materials. On-site materials may need to be dried out before re-use as fill. The contractor should be responsible for the uniformity of import material brought to the site.

Table 2 – Recommended Material Requirements

Material and Use	Source	Requirements[1,2]
General Fill - below/adjacent to structures - for uses not otherwise specified	Import	Close-graded with 35 percent or more passing No. 4 sieve and either: Expansion Index of 50 or less, Plasticity Index of 12 or less, or less than 10 percent, by dry weight, passing No. 200 sieve
	On-site borrow	No additional requirements[1]
Select Fill - behind retaining walls[5]	Import	Sand Equivalent 20 or more 100 percent passing 3-inch sieve 35 to 100 percent passing No. 4 Sieve 20 to 100 percent passing No. 30 sieve
	On-site borrow	Plasticity Index of 12 or less
Pipe/Conduit Bedding and Pipe Zone Material -material below conduit invert to 12 inches above conduit	Import	90 to 100 percent (by mass) should pass No. 4 sieve, and 5 percent or less should pass No. 200 sieve
Trench Backfill - above bedding material	Import or on-site borrow	As per general fill and excluding rock/lumps retained on 4-inch sieve or 2-inch sieve in top 12 inches

Table 2 – Recommended Material Requirements

Material and Use	Source	Requirements[1,2]
[1] In general, fill should be free of rocks or lumps in excess of 6-inches diameter, trash, debris, roots, vegetation or other deleterious material. [2] In general, import fill should be tested or documented to be non-corrosive[3] and free from hazardous materials in concentrations above levels of concern. [3] Non-corrosive as defined by the Corrosion Guidelines (Caltrans, 2012). [4] CSS is California Standard Specifications (Caltrans, 2015). [5] Placed above a plane rising up and away from the heel of the wall at a 1:1 angle.		

9.1.5. Subgrade Preparation

Subgrade in trenches and below slabs, footings, pavements, or fill, should be prepared as per the recommendations in Table 3. Prepared subgrade should be maintained in a moist (but not saturated) condition by the periodic sprinkling of water prior to placement of additional overlying fill or construction of footings and slabs. Subgrade that has been permitted to dry out and loosen or develop desiccation cracking, should be scarified, moisture conditioned, and recompacted as per the requirements above.

Table 3 – Subgrade Preparation Recommendations

Subgrade Location	Preparation Recommendations
Utility Trenches	• Check for unsuitable materials as per Section 9.1.3. • Do not scarify. Remove or compact loose/soft material.
Below Fill, Slabs, and Footings	• Check for unsuitable materials as per Section 9.1.3 • Scarify top 6 inches then moisture condition and compact as per Section 9.1.6. • Keep in moist condition by sprinkling water.

9.1.6. Fill Placement and Compaction

Fill and backfill should be compacted in horizontal lifts in conformance with the recommendations presented in Table 4. The allowable uncompacted thickness of each lift of fill depends on the type of compaction equipment utilized, but generally should not exceed 8 inches in loose thickness.

Table 4 – Recommended Compaction Requirements

Fill Type	Location	Compacted Density[1]	Moisture Content[2]
Subgrade	Below sidewalks and pavements	95 percent	+ 2 percent
	In locations not already specified	90 percent	+ 2 percent

Table 4 – Recommended Compaction Requirements

Fill Type	Location	Compacted Density[1]	Moisture Content[2]
Bedding and Pipe Zone Fill	Material below invert to 12 inches above pipe or conduit	90 percent	+ 2 percent
Trench Backfill	Top 2 feet below sidewalks and pavements	95 percent	+ 2 percent
	In locations not already specified	90 percent	+ 2 percent
General Fill	Top 2 feet below sidewalks and pavements	95 percent	+ 2 percent
	In locations not already specified	90 percent	+ 2 percent

[1] Expressed as percent relative compaction or ratio of field density to reference density as evaluated by ASTM D 1557 on a dry density basis.

[2] Target moisture content at compaction relative to the optimum moisture content as evaluated by ASTM D 1557.

Compacted fill should be maintained in a moist (but not saturated) condition by the periodic sprinkling of water prior to placement of additional overlying fill or construction of footings and slabs. Fill that has been permitted to dry out and loosen or develop desiccation cracking, should be scarified, moisture conditioned, and recompacted as per the requirements below.

9.1.7. Temporary Excavations and Shoring

Excavations, including footing, trench, and remedial excavations, shall be stabilized in accordance with the Excavation Rules and Regulations (29 Code of Federal Regulations [CFR], Part 1926) stipulated by the Occupational Safety and Health Administration (OSHA). Stabilization shall consist of shoring sidewalls or laying slopes back.

Dewatering pits or sumps should be used to depress the groundwater level (if encountered) below the bottom of the excavation.Table 5 lists the OSHA material type classifications and corresponding allowable temporary slope layback inclinations for soil deposits that may be encountered on site. Alternatively, an internally-braced shoring system or trench shield conforming to the OSHA Excavation Rules and Regulations (29 CFR, Part 1926) may be used to stabilize excavation sidewalls during construction. The lateral earth pressures listed in Table 5 may be used to design or select the internally-braced shoring system or trench shield. The recommendations listed in this table are based upon the limited subsurface data provided by our exploratory borings

and reflect the influence of the environmental conditions that existed at the time of our exploration. Excavation stability, material classifications, allowable slopes, and shoring pressures should be re-evaluated and revised, as needed, during construction. Excavations, shoring systems and the surrounding areas should be evaluated daily by a competent person for indications of possible instability or collapse.

Table 5 – OSHA Material Classifications and Allowable Slopes

Formation	OSHA Classification	Allowable Temporary Slope[1,2,3]	Lateral Earth Pressure on Shoring[4] (psf)
Alluvium (above groundwater)	Type C	1 ½ h:1v (34°)	80·D + 72

[1] Allowable slope for excavations less than 20 feet deep. Excavation sidewalls in cohesive soil may be benched to meet the allowable slope criteria (measured from the bottom edge of the excavation). The allowable bench height is 4 feet. The bench at the bottom of the excavation may protrude above the allowable slope criteria.

[2] In layered soil, layers shall not be sloped steeper than the layer below.

[3] Temporary excavations less than 5 feet deep may be made with vertical side slopes and remain unshored if judged to be stable by a competent person (29 CFR, Part 1926.650).

[4] 'D' is depth of excavation for excavations up to 20 feet deep. Includes a surface surcharge equivalent to two feet of soil.

The shoring system should be designed or selected by a suitably qualified individual or specialty subcontractor. The shoring parameters presented in this report are preliminary design criteria, and the designer should evaluate the adequacy of these parameters and make appropriate modifications for their design. We recommend that the contractor take appropriate measures to protect workers. OSHA requirements pertaining to worker safety should be observed.

Excavations made in close proximity to existing structures may undermine the foundation of those structures and/or cause soil movement related distress to the existing structures. Stabilization techniques for excavations in close proximity to existing structures will need to account for the additional loads imposed on the shoring system and appropriate setback distances for temporary slopes. The geotechnical engineer should be consulted for additional recommendations if the proposed excavations cross below a plane extending down and away from the foundation bearing surfaces of the adjacent structure at an angle of 1:1 (horizontal to vertical).

The excavation bottoms may encounter wet, loose material which may be subject to pumping under heavy equipment loads. The contractor should be prepared to stabilize the bottom of the excavations. In general, unstable bottom conditions may be mitigated by using a stabilizing geogrid, overexcavating the excavation bottom to suitable depths and replacing with compacted fill, or other suitable method. Additionally, aeration of wet soils should be anticipated.

9.1.8. Construction Dewatering

Groundwater was encountered during our subsurface exploration at depths of about 12 to 18 feet. Regional maps indicate that the historic high groundwater level in the site vicinity is around 10 feet below the ground surface. Variations in groundwater levels across the site and over time should be anticipated. Water intrusion into the excavations may occur as a result of groundwater intrusion or surface runoff. The contractor should be prepared to take appropriate dewatering measures in the event that water intrudes into the excavations. Sump pits, trenches, or similar measures should be used to depress the water level below the bottom of the excavation. Considerations for construction dewatering should include anticipated drawdown, volume of pumping, potential for settlement, and groundwater discharge. Disposal of groundwater should be performed in accordance with the guidelines of the Regional Water Quality Control Board.

9.1.9. Utility Trenches

Trenches constructed for the installation of underground utilities should be stabilized in accordance with our recommendations in Section 9.1.7. Utility trenches should be backfilled with materials that conform to our recommendations in Section 9.1.4. Trench backfill, bedding, and pipe zone fill should be compacted in accordance with Section 9.1.6 of this report. Bedding and pipe zone fill should be shoveled under pipe haunches and compacted by manual or mechanical, hand-held tampers. Trench backfill should be compacted by mechanical means. Densification of trench backfill by flooding or jetting should not be permitted.

To reduce potential for moisture intrusion into the building envelope, we recommend plugging utility trenches at locations where the trench excavations cross under the building perimeter. The trench plug should be constructed of a compacted, fine-grained, cohesive soil that fills the cross-sectional area of the trench for a distance equivalent to the depth of the excavation. Alternatively, the plug may be constructed of concrete or CLSM.

9.1.10. Rainy Weather Considerations

Earthwork and foundation construction should be performed during the period between approximately April 15 and October 15 to avoid the rainy season. In the event that grading is performed during the rainy season, the plans for the project should be supplemented to include a stormwater management plan prepared in accordance with the requirements of the relevant agency having jurisdiction. The plan should include details of measures to protect the subject property and adjoining off-site properties from damage by erosion, flooding or the deposition of mud, debris, or construction-related pollutants, which may originate from the site or result from the grading operation. The protective measures should be installed by the commencement of grading, or prior to the start of the rainy season. The protective measures should be maintained in good working order unless the project drainage system is installed by that date and approval has been granted by the building official to remove the temporary devices.

In addition, construction activities performed during rainy weather may impact the stability of excavation subgrade and exposed ground. Temporary swales should be constructed to divert surface runoff away from excavations and slopes. Steep temporary slopes should be covered with plastic sheeting during significant rains. The geotechnical consultant should be consulted for recommendations to stabilize the site as-needed.

9.2. Seismic Design Criteria

Design of the proposed improvements should be performed in accordance with the requirements of the governing jurisdictions and applicable building codes. Seismic design criteria consistent with the CSU Seismic Requirements (2016) were evaluated for the site.

The site classification, site coefficients, spectral accelerations, and seismic design category consistent with the CSU criteria are presented in Table 6.

Table 6 – Seismic Design Criteria

Seismic Design Parameter	BSE-2 Value	BSE-1 Value
Site Classification	D[1]	D[1]
Tabulated Spectral Acceleration at 0.2-second Period	1.50 g	1.00 g
Tabulated Spectral Acceleration at 1.0-second Period	0.60 g	0.40 g
Site Coefficient, F_a	0.9	1.10
Site Coefficient, F_v	1.4	1.60
Site-Adjusted Spectral Acceleration at 0.2-second Period	1.35 g	1.10 g
Site-Adjusted Spectral Acceleration at 1.0-second Period	0.84 g	0.64 g
Seismic Design Category	D	D
[1] Assumes fundamental period of building is ½ second or less.		

9.3. Foundations

Foundations should be designed in accordance with structural considerations and our geotechnical recommendations. In addition, requirements of the governing jurisdictions, practices of the Structural Engineers Association of California, and applicable building codes should be considered in the design of the structures. The foundation design parameters presented in this report are not intended to preclude differential movement of soils. Minor cracking (considered tolerable) of foundations may occur.

Due to the soft ground conditions and relatively shallow groundwater levels encountered during our subsurface exploration, we anticipate that deep foundations will be needed to support the new science building if the column and wall loads are moderate to large. Recommendations for auger cast piles are provided as an alternative to driven piles or conventional drilled piers to obviate the noise and vibration concerns related to pile driving, and to avoid the need for slurry or casing to stabilize drilled pier excavations.

Other lightly-loaded ancillary improvements may be supported on spread footings.

9.3.1. Auger Cast Pile Foundations

The new science building may be supported on auger cast pile foundations. Auger cast piles are cast-in-place foundations that are generally constructed by drilling a shaft in one pass with a hollow-stem auger, injecting cement grout through the hollow stem to fill the shaft as the auger is withdrawn from the excavation, then lowering a cage of reinforcing steel into the grout-filled shaft. Methods for constructing auger cast piles include utilizing continuous flight augers (CFA) and drilled displacement (DD) techniques.

CFA piles are constructed using an auger with continuous flighting and a consistent shaft diameter. The auger is advanced and rotated in a controlled fashion so that the cuttings are not transported up the auger but remain on the flights to stabilize the borehole during auger advancement. Once the tip elevation is achieved, the auger is pulled out of the hole with no rotation to remove the cuttings while the grout is injected into the hole.

DD piles are constructed utilizing an auger with a shaft diameter that increases with distance above the cutting head. The increasing shaft diameter displaces the excavated soil laterally as the auger is advanced to increase the density of the soil around the excavation and reduce the quantity of drill cuttings produced. DD piles that utilize an auger with a shaft diameter that increases to meet the flighting diameter, can be considered “full displacement” piles. DD piles may be constructed as full or partial displacement piles with continuous or limited flighting. Augers with limited flighting generally include a section with reversed flights above the displacement body to gather and displace sloughed soil as the auger is rotated out of the hole.

The values of allowable axial resistance listed in Table 7 may be used to design the foundations for the new science building provided that the center-to-center pile spacing is equivalent to three or more pile diameters. Pile foundations should be designed to resist the appropriate load combinations for downward and upward vertical loading, neglecting the potential vertical support provided by pile caps or grade beams. The

designer may interpolate between the values provided for piles with intermediate nominal diameters. The pile-supported structure should be designed to accommodate the static and dynamic settlements listed in the table.

Table 7 – Allowable Axial Resistance for CFA Piles

Pile Type	Embedment Length [1]	Allowable Axial Resistance		Single Pile Static Settlement [4]	4-Pile Group Static Settlement [4]	Dynamic Settlement [5]
		Downward [2]	Upward [3]			
18-inch-diameter CFA pile	50 feet	75 kips	55 kips	¼-inch	¾-inch	2-inches
	70 feet	111 kips	81 kips	¼-inch	¼-inch	2-inches
	90 feet	151 kips	109 kips	¼-inch	¼-inch	2-inches
24-inch-diameter CFA piles	50 feet	100 kips	75 kips	¼-inch	½-inch	2-inches
	70 feet	149 kips	110 kips	¼-inch	¼-inch	2-inches
	90 feet	201 kips	148 kips	¼-inch	¼-inch	2-inches

[1] Embedment length was considered to be from a depth of 10 feet below the existing ground surface to the pile tip.
[2] Allowable resistance to downward loading includes a factor of safety of 2.0 for side friction. Tip resistance neglected. Allowable resistance may be increased by one-third for seismic or wind load combinations. Allowable resistance includes consideration for drag loads due to liquefaction and dynamic settlement.
[3] Allowable resistance to uplift loading includes a factor of safety of 3.0 for side friction. Allowable resistance may be increased by one-third for seismic or wind load combinations.
[4] Total static settlement for sustained load on pile(s) at allowable downward resistance. Differential static settlement is 50 percent of total over lateral distance of approximate 40 feet.
[5] Total dynamic settlement due to the maximum considered earthquake.

The parameters listed in Table 8 may be used to evaluate static lateral load resistance for pile foundations. Lateral pile calculations are presented in Appendix F. The lateral load resistance for pile foundations does not need to be reduced for group effects where the center-to-center pile spacing is equivalent to 8 or more pile diameters. In addition, a lateral earth pressure on embedded grade beams or pile caps equivalent to 250 pounds per square foot (psf) per foot of depth, up to 2,500 psf, may be considered when evaluating the resistance to lateral loads. The lateral earth pressure within one foot of finish grade should be neglected where the ground adjacent to the foundation is not covered by a pavement or concrete slab. The lateral earth pressure may be increased by one-third for wind or seismic loading conditions. The shape of this lateral earth pressure distribution against pile caps and grade beams may be assumed to be triangular where the ground adjacent to the foundation is covered by a slab or pavement, trapezoidal

where the adjacent ground is not covered, or rectangular below an embedment depth of 10 feet.

The lateral deflection needed to develop the recommended earth pressure for resistance to lateral loading on pile caps and grade beams is equivalent to 0.7 percent of the embedment depth for the pile cap or grade beam. This lateral earth pressure should be reduced proportionally where the design lateral deflection, consistent with the assumed head deflection of the pile foundation, is less than 0.7 percent of the embedment depth for the cap or beam. No reduction is needed where the embedment depths are less than 4.5 feet or 12 feet for ⅜-inch or 1-inch of design lateral deflection, respectively.

Table 8 – Static Lateral Resistance of Auger Cast Piles

Auger Cast Pile Diameter	Embedment Length (feet)	⅜-inch Head Deflection				1-inch Head Deflection			
		Lateral Load (kips)		Peak Moment (kips-ft)		Lateral Load (kips)		Peak Moment (kips-ft)	
		Pinned Head	Fixed Head	Pinned Head	Fixed Head	Pinned Head	Fixed Head	Pinned Head	Fixed Head
18-inch	40 or more	12	23	47	100	17	37	80	174
24-inch	40 or more	18	36	89	191	27	60	152	346

We encountered deposits of sand and fine-grained soil of low plasticity below the historic high groundwater level during our subsurface exploration. As discussed in Section 7.1.3, our analysis indicates that this material will liquefy in the event of the MCE earthquake. The parameters listed in Table 9 may be used to evaluate dynamic lateral load resistance for pile foundations during the MCE earthquake. Lateral pile calculations are presented in Appendix F.

Table 9 – Dynamic Lateral Resistance of Auger Cast Piles

Auger Cast Pile Diameter	Embedment Length (feet)	⅜-inch Head Deflection				1-inch Head Deflection			
		Lateral Load (kips)		Peak Moment (kips-ft)		Lateral Load (kips)		Peak Moment (kips-ft)	
		Pinned Head	Fixed Head	Pinned Head	Fixed Head	Pinned Head	Fixed Head	Pinned Head	Fixed Head
18-inch	40 or more	10	17	38	75	15	25	59	125
24-inch	40 or more	15	25	64	142	21	38	92	248

The potential for a reduction in the lateral resistance of piles due to the influence of adjacent piles should be considered in design. Piles in a row perpendicular to the direction of lateral loading should be spaced (center to center) at a distance equivalent to three pile diameters (or more) to avoid a reduction in the lateral load resistance due to group effects. A reduction in the lateral resistance due to group effects should be considered for piles in a column parallel to the direction of loading where the center-to-center spacing between adjacent piles in the column is less than eight pile diameters. The reduction in lateral resistance due to group effects for piles in a column parallel to the direction of loading is influenced by the number of piles in the column and the spacing between piles. The efficiency or available lateral resistances per pile are presented in Table 10 for piles in a column parallel to the direction of loading at various spacings. The designer may interpolate between the values in the table for an intermediate spacing or number of piles.

Table 10 – Group Efficiency for Lateral Loading Parallel to Load

Piles in Column [1]	3B Pile Spacing [2]	6B Pile Spacing [2]	8B Pile Spacing [2]
2	60 percent	93 percent	100 percent
3	50 percent	85 percent	100 percent
4	45 percent	81 percent	100 percent
6	40 percent	78 percent	100 percent
10	36 percent	75 percent	100 percent
15	34 percent	73 percent	100 percent
20	33 percent	72 percent	100 percent

[1] Number of piles in column parallel to the direction of the anticipated lateral load.
[2] Center to center pile spacing in direction of the anticipated load where 'B' is the pile diameter.

Over-rotation of the continuous flight auger during drilling can mine soil adjacent to the excavation resulting in future settlement near the completed pile. Interruptions or variations in the rate of auger withdrawal or grout injection can incorporate defects into the pile. To address these concerns, key parameters should be monitored during the drilling and grouting operations. The contractor should furnish equipment to automatically measure auger rotation, auger depth, penetration rate, torque delivered to

the auger, crowd force, lifting rate, volume of grout placed, and pressure of the grout near the auger tip. These parameters should be automatically recorded as a function of auger depth at vertical intervals of 2 feet or less and submitted to the geotechnical engineer for review. To reduce the potential for soil mining due to over-rotation, the auger penetration rate should generally exceed the auger pitch in 1½ to 2 rotations for cohesionless soil and in 2 to 3 rotations for clay. The potential for soil mining and an appropriate penetration rate for the site conditions can be evaluated by pre-production indicator piles. The target penetration rate should be selected by the foundation contractor based on the proposed equipment and experience on sites with similar ground conditions or based on a pre-production indicator pile program. To reduce the potential for defects in the pile, the applied grouting pressure and the withdrawal rate should be maintained so that the grout pressure at the discharge point exceeds the overburden pressure. The volume of grout placed should exceed the theoretical volume of the pile, typically by about 15 to 20 percent. The contractor should select a target grout volume factor based on the proposed equipment and experience on sites with similar ground conditions or based on a pre-production indicator pile program. The observed grout volume factor should be within 7½ percent of the target.

Auger cast piles should be installed within 3 inches of the planned location and within 2 percent of plumb. Where the lateral distance between adjacent piles is less than 6 pile diameters, the second pile should not be drilled until the grout in the first pile has set. Ninyo & Moore should observe the drilling and grouting of the auger cast piles. These observations should be supplemented by integrity testing performed by the contractor. The integrity testing should consist of low-strain impact testing in accordance with ASTM D5882 on 100 percent of the production piles and gamma gamma logging (GGL) consistent with CTM 233 on 10 percent of the production piles. Inspection holes for the GGL, one hole per pile tested, can be constructed by coring through the pile once the grout has set or by securing an access tube inside the reinforcing steel cage before the steel is embedded into the fluid grout. The access tube should consist of schedule 40 plastic pipe. The inspection hole or access tube should have a 2-inch inner

diameter with 3 inches of clearance to the reinforcing steel. The results of the integrity testing should be reviewed and stamped by a licensed engineer.

An optional pile load testing program may be implemented to refine the design of the auger cast pile foundations and to evaluate the effectiveness of DD installation techniques and the potential contribution of tip resistance to downward axial resistance. Due to the variable nature of the soil encountered during our subsurface exploration, we estimate that an additional capacity of between 18 and 99 kips of tip resistance per pile may be added through DD installation techniques. This preliminary recommendation should not be used to design the foundations without corroboration by pile load testing. The pile load testing should include tests, performed by the foundation contractor, to evaluate upward and downward axial resistance on pre-production indicator piles and on production piles. One static axial tension load test should be performed, in general accordance with ASTM D3689, for each proposed pile diameter, target tip elevation, and installation method on sacrificial indicator piles. One static axial compressive load test should be performed, in general accordance with ASTM D1143, on a sacrificial indicator pile. High strain dynamic testing should be performed, in general accordance with ASTM D4945, on the test pile for the static axial compressive load test, on sacrificial indicator piles for each proposed pile diameter, target tip elevation, and installation method, and on two other sacrificial indicator piles. The indicator pile program should include the test piles and the reaction piles, as needed. The proposed locations for the indicator piles should be reviewed by the geotechnical engineer. Testing should be completed before the start of the production piles. Production pile testing should include static axial tensile load testing on 2 percent of production piles and high strain dynamic testing on 5 percent of production piles. Production piles should be tested to 200 percent of the design load for downward loading or 200 percent of the design load for upward loading.

9.3.2. Slabs-on-Grade

Slabs-on-grade should be designed by the project structural engineer based on the anticipated loading conditions. The slab should be reinforced with deformed steel bars having a nominal diameter of 3/8-inch or more. Masonry briquettes or plastic chairs should be used to aid in the correct placement of slab reinforcement in the upper half of the slab. Recommendations for concrete and concrete cover over reinforcing steel are presented in Section 9.5. A vapor retarder is recommended in areas where moisture-sensitive floor coverings or conditioned environments are anticipated. Recommendations for vapor retarding systems are provided in Section 9.6. Joints, consistent with ACI guidelines (ACI, 2015), may be constructed at periodic intervals to influence crack locations and reduce the potential for random cracking of the slab.

9.3.3. Footings Below Grade

Lightly-loaded ancillary improvements may be supported on spread footings. Footings bearing at 12 inches below the adjacent grade on firm or medium dense subgrade may be designed for an allowable bearing capacity of 1,000 psf presuming a width of 6 to 36 inches. Wall footings may be stepped provided that the bearing grade differential between adjacent steps does not exceed 18 inches and the slope of a series of such steps does not exceed 1 unit vertical to 2 units horizontal. The geotechnical engineer should be provided an opportunity to observe the footing excavations to evaluate bearing materials and subgrade condition prior to placement of reinforcing steel or erection of forms. Structures supported on footings consistent with these recommendations should be designed for a total settlement due to sustained loads of 2½ inches with a differential of 1¼ inches over a lateral span of 30 feet. Footing-supported structures should be designed to accommodate an additional 5½ inches of total dynamic settlement with a differential dynamic settlement of about 2¾ inch over a lateral distance of approximately 30 feet. The allowable bearing capacities recommended above include a factor of safety of 3 or more and may be increased by one-third when considering loads of short duration such as wind or seismic forces.

The spread footings should be reinforced with deformed steel bars (No. 4 or larger). The project structural engineer should design and detail the footing reinforcement based on the anticipate loads. Where footings are located adjacent to utility trenches or other excavations, the footing bearing surfaces should bear below an imaginary plane extending upward from the bottom edge of the adjacent trench/excavation at a 2:1 (horizontal to vertical) angle. Footings should be deepened or excavation depths reduced as-needed.

A lateral bearing pressure of 250 psf per foot of depth up to 2,500 psf may be used to evaluate the resistance of footings to lateral loads for level ground conditions. The lateral bearing pressure should be neglected to a depth of 12 inches where the ground adjacent to the foundation is not covered by a slab or pavement. The lateral bearing pressure may be increased by one-third when considering loads of short duration such as wind or seismic forces. The shape of this lateral earth pressure distribution against footings may be assumed to be triangular where the ground adjacent to the foundation is covered by a slab or pavement, trapezoidal where the adjacent ground is not covered, or rectangular below an embedment depth of 10 feet. A friction coefficient of 0.35 may be assumed for evaluating frictional resistance to lateral loads.

9.4. Retaining Walls

Below grade walls that are restrained by framing, floor diaphragms, or perpendicular walls should be designed to resist an at-rest equivalent fluid earth pressure of 62 pounds per cubic foot (pcf) for level ground conditions. Walls retaining level ground should be designed to resist construction or live load surcharges on the backfill. The lateral earth pressure due to a backfill surcharge of 240 psf would be 120 psf for restrained conditions. An additional backfill surface and lateral earth pressure for adjacent footings should be considered, as applicable, where the adjacent footings bear above an imaginary plane that rises up and away from the bottom edge of the wall at a 2:1 (horizontal to vertical) gradient.

A hydrostatic pressure equivalent to 62 psf per foot depth below a design high groundwater level of 10 feet below the existing ground surface should be considered for retaining walls

that extend below the design high water level. Hydrostatic pressures may be neglected for walls above the design high water level, provided that suitable drainage of the retained soil is provided. The retained soil may be drained by weepholes or a subdrain at the base of the wall stem. Geocomposite drain panels (Miradrain 6000XL, or similar) placed against the back of the wall may be used to supplement a smaller subdrain located near the base of the wall. Measures to reduce the rate of moisture or vapor intrusion through the wall may be advisable for walls where the discoloration resulting from moisture intrusion would be undesirable. Such measures might include use of concrete with a low water-to-cementitious-materials ratio, and/or the placement of an asphalt emulsion or 15-mil thick plastic membrane to the back surface of the wall.

Recommendations for wall foundations and for parameters to evaluate resistance to lateral loads are provided in Section 9.3.3.

9.5. Concrete

Laboratory testing indicated that the concentration of sulfate and corresponding potential for sulfate attack on concrete is negligible for the soil tested. However, due to the variability in the on-site soil and the potential future use of reclaimed water at the site, we recommend that Type II/V or Type V cement be used for concrete structures in contact with soil. In addition, we recommend a water-to-cement ratio of no more than 0.45. A 3-inch thick, or thicker, concrete cover should be maintained over reinforcing steel where concrete is in contact with soil in accordance with Section 7.7 of ACI Concrete Institute (ACI) Committee 318 (ACI, 2014).

9.6. Moisture Vapor Retarder

The migration of moisture through slabs underlying enclosed spaces or overlain by moisture sensitive floor coverings should be discouraged by providing a moisture vapor retarding system between the subgrade soil and the bottom of slabs. We recommend that the moisture vapor retarding system consist of a 4-inch-thick capillary break, overlain by a polyethylene plastic membrane 10-mil-thick. The capillary break should be constructed of clean, compacted, open-graded crushed rock or angular gravel of ¾-inch nominal size. To reduce

the potential for slab curling and cracking, an appropriate concrete mix with low shrinkage characteristics and a low water-to-cementitious-materials ratio should be specified. In addition, the concrete should be delivered and placed in accordance with ASTM C94 with attention to concrete temperature and elapsed time from batching to placement, and the slab should be cured in accordance with Section 302.1, 305, or 306 of the Manual of Concrete Practice (ACI, 2015), as appropriate. The plastic membrane should conform to the requirements in the latest version of ASTM Standard E 1745 for a Class A membrane. The bottom of the moisture barrier system should be higher in elevation than the exterior grade, if possible. Positive drainage should be established and maintained adjacent to foundations and flatwork.

A subdrain should be constructed beneath and around the foundation perimeter at locations where the exterior grade is at a higher elevation than the moisture vapor retarding system (including the capillary break layer). The subdrain should consist of ¾-inch crushed rock wrapped in filter fabric (Mirafi 140N, or equivalent). The subdrain should be capped by a pavement or 12 inches of native soil and drained by a perforated pipe (Schedule 40 polyvinyl chloride pipe, or similar). The pipe should be sloped at 1 percent or more to discharge at an appropriate outlet away from the foundation. The pipe should be located below the bottom elevation of the moisture vapor retarding system but above a plane extending down and away from the bottom edge of the foundation at a 1:1 (horizontal to vertical) gradient.

9.7. Drainage and Site Maintenance

Positive surface drainage should be provided to divert surface water and roof runoff away from foundations and off site. Downspouts should be connected to a closed drainage system to discharge at a suitable location 10 feet or more away from the foundations. Runoff should be diverted by the use of swales or pipes into a collective drainage system. Surface water should not be allowed to pond adjacent to footings or retaining walls, and drainage on the site should be provided so that water is not permitted to pond. A gradient of 2 percent or steeper should be maintained and drainage patterns should be established to divert and

remove water from the site to appropriate outlets. Care should be taken by the contractor during grading to preserve any berms, drainage terraces, interceptor swales or other drainage devices on or adjacent to the project site. Drainage patterns established at the time of grading should be maintained for the life of the project.

9.8. Review of Construction Plans

The recommendations provided in this report are based on preliminary design information for the proposed construction. We recommend that a copy of the plans be provided to Ninyo & Moore for review before bidding to check the interpretation of our recommendations and that the designed improvements are consistent with our assumptions. It should be noted that, upon review of these documents, some recommendations presented in this report might be revised or modified to meet the project requirements.

9.9. Construction Observation and Testing

The recommendations provided in this report are based on subsurface conditions encountered in relatively widely spaced exploratory borings. During construction, the geotechnical engineer or his representative in the field should be allowed to check the exposed subsurface conditions. During construction, the geotechnical engineer or his representative should be allowed to:

- Observe preparation and compaction of subgrade.
- Check and test imported materials prior to use as fill.
- Observe placement and compaction of fill.
- Perform field density tests to evaluate fill and subgrade compaction.
- Observe footing excavations for bearing material and cleaning prior to placement of reinforcing steel and concrete.
- Observe placement of reinforcing steel in footings and slabs.
- Observe installation of indicator and production piles.
- Observe pile load testing.

- Observe condition of water vapor retarding system prior to concrete placement.

The recommendations provided in this report assume that Ninyo & Moore will be retained as the geotechnical consultant during the construction phase of the project. If another geotechnical consultant is selected, we request that the selected consultant provide a letter to the architect and the owner (with a copy to Ninyo & Moore) indicating that they fully understand Ninyo & Moore's recommendations, and that they are in full agreement with the recommendations contained in this report.

10. LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports

prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur because of government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

11. REFERENCES

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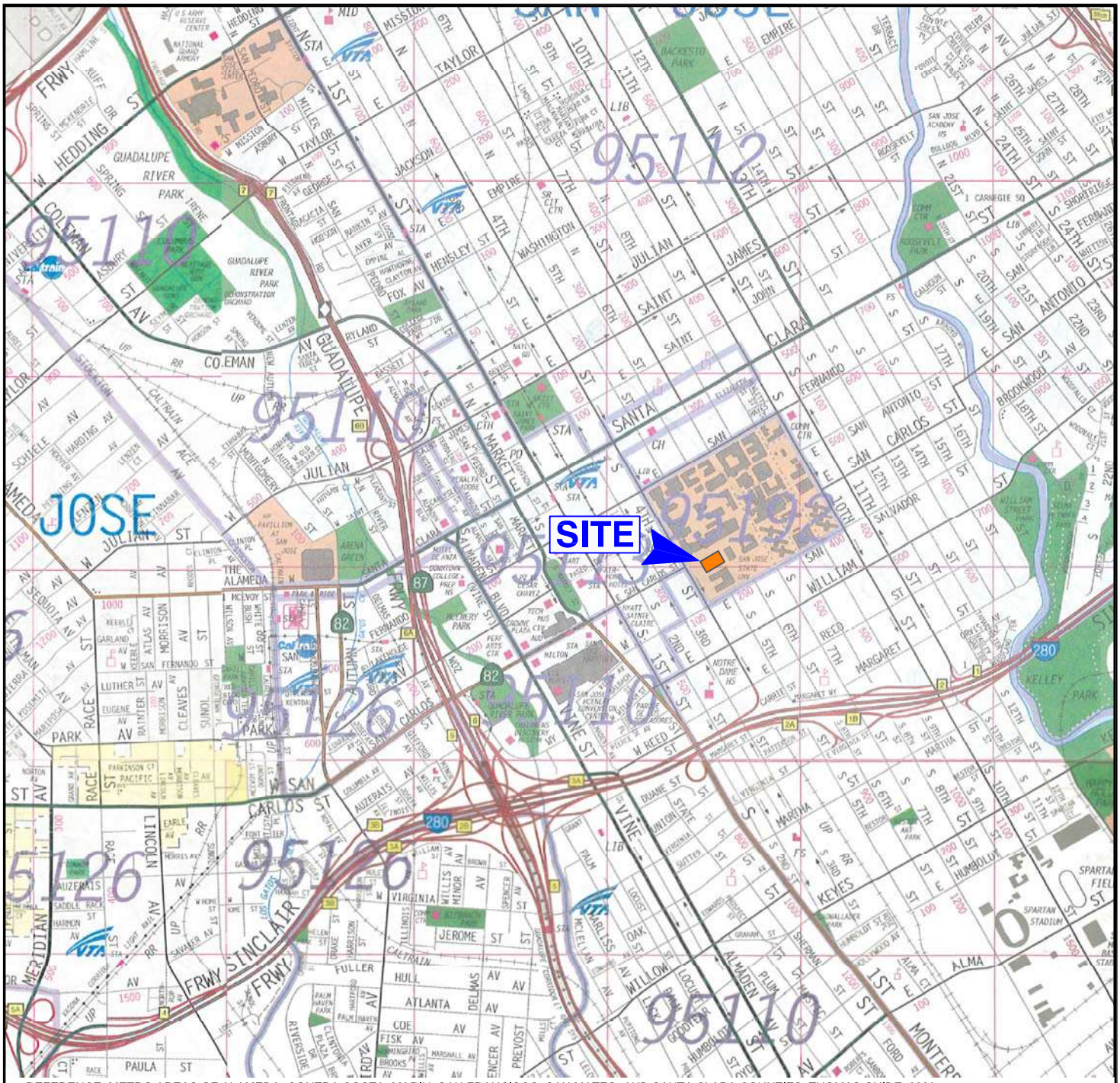

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N

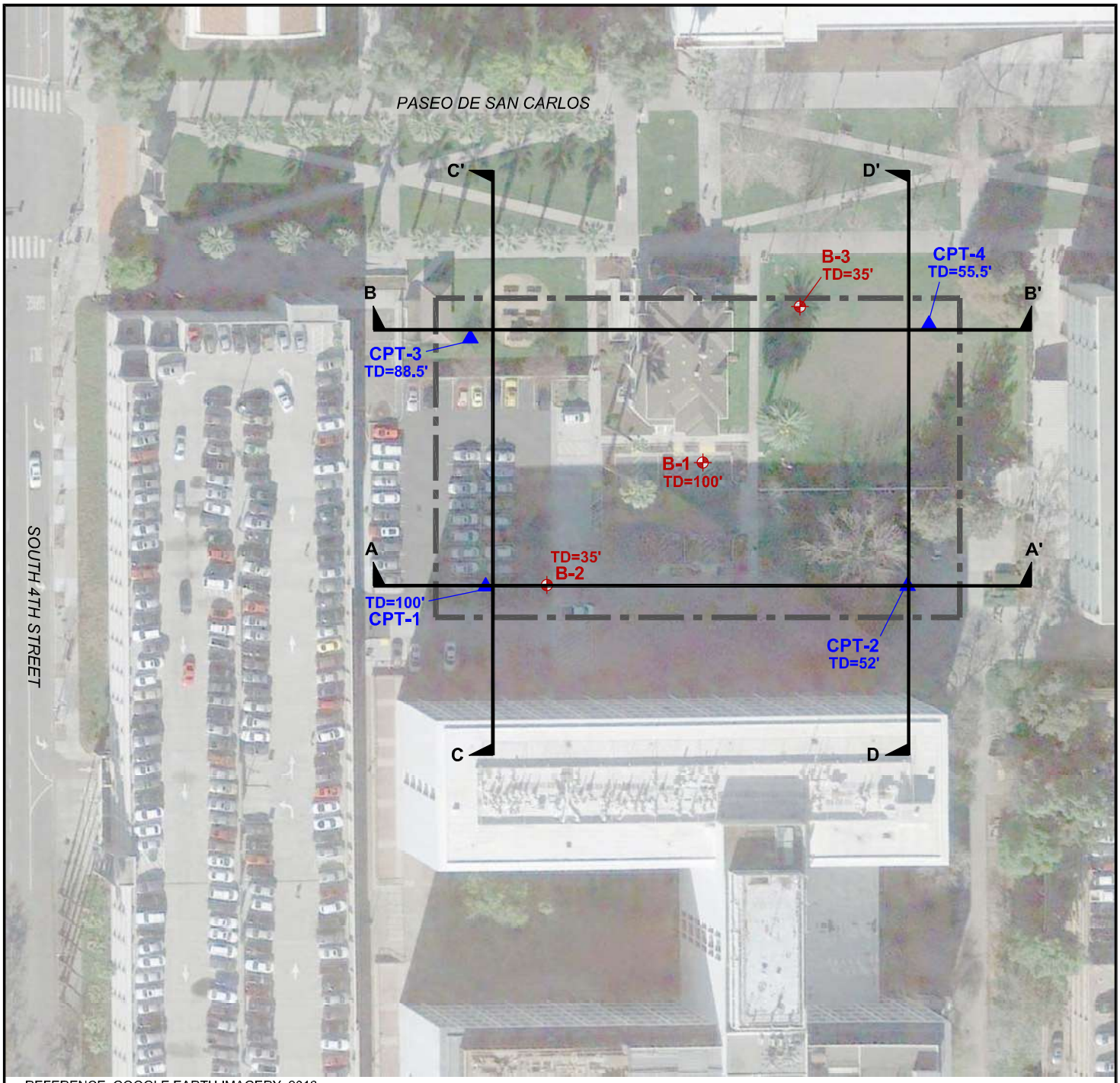
SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	SITE LOCATION	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	1

1_402814001-SL.dwg, Jun 10, 2016, 2:57pm, SN



REFERENCE: GOOGLE EARTH IMAGERY, 2016.

N

SCALE IN FEET

0 80 160

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND	
	SITE BOUNDARY
B-3 TD=35'	BORING TD=TOTAL DEPTH IN FEET
CPT-4 TD=55.5'	CONE PENETRATION TEST TD=TOTAL DEPTH IN FEET
A A'	CROSS SECTION LOCATION

Ninyo & Moore

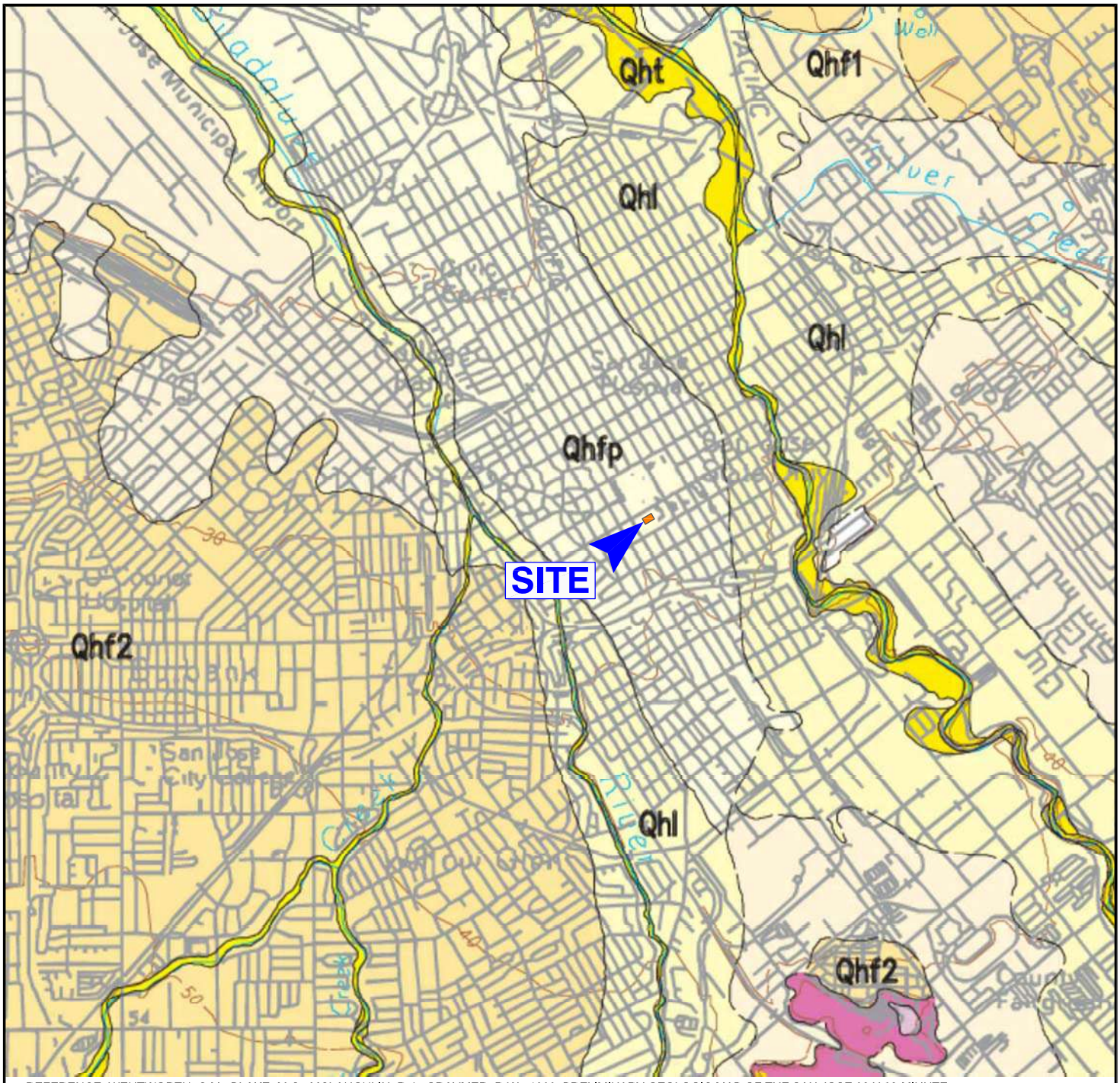
BORING AND CPT LOCATIONS

FIGURE 2

PROJECT NO.	DATE
402814001	7/16

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY
SAN JOSE, CALIFORNIA

2_402814001-BL.dwg, Jul 06, 2016, 10:51am, SN



REFERENCE: WENTWORTH, C.M., BLAKE, M.C., MCLAUGHLIN, R.J., GRAYMER, R.W., 1999, PRELIMINARY GEOLOGIC MAP OF THE SAN JOSE 30 X 60-MINUTE QUADRANGLE, CALIFORNIA, SCALE 1:100,000.

N

SCALE IN FEET

0 4,000 8,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

Qhfp	FLOOD PLAIN DEPOSITS (HOLOCENE)
Qhl	LEVEE DEPOSITS (HOLOCENE)
Qht	STREAM TERRACE DEPOSITS (HOLOCENE)
Qhf1	ALLUVIAL FAN DEPOSITS (HOLOCENE) YOUNGER
Qhf2	ALLUVIAL FAN DEPOSITS (HOLOCENE) OLDER

Ninyo & Moore

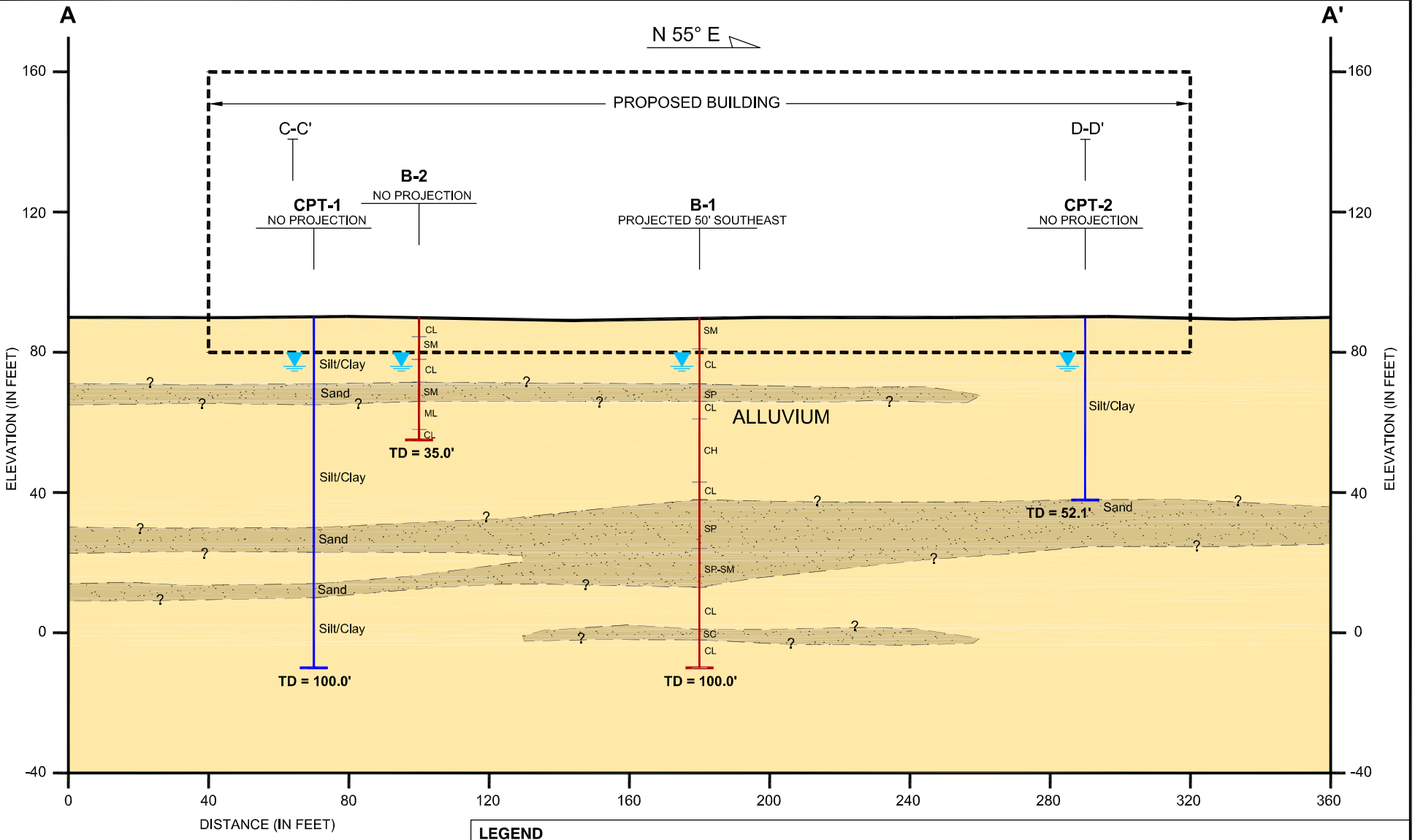
REGIONAL GEOLOGY

FIGURE 3

PROJECT NO.	DATE
402814001	7/16

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY
SAN JOSE, CALIFORNIA

3_402814001-RG.dwg, Jul 05, 2016, 11:12am, SN



LEGEND

- **B-2** — BORING; TD=TOTAL DEPTH IN FEET; **TD=35.0'**
- **CPT-2** — CONE PENETRATION TEST; TD=TOTAL DEPTH IN FEET; **TD=52.1'**
- GEOLOGIC CONTACT; QUERIED WHERE UNCERTAIN
- APPROXIMATE GROUNDWATER LEVEL MEASURED
- ALLUVIUM - CLAY AND SILT
- ALLUVIUM - SILTY SAND AND SAND

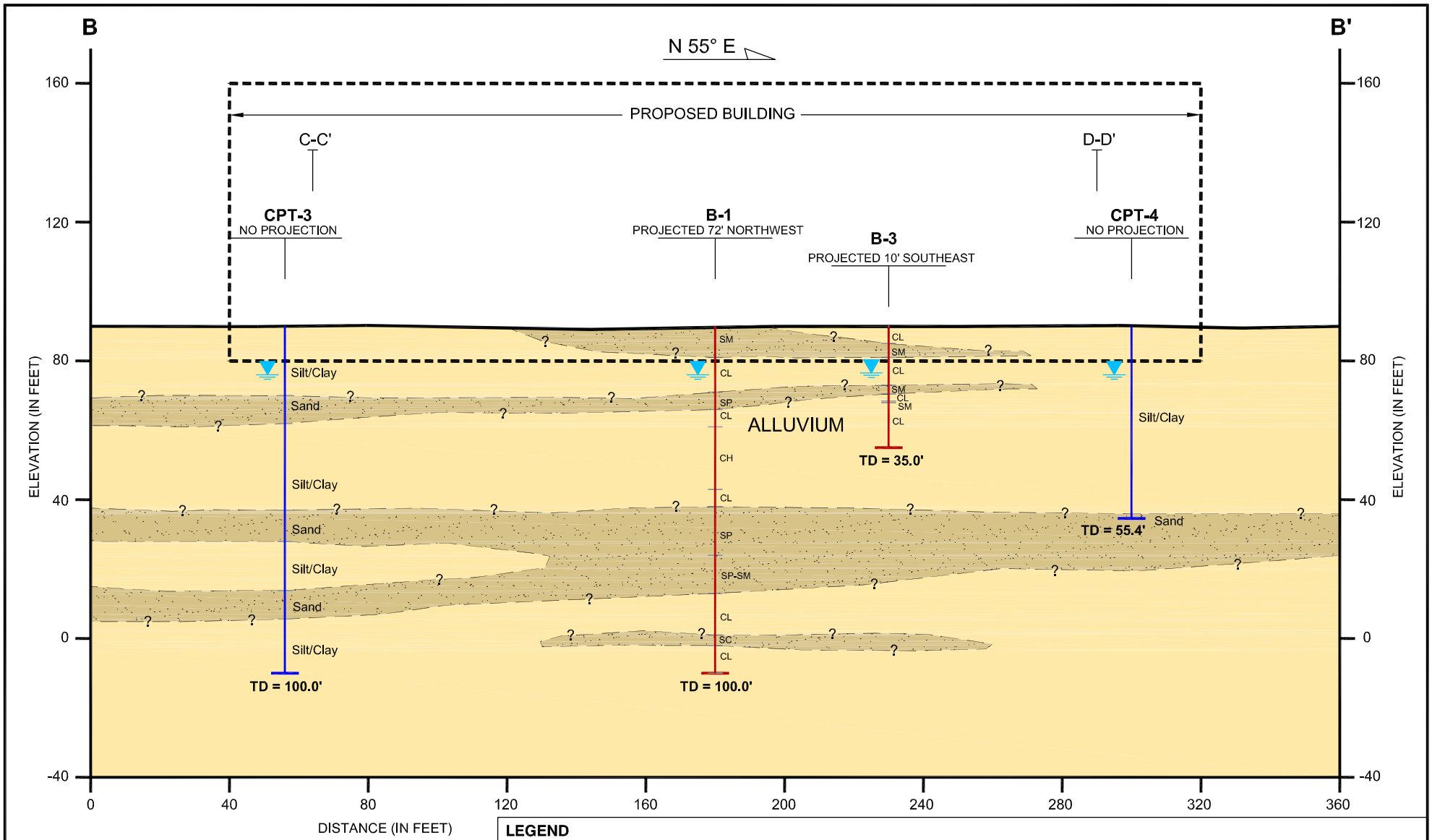
SCALE IN FEET

0 40 80

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	GEOLOGIC CROSS SECTION A-A'	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	4

4_402814001-CS AA.dwg, Jul 06, 2016, 11:01am, SN



LEGEND

- **B-3** — BORING, TD=TOTAL DEPTH IN FEET — **TD=35.0'**
- **CPT-4** — CONE PENETRATION TEST, TD=TOTAL DEPTH IN FEET — **TD=55.4'**
- GEOLOGIC CONTACT; QUERIED WHERE UNCERTAIN
- APPROXIMATE GROUNDWATER LEVEL MEASURED
- ALLUVIUM - CLAY AND SILT
- ALLUVIUM - SILTY SAND AND SAND

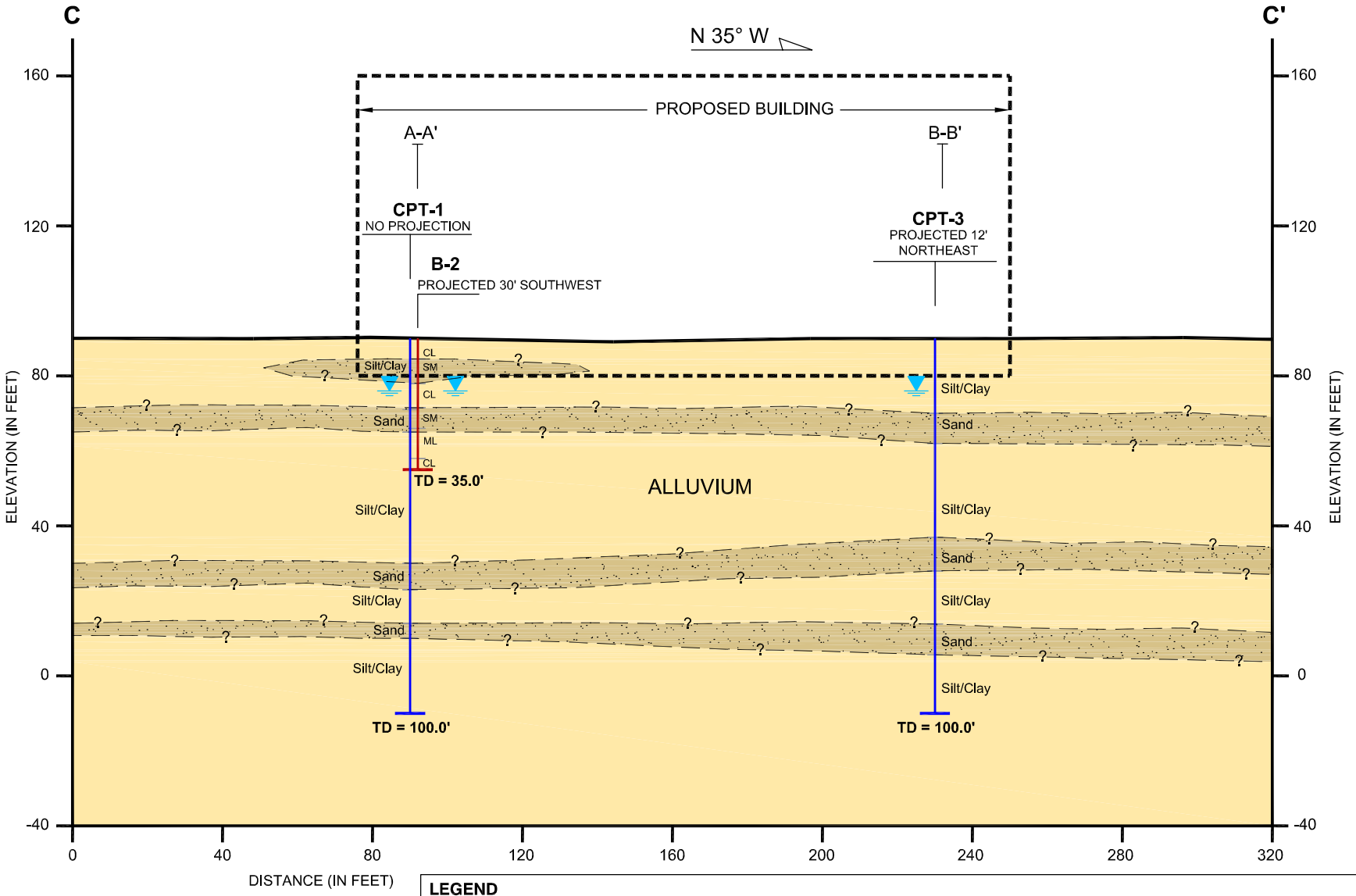
SCALE IN FEET

0 40 80

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	GEOLOGIC CROSS SECTION B-B'	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	5

5_402814001-CS BB.dwg, Jul 06, 2016, 11:17am, SN



LEGEND

- **B-2** — BORING; TD=TOTAL DEPTH IN FEET; **TD=35.0'**
- **CPT-3** — CONE PENETRATION TEST; TD=TOTAL DEPTH IN FEET; **TD=100.0'**
- GEOLOGIC CONTACT; QUERIED WHERE UNCERTAIN
- APPROXIMATE GROUNDWATER LEVEL MEASURED
- ALLUVIUM - CLAY AND SILT
- ALLUVIUM - SILTY SAND AND SAND

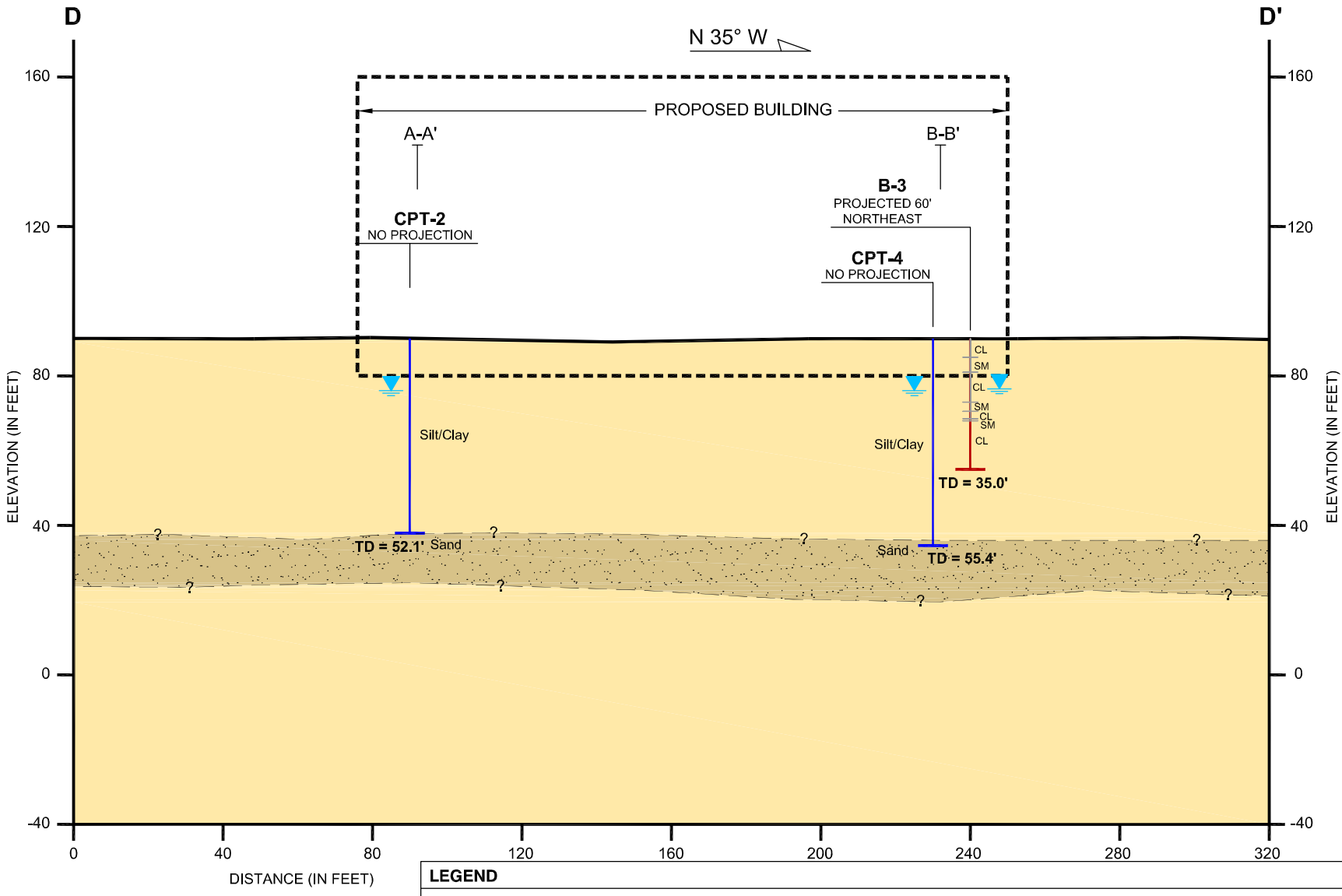
SCALE IN FEET

0 40 80

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	GEOLOGIC CROSS SECTION C-C'	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	6

6_402814001-GS CC.dwg, Jul 06, 2016, 11:16am, SN



LEGEND

- **B-3** — BORING; TD=TOTAL DEPTH IN FEET; **TD=35.0'**
- **CPT-4** — CONE PENETRATION TEST; TD=TOTAL DEPTH IN FEET; **TD=55.4'**
- ALLUVIUM - CLAY AND SILT
- ALLUVIUM - SILTY SAND AND SAND
- ?— GEOLOGIC CONTACT; QUERIED WHERE UNCERTAIN
- APPROXIMATE GROUNDWATER LEVEL MEASURED

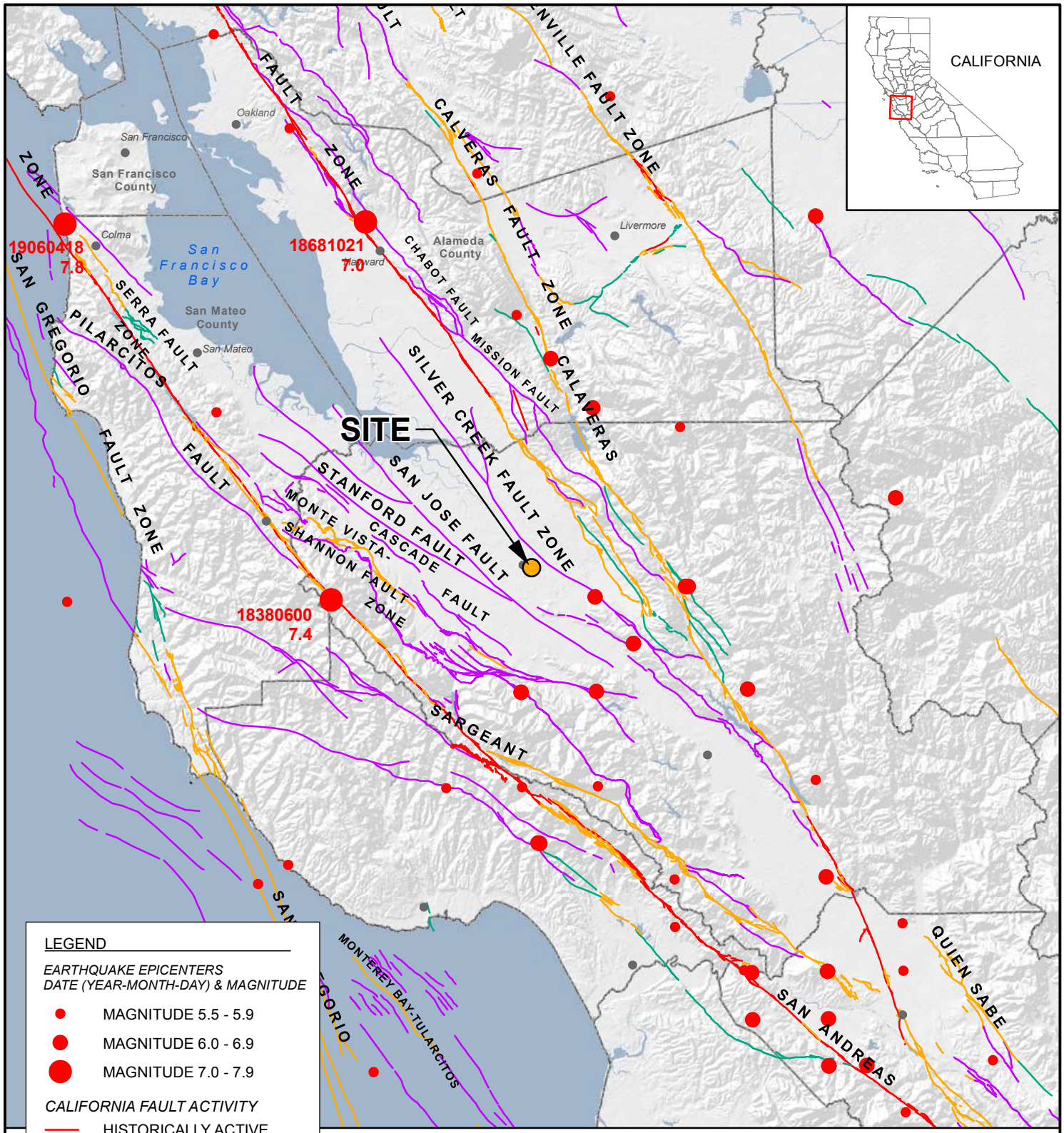
SCALE IN FEET

0 40 80

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	GEOLOGIC CROSS SECTION D-D'	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	7

7_402814001-CS DD.dwg, Jul 06, 2016, 11:39am, SN

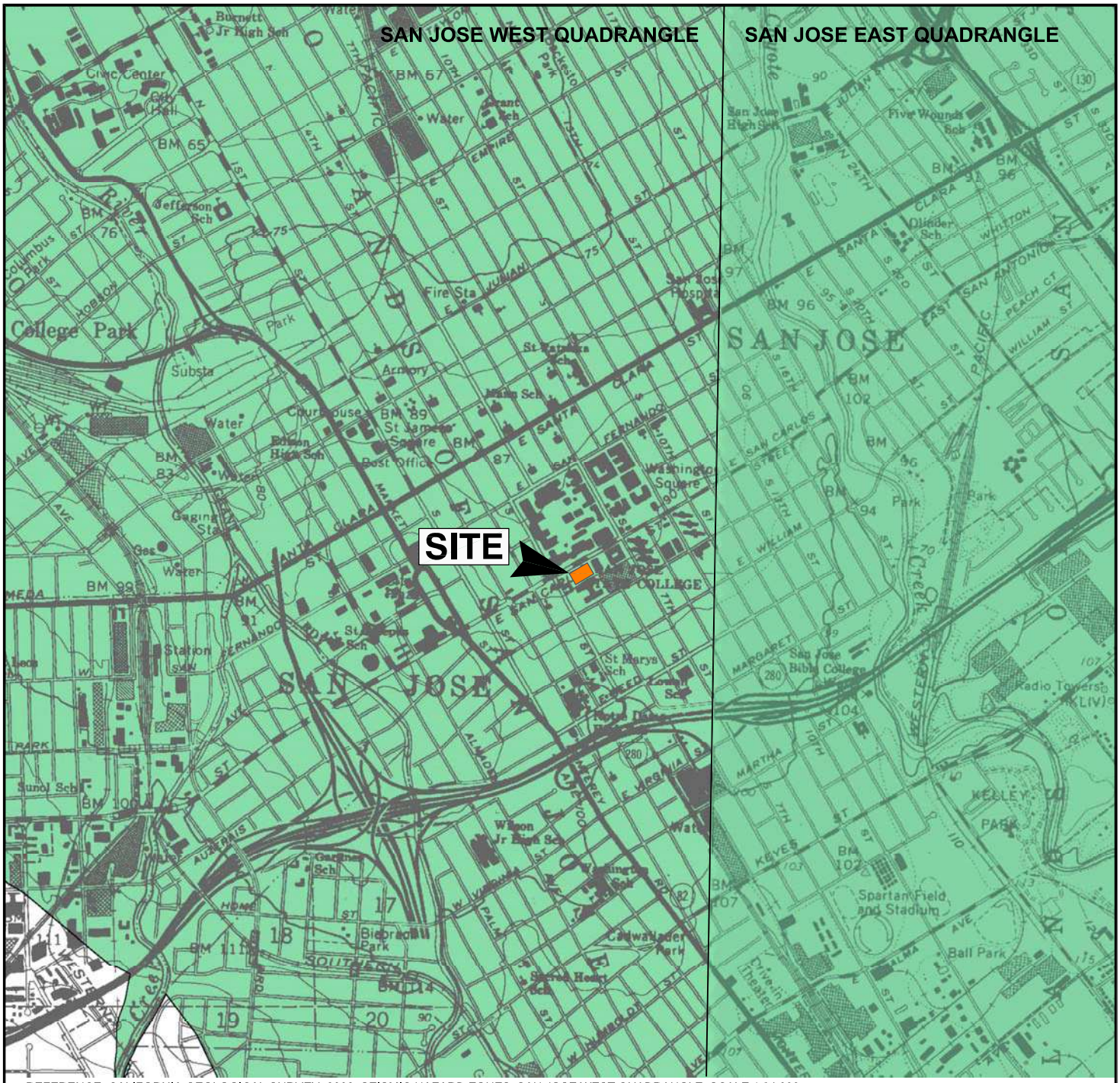


SOURCES: FAULTS - USGS & CGS, 2006, QUATERNARY FOLD AND FAULT DATABASE FOR THE UNITED STATES.
EARTHQUAKES - CALIFORNIA GEOLOGICAL SURVEY, 2000, MAP SHEET MS-49.

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	FAULT LOCATIONS AND EARTHQUAKE EPICENTERS	FIGURE
PROJECT NO. / DATE	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	8
402814001 / 7/16		

fault_loc_EPIC_OAK_central_93.mxd SN



REFERENCE: CALIFORNIA GEOLOGICAL SURVEY, 2002, SEISMIC HAZARD ZONES, SAN JOSE WEST QUADRANGLE, SCALE 1:24,000.
CALIFORNIA GEOLOGICAL SURVEY, 2001, SEISMIC HAZARD ZONES, SAN JOSE EAST QUADRANGLE, SCALE 1:24,000.

N

SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

LIQUEFACTION:
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Ninyo & Moore

SEISMIC HAZARD ZONES

FIGURE 9

PROJECT NO.	DATE
402814001	7/16

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY
SAN JOSE, CALIFORNIA

9_402814001-SHZ.dwg, Jul 06, 2016, 11:20am, SN

APPENDIX A

CONE PENETRATION TESTING

Field Procedure for Cone Penetration Testing

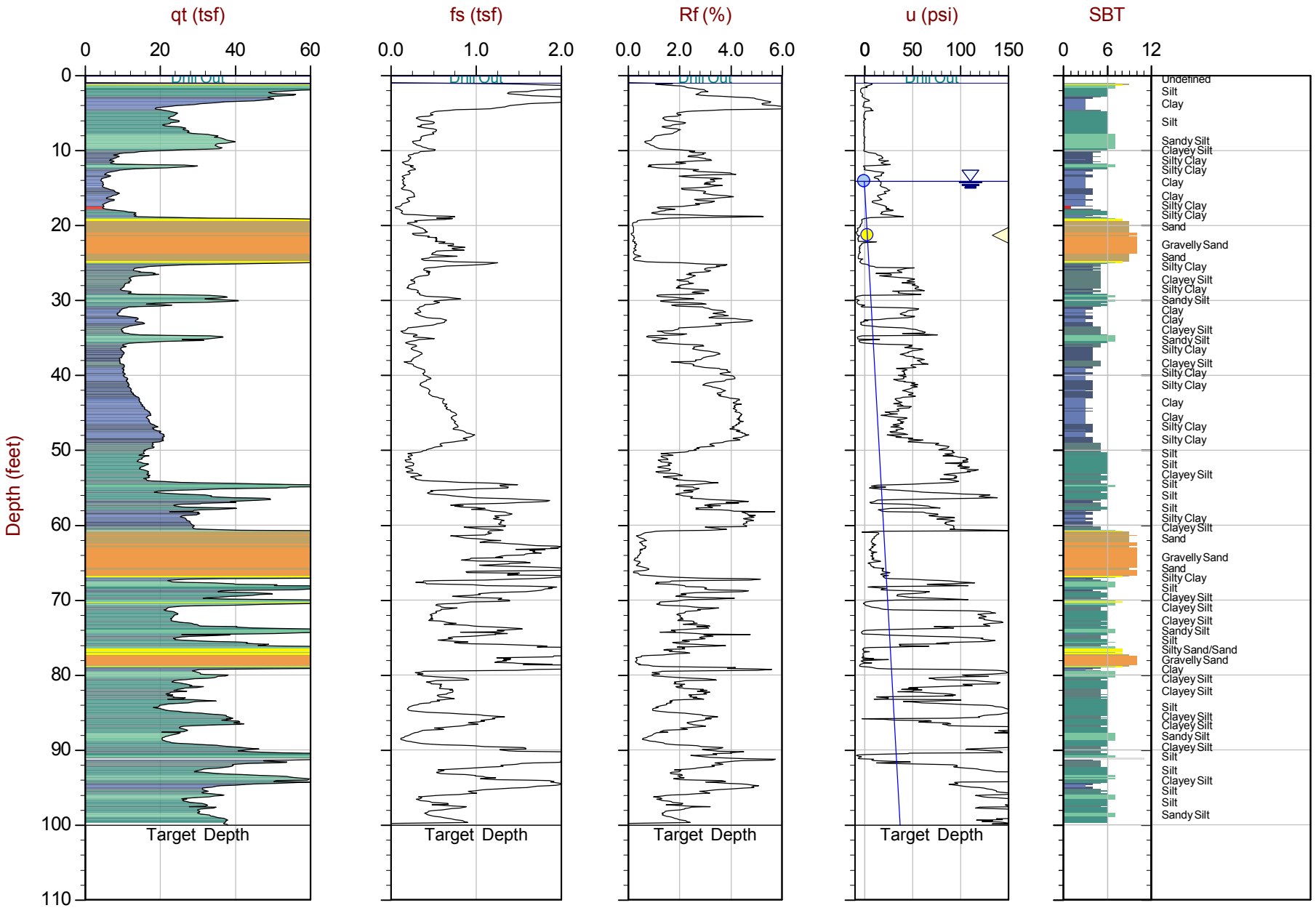
A penetrometer with a conical tip having an apex angle of 60 degrees and a cone base area of 15 square centimeters was hydraulically pushed through the soil using the reaction mass of a 20-ton rig at a constant rate of about 20 millimeter per second in accordance with ASTM D 5778. The penetrometer was instrumented to measure, by electronic methods, the water pressure acting on a transducer near the cone tip, the force on the conical point required to penetrate the soil, and the force on a friction sleeve behind the cone tip as the penetrometer was advanced. Penetration and pore water pressure data (P_w) was collected and recorded electronically at intervals of approximately 1 inch. Cone resistance (Q_t) was calculated by dividing the measured force of penetration by the cone base area. Friction sleeve resistance (F_s) was calculated by dividing the measured force on the friction sleeve by the surface area of the sleeve. The friction ratio (R_f) was calculated as the ratio of the tip resistance to the sleeve friction (Q_t/F_s). A graph of the computed values of cone resistance (Qt), friction ratio (Fs/Qt), and pore water pressure (U) are presented on the logs in the following pages. The tip resistance and friction ratio were used to classify the soil type encountered using the method by Robertson and Campanella (1986). Equivalent SPT blowcounts at a 60 percent energy ratio with overburden correction ($N_{1(60)}$ values) were calculated from the tip resistance and friction ratio. A graph of the equivalent $N_{1(60)}$ values and the encountered soil types are also presented on the logs in the following pages.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 07:59
Site: Paseo De San Carlos & S 4th St San Jose CA

Sounding: SCPT-01
Cone: 447:T1500F15U500



Max Depth: 30.500 m / 100.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 16-56033_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132383 E: 598975

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

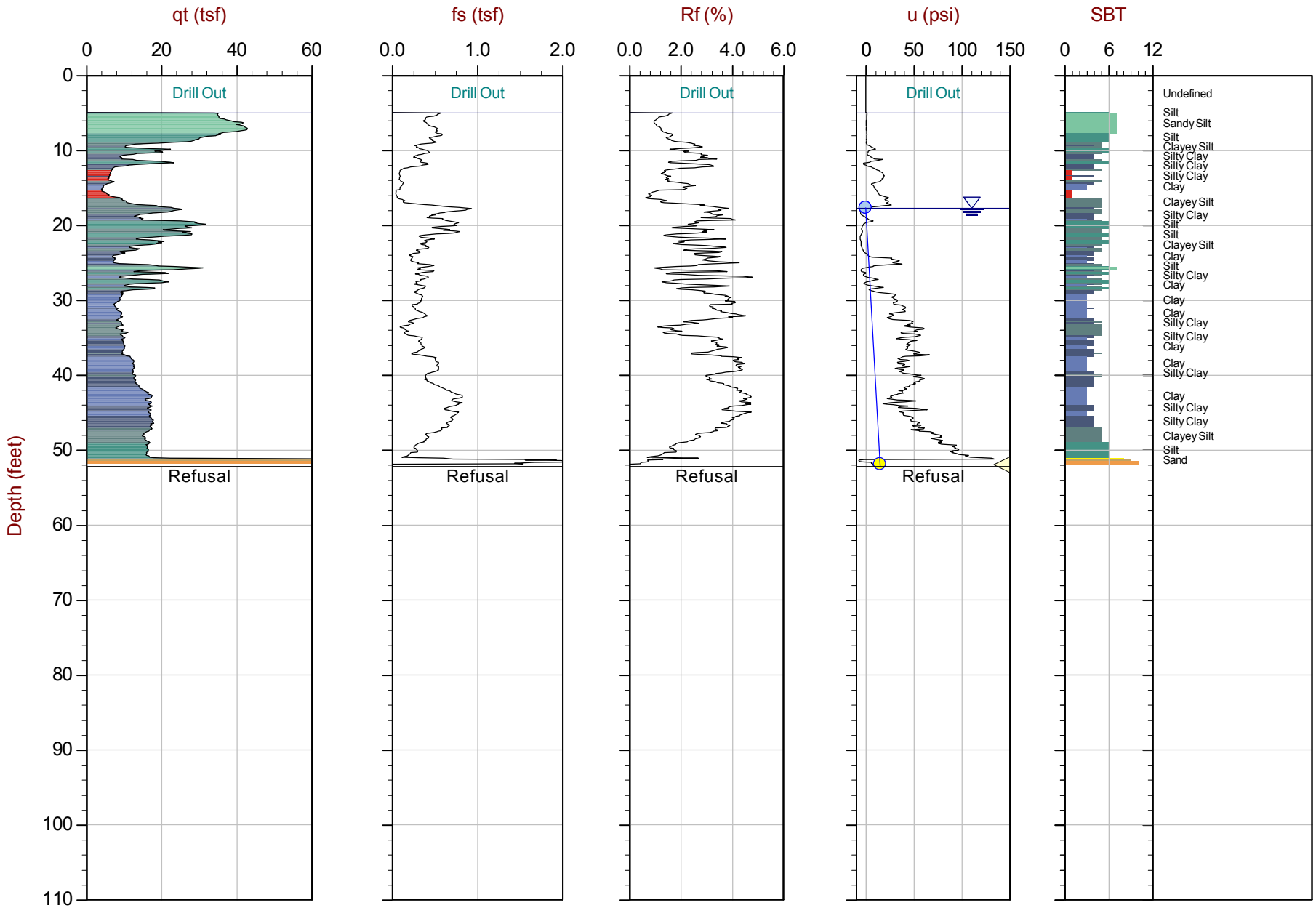
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 11:34
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-02
Cone: 447:T1500F15U500



Max Depth: 15.900 m / 52.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 16-56033_CP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132422 E: 599032

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

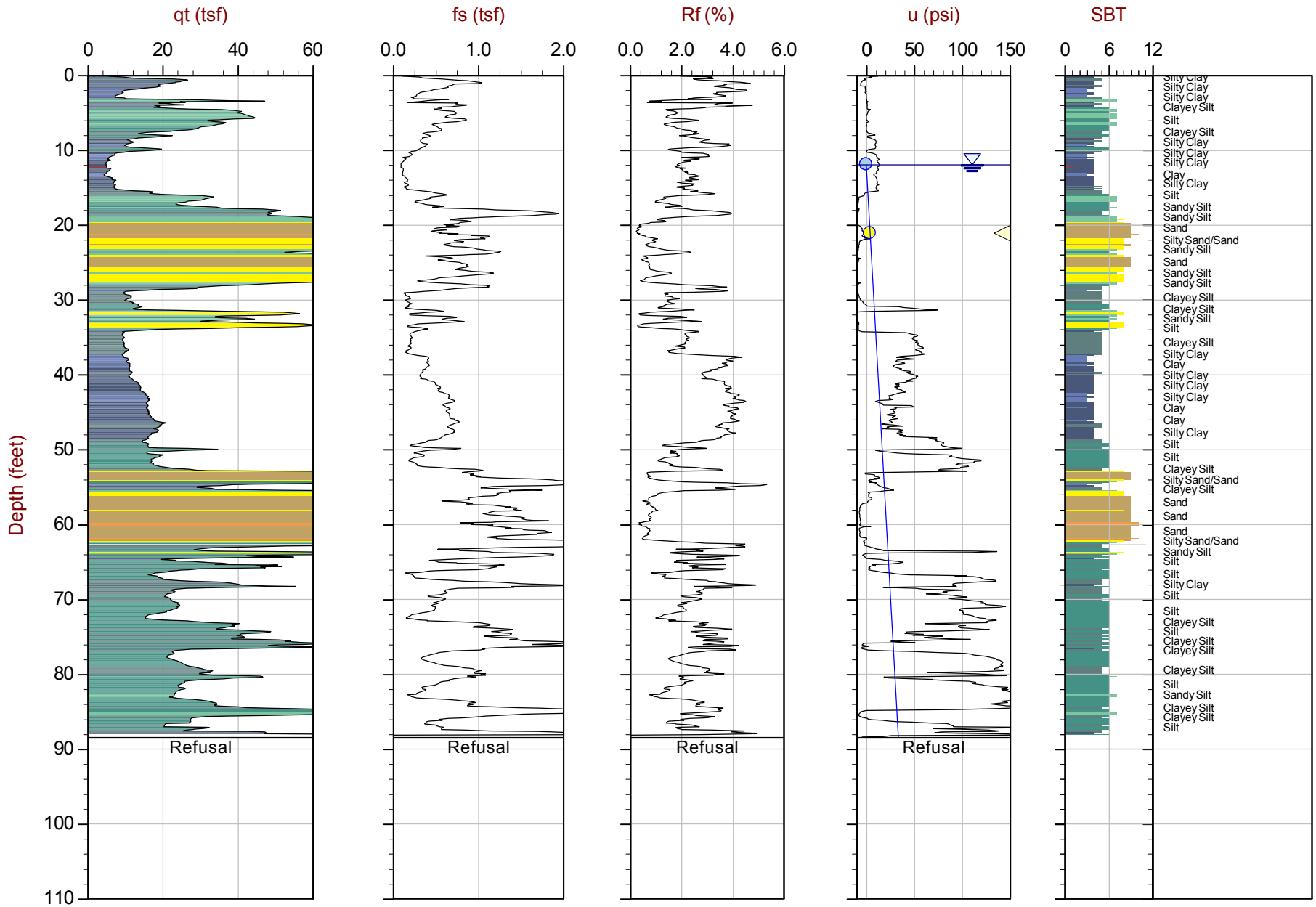
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 13:04
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-03
Cone: 447:T1500F15U500



Max Depth: 26.950 m / 88.42 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 16-56033_CP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132414 E: 598948

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

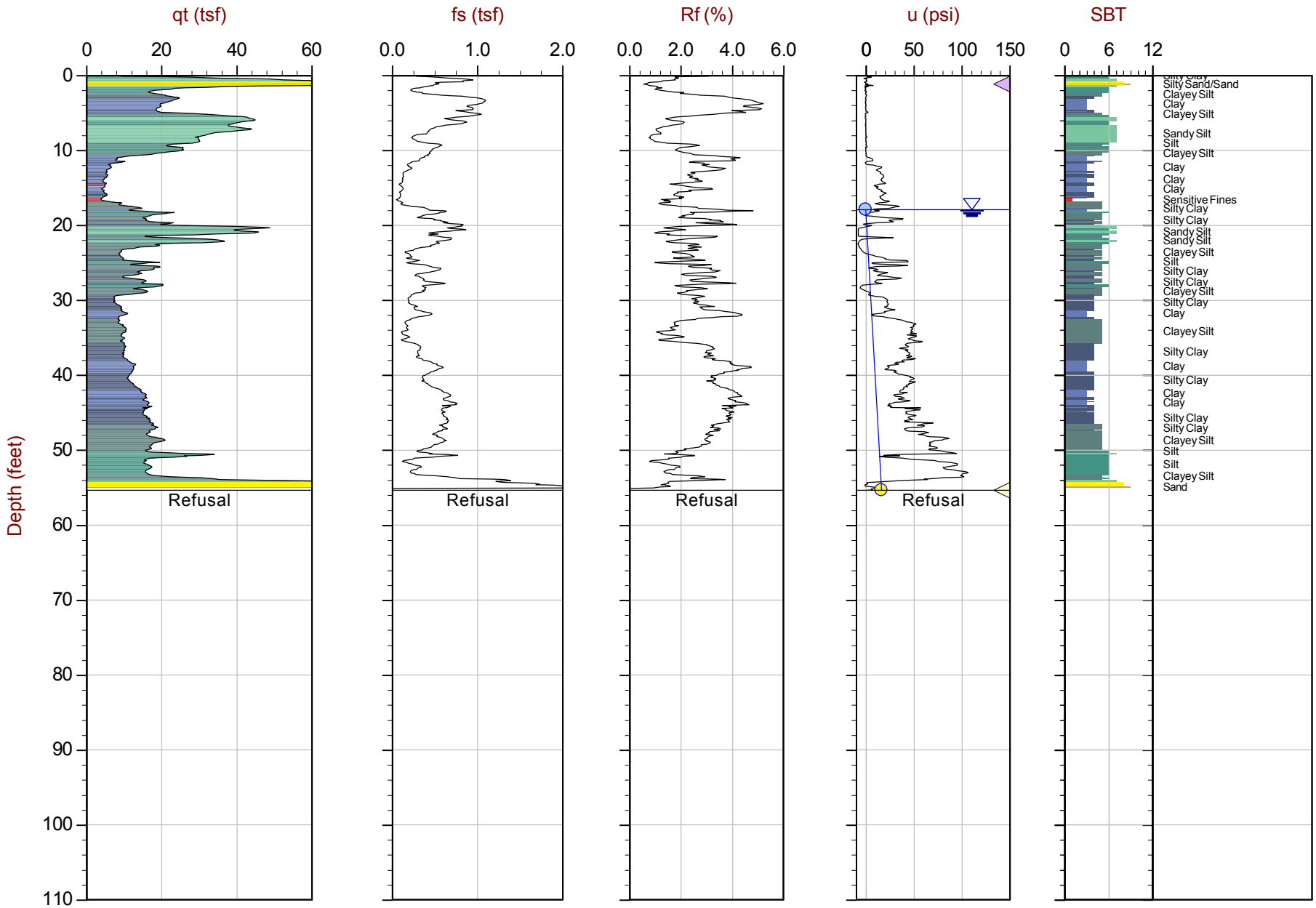
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 14:23
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-04
Cone: 447:T1500F15U500



Max Depth: 16.875 m / 55.36 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 16-56033_CP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132450 E: 599020

Equilibrium Pore Pressure (Ueq) | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Hydrostatic Line

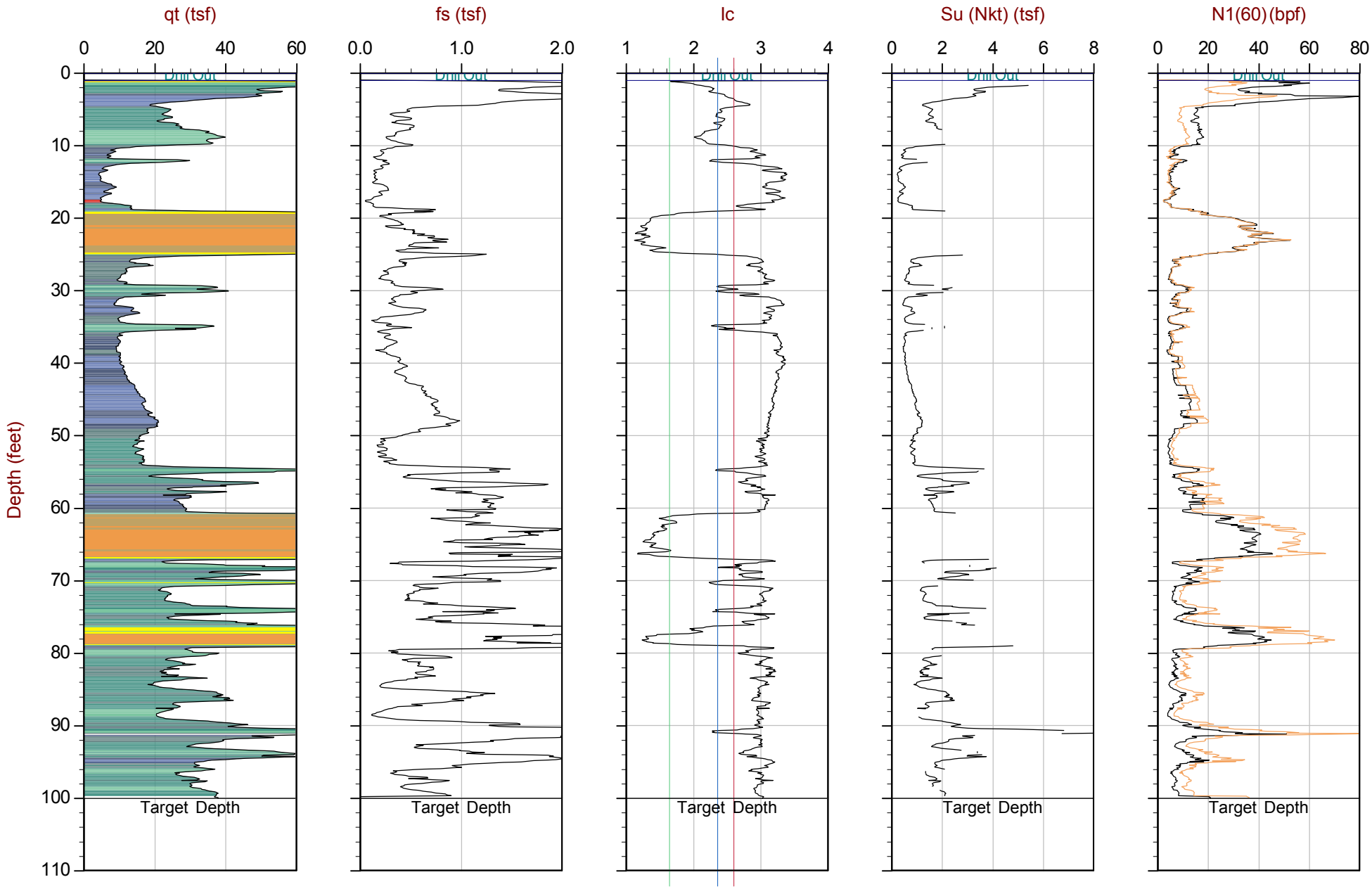
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 07:59
Site: Paseo De San Carlos & S 4th St San Jose CA

Sounding: SCPT-01
Cone: 447:T1500F15U500



Max Depth: 30.500 m / 100.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
N(60) (bpf)

File: 16-56033_SP01.COR
Unit Wt: SBT Zones
Su Nkt: 15.0

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132383 E: 598975

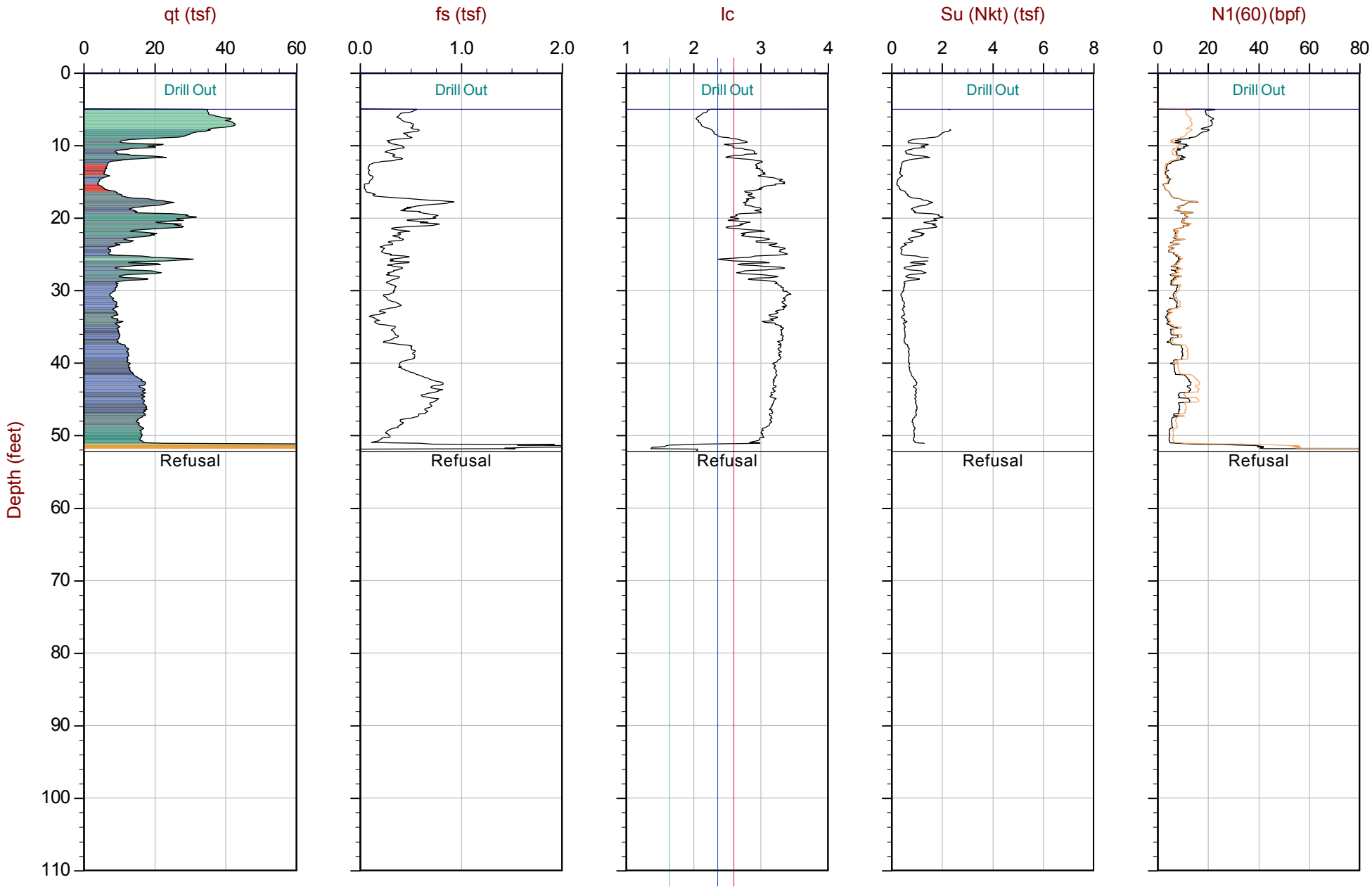
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 11:34
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-02
Cone: 447:T1500F15U500



Max Depth: 15.900 m / 52.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 16-56033_CP02.COR
Unit Wt: SBT Zones
Su Nkt: 15.0

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132422 E: 599032

N(60) (bpf)

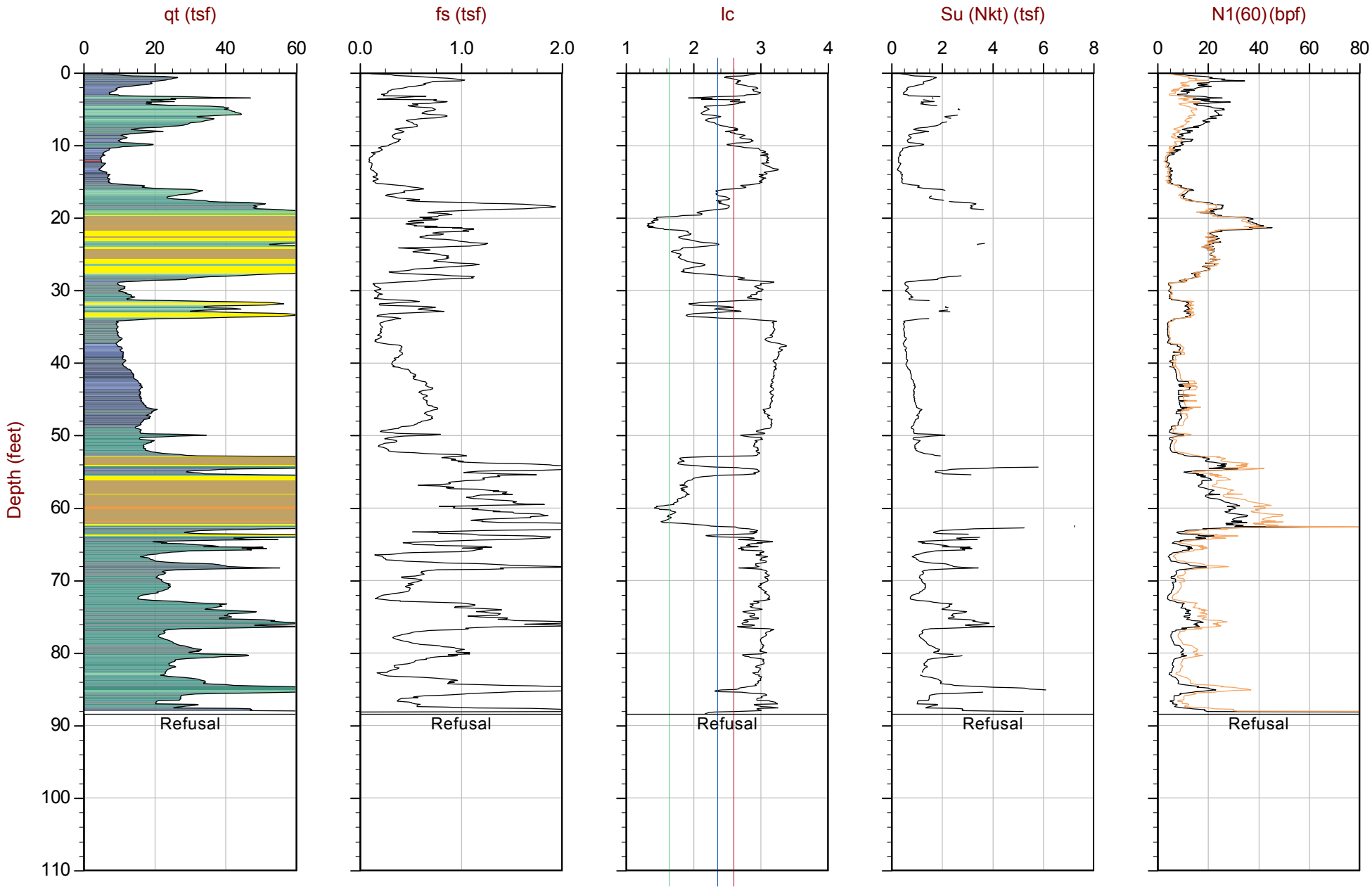
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 13:04
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-03
Cone: 447:T1500F15U500



Max Depth: 26.950 m / 88.42 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
N(60) (bpf)

File: 16-56033_CP03.COR
Unit Wt: SBT Zones
Su Nkt: 15.0

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132414 E: 598948

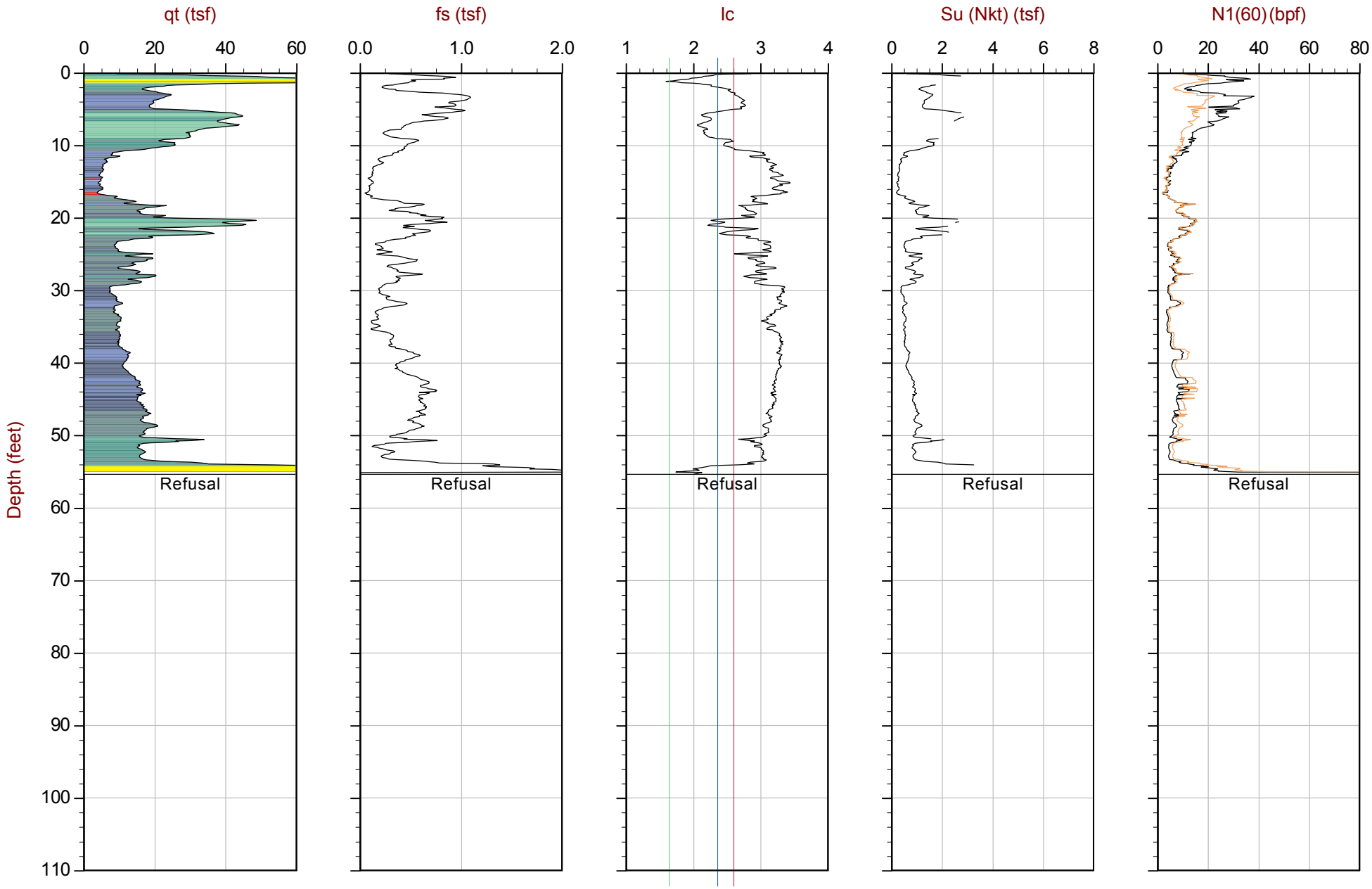
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 16-56033
Date: 06:02:16 14:23
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-04
Cone: 447:T1500F15U500



Max Depth: 16.875 m / 55.36 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 16-56033_CP04.COR
Unit Wt: SBT Zones
Su Nkt: 15.0

SBT: Robertson and Campanella, 1986
Coords: UTM 10 N N: 4132450 E: 599020

N(60) (bpf)

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Job No: 16-56033
Client: Ninyo & Moore
Project: SJSU New Science Building
Sounding ID: 16-56033_SP01
Date: 02-Jun-2016

Seismic Source: Beam
Source Offset (ft): 9.19
Source Depth (ft): 0.00
Geophone Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

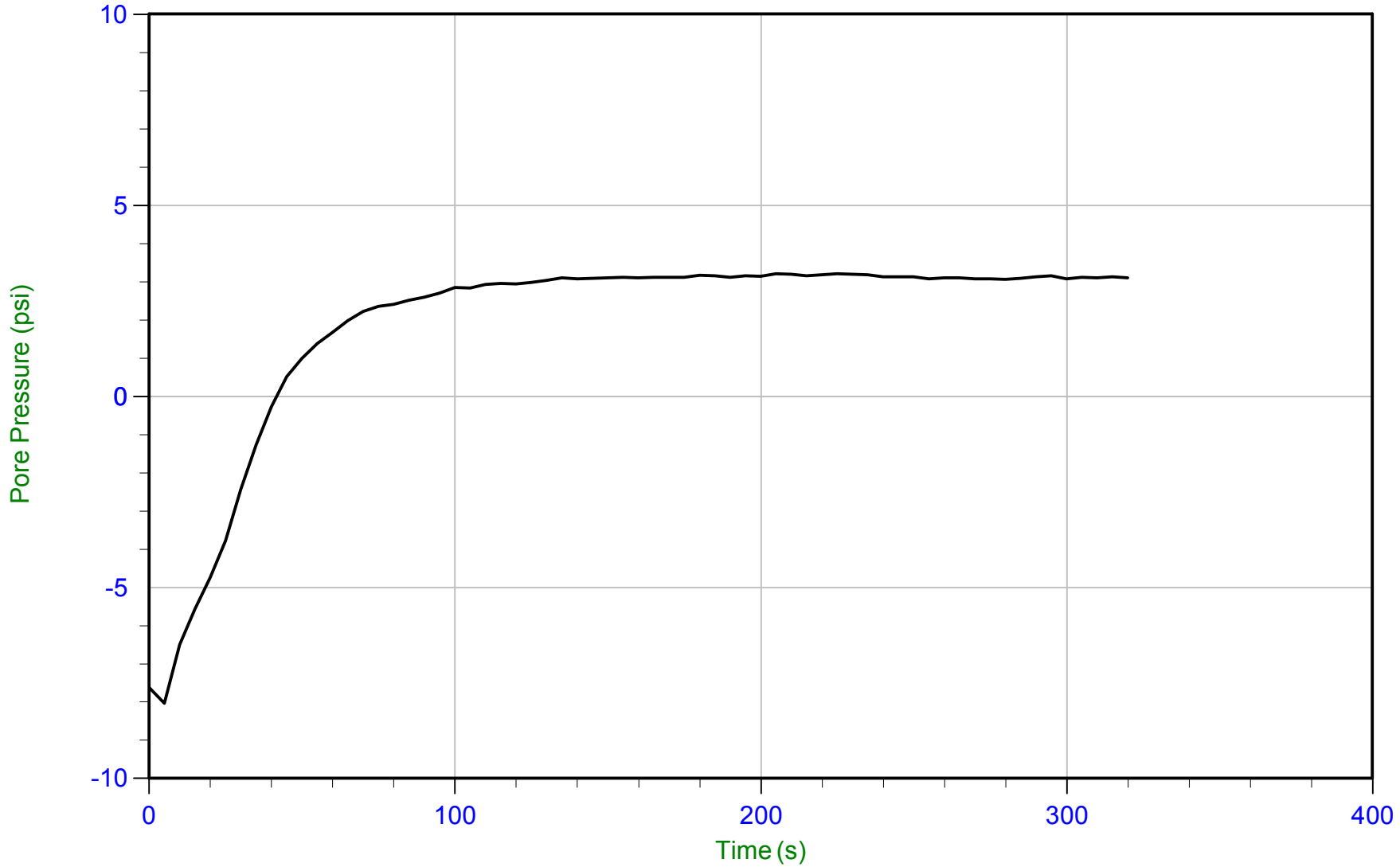
Tip Depth (ft)	Geophone Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)	Interval Velocity (m/s)
5.74	5.09	10.50				
9.02	8.37	12.43	1.93	6.90	279	85
15.58	14.93	17.53	5.10	10.70	477	145
18.86	18.21	20.39	2.87	6.94	413	126
22.15	21.49	23.37	2.98	4.95	601	183
25.59	24.93	26.57	3.20	3.65	877	267
28.71	28.05	29.52	2.94	5.15	572	174
31.99	31.33	32.65	3.13	5.10	614	187
35.27	34.61	35.81	3.16	5.20	608	185
38.55	37.89	38.99	3.18	6.05	526	160
41.83	41.17	42.19	3.20	6.25	511	156
45.11	44.46	45.39	3.21	6.30	509	155
48.39	47.74	48.61	3.22	5.75	560	171
51.67	51.02	51.84	3.23	4.35	741	226
54.95	54.30	55.07	3.23	3.53	915	279
58.23	57.58	58.31	3.24	3.15	1028	313
61.68	61.02	61.71	3.40	4.55	748	228
64.86	64.21	64.86	3.15	2.65	1188	362
68.08	67.42	68.04	3.18	2.25	1415	431
71.36	70.70	71.30	3.25	4.20	774	236
74.64	73.98	74.55	3.25	4.30	757	231
77.92	77.26	77.81	3.26	3.20	1018	310
81.20	80.54	81.07	3.26	2.80	1164	355
84.48	83.83	84.33	3.26	3.30	988	301
87.70	87.04	87.52	3.20	3.95	809	247
91.04	90.39	90.85	3.33	3.75	888	271
94.26	93.60	94.05	3.20	2.80	1142	348
97.60	96.95	97.38	3.33	3.40	980	299
100.07	99.41	99.83	2.45	2.85	860	262

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 15-56033
Date: 06/02/2016 07:59
Site: Paseo De San Carlos & S 4th St San Jose CA

Sounding: SCPT-01
Cone: 447:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 16-56033_SP01.PPF
Depth: 6.500 m / 21.325 ft
Duration: 320.0 s

U Min: -8.0 psi
U Max: 3.2 psi

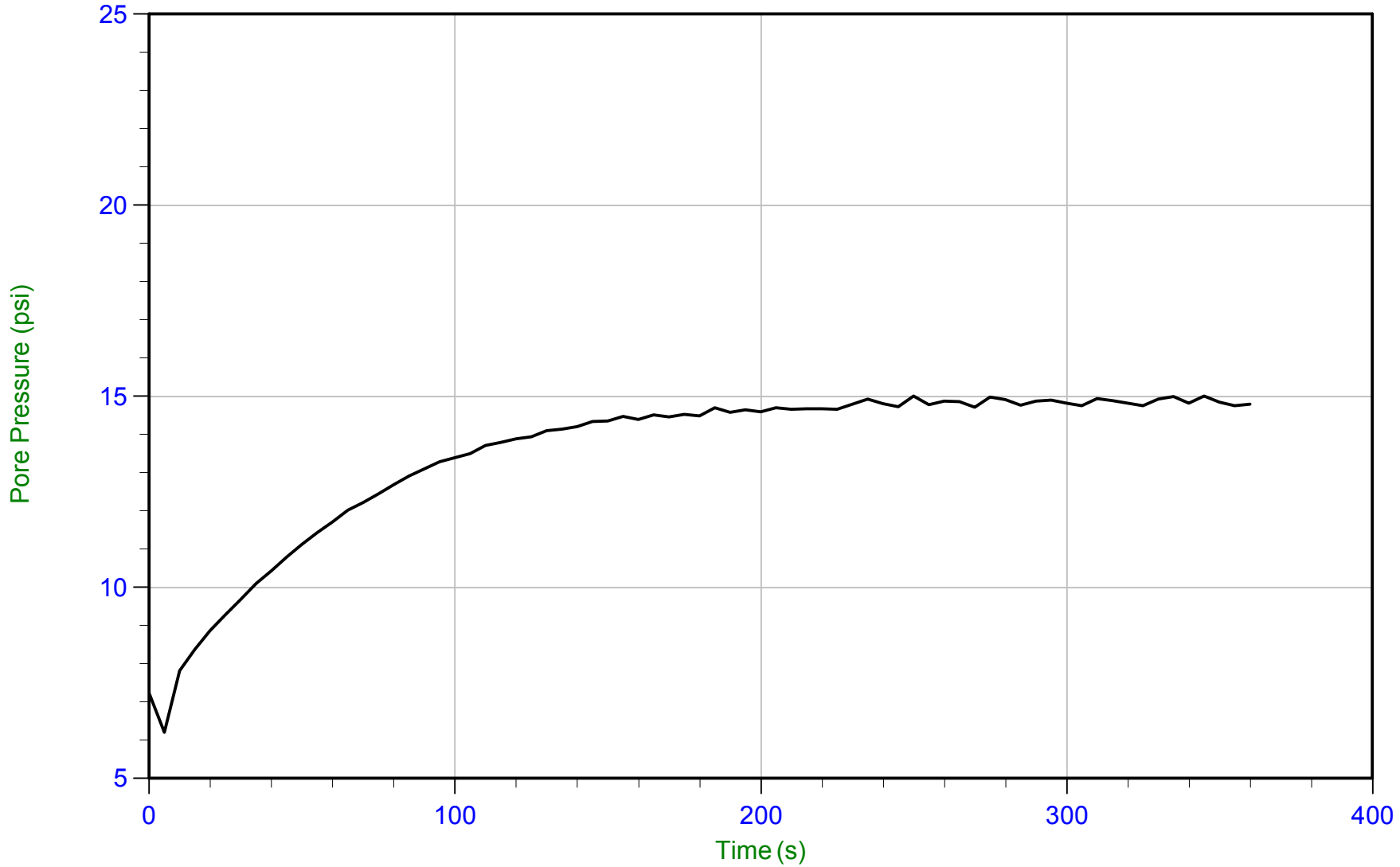
WT: 4.300 m / 14.107 ft
Ueq: 3.1 psi

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 15-56033
Date: 06/02/2016 11:34
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-02
Cone: 447:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 16-56033_CP02.PPF
Depth: 15.825 m / 51.919 ft
Duration: 360.0 s

U Min: 6.2 psi
U Max: 15.0 psi

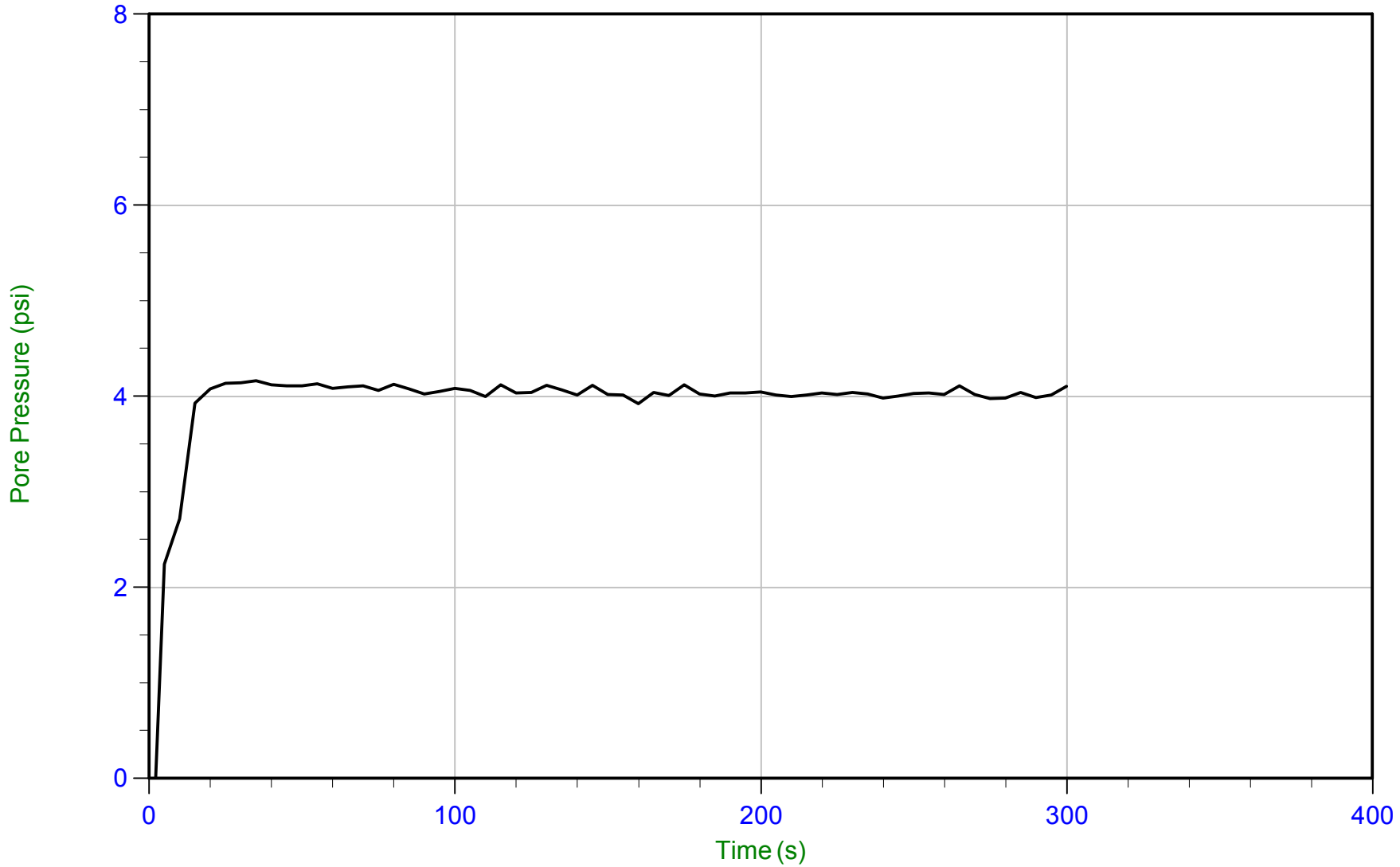
WT: 5.396 m / 17.703 ft
Ueq: 14.8 psi

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 15-56033
Date: 06/02/2016 13:04
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-03
Cone: 447:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 16-56033_CP03.PPF
Depth: 6.425 m / 21.079 ft
Duration: 300.0 s

U Min: -1.7 psi
U Max: 4.2 psi

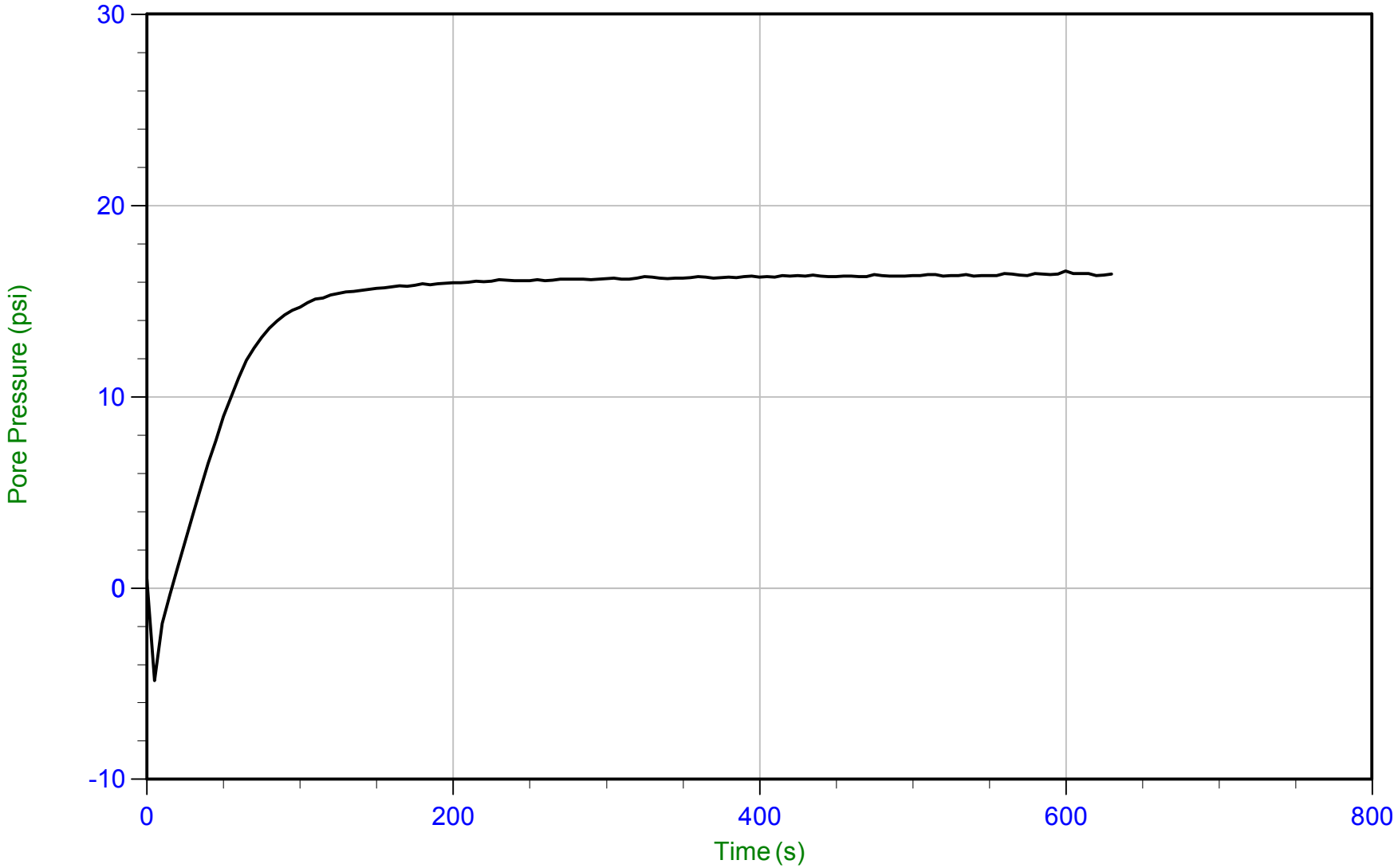
WT: 3.613 m / 11.854 ft
Ueq: 4.0 psi

CALIFORNIA PUSH TECHNOLOGIES INCORPORATED

Ninyo & Moore

Job No: 15-56033
Date: 06/02/2016 14:23
Site: Paseo De San Carlos & S 4th St, San Jose, CA

Sounding: CPT-04
Cone: 447:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 16-56033_CP04.PPF
Depth: 16.875 m / 55.364 ft
Duration: 630.0 s

U Min: -4.8 psi
U Max: 16.6 psi

WT: 5.445 m / 17.864 ft
Ueq: 16.3 psi

APPENDIX B
BORING LOGS

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples

Bulk samples of representative earth materials were obtained from the exploratory borings. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Sampler

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1-3/8 inches. The sampler was driven into the ground 12 to 18 inches with a 140-pound hammer free-falling from a height of 30 inches in general accordance with ASTM D 1586. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the logs are those for the last 12 inches of penetration. Soil samples were observed and removed from the sampler, bagged, sealed and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples

Relatively undisturbed soil samples were obtained in the field using the following methods.

The Modified Split-Barrel Drive Sampler

The sampler, with an external diameter of 3.0 inches, was lined with 6-inch long, thin brass liners with inside diameters of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer, and the number of blows per foot of driving are presented on the boring log as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass liners, sealed, and transported to the laboratory for testing.

The Shelby Tube Sampler

The Shelby tube sampler is a seamless, thin-walled, steel tube having an external diameter of 3.0 inches and a length of 30 inches. The tube was connected to the drill rod and pushed into an undisturbed soil mass to obtain a relatively undisturbed sample of cohesive soil in general accordance with ASTM D 1587. When the tube was almost full (to avoid overpenetration), it was withdrawn from the boring, removed from the drill rod or hand tool, sealed at both ends, and transported to the laboratory for testing.

Field Testing

The following tests were performed in the field to evaluate soil properties.

Pocket Penetrometer

A pocket penetrometer was inserted into the soil samples collected from the samplers to evaluate the unconfined compressive strength of the soil. The results of pocket penetrometer tests are reported on the boring log in tons per square foot (tsf).

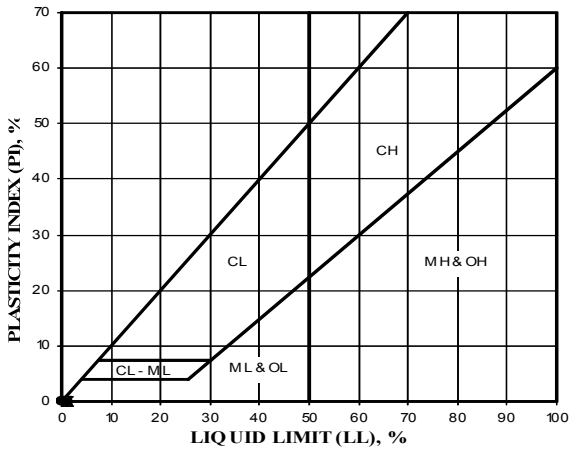
U.S.C.S. METHOD OF SOIL CLASSIFICATION

MAJOR DIVISIONS		SYMBOL	TYPICAL NAMES
COARSE-GRAINED SOILS (More than 1/2 of soil >No. 200 sieve size)	**GRAVELS (More than 1/2 of coarse fraction > No. 4 sieve size)**	GW	Well graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than 1/2 of coarse fraction <No. 4 sieve size)	SW	Well graded sands or gravelly sands, little or no fines
		SP	Poorly graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (More than 1/2 of soil <No. 200 sieve size)	**SILTS & CLAYS Liquid Limit <50**	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean
		OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS Liquid Limit >50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

GRAIN SIZE CHART

CLASSIFICATION	RANGE OF GRAIN SIZE	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.76
Coarse	3" to 3/4"	76.2 to 19.1
Fine	3/4" to No. 4	19.1 to 4.76
SAND	No. 4 to No. 200	4.76 to 0.075
Coarse	No. 4 to No. 10	4.76 to 2.00
Medium	No. 10 to No. 40	2.00 to 0.420
Fine	No. 40 to No. 200	0.420 to 0.075
SILT & CLAY	Below No. 200	Below 0.075

PLASTICITY CHART



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U.S.C.S. METHOD OF SOIL CLASSIFICATION

BORING LOG EXPLANATION SHEET

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
0	■							Bulk sample.
		■						Modified split-barrel drive sampler.
		⊠						2-inch inner diameter split-barrel drive sampler.
		⊠						No recovery with modified split-barrel drive sampler, or 2-inch inner diameter split-barrel drive sampler.
		▮						Sample retained by others.
5		◪						Standard Penetration Test (SPT).
		⁄						No recovery with a SPT.
		▯	XX/XX					Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.
		⁄						No recovery with Shelby tube sampler.
		▯						Continuous Push Sample.
10				⚲				Seepage.
				▽				Groundwater encountered during drilling.
				▼				Groundwater measured after drilling.
						▨	SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change.
						▨	CL	Dashed line denotes material change.
15						▨		Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface
								The total depth line is a solid line that is drawn at the bottom of the boring.
20								

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BORING LOG

Explanation of Boring Log Symbols

PROJECT NO.	DATE	FIGURE

DATE DRILLED 6/2/16 BORING NO. B-1

GROUND ELEVATION 89' ± (MSL) SHEET 1 OF 3

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 8 inches thick.
								AGGREGATE BASE: Approximately 6 inches thick.
							SM	ALLUVIUM: Brown, moist, loose, silty SAND.
		15	13.4	96.9	2.75			
		6			1.0		CL	Brown, wet, firm, lean CLAY.
10			35.1	86.0				
			38.1	83.1	0.75			
		5	▽		0.25			Gray, soft.
					0.25			
		23	23.1	98.8			SP	Gray, wet, medium dense, poorly-graded SAND with gravel.
20		30						
		20			1.5		CL	Gray, wet, firm, lean CLAY.
		10			1.75			
		21			1.0			
30							CH	Gray, wet, firm, fat CLAY.
		16	38.1	82.9				
			35.7	84.1	0.75			
		17			1.0			
40								

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-1

DATE DRILLED 6/2/16 BORING NO. B-1

GROUND ELEVATION 89' ± (MSL) SHEET 2 OF 3

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40							CH	ALLUVIUM:(continued) Gray, wet, firm, fat CLAY.
	Driven	27	36.4	80.2	1.25			
							CL	Light gray, wet, stiff, lean CLAY.
	Driven	28			2.75			
50			23.4	98.2				
			21.4	100.5				Sandy.
							SP	Grayish brown, wet, dense, poorly-graded SAND with gravel.
	Driven	34						
								Very dense.
	Driven	59						
60								
	Driven	46	13.1					Dense.
							SP-SM	Grayish brown, wet, very dense, poorly-graded SAND with silt and gravel.
	Driven	76						
70								
	Driven	31						Dense.
							CL	Light gray, wet, very stiff, lean CLAY.
	Driven	43						
80								

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-2

DATE DRILLED 6/2/16 BORING NO. B-1

GROUND ELEVATION 89' ± (MSL) SHEET 3 OF 3

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
80							CL	ALLUVIUM:(continued) Light gray, wet, very stiff, lean CLAY.
	Driven	47	18.6					
								Trace gravel.
	Driven	36					SC	Light gray, wet, dense, clayey SAND; trace gravel.
90							CL	Gray, wet, very stiff, lean CLAY.
	Driven	25						
	Driven	31						
100								Total depth = 100 feet.
								Backfilled with grout on 6/2/16 in compliance with Santa Clara Valley Water District.
								Notes: Groundwater was encountered at a depth of approximately 14 feet in borehole during drilling. Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report. Please refer to the report for groundwater monitoring recommendations.
110								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
120								

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-3

DATE DRILLED 6/3/16 BORING NO. B-2

GROUND ELEVATION 90' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 4 inches thick.
							CL	AGGREGATE BASE: Approximately 6 inches thick.
								ALLUVIUM: Dark brown, moist, stiff, lean CLAY; trace sand.
		14					SM	Brown, moist, loose, silty SAND.
10		7	14.0	82.8				Very loose.
		8	▽ 24.2	98.5	0.5		CL	Grayish brown, wet, soft, lean CLAY.
		5					SM	Brown, wet, loose, silty SAND.
20		25						Gray, medium dense.
		14	16.8		0.75		ML	Gray, wet, medium dense, SILT.
30		18			0.75			Loose, sandy.
		15	24.7	98.0	0.5		CL	Grayish brown, wet, firm, lean CLAY.
40								Total depth = 35 feet.

Backfilled with grout on 6/3/16 in compliance with Santa Clara Valley Water District.

Notes:
Groundwater was encountered at a depth of approximately 14 feet in borehole during

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-4

DATE DRILLED 6/3/16 BORING NO. B-2

GROUND ELEVATION 90' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40									drilling. Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report. Please refer to the report for groundwater monitoring recommendations. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
50									
60									
70									
80									

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-5

DATE DRILLED 6/3/16 BORING NO. B-3

GROUND ELEVATION 88' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							CL	ALLUVIUM: Dark brown to brown, moist, stiff, lean CLAY.
		14					SM	Brown, moist, loose, silty SAND.
		5	34.1	87.6	0.5		CL	Brown, moist, soft, lean CLAY.
10		9			1.0			Gray, wet, firm.
							SM	Brown, wet, medium dense, silty SAND.
		14	25.2				CL	Brown, wet, stiff, lean CLAY.
20		6	31.8				SM	Brown, wet, loose, silty SAND.
							CL	Grayish brown, wet, firm, lean CLAY.
		9			2.0			
		16	32.2	87.4	1.25			Gray, stiff.
30		17			1.5			
								Total depth = 35 feet. Vibrating wire piesometer installed at a depth of 35 feet. Backfilled with grout on 6/3/16 in compliance with Santa Clara Valley Water District.
40								

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-6

DATE DRILLED 6/3/16 BORING NO. B-3

GROUND ELEVATION 88' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" HSA, B-60 Truck-Mounted Drill Rig, Exploration Geoservices

DRIVE WEIGHT 140 LBS (Wireline) DROP 30"

SAMPLED BY RH LOGGED BY RH REVIEWED BY TPS

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	P.P. MEASUREMENT (TSF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40									Notes: Groundwater was encountered at a depth of approximately 13.5 feet in borehole during drilling. Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report. Please refer to the report for groundwater monitoring recommendations. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
50									
60									
70									
80									

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BORING LOG

NEW SCIENCE BUILDING
SAN JOSE STATE UNIVERSITY, SAN JOSE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
402814001	7/16	B-7

APPENDIX C

LABORATORY TESTING

Classification

Soil was visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory borings in Appendix B.

Moisture Content

The moisture content of samples obtained from the exploratory borings was evaluated in accordance with ASTM D 2216. The test results are presented on the logs of the exploratory borings in Appendix B.

In-Place Moisture and Density Tests

The moisture content and dry density of relatively undisturbed samples obtained from the exploratory borings were evaluated in general accordance with ASTM D 2937. The test results are presented on the logs of the exploratory borings in Appendix B.

Gradation Analysis

Gradation analysis tests were performed on selected representative soil samples in general accordance with ASTM D 422. The grain-size distribution curves are shown on Figures C-1 through C-7. The test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Atterberg Limits

Tests were performed on selected representative soil samples to evaluate liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. These test results were utilized to evaluate the soil classification in accordance with the USCS. The test results and classifications are shown on Figure C-8.

Consolidation Tests

Consolidation tests were performed on selected relatively undisturbed soil samples in general accordance with ASTM D 2435. The sample was inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the tests are summarized on Figures C-9 and C-10.

Expansion Index Test

The expansion index of a selected material was evaluated in general accordance with ASTM D 4829. The specimen was molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimen was loaded with a surcharge of 144 pounds per square foot and inundated with tap water. Readings of volumetric swell were made for a period of 24 hours. The test results are presented on Figure C-11.

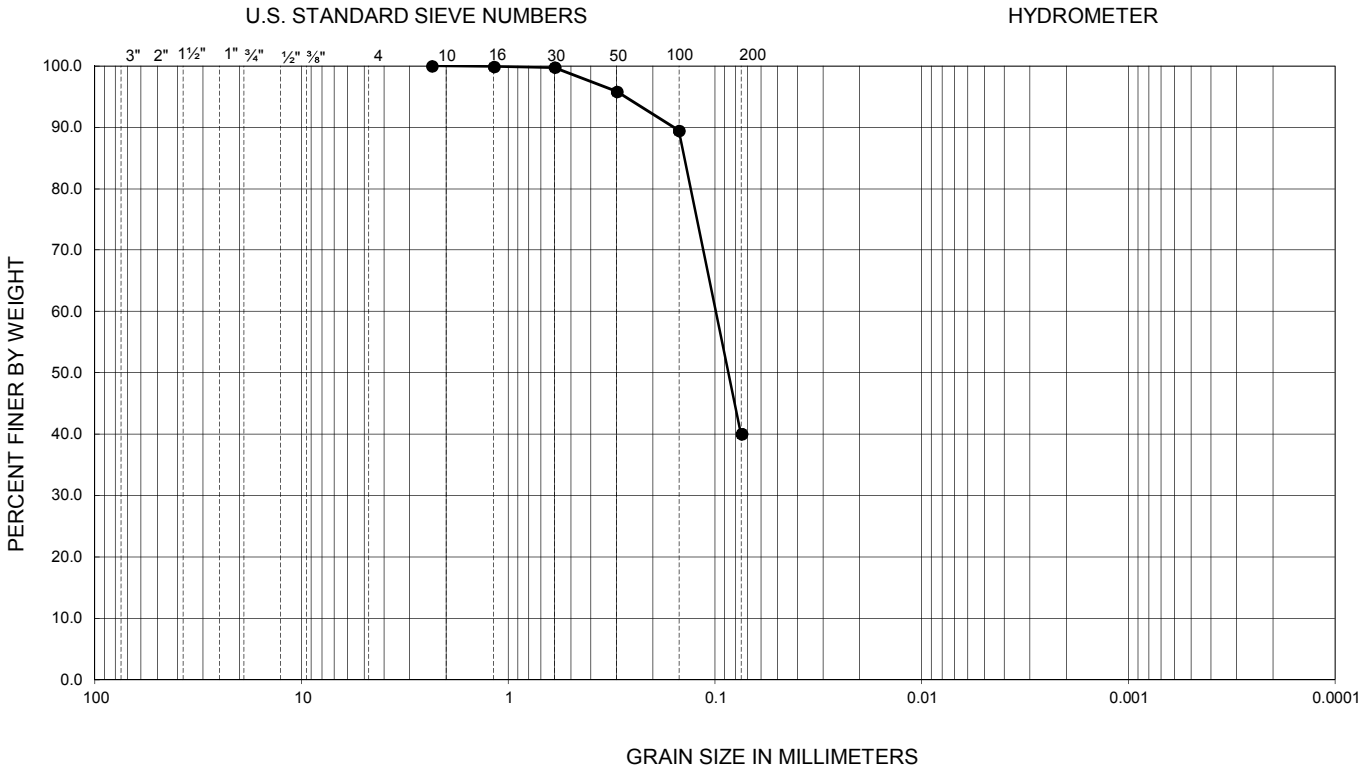
Soil Corrosivity Tests

Soil pH, and resistivity tests were performed on a representative sample in general accordance with California Test (CT) 643. The soluble sulfate and chloride content of the selected sample were evaluated in general accordance with CT 417 and CT 422, respectively. The test results are presented on Figure C-12.

Unconsolidated Undrained Triaxial Compression Test

Triaxial compression tests were performed on selected relatively undisturbed samples in general accordance with ASTM D 2850. The test results are shown on Figure C-13.

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



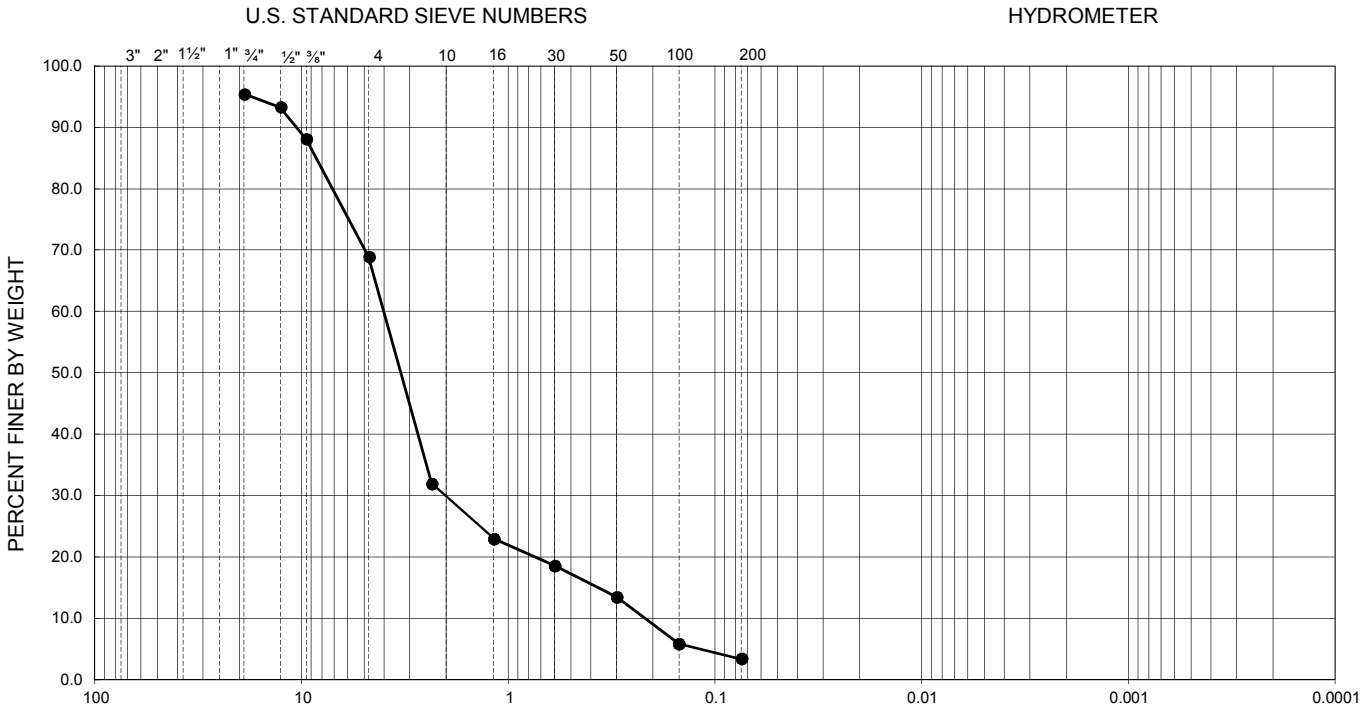
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-1	6.0-6.5	--	--	--	--	--	0.10	--	--	40	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-1

C1 - SA B-1@ 6-6.5'

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



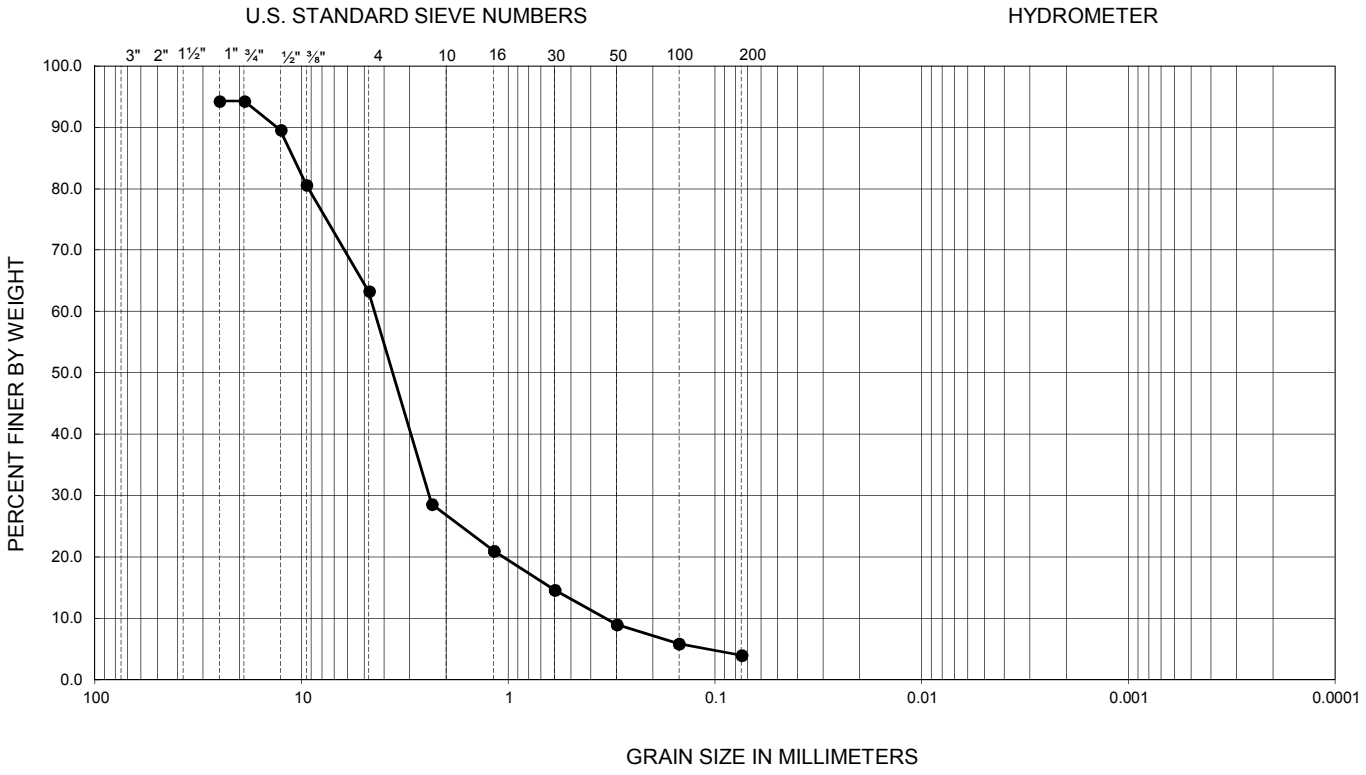
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-1	19.0-20.0	--	--	--	0.23	2.11	4.17	18.0	4.6	3	SP

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-2

C2 - SA B-1@ 19.5-20'

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



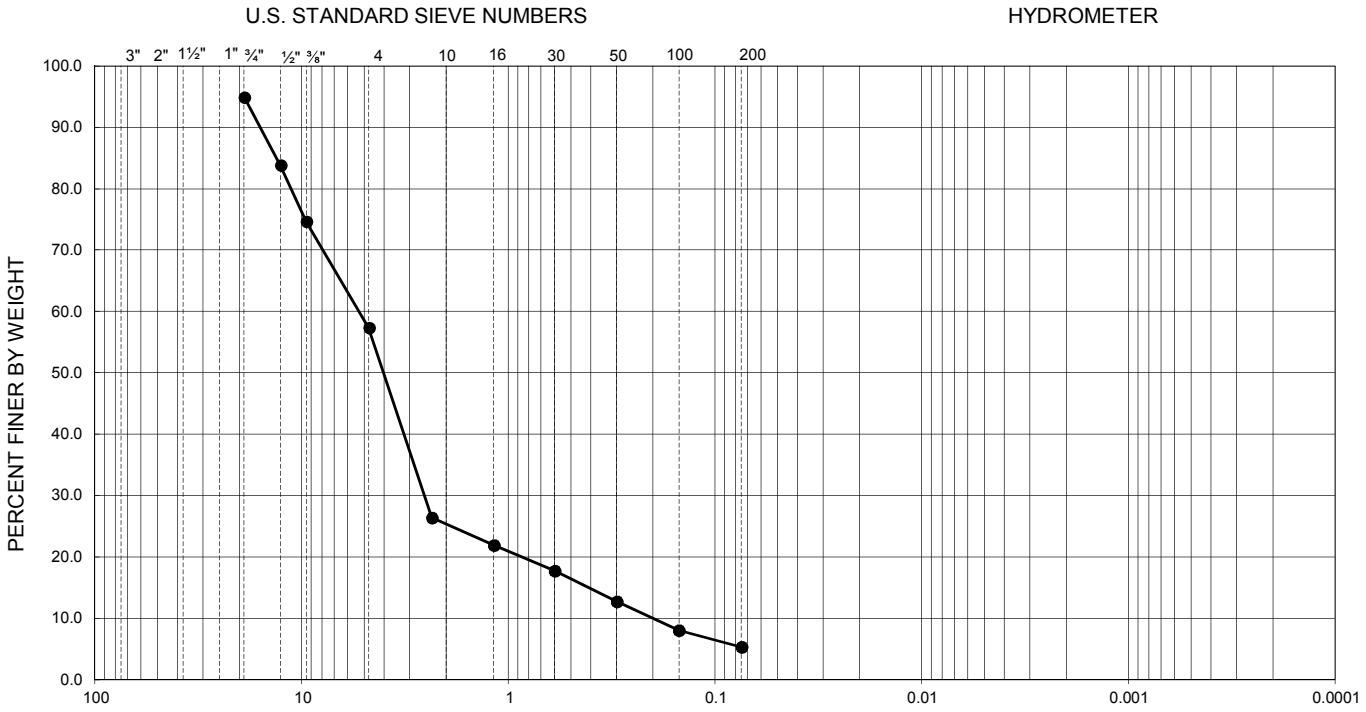
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-1	53.5-55.0	--	--	--	0.35	2.46	4.52	12.8	3.8	4	SP

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-3
402814001	7/16		

C3 - SA B-1@ 53.5-55'

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



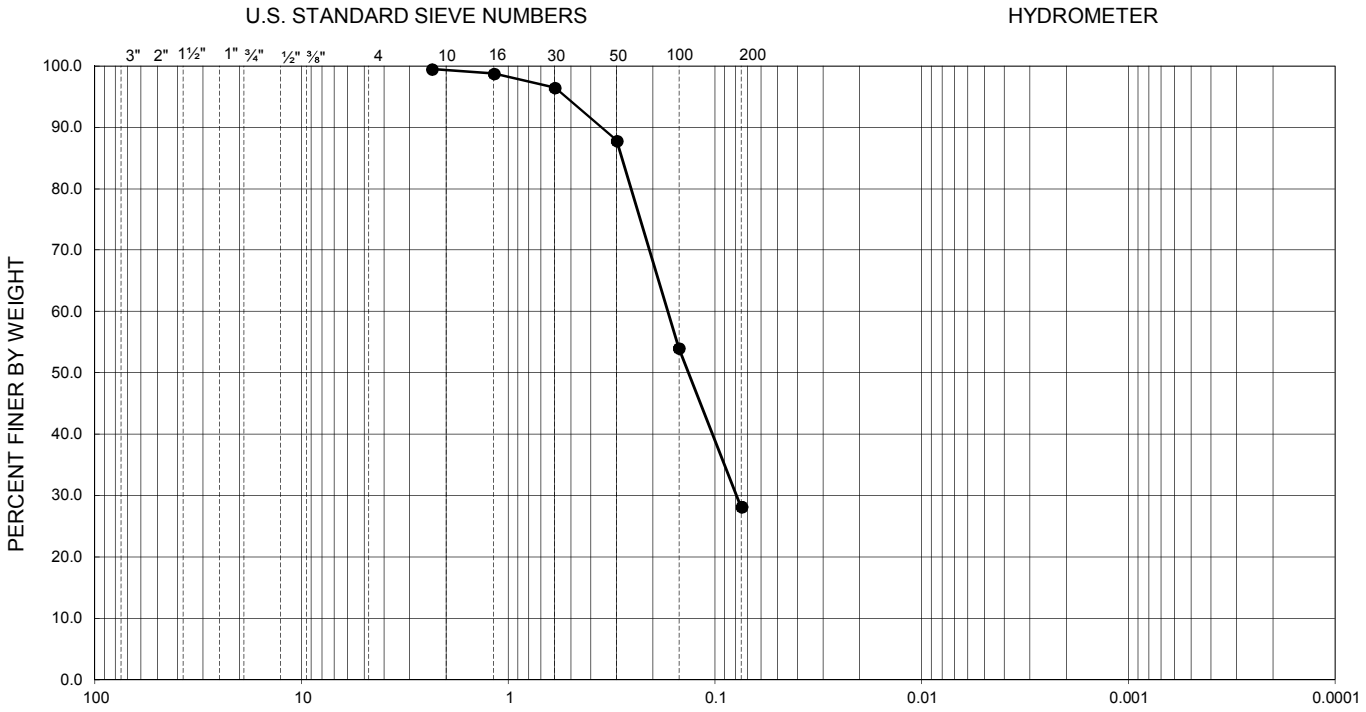
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-1	73.5-75.0	--	--	--	0.21	2.64	5.47	25.8	6.0	5	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-4
402814001	7/16		

C4 - SA B-1@ 73.5-75'

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



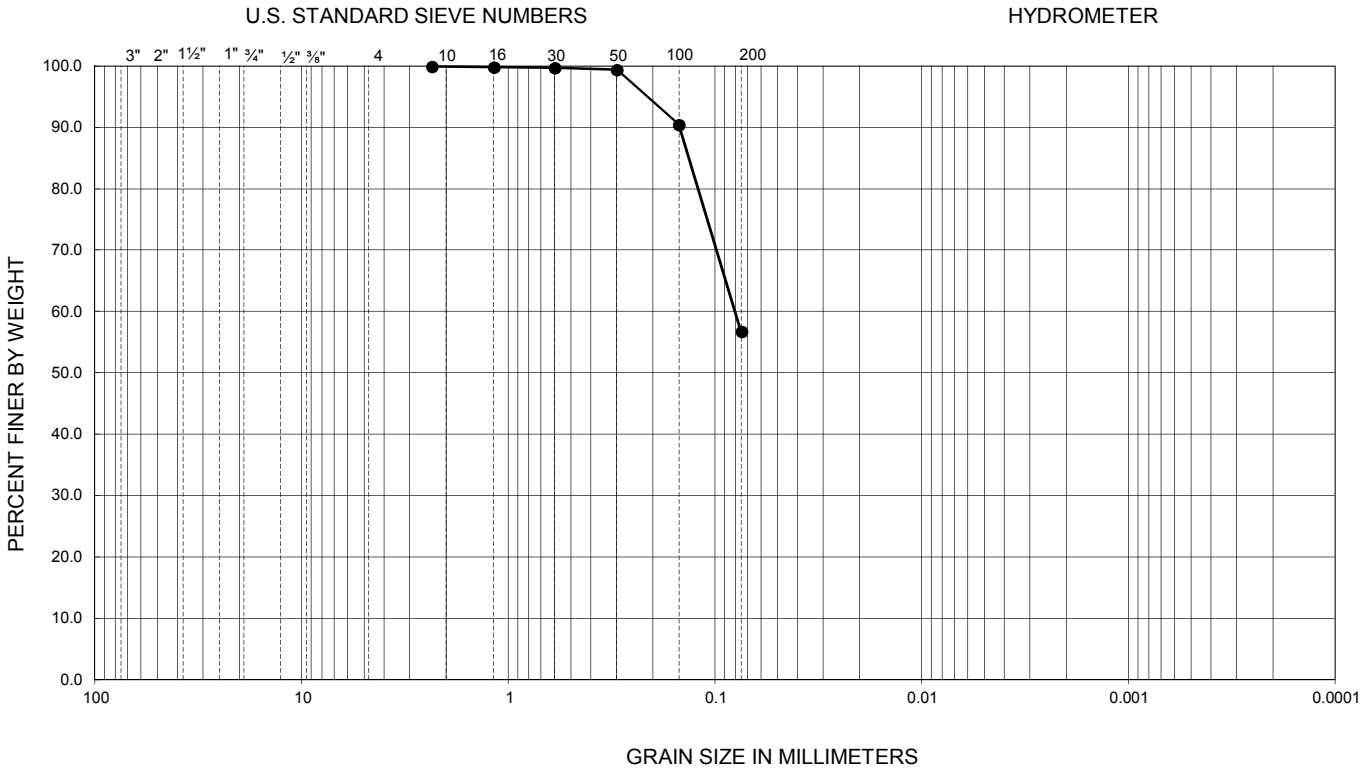
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-2	21.5-22.5	--	--	--	--	0.08	0.18	--	--	28	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-5

C5 - SA B-2 @ 21.5-22.5'

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



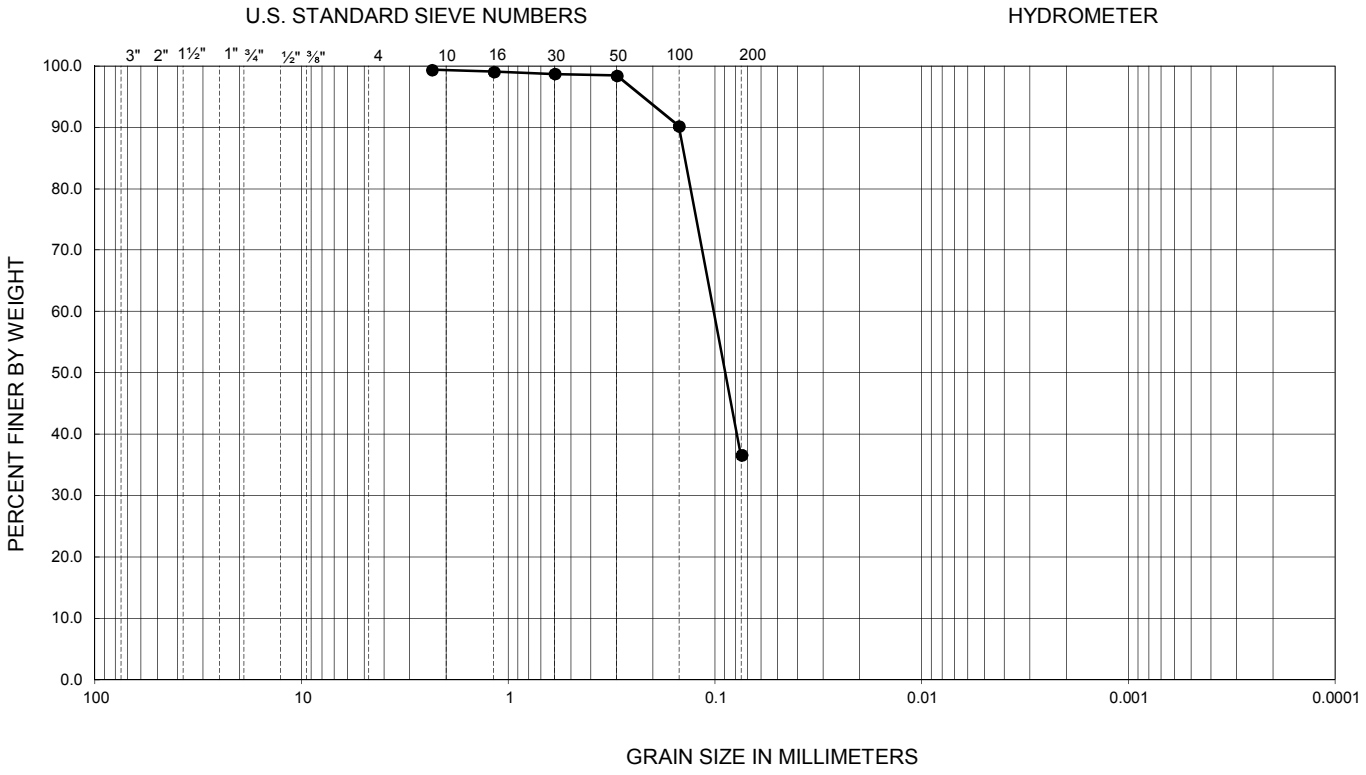
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-2	29.0-29.5	--	--	--	--	--	0.08	--	--	57	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-6

C6 - SA B-2 @ 29-29.5'

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	B-3	21.5-22.0	--	--	--	--	--	0.11	--	--	37	SM

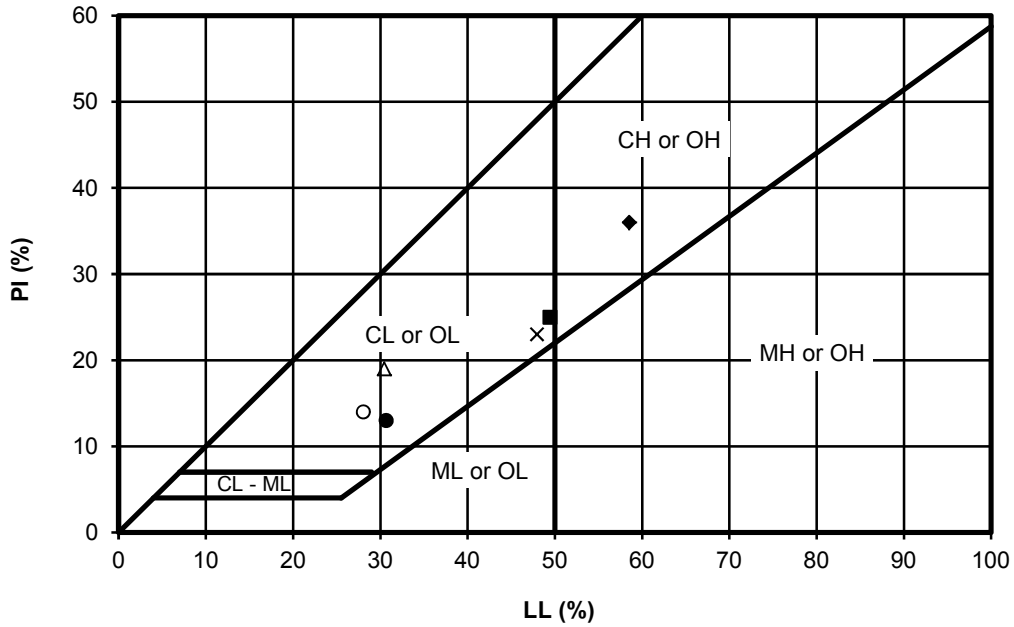
PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-7

C7 - SA B-3 @ 21.5-22'

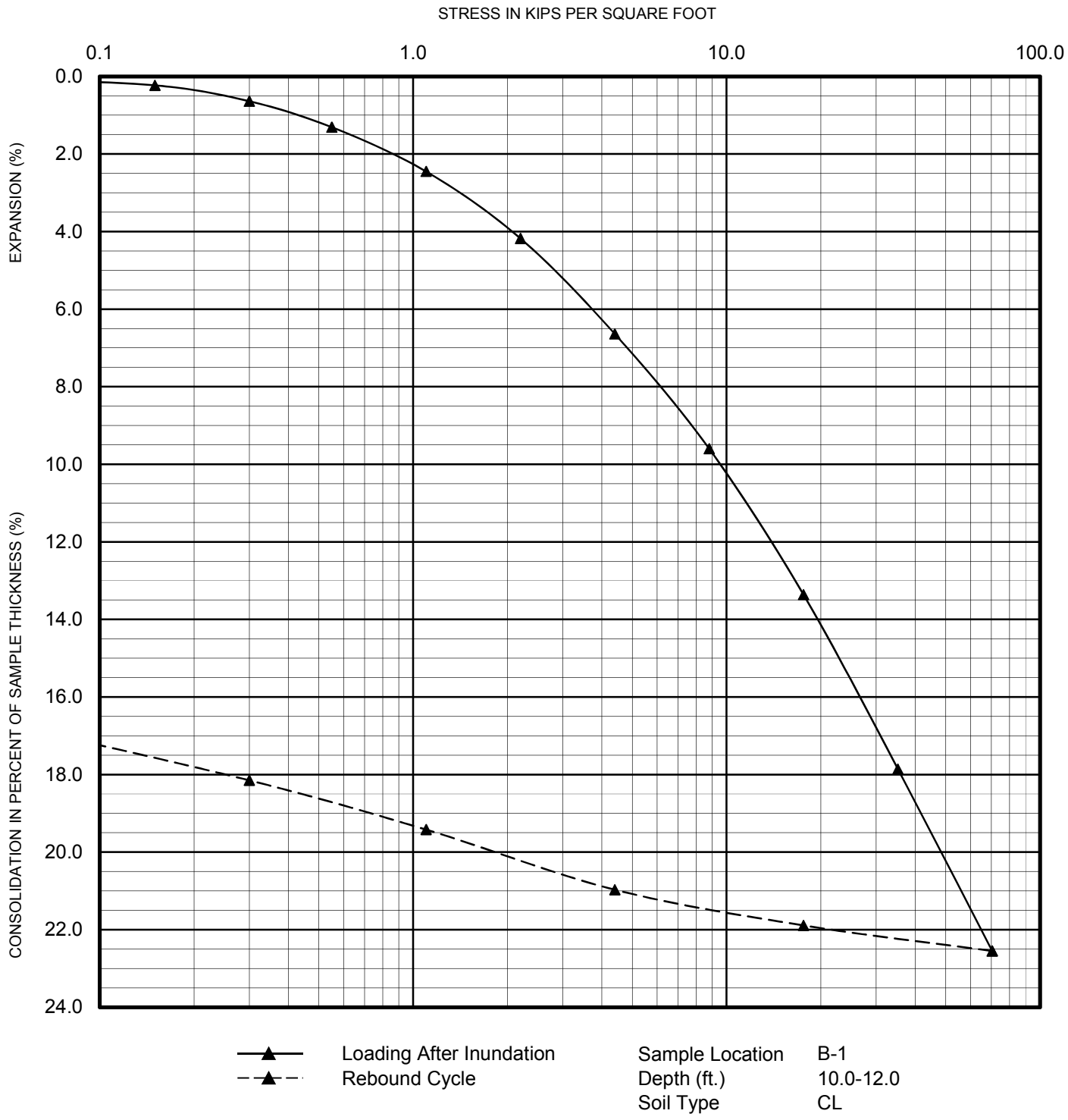
SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL (%)	PLASTIC LIMIT, PL (%)	PLASTICITY INDEX, PI (%)	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
●	B-1	26.0-27.5	31	18	13	CL	CL
■	B-1	29.5-30.0	49	24	25	CL	CL
◆	B-1	39.0-39.5	59	23	36	CH	CH
○	B-1	83.5-85.0	28	14	14	CL	CL
□	B-2	29.5-30.0	NP	NP	NP	ML	ML
Δ	B-3	14.0-14.5	30	11	19	CL	CL
✕	B-3	29.0-29.5	48	25	23	CL	CL

NP - Indicates Non-Plastic



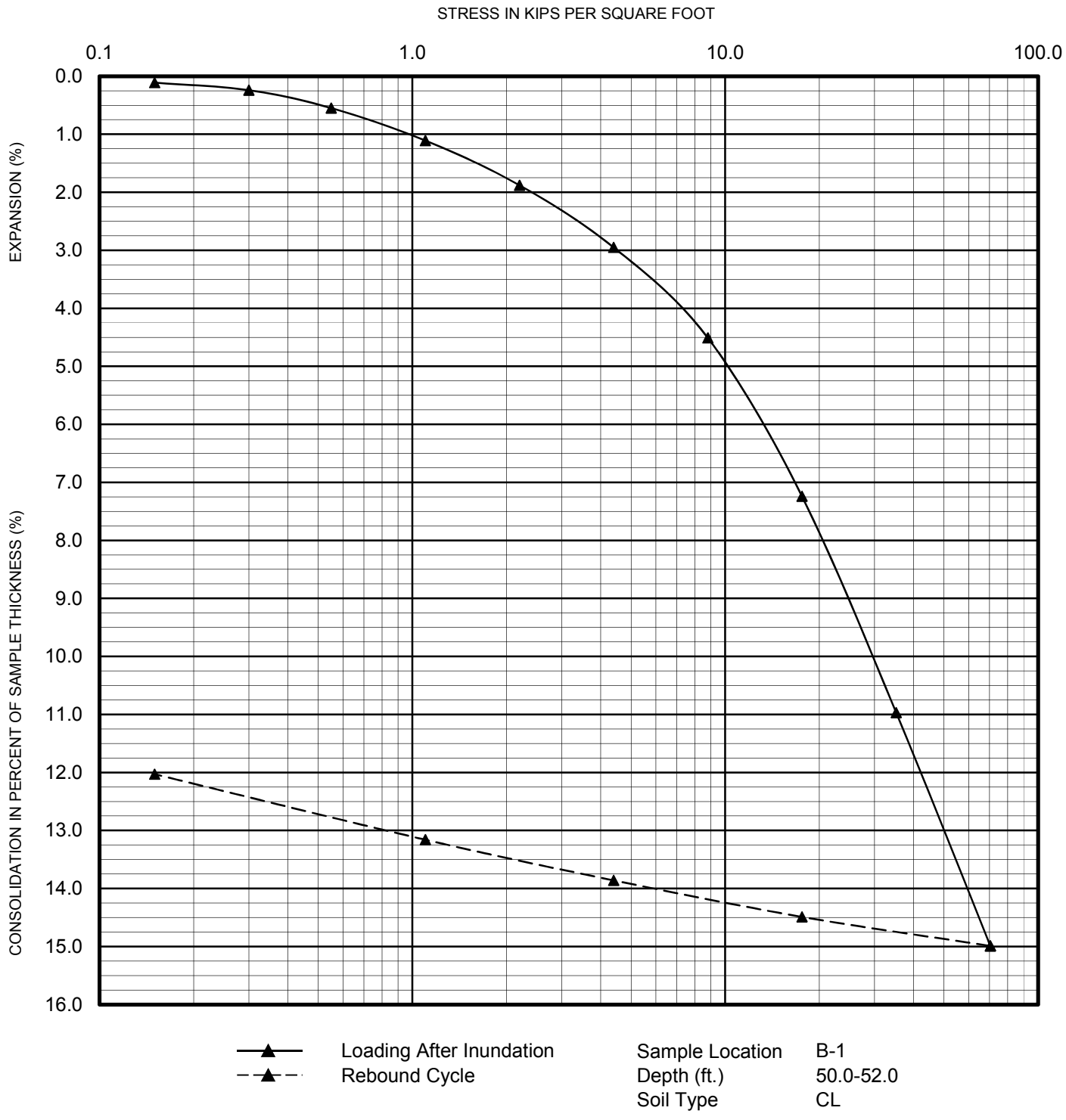
PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

Ninyo & Moore	ATTERBERG LIMITS TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-8



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

Ninyo & Moore	CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-9



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

Ninyo & Moore	CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO. 402814001 / DATE 7/16	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-10

C10 - Consol_B-1 50-52

SAMPLE LOCATION	SAMPLE DEPTH (FT)	INITIAL MOISTURE (%)	COMPACTED DRY DENSITY (PCF)	FINAL MOISTURE (%)	VOLUMETRIC SWELL (IN)	EXPANSION INDEX	POTENTIAL EXPANSION
B-3	0.0-5.0	9.8	108.9	21.5	0.046	45	Low

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4829

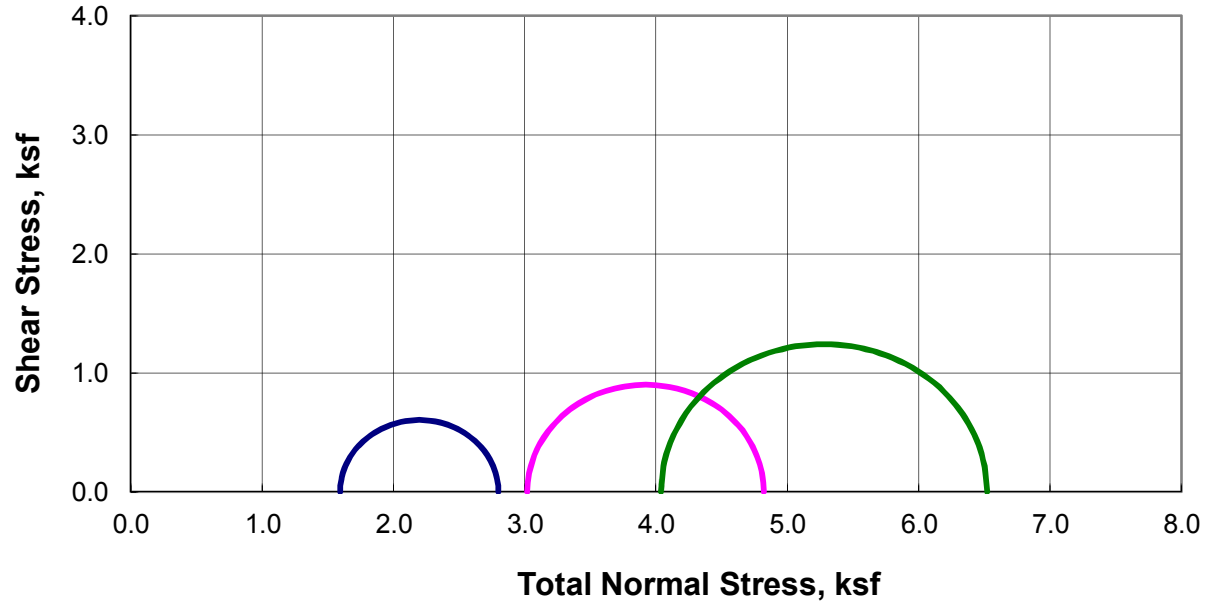
Ninyo & Moore	EXPANSION INDEX TEST RESULTS	FIGURE
PROJECT NO. / DATE	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-11
402814001 / 7/16		

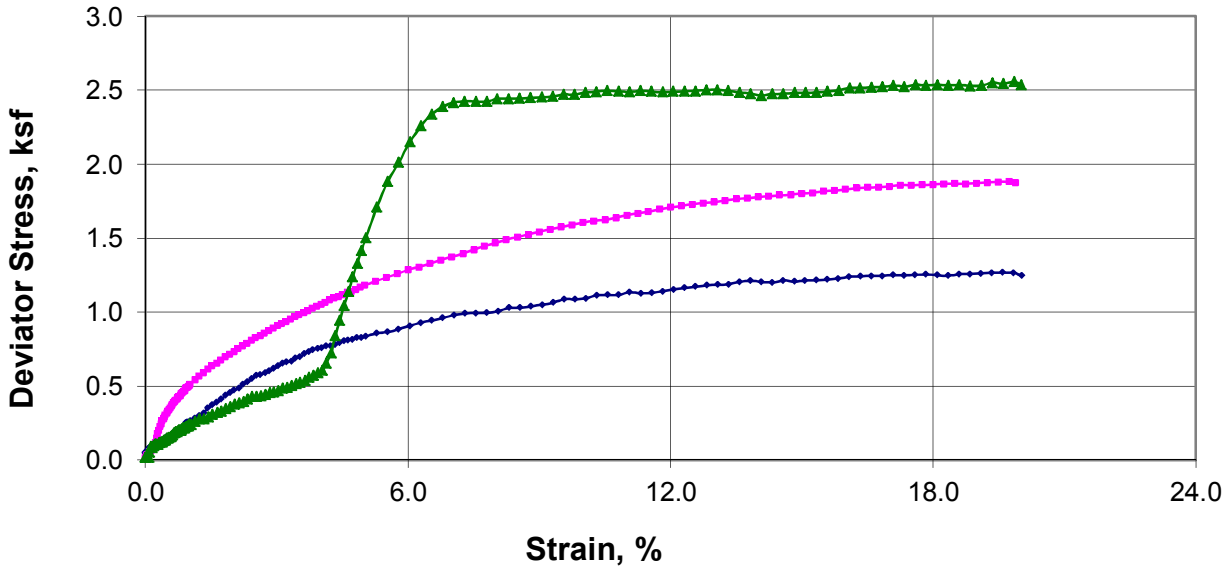
C11 - EI B-3 @ 0-5'

SAMPLE LOCATION	SAMPLE DEPTH (FT)	pH [1]	RESISTIVITY [1] (Ohm-cm)	SULFATE CONTENT [2]		CHLORIDE CONTENT [3] (ppm)
				(ppm)	(%)	
B-2	1.0-5.0	7.4	2,000	10	0.001	90

[1] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643
[2] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417
[3] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

Ninyo & Moore		CORROSIVITY TEST RESULTS	FIGURE
PROJECT NO.	DATE	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-12
402814001	7/16		





Sym.	Description	Soil Type	Sample Location	Sample Depth (ft.)	Initial Moisture (%)	Initial Dry Density (pcf)	Rate of Strain (%/min)	Confining Stress (ksf)	Shear Strength s_u (ksf)
◆	Olive Lean CLAY	CL	B-1	10.0-12.0	38.1%	83.1	1.00%	1.59	0.60
■	Dark Gray Fat CLAY	CL	B-1	34.5-35.0	38.1%	82.9	0.99%	3.02	0.90
▲	Olive Sandy CLAY	CL	B-1	50.0-52.0	23.4%	98.2	1.00%	4.04	1.24

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2850

Ninyo & Moore	UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION RESULTS	FIGURE
PROJECT NO. / DATE	NEW SCIENCE BUILDING SAN JOSE STATE UNIVERSITY SAN JOSE, CALIFORNIA	C-13
402814001 / 7/16		

APPENDIX D

ANALYTICAL RESULTS

e-Hardcopy 2.0
Automated Report

Technical Report for

Ninyo & Moore

SJSU-1 Washington square,SJ

402814001

SGS Accutest Job Number: C46048

Sampling Date: 06/03/16

Report to:

Ninyo and Moore

edirksen@ninyoandmoore.com

ATTN: Emily Dirksen

Total number of pages in report: 83

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Sample Summary

Ninyo & Moore

Job No: C46048

SJSU-1 Washington square, SJ
Project No: 402814001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C46048-1	06/03/16	07:30	ERD	06/03/16	SO	Soil	SB-1-5
C46048-2	06/03/16	07:45	ERD	06/03/16	SO	Soil	SB-1-10
C46048-3	06/03/16	09:30	ERD	06/03/16	SO	Soil	SB-2-5
C46048-4	06/03/16	09:45	ERD	06/03/16	SO	Soil	SB-2-10

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: C46048
Account: Ninyo & Moore
Project: SJSU-1 Washington square, SJ
Collected: 06/03/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C46048-1	**SB-1-5**					
TPH (C10-C28)		20.2	17	7.3	mg/kg	SW846 8015B M
TPH (> C28-C40)		53.9	17	6.5	mg/kg	SW846 8015B M
Arsenic		9.9	1.9		mg/kg	SW846 6010B
Barium		122	19		mg/kg	SW846 6010B
Chromium		55.2	0.95		mg/kg	SW846 6010B
Cobalt		9.9	0.95		mg/kg	SW846 6010B
Copper		24.0	2.4		mg/kg	SW846 6010B
Lead		8.6	1.9		mg/kg	SW846 6010B
Mercury		0.23	0.015		mg/kg	SW846 7471A
Nickel		84.2	0.95		mg/kg	SW846 6010B
Vanadium		36.8	0.95		mg/kg	SW846 6010B
Zinc		53.9	1.9		mg/kg	SW846 6010B
C46048-2	**SB-1-10**					
p-Isopropyltoluene [a]		0.69 J	5.0	0.50	ug/kg	SW846 8260B
TPH-GRO (C6-C10) [a]		165	99	50	ug/kg	SW846 8260B
TPH (> C28-C40)		2.83 J	3.3	1.3	mg/kg	SW846 8015B M
Arsenic		7.5	1.9		mg/kg	SW846 6010B
Barium		162	19		mg/kg	SW846 6010B
Chromium		49.2	0.96		mg/kg	SW846 6010B
Cobalt		10.7	0.96		mg/kg	SW846 6010B
Copper		24.9	2.4		mg/kg	SW846 6010B
Lead		10.8	1.9		mg/kg	SW846 6010B
Mercury		0.051	0.014		mg/kg	SW846 7471A
Nickel		79.7	0.96		mg/kg	SW846 6010B
Vanadium		34.2	0.96		mg/kg	SW846 6010B
Zinc		53.2	1.9		mg/kg	SW846 6010B
C46048-3	**SB-2-5**					
Arsenic		7.3	1.7		mg/kg	SW846 6010B
Barium		487	17		mg/kg	SW846 6010B
Chromium		51.6	0.85		mg/kg	SW846 6010B
Cobalt		11.9	0.85		mg/kg	SW846 6010B
Copper		34.9	2.1		mg/kg	SW846 6010B
Lead		8.5	1.7		mg/kg	SW846 6010B
Mercury		0.058	0.016		mg/kg	SW846 7471A
Nickel		96.7	0.85		mg/kg	SW846 6010B
Vanadium		39.7	0.85		mg/kg	SW846 6010B
Zinc		58.5	1.7		mg/kg	SW846 6010B

Summary of Hits

Job Number: C46048
Account: Ninyo & Moore
Project: SJSU-1 Washington square, SJ
Collected: 06/03/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C46048-4	**SB-2-10**					
Arsenic		7.3	1.7		mg/kg	SW846 6010B
Barium		141	17		mg/kg	SW846 6010B
Chromium		51.8	0.85		mg/kg	SW846 6010B
Cobalt		10.7	0.85		mg/kg	SW846 6010B
Copper		26.2	2.1		mg/kg	SW846 6010B
Lead		8.7	1.7		mg/kg	SW846 6010B
Mercury		0.049	0.016		mg/kg	SW846 7471A
Nickel		83.4	0.85		mg/kg	SW846 6010B
Vanadium		35.9	0.85		mg/kg	SW846 6010B
Zinc		56.0	1.7		mg/kg	SW846 6010B

(a) Atypical pattern; value primarily due to a single peak.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L49387.D	1	06/06/16	JT	n/a	n/a	VL1477
Run #2							

	Initial Weight
Run #1	5.00 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	40	10	ug/kg	
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.50	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	0.50	ug/kg	
75-25-2	Bromoform	ND	5.0	0.50	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.50	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	0.50	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.0	ug/kg	
67-66-3	Chloroform	ND	5.0	0.50	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.50	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.50	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	0.50	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	0.50	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.50	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	0.50	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	0.50	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.50	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane [b]	ND	5.0	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	0.50	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	0.50	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	0.50	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	ND	5.0	0.50	ug/kg	
591-78-6	2-Hexanone	ND	20	2.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.50	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	20	2.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.0	ug/kg	
74-87-3	Methyl chloride	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.50	ug/kg	
75-09-2	Methylene chloride	ND	20	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	20	2.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	1.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.50	ug/kg	
100-42-5	Styrene	ND	5.0	0.50	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	40	10	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	0.50	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.50	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	0.60	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	10	1.0	ug/kg	
	TPH-GRO (C6-C10)	ND	100	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		72-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		87-113%
460-00-4	4-Bromofluorobenzene	97%		81-115%

(a) All results reported on a wet weight basis.
(b) CCV outside of control limits (biased high); not detected in sample.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	Y35928.D	5	06/08/16	MT	06/08/16	OP14483	EY1688
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.5 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	2500	320	ug/kg	
95-57-8	2-Chlorophenol	ND	1200	170	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1200	170	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1200	220	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1200	360	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	320	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1200	330	ug/kg	
95-48-7	2-Methylphenol	ND	1200	140	ug/kg	
	3&4-Methylphenol	ND	1200	120	ug/kg	
88-75-5	2-Nitrophenol	ND	1200	210	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	200	ug/kg	
87-86-5	Pentachlorophenol	ND	1200	350	ug/kg	
108-95-2	Phenol	ND	1200	62	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1200	220	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1200	290	ug/kg	
83-32-9	Acenaphthene	ND	1200	200	ug/kg	
208-96-8	Acenaphthylene	ND	1200	190	ug/kg	
62-53-3	Aniline	ND	1200	170	ug/kg	
120-12-7	Anthracene	ND	1200	150	ug/kg	
103-33-3	Azobenzene	ND	1200	180	ug/kg	
92-87-5	Benzidine	ND	5000	1800	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1200	87	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1200	97	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1200	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1200	230	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1200	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1200	180	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1200	260	ug/kg	
100-51-6	Benzyl Alcohol	ND	1200	140	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1200	200	ug/kg	
106-47-8	4-Chloroaniline	ND	1200	220	ug/kg	
86-74-8	Carbazole	ND	1200	220	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1200	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1200	220	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1200	210	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1200	190	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1200	200	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1200	190	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1200	190	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1200	200	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1200	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1200	180	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	2500	400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1200	190	ug/kg	
132-64-9	Dibenzofuran	ND	1200	200	ug/kg	
122-39-4	Diphenylamine	ND	1200	170	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1200	190	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1200	240	ug/kg	
84-66-2	Diethyl phthalate	ND	1200	240	ug/kg	
131-11-3	Dimethyl phthalate	ND	1200	320	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1200	260	ug/kg	
206-44-0	Fluoranthene	ND	1200	130	ug/kg	
86-73-7	Fluorene	ND	1200	160	ug/kg	
118-74-1	Hexachlorobenzene	ND	1200	130	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1200	240	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1200	230	ug/kg	
67-72-1	Hexachloroethane	ND	1200	190	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1200	210	ug/kg	
78-59-1	Isophorone	ND	1200	220	ug/kg	
90-12-0	1-Methylnaphthalene	ND	1200	240	ug/kg	
91-57-6	2-Methylnaphthalene	ND	1200	220	ug/kg	
88-74-4	2-Nitroaniline	ND	1200	200	ug/kg	
99-09-2	3-Nitroaniline	ND	1200	210	ug/kg	
100-01-6	4-Nitroaniline	ND	1200	260	ug/kg	
91-20-3	Naphthalene	ND	1200	210	ug/kg	
98-95-3	Nitrobenzene	ND	1200	220	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	1200	120	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1200	240	ug/kg	
85-01-8	Phenanthrene	ND	1200	160	ug/kg	
129-00-0	Pyrene	ND	1200	160	ug/kg	
110-86-1	Pyridine	ND	1200	94	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1200	210	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		23-116%
4165-62-2	Phenol-d5	67%		28-119%
118-79-6	2,4,6-Tribromophenol	96%		24-160%
4165-60-0	Nitrobenzene-d5	55%		20-115%
321-60-8	2-Fluorobiphenyl	77%		31-123%
1718-51-0	Terphenyl-d14	97%		58-149%

(a) All results reported on a wet weight basis.
(b) Dilution required due to matrix interference. Extract would not concentrate (oily, dark and viscous).

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8082 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	OO385987.D	5	06/07/16	SY	06/06/16	OP14456	GOO1662
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	170	33	ug/kg	
11104-28-2	Aroclor 1221	ND	170	83	ug/kg	
11141-16-5	Aroclor 1232	ND	170	83	ug/kg	
53469-21-9	Aroclor 1242	ND	170	83	ug/kg	
12672-29-6	Aroclor 1248	ND	170	83	ug/kg	
11097-69-1	Aroclor 1254	ND	170	83	ug/kg	
11096-82-5	Aroclor 1260	ND	170	33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-156%
877-09-8	Tetrachloro-m-xylene	106%		10-156%
2051-24-3	Decachlorobiphenyl	105%		10-188%
2051-24-3	Decachlorobiphenyl	101%		10-188%

(a) All results reported on a wet weight basis.
(b) Dilution required due to matrix interference (yellow and viscous extract).

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8015B M SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH333146.D	5	06/07/16	FL	06/06/16	OP14465	GHH1822
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	20.2	17	7.3	mg/kg	
	TPH (> C28-C40)	53.9	17	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	88%		38-146%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a [a]
Project:	SJSU-1 Washington square, SJ		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Arsenic	9.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Barium	122	19	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Beryllium	< 0.95	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cadmium	< 0.95	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Chromium	55.2	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cobalt	9.9	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Copper	24.0	2.4	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Lead	8.6	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Mercury	0.23	0.015	mg/kg	1	06/07/16	06/07/16	EB	SW846 7471A [2]	SW846 7471A [4]
Molybdenum	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Nickel	84.2	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Selenium	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Silver	< 0.95	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Thallium	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Vanadium	36.8	0.95	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Zinc	53.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA5922
(2) Instrument QC Batch: MA5924
(3) Prep QC Batch: MP11430
(4) Prep QC Batch: MP11437

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	L49388.D	1	06/06/16	JT	n/a	n/a	VL1477
Run #2							

	Initial Weight
Run #1	5.04 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	40	9.9	ug/kg	
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.50	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	0.50	ug/kg	
75-25-2	Bromoform	ND	5.0	0.50	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.50	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	0.50	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.99	ug/kg	
67-66-3	Chloroform	ND	5.0	0.50	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.50	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.50	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	0.50	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	0.50	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.50	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	0.50	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	0.50	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.50	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane [c]	ND	5.0	0.99	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	0.50	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	0.50	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	0.50	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	ND	5.0	0.50	ug/kg	
591-78-6	2-Hexanone	ND	20	2.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.99	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/kg	
99-87-6	p-Isopropyltoluene	0.69	5.0	0.50	ug/kg	J
108-10-1	4-Methyl-2-pentanone	ND	20	2.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	0.99	ug/kg	
74-87-3	Methyl chloride	ND	5.0	0.99	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.50	ug/kg	
75-09-2	Methylene chloride	ND	20	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	20	2.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	0.99	ug/kg	
91-20-3	Naphthalene	ND	5.0	0.99	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.50	ug/kg	
100-42-5	Styrene	ND	5.0	0.50	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	40	9.9	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	0.50	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.50	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.99	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.99	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.99	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	0.60	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.99	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	0.99	ug/kg	
1330-20-7	Xylene (total)	ND	9.9	0.99	ug/kg	
	TPH-GRO (C6-C10)	165	99	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		72-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		87-113%
460-00-4	4-Bromofluorobenzene	101%		81-115%

(a) All results reported on a wet weight basis.
(b) Atypical pattern; value primarily due to a single peak.
(c) CCV outside of control limits (biased high); not detected in sample.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y35929.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	330	43	ug/kg	
95-57-8	2-Chlorophenol	ND	170	22	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	47	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	42	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	43	ug/kg	
95-48-7	2-Methylphenol	ND	170	19	ug/kg	
	3&4-Methylphenol	ND	170	16	ug/kg	
88-75-5	2-Nitrophenol	ND	170	28	ug/kg	
100-02-7	4-Nitrophenol	ND	170	27	ug/kg	
87-86-5	Pentachlorophenol	ND	170	47	ug/kg	
108-95-2	Phenol	ND	170	8.3	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	29	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	39	ug/kg	
83-32-9	Acenaphthene	ND	170	27	ug/kg	
208-96-8	Acenaphthylene	ND	170	26	ug/kg	
62-53-3	Aniline	ND	170	22	ug/kg	
120-12-7	Anthracene	ND	170	20	ug/kg	
103-33-3	Azobenzene	ND	170	23	ug/kg	
92-87-5	Benzidine	ND	660	240	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	11	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	30	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	15	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	23	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	34	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	19	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	26	ug/kg	
106-47-8	4-Chloroaniline	ND	170	29	ug/kg	
86-74-8	Carbazole	ND	170	29	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	170	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	29	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	28	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	25	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	170	25	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	25	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	170	26	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	22	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	53	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	26	ug/kg	
132-64-9	Dibenzofuran	ND	170	26	ug/kg	
122-39-4	Diphenylamine	ND	170	23	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	170	25	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	32	ug/kg	
84-66-2	Diethyl phthalate	ND	170	31	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	43	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	170	35	ug/kg	
206-44-0	Fluoranthene	ND	170	18	ug/kg	
86-73-7	Fluorene	ND	170	22	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	32	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	30	ug/kg	
67-72-1	Hexachloroethane	ND	170	25	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	28	ug/kg	
78-59-1	Isophorone	ND	170	29	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	32	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	29	ug/kg	
88-74-4	2-Nitroaniline	ND	170	26	ug/kg	
99-09-2	3-Nitroaniline	ND	170	28	ug/kg	
100-01-6	4-Nitroaniline	ND	170	35	ug/kg	
91-20-3	Naphthalene	ND	170	28	ug/kg	
98-95-3	Nitrobenzene	ND	170	29	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	170	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	32	ug/kg	
85-01-8	Phenanthrene	ND	170	21	ug/kg	
129-00-0	Pyrene	ND	170	21	ug/kg	
110-86-1	Pyridine	ND	170	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	28	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	59%		23-116%
4165-62-2	Phenol-d5	63%		28-119%
118-79-6	2,4,6-Tribromophenol	79%		24-160%
4165-60-0	Nitrobenzene-d5	53%		20-115%
321-60-8	2-Fluorobiphenyl	62%		31-123%
1718-51-0	Terphenyl-d14	92%		58-149%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8082 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO385988.D	1	06/07/16	SY	06/06/16	OP14456	GOO1662
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	6.6	ug/kg	
11104-28-2	Aroclor 1221	ND	33	17	ug/kg	
11141-16-5	Aroclor 1232	ND	33	17	ug/kg	
53469-21-9	Aroclor 1242	ND	33	17	ug/kg	
12672-29-6	Aroclor 1248	ND	33	17	ug/kg	
11097-69-1	Aroclor 1254	ND	33	17	ug/kg	
11096-82-5	Aroclor 1260	ND	33	6.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		10-156%
877-09-8	Tetrachloro-m-xylene	84%		10-156%
2051-24-3	Decachlorobiphenyl	92%		10-188%
2051-24-3	Decachlorobiphenyl	84%		10-188%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8015B M SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH333147.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	3.3	1.5	mg/kg	
	TPH (> C28-C40)	2.83	3.3	1.3	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	93%		38-146%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a [a]
Project:	SJSU-1 Washington square, SJ		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Arsenic	7.5	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Barium	162	19	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Beryllium	< 0.96	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cadmium	< 0.96	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Chromium	49.2	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cobalt	10.7	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Copper	24.9	2.4	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Lead	10.8	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Mercury	0.051	0.014	mg/kg	1	06/07/16	06/07/16	EB	SW846 7471A [2]	SW846 7471A [4]
Molybdenum	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Nickel	79.7	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Selenium	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Silver	< 0.96	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Thallium	< 1.9	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Vanadium	34.2	0.96	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Zinc	53.2	1.9	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA5922
(2) Instrument QC Batch: MA5924
(3) Prep QC Batch: MP11430
(4) Prep QC Batch: MP11437

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L49389.D	1	06/06/16	JT	n/a	n/a	VL1477
Run #2							

	Initial Weight
Run #1	5.00 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	40	10	ug/kg	
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.50	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	0.50	ug/kg	
75-25-2	Bromoform	ND	5.0	0.50	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.50	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	0.50	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.0	ug/kg	
67-66-3	Chloroform	ND	5.0	0.50	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.50	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.50	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	0.50	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	0.50	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.50	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	0.50	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	0.50	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.50	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane [b]	ND	5.0	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	0.50	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	0.50	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	0.50	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	ND	5.0	0.50	ug/kg	
591-78-6	2-Hexanone	ND	20	2.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.50	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	20	2.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.0	ug/kg	
74-87-3	Methyl chloride	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.50	ug/kg	
75-09-2	Methylene chloride	ND	20	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	20	2.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	1.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.50	ug/kg	
100-42-5	Styrene	ND	5.0	0.50	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	40	10	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	0.50	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.50	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	0.60	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	10	1.0	ug/kg	
	TPH-GRO (C6-C10)	ND	100	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		72-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		87-113%
460-00-4	4-Bromofluorobenzene	97%		81-115%

(a) All results reported on a wet weight basis.
(b) CCV outside of control limits (biased high); not detected in sample.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y35930.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	330	43	ug/kg	
95-57-8	2-Chlorophenol	ND	160	22	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	160	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	160	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	160	47	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	160	42	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	160	43	ug/kg	
95-48-7	2-Methylphenol	ND	160	19	ug/kg	
	3&4-Methylphenol	ND	160	16	ug/kg	
88-75-5	2-Nitrophenol	ND	160	28	ug/kg	
100-02-7	4-Nitrophenol	ND	160	27	ug/kg	
87-86-5	Pentachlorophenol	ND	160	47	ug/kg	
108-95-2	Phenol	ND	160	8.2	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	160	29	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	160	39	ug/kg	
83-32-9	Acenaphthene	ND	160	27	ug/kg	
208-96-8	Acenaphthylene	ND	160	26	ug/kg	
62-53-3	Aniline	ND	160	22	ug/kg	
120-12-7	Anthracene	ND	160	20	ug/kg	
103-33-3	Azobenzene	ND	160	23	ug/kg	
92-87-5	Benzidine	ND	660	240	ug/kg	
56-55-3	Benzo(a)anthracene	ND	160	11	ug/kg	
50-32-8	Benzo(a)pyrene	ND	160	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	160	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	160	30	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	160	15	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	160	23	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	160	34	ug/kg	
100-51-6	Benzyl Alcohol	ND	160	19	ug/kg	
91-58-7	2-Chloronaphthalene	ND	160	26	ug/kg	
106-47-8	4-Chloroaniline	ND	160	29	ug/kg	
86-74-8	Carbazole	ND	160	29	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	160	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	160	29	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	160	28	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	160	25	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	160	27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	160	25	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	160	25	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	160	26	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	160	22	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	160	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	52	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	160	26	ug/kg	
132-64-9	Dibenzofuran	ND	160	26	ug/kg	
122-39-4	Diphenylamine	ND	160	23	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	160	25	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	160	32	ug/kg	
84-66-2	Diethyl phthalate	ND	160	31	ug/kg	
131-11-3	Dimethyl phthalate	ND	160	43	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	160	35	ug/kg	
206-44-0	Fluoranthene	ND	160	18	ug/kg	
86-73-7	Fluorene	ND	160	22	ug/kg	
118-74-1	Hexachlorobenzene	ND	160	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	160	32	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	160	30	ug/kg	
67-72-1	Hexachloroethane	ND	160	25	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	160	28	ug/kg	
78-59-1	Isophorone	ND	160	29	ug/kg	
90-12-0	1-Methylnaphthalene	ND	160	32	ug/kg	
91-57-6	2-Methylnaphthalene	ND	160	29	ug/kg	
88-74-4	2-Nitroaniline	ND	160	26	ug/kg	
99-09-2	3-Nitroaniline	ND	160	28	ug/kg	
100-01-6	4-Nitroaniline	ND	160	35	ug/kg	
91-20-3	Naphthalene	ND	160	28	ug/kg	
98-95-3	Nitrobenzene	ND	160	29	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	160	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	160	32	ug/kg	
85-01-8	Phenanthrene	ND	160	21	ug/kg	
129-00-0	Pyrene	ND	160	21	ug/kg	
110-86-1	Pyridine	ND	160	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	160	28	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		23-116%
4165-62-2	Phenol-d5	62%		28-119%
118-79-6	2,4,6-Tribromophenol	77%		24-160%
4165-60-0	Nitrobenzene-d5	53%		20-115%
321-60-8	2-Fluorobiphenyl	61%		31-123%
1718-51-0	Terphenyl-d14	86%		58-149%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8082 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO385989.D	1	06/07/16	SY	06/06/16	OP14456	GOO1662
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	6.6	ug/kg	
11104-28-2	Aroclor 1221	ND	33	17	ug/kg	
11141-16-5	Aroclor 1232	ND	33	17	ug/kg	
53469-21-9	Aroclor 1242	ND	33	17	ug/kg	
12672-29-6	Aroclor 1248	ND	33	17	ug/kg	
11097-69-1	Aroclor 1254	ND	33	17	ug/kg	
11096-82-5	Aroclor 1260	ND	33	6.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-156%
877-09-8	Tetrachloro-m-xylene	84%		10-156%
2051-24-3	Decachlorobiphenyl	95%		10-188%
2051-24-3	Decachlorobiphenyl	90%		10-188%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8015B M SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH333148.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	3.3	1.5	mg/kg	
	TPH (> C28-C40)	ND	3.3	1.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	89%		38-146%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a [a]
Project:	SJSU-1 Washington square, SJ		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Arsenic	7.3	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Barium	487	17	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Beryllium	< 0.85	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cadmium	< 0.85	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Chromium	51.6	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cobalt	11.9	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Copper	34.9	2.1	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Lead	8.5	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Mercury	0.058	0.016	mg/kg	1	06/07/16	06/07/16	EB	SW846 7471A [2]	SW846 7471A [4]
Molybdenum	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Nickel	96.7	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Selenium	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Silver	< 0.85	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Thallium	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Vanadium	39.7	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Zinc	58.5	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA5922
(2) Instrument QC Batch: MA5924
(3) Prep QC Batch: MP11430
(4) Prep QC Batch: MP11437

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L49390.D	1	06/06/16	JT	n/a	n/a	VL1477
Run #2							

	Initial Weight
Run #1	5.02 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	40	10	ug/kg	
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.50	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	0.50	ug/kg	
75-25-2	Bromoform	ND	5.0	0.50	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.50	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	0.50	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.0	ug/kg	
67-66-3	Chloroform	ND	5.0	0.50	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.50	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.50	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	0.50	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	0.50	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.50	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	0.50	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	0.50	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.50	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane [b]	ND	5.0	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	0.50	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	0.50	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	0.50	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	ND	5.0	0.50	ug/kg	
591-78-6	2-Hexanone	ND	20	2.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.50	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	20	2.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.0	ug/kg	
74-87-3	Methyl chloride	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.50	ug/kg	
75-09-2	Methylene chloride	ND	20	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	20	2.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	1.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.50	ug/kg	
100-42-5	Styrene	ND	5.0	0.50	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	40	10	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	0.50	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.50	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	0.60	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	10	1.0	ug/kg	
	TPH-GRO (C6-C10)	ND	100	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		72-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8260B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		87-113%
460-00-4	4-Bromofluorobenzene	103%		81-115%

(a) All results reported on a wet weight basis.
(b) CCV outside of control limits (biased high); not detected in sample.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y35931.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	330	43	ug/kg	
95-57-8	2-Chlorophenol	ND	170	22	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	47	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	42	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	43	ug/kg	
95-48-7	2-Methylphenol	ND	170	19	ug/kg	
	3&4-Methylphenol	ND	170	17	ug/kg	
88-75-5	2-Nitrophenol	ND	170	29	ug/kg	
100-02-7	4-Nitrophenol	ND	170	27	ug/kg	
87-86-5	Pentachlorophenol	ND	170	47	ug/kg	
108-95-2	Phenol	ND	170	8.3	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	29	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	39	ug/kg	
83-32-9	Acenaphthene	ND	170	27	ug/kg	
208-96-8	Acenaphthylene	ND	170	26	ug/kg	
62-53-3	Aniline	ND	170	22	ug/kg	
120-12-7	Anthracene	ND	170	21	ug/kg	
103-33-3	Azobenzene	ND	170	23	ug/kg	
92-87-5	Benzidine	ND	660	240	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	12	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	31	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	15	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	24	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	34	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	19	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	26	ug/kg	
106-47-8	4-Chloroaniline	ND	170	29	ug/kg	
86-74-8	Carbazole	ND	170	29	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	170	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	29	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	28	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	25	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	170	25	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	25	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	170	26	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	22	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	25	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	53	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	26	ug/kg	
132-64-9	Dibenzofuran	ND	170	26	ug/kg	
122-39-4	Diphenylamine	ND	170	23	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	170	26	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	33	ug/kg	
84-66-2	Diethyl phthalate	ND	170	31	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	43	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	170	35	ug/kg	
206-44-0	Fluoranthene	ND	170	18	ug/kg	
86-73-7	Fluorene	ND	170	22	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	32	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	30	ug/kg	
67-72-1	Hexachloroethane	ND	170	25	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	28	ug/kg	
78-59-1	Isophorone	ND	170	29	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	32	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	29	ug/kg	
88-74-4	2-Nitroaniline	ND	170	26	ug/kg	
99-09-2	3-Nitroaniline	ND	170	28	ug/kg	
100-01-6	4-Nitroaniline	ND	170	35	ug/kg	
91-20-3	Naphthalene	ND	170	28	ug/kg	
98-95-3	Nitrobenzene	ND	170	30	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	170	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	32	ug/kg	
85-01-8	Phenanthrene	ND	170	21	ug/kg	
129-00-0	Pyrene	ND	170	22	ug/kg	
110-86-1	Pyridine	ND	170	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	28	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		23-116%
4165-62-2	Phenol-d5	62%		28-119%
118-79-6	2,4,6-Tribromophenol	96%		24-160%
4165-60-0	Nitrobenzene-d5	56%		20-115%
321-60-8	2-Fluorobiphenyl	67%		31-123%
1718-51-0	Terphenyl-d14	96%		58-149%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8082 SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO385990.D	1	06/07/16	SY	06/06/16	OP14456	GOO1662
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	6.6	ug/kg	
11104-28-2	Aroclor 1221	ND	33	17	ug/kg	
11141-16-5	Aroclor 1232	ND	33	17	ug/kg	
53469-21-9	Aroclor 1242	ND	33	17	ug/kg	
12672-29-6	Aroclor 1248	ND	33	17	ug/kg	
11097-69-1	Aroclor 1254	ND	33	17	ug/kg	
11096-82-5	Aroclor 1260	ND	33	6.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-156%
877-09-8	Tetrachloro-m-xylene	84%		10-156%
2051-24-3	Decachlorobiphenyl	99%		10-188%
2051-24-3	Decachlorobiphenyl	94%		10-188%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
Method:	SW846 8015B M SW846 3550B	**Percent Solids:**	n/a [a]
Project:	SJSU-1 Washington square, SJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH333149.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	3.3	1.5	mg/kg	
	TPH (> C28-C40)	ND	3.3	1.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	94%		38-146%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a [a]
Project:	SJSU-1 Washington square, SJ		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Arsenic	7.3	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Barium	141	17	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Beryllium	< 0.85	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cadmium	< 0.85	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Chromium	51.8	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Cobalt	10.7	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Copper	26.2	2.1	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Lead	8.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Mercury	0.049	0.016	mg/kg	1	06/07/16	06/07/16	EB	SW846 7471A [2]	SW846 7471A [4]
Molybdenum	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Nickel	83.4	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Selenium	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Silver	< 0.85	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Thallium	< 1.7	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Vanadium	35.9	0.85	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]
Zinc	56.0	1.7	mg/kg	1	06/06/16	06/07/16	RS	SW846 6010B [1]	SW846 3050B [3]

(1) Instrument QC Batch: MA5922
(2) Instrument QC Batch: MA5924
(3) Prep QC Batch: MP11430
(4) Prep QC Batch: MP11437

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS ACCUTEST

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #: | Bottle Order Control #:
SGS Accutest Quote #: | SGS Accutest NC Job #: C C46048

Client / Reporting Information

Company Name: Ninyo and Moore
Address: 1956 Webster St, Ste 400
City: Oakland State: CA Zip: 94612
Project Contact: Kris Larson
Phone #: 510 343 3000
Samplers's Name: Emily R Diksen

Project Information

Project Name: SJSU
Street: 1 Washington Square
City: San Jose State: CA
Project #: 402814001
EMAIL: klarson@ninyoandmoore.com
Client Purchase Order #:

Requested Analysis

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

SGS Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles	Title 22 Metals	TPHg + VOCs 8260/	SVOCs 8270C	PCBs 8082	TPHd/mo 8015/8021	Asbestos Carb 435	LAB USE ONLY
1	SB-1-5	4/3/14	0730	QUED	S	2		X	X	X	X	X	X	
2	SB-1-10	4/3/14	0745	CQD	S	2		X	X	X	X	X	X	
3	SB-2-5	4/3/14	0930					X	X	X	X	X	X	
4	SB-2-10	4/3/14	0945	↓	↓	↓		X	X	X	X	X	X	

Turnaround Time (Business days)

Approved By / Date:

- [X] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Labtink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULL1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID:
- Provide EDF Logcode:

Comments / Remarks

AZ

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	E. Diksen	4/3/14 1020	Lee Bautista	2		2
3			3	4		4
5			5			

Custody Seal #: NONE
Appropriate Bottle / Pres. Y / N
Labels match Coc? Y / N
Headspace Y / N
Separate Receiving Check List used: Y / N
On Ice Y / N
Cooler Temp: 18.1 / 19.1 °C

C46048: Chain of Custody
Page 1 of 2

SGS Accutest Sample Receipt Summary

Job Number: C46048 **Client:** NINYO & MOORE **Project:** SJSU

Date / Time Received: 6/3/2016 10:00:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (18.1/19.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☐		☑
2. Therm ID:	IR3;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

C46048: Chain of Custody
Page 2 of 2

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-MB	L49386.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	40	10	ug/kg	
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.50	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	0.50	ug/kg	
75-25-2	Bromoform	ND	5.0	0.50	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.50	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	0.50	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.0	ug/kg	
67-66-3	Chloroform	ND	5.0	0.50	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.50	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.50	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	0.50	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	0.50	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.50	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	0.50	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	0.50	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.50	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	0.50	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	0.50	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	ND	5.0	0.50	ug/kg	

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-MB	L49386.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	20	2.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.50	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	20	2.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.0	ug/kg	
74-87-3	Methyl chloride	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.50	ug/kg	
75-09-2	Methylene chloride	ND	20	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	20	2.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	1.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.50	ug/kg	
100-42-5	Styrene	ND	5.0	0.50	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	40	10	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	0.50	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.50	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	0.60	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	10	1.0	ug/kg	
	TPH-GRO (C6-C10)	ND	100	50	ug/kg	

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-MB	L49386.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	72-140%
2037-26-5	Toluene-D8	100%	87-113%
460-00-4	4-Bromofluorobenzene	94%	81-115%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) The following compounds were not detected by library search: Propylene, 1,3-Butadiene, Dicyclopentadiene, 4-Ethyltoluene.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-BS	L49383.D	1	06/06/16	JT	n/a	n/a	VL1477
VL1477-BSD	L49384.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	160	198	124	180	113	10	47-163/30
71-43-2	Benzene	40	38.6	97	38.5	96	0	72-122/18
108-86-1	Bromobenzene	40	39.5	99	37.7	94	5	68-122/19
74-97-5	Bromochloromethane	40	41.8	105	39.9	100	5	71-129/18
75-27-4	Bromodichloromethane	40	37.9	95	36.6	92	3	68-122/18
75-25-2	Bromoform	40	41.6	104	38.7	97	7	69-126/18
104-51-8	n-Butylbenzene	40	40.2	101	39.4	99	2	66-121/20
135-98-8	sec-Butylbenzene	40	38.9	97	38.7	97	1	69-118/20
98-06-6	tert-Butylbenzene	40	38.5	96	38.3	96	1	69-117/20
108-90-7	Chlorobenzene	40	38.9	97	37.7	94	3	68-117/17
75-00-3	Chloroethane	40	39.6	99	38.3	96	3	66-134/18
67-66-3	Chloroform	40	37.9	95	36.8	92	3	68-124/18
95-49-8	o-Chlorotoluene	40	38.2	96	36.6	92	4	65-120/22
106-43-4	p-Chlorotoluene	40	38.1	95	37.1	93	3	64-123/24
56-23-5	Carbon tetrachloride	40	38.8	97	38.3	96	1	68-130/20
75-34-3	1,1-Dichloroethane	40	38.5	96	37.4	94	3	69-122/19
75-35-4	1,1-Dichloroethylene	40	39.9	100	39.1	98	2	69-120/20
563-58-6	1,1-Dichloropropene	40	38.2	96	38.1	95	0	69-120/19
96-12-8	1,2-Dibromo-3-chloropropane	40	39.4	99	35.6	89	10	64-132/25
106-93-4	1,2-Dibromoethane	40	40.7	102	39.1	98	4	70-122/17
107-06-2	1,2-Dichloroethane	40	38.6	97	36.7	92	5	69-125/18
78-87-5	1,2-Dichloropropane	40	39.1	98	38.3	96	2	71-122/18
142-28-9	1,3-Dichloropropane	40	40.5	101	38.8	97	4	74-123/17
108-20-3	Di-Isopropyl ether	40	38.5	96	37.3	93	3	69-122/19
594-20-7	2,2-Dichloropropane	40	38.5	96	36.9	92	4	63-132/24
124-48-1	Dibromochloromethane	40	39.0	98	37.2	93	5	68-121/16
75-71-8	Dichlorodifluoromethane	40	33.0	83	31.4	79	5	53-119/22
156-59-2	cis-1,2-Dichloroethylene	40	41.7	104	40.6	102	3	72-130/18
10061-01-5	cis-1,3-Dichloropropene	40	41.2	103	40.5	101	2	71-130/18
541-73-1	m-Dichlorobenzene	40	39.5	99	37.8	95	4	67-119/18
95-50-1	o-Dichlorobenzene	40	39.0	98	37.1	93	5	68-119/17
106-46-7	p-Dichlorobenzene	40	39.3	98	38.1	95	3	67-119/17
156-60-5	trans-1,2-Dichloroethylene	40	38.0	95	37.4	94	2	66-113/19
10061-02-6	trans-1,3-Dichloropropene	40	38.0	95	36.2	91	5	70-118/17
100-41-4	Ethylbenzene	40	39.2	98	38.3	96	2	71-118/18
637-92-3	Ethyl tert-Butyl Ether	40	39.6	99	38.0	95	4	69-125/19

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-BS	L49383.D	1	06/06/16	JT	n/a	n/a	VL1477
VL1477-BSD	L49384.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	160	176	110	166	104	6	53-153/27
87-68-3	Hexachlorobutadiene	40	38.1	95	38.0	95	0	65-125/22
98-82-8	Isopropylbenzene	40	39.4	99	38.9	97	1	70-119/19
99-87-6	p-Isopropyltoluene	40	39.8	100	39.5	99	1	68-120/20
108-10-1	4-Methyl-2-pentanone	160	182	114	176	110	3	60-145/26
74-83-9	Methyl bromide	40	38.0	95	36.5	91	4	66-130/18
74-87-3	Methyl chloride	40	37.3	93	35.4	89	5	50-140/25
74-95-3	Methylene bromide	40	40.8	102	39.1	98	4	72-127/17
75-09-2	Methylene chloride	40	39.1	98	37.5	94	4	69-121/18
78-93-3	Methyl ethyl ketone	160	184	115	169	106	8	59-147/30
1634-04-4	Methyl Tert Butyl Ether	40	38.6	97	36.4	91	6	68-121/19
91-20-3	Naphthalene	40	40.3	101	38.1	95	6	68-129/22
103-65-1	n-Propylbenzene	40	38.4	96	37.5	94	2	67-116/20
100-42-5	Styrene	40	39.4	99	38.5	96	2	68-120/17
994-05-8	Tert-Amyl Methyl Ether	40	41.5	104	39.4	99	5	70-129/20
75-65-0	Tert Butyl Alcohol	200	223	112	206	103	8	50-163/30
630-20-6	1,1,1,2-Tetrachloroethane	40	39.0	98	38.2	96	2	70-123/18
71-55-6	1,1,1-Trichloroethane	40	39.4	99	38.5	96	2	71-128/20
79-34-5	1,1,2,2-Tetrachloroethane	40	40.8	102	37.8	95	8	69-126/18
79-00-5	1,1,2-Trichloroethane	40	39.4	99	37.4	94	5	70-120/17
87-61-6	1,2,3-Trichlorobenzene	40	38.8	97	37.1	93	4	65-125/23
96-18-4	1,2,3-Trichloropropane	40	42.3	106	40.0	100	6	69-128/18
120-82-1	1,2,4-Trichlorobenzene	40	39.0	98	37.3	93	4	65-125/22
95-63-6	1,2,4-Trimethylbenzene	40	39.2	98	38.0	95	3	67-118/19
108-67-8	1,3,5-Trimethylbenzene	40	40.1	100	39.1	98	3	68-120/20
127-18-4	Tetrachloroethylene	40	43.3	108	42.8	107	1	66-125/18
108-88-3	Toluene	40	38.6	97	38.0	95	2	72-116/18
79-01-6	Trichloroethylene	40	39.9	100	39.4	99	1	70-126/18
75-69-4	Trichlorofluoromethane	40	39.1	98	36.7	92	6	70-138/19
75-01-4	Vinyl chloride	40	39.8	100	38.2	96	4	55-146/22
1330-20-7	Xylene (total)	120	118	98	116	97	2	68-118/18

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	98%	72-140%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-BS	L49383.D	1	06/06/16	JT	n/a	n/a	VL1477
VL1477-BSD	L49384.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	98%	96%	87-113%
460-00-4	4-Bromofluorobenzene	99%	97%	81-115%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL1477-LCS	L49385.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike ug/kg	LCS ug/kg	LCS %	Limits
	TPH-GRO (C6-C10)	250	238	95	70-123

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	72-140%
2037-26-5	Toluene-D8	98%	87-113%
460-00-4	4-Bromofluorobenzene	97%	81-115%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C46048-1MS	L49403.D	1	06/06/16	JT	n/a	n/a	VL1477
C46048-1MSD	L49404.D	1	06/06/16	JT	n/a	n/a	VL1477
C46048-1	L49387.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	C46048-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		160	190	119	159	173	109	9	47-163/30
71-43-2	Benzene	ND		40	36.8	92	39.7	34.7	87	6	72-122/18
108-86-1	Bromobenzene	ND		40	33.4	84	39.7	30.7	77	8	68-122/19
74-97-5	Bromochloromethane	ND		40	36.4	91	39.7	34.2	86	6	71-129/18
75-27-4	Bromodichloromethane	ND		40	32.6	82	39.7	30.5	77	7	68-122/18
75-25-2	Bromoform	ND		40	31.8	80	39.7	30.5	77	4	69-126/18
104-51-8	n-Butylbenzene	ND		40	30.5	76	39.7	31.0	78	2	66-121/20
135-98-8	sec-Butylbenzene	ND		40	34.1	85	39.7	34.7	87	2	69-118/20
98-06-6	tert-Butylbenzene	ND		40	37.9	95	39.7	37.5	95	1	69-117/20
108-90-7	Chlorobenzene	ND		40	31.2	78	39.7	29.7	75	5	68-117/17
75-00-3	Chloroethane	ND		40	37.7	94	39.7	35.6	90	6	66-134/18
67-66-3	Chloroform	ND		40	34.3	86	39.7	32.4	82	6	68-124/18
95-49-8	o-Chlorotoluene	ND		40	32.3	81	39.7	31.7	80	2	65-120/22
106-43-4	p-Chlorotoluene	ND		40	29.3	73	39.7	29.4	74	0	64-123/24
56-23-5	Carbon tetrachloride	ND		40	37.1	93	39.7	34.1	86	8	68-130/20
75-34-3	1,1-Dichloroethane	ND		40	36.0	90	39.7	33.9	85	6	69-122/19
75-35-4	1,1-Dichloroethylene	ND		40	38.7	97	39.7	36.6	92	6	69-120/20
563-58-6	1,1-Dichloropropene	ND		40	34.7	87	39.7	33.0	83	5	69-120/19
96-12-8	1,2-Dibromo-3-chloropropane	ND		40	28.2	71	39.7	28.2	71	0	64-132/25
106-93-4	1,2-Dibromoethane	ND		40	31.6	79	39.7	29.5	74	7	70-122/17
107-06-2	1,2-Dichloroethane	ND		40	31.6	79	39.7	28.9	73	9	69-125/18
78-87-5	1,2-Dichloropropane	ND		40	35.9	90	39.7	34.2	86	5	71-122/18
142-28-9	1,3-Dichloropropane	ND		40	34.0	85	39.7	31.7	80	7	74-123/17
108-20-3	Di-Isopropyl ether	ND		40	35.5	89	39.7	33.7	85	5	69-122/19
594-20-7	2,2-Dichloropropane	ND		40	35.2	88	39.7	33.0	83	6	63-132/24
124-48-1	Dibromochloromethane	ND		40	33.4	84	39.7	30.6	77	9	68-121/16
75-71-8	Dichlorodifluoromethane	ND		40	29.7	74	39.7	27.6	70	7	53-119/22
156-59-2	cis-1,2-Dichloroethylene	ND		40	36.3	91	39.7	35.0	88	4	72-130/18
10061-01-5	cis-1,3-Dichloropropene	ND		40	32.1	80	39.7	30.0	76	7	71-130/18
541-73-1	m-Dichlorobenzene	ND		40	27.4	69	39.7	27.5	69	0	67-119/18
95-50-1	o-Dichlorobenzene	ND		40	26.6	67* [a]	39.7	26.6	67* [a]	0	68-119/17
106-46-7	p-Dichlorobenzene	ND		40	25.9	65* [a]	39.7	26.4	67	2	67-119/17
156-60-5	trans-1,2-Dichloroethylene	ND		40	33.8	85	39.7	32.2	81	5	66-113/19
10061-02-6	trans-1,3-Dichloropropene	ND		40	27.1	68* [a]	39.7	25.1	63* [a]	8	70-118/17
100-41-4	Ethylbenzene	ND		40	35.0	88	39.7	32.7	82	7	71-118/18
637-92-3	Ethyl tert-Butyl Ether	ND		40	35.6	89	39.7	33.7	85	5	69-125/19

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C46048-1MS	L49403.D	1	06/06/16	JT	n/a	n/a	VL1477
C46048-1MSD	L49404.D	1	06/06/16	JT	n/a	n/a	VL1477
C46048-1	L49387.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	C46048-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		160	137	86	159	134	84	2	53-153/27
87-68-3	Hexachlorobutadiene	ND		40	25.2	63* [a]	39.7	26.2	66	4	65-125/22
98-82-8	Isopropylbenzene	ND		40	35.6	89	39.7	33.2	84	7	70-119/19
99-87-6	p-Isopropyltoluene	ND		40	34.2	86	39.7	34.1	86	0	68-120/20
108-10-1	4-Methyl-2-pentanone	ND		160	152	95	159	152	96	0	60-145/26
74-83-9	Methyl bromide	ND		40	33.6	84	39.7	32.4	82	4	66-130/18
74-87-3	Methyl chloride	ND		40	34.7	87	39.7	32.9	83	5	50-140/25
74-95-3	Methylene bromide	ND		40	33.2	83	39.7	30.5	77	8	72-127/17
75-09-2	Methylene chloride	ND		40	35.6	89	39.7	33.7	85	5	69-121/18
78-93-3	Methyl ethyl ketone	ND		160	130	81	159	135	85	4	59-147/30
1634-04-4	Methyl Tert Butyl Ether	ND		40	33.8	85	39.7	31.9	80	6	68-121/19
91-20-3	Naphthalene	ND		40	21.5	54* [a]	39.7	21.1	53* [a]	2	68-129/22
103-65-1	n-Propylbenzene	ND		40	33.6	84	39.7	33.7	85	0	67-116/20
100-42-5	Styrene	ND		40	30.6	77	39.7	28.9	73	6	68-120/17
994-05-8	Tert-Amyl Methyl Ether	ND		40	36.2	91	39.7	34.6	87	5	70-129/20
75-65-0	Tert Butyl Alcohol	ND		200	178	89	198	171	86	4	50-163/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		40	36.0	90	39.7	32.6	82	10	70-123/18
71-55-6	1,1,1-Trichloroethane	ND		40	36.6	92	39.7	34.7	87	5	71-128/20
79-34-5	1,1,2,2-Tetrachloroethane	ND		40	34.9	87	39.7	34.0	86	3	69-126/18
79-00-5	1,1,2-Trichloroethane	ND		40	34.8	87	39.7	32.8	83	6	70-120/17
87-61-6	1,2,3-Trichlorobenzene	ND		40	18.1	45* [a]	39.7	17.6	44* [a]	3	65-125/23
96-18-4	1,2,3-Trichloropropane	ND		40	33.1	83	39.7	31.2	79	6	69-128/18
120-82-1	1,2,4-Trichlorobenzene	ND		40	18.4	46* [a]	39.7	18.1	46* [a]	2	65-125/22
95-63-6	1,2,4-Trimethylbenzene	ND		40	32.8	82	39.7	32.5	82	1	67-118/19
108-67-8	1,3,5-Trimethylbenzene	ND		40	35.2	88	39.7	34.9	88	1	68-120/20
127-18-4	Tetrachloroethylene	ND		40	47.8	120	39.7	47.5	120	1	66-125/18
108-88-3	Toluene	ND		40	36.3	91	39.7	33.9	85	7	72-116/18
79-01-6	Trichloroethylene	ND		40	35.9	90	39.7	34.0	86	5	70-126/18
75-69-4	Trichlorofluoromethane	ND		40	34.5	86	39.7	32.7	82	5	70-138/19
75-01-4	Vinyl chloride	ND		40	36.8	92	39.7	34.5	87	6	55-146/22
1330-20-7	Xylene (total)	ND		120	104	87	119	97.9	82	6	68-118/18

CAS No.	Surrogate Recoveries	MS	MSD	C46048-1	Limits
1868-53-7	Dibromofluoromethane	97%	97%	99%	72-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C46048-1MS	L49403.D	1	06/06/16	JT	n/a	n/a	VL1477
C46048-1MSD	L49404.D	1	06/06/16	JT	n/a	n/a	VL1477
C46048-1	L49387.D	1	06/06/16	JT	n/a	n/a	VL1477

The QC reported here applies to the following samples: **Method:** SW846 8260B

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Surrogate Recoveries	MS	MSD	C46048-1	Limits
2037-26-5	Toluene-D8	103%	100%	98%	87-113%
460-00-4	4-Bromofluorobenzene	95%	92%	97%	81-115%

(a) Outside control limits due to matrix interference. AZ:M2

* = Outside of Control Limits.

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-MB	Y35922.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	330	43	ug/kg	
95-57-8	2-Chlorophenol	ND	170	22	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	48	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	42	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	44	ug/kg	
95-48-7	2-Methylphenol	ND	170	19	ug/kg	
	3&4-Methylphenol	ND	170	17	ug/kg	
88-75-5	2-Nitrophenol	ND	170	29	ug/kg	
100-02-7	4-Nitrophenol	ND	170	27	ug/kg	
87-86-5	Pentachlorophenol	ND	170	47	ug/kg	
108-95-2	Phenol	ND	170	8.3	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	29	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	39	ug/kg	
83-32-9	Acenaphthene	ND	170	27	ug/kg	
208-96-8	Acenaphthylene	ND	170	26	ug/kg	
62-53-3	Aniline	ND	170	22	ug/kg	
120-12-7	Anthracene	ND	170	21	ug/kg	
103-33-3	Azobenzene	ND	170	24	ug/kg	
92-87-5	Benzidine	ND	670	240	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	12	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	31	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	15	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	24	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	34	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	19	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	27	ug/kg	
106-47-8	4-Chloroaniline	ND	170	29	ug/kg	
86-74-8	Carbazole	ND	170	29	ug/kg	
218-01-9	Chrysene	ND	170	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	29	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	28	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	25	ug/kg	

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-MB	Y35922.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	170	25	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	25	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	170	26	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	22	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	25	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	53	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	26	ug/kg	
132-64-9	Dibenzofuran	ND	170	26	ug/kg	
122-39-4	Diphenylamine	ND	170	23	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	170	26	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	33	ug/kg	
84-66-2	Diethyl phthalate	ND	170	32	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	43	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	170	35	ug/kg	
206-44-0	Fluoranthene	ND	170	18	ug/kg	
86-73-7	Fluorene	ND	170	22	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	32	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	31	ug/kg	
67-72-1	Hexachloroethane	ND	170	25	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	29	ug/kg	
78-59-1	Isophorone	ND	170	29	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	32	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	30	ug/kg	
88-74-4	2-Nitroaniline	ND	170	26	ug/kg	
99-09-2	3-Nitroaniline	ND	170	28	ug/kg	
100-01-6	4-Nitroaniline	ND	170	35	ug/kg	
91-20-3	Naphthalene	ND	170	28	ug/kg	
98-95-3	Nitrobenzene	ND	170	30	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	170	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	32	ug/kg	
85-01-8	Phenanthrene	ND	170	21	ug/kg	
129-00-0	Pyrene	ND	170	22	ug/kg	
110-86-1	Pyridine	ND	170	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	28	ug/kg	

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-MB	Y35922.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	61%	23-116%
4165-62-2	Phenol-d5	63%	28-119%
118-79-6	2,4,6-Tribromophenol	79%	24-160%
4165-60-0	Nitrobenzene-d5	58%	20-115%
321-60-8	2-Fluorobiphenyl	65%	31-123%
1718-51-0	Terphenyl-d14	98%	58-149%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-BS	Y35923.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
OP14483-BSD	Y35924.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	1670	1590	95	1600	96	1	40-144/22
95-57-8	2-Chlorophenol	833	543	65	570	68	5	39-110/19
59-50-7	4-Chloro-3-methyl phenol	833	735	88	746	90	1	62-112/15
120-83-2	2,4-Dichlorophenol	833	693	83	726	87	5	48-107/17
105-67-9	2,4-Dimethylphenol	833	606	73	650	78	7	46-105/18
51-28-5	2,4-Dinitrophenol	833	719	86	726	87	1	24-134/26
534-52-1	4,6-Dinitro-o-cresol	833	816	98	833	100	2	37-128/19
95-48-7	2-Methylphenol	833	564	68	598	72	6	42-101/20
	3&4-Methylphenol	833	585	70	626	75	7	46-107/20
88-75-5	2-Nitrophenol	833	643	77	687	82	7	40-103/20
100-02-7	4-Nitrophenol	833	679	81	666	80	2	50-137/14
87-86-5	Pentachlorophenol	833	730	88	744	89	2	36-138/19
108-95-2	Phenol	833	535	64	578	69	8	44-104/21
95-95-4	2,4,5-Trichlorophenol	833	855	103	866	104	1	63-115/15
88-06-2	2,4,6-Trichlorophenol	833	778	93	783	94	1	56-112/16
83-32-9	Acenaphthene	833	652	78	670	80	3	51-105/16
208-96-8	Acenaphthylene	833	664	80	684	82	3	52-105/15
62-53-3	Aniline	833	483	58	503	60	4	34-110/19
120-12-7	Anthracene	833	788	95	798	96	1	73-111/10
103-33-3	Azobenzene	833	657	79	649	78	1	61-109/12
92-87-5	Benzidine	1670	1200	72	1000	60	18	10-151/30
56-55-3	Benzo(a)anthracene	833	836	100	842	101	1	77-118/10
50-32-8	Benzo(a)pyrene	833	881	106	882	106	0	77-121/10
205-99-2	Benzo(b)fluoranthene	833	814	98	826	99	1	72-121/11
191-24-2	Benzo(g,h,i)perylene	833	921	111	910	109	1	66-131/19
207-08-9	Benzo(k)fluoranthene	833	828	99	833	100	1	77-120/12
101-55-3	4-Bromophenyl phenyl ether	833	798	96	815	98	2	67-108/12
85-68-7	Butyl benzyl phthalate	833	774	93	797	96	3	70-130/14
100-51-6	Benzyl Alcohol	833	571	69	605	73	6	46-105/21
91-58-7	2-Chloronaphthalene	833	608	73	640	77	5	45-102/17
106-47-8	4-Chloroaniline	833	548	66	562	67	3	31-110/17
86-74-8	Carbazole	833	869	104	864	104	1	63-139/10
218-01-9	Chrysene	833	828	99	843	101	2	76-117/10
111-91-1	bis(2-Chloroethoxy)methane	833	521	63	551	66	6	41-110/18
111-44-4	bis(2-Chloroethyl)ether	833	481	58	493	59	2	35-110/19
108-60-1	bis(2-Chloroisopropyl)ether	833	384	46	395	47	3	23-103/23

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-BS	Y35923.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
OP14483-BSD	Y35924.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
7005-72-3	4-Chlorophenyl phenyl ether	833	769	92	775	93	1	62-107/14
95-50-1	1,2-Dichlorobenzene	833	488	59	503	60	3	32-110/20
541-73-1	1,3-Dichlorobenzene	833	477	57	489	59	2	31-110/20
106-46-7	1,4-Dichlorobenzene	833	496	60	507	61	2	31-110/20
121-14-2	2,4-Dinitrotoluene	833	806	97	816	98	1	73-120/11
606-20-2	2,6-Dinitrotoluene	833	826	99	829	99	0	66-113/12
91-94-1	3,3'-Dichlorobenzidine	1670	1900	114	1870	112	2	73-160/11
53-70-3	Dibenzo(a,h)anthracene	833	921	111	908	109	1	65-133/20
132-64-9	Dibenzofuran	833	745	89	750	90	1	57-106/14
122-39-4	Diphenylamine	833	838	101	837	100	0	71-112/10
84-74-2	Di-n-butyl phthalate	833	833	100	833	100	0	79-124/10
117-84-0	Di-n-octyl phthalate	833	657	79	683	82	4	53-144/20
84-66-2	Diethyl phthalate	833	801	96	799	96	0	72-119/15
131-11-3	Dimethyl phthalate	833	783	94	794	95	1	67-111/11
117-81-7	bis(2-Ethylhexyl)phthalate	833	720	86	740	89	3	65-133/12
206-44-0	Fluoranthene	833	879	105	884	106	1	74-123/12
86-73-7	Fluorene	833	740	89	747	90	1	62-108/13
118-74-1	Hexachlorobenzene	833	785	94	788	95	0	65-111/12
87-68-3	Hexachlorobutadiene	833	505	61	524	63	4	29-110/20
77-47-4	Hexachlorocyclopentadiene	833	613	74	644	77	5	20-103/27
67-72-1	Hexachloroethane	833	452	54	465	56	3	30-110/21
193-39-5	Indeno(1,2,3-cd)pyrene	833	1000	120	947	114	5	67-133/18
78-59-1	Isophorone	833	542	65	566	68	4	43-103/20
90-12-0	1-Methylnaphthalene	833	571	69	601	72	5	40-100/17
91-57-6	2-Methylnaphthalene	833	601	72	645	77	7	42-102/18
88-74-4	2-Nitroaniline	833	725	87	728	87	0	61-116/15
99-09-2	3-Nitroaniline	833	746	90	749	90	0	59-106/11
100-01-6	4-Nitroaniline	833	884	106	887	106	0	64-131/17
91-20-3	Naphthalene	833	521	63	549	66	5	37-110/18
98-95-3	Nitrobenzene	833	475	57	493	59	4	37-110/20
62-75-9	N-Nitrosodimethylamine	833	466	56	472	57	1	34-110/20
621-64-7	N-Nitroso-di-n-propylamine	833	503	60	524	63	4	40-100/20
85-01-8	Phenanthrene	833	785	94	787	94	0	73-110/10
129-00-0	Pyrene	833	752	90	766	92	2	68-124/16
110-86-1	Pyridine	833	307	37	312	37	2	17-110/21
120-82-1	1,2,4-Trichlorobenzene	833	578	69	616	74	6	37-110/19

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-BS	Y35923.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
OP14483-BSD	Y35924.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	59%	61%	23-116%
4165-62-2	Phenol-d5	62%	66%	28-119%
118-79-6	2,4,6-Tribromophenol	94%	96%	24-160%
4165-60-0	Nitrobenzene-d5	56%	59%	20-115%
321-60-8	2-Fluorobiphenyl	72%	75%	31-123%
1718-51-0	Terphenyl-d14	88%	91%	58-149%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-MS	Y35925.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
OP14483-MSD	Y35926.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
C46048-2	Y35929.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	C46048-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		1660	1010	61	1660	918	55	10	40-144/22
95-57-8	2-Chlorophenol	ND		831	512	62	831	546	66	6	39-110/19
59-50-7	4-Chloro-3-methyl phenol	ND		831	613	74	831	635	76	4	62-112/15
120-83-2	2,4-Dichlorophenol	ND		831	620	75	831	655	79	5	48-107/17
105-67-9	2,4-Dimethylphenol	ND		831	560	67	831	603	73	7	46-105/18
51-28-5	2,4-Dinitrophenol	ND		831	630	76	831	618	74	2	24-134/26
534-52-1	4,6-Dinitro-o-cresol	ND		831	743	89	831	775	93	4	37-128/19
95-48-7	2-Methylphenol	ND		831	547	66	831	586	70	7	42-101/20
	3&4-Methylphenol	ND		831	557	67	831	593	71	6	46-107/20
88-75-5	2-Nitrophenol	ND		831	586	71	831	627	75	7	40-103/20
100-02-7	4-Nitrophenol	ND		831	604	73	831	613	74	1	50-137/14
87-86-5	Pentachlorophenol	ND		831	685	82	831	702	84	2	36-138/19
108-95-2	Phenol	ND		831	542	65	831	570	69	5	44-104/21
95-95-4	2,4,5-Trichlorophenol	ND		831	693	83	831	707	85	2	63-115/15
88-06-2	2,4,6-Trichlorophenol	ND		831	625	75	831	648	78	4	56-112/16
83-32-9	Acenaphthene	ND		831	504	61	831	517	62	3	51-105/16
208-96-8	Acenaphthylene	ND		831	509	61	831	525	63	3	52-105/15
62-53-3	Aniline	ND		831	481	58	831	519	62	8	34-110/19
120-12-7	Anthracene	ND		831	695	84	831	689	83	1	73-111/10
103-33-3	Azobenzene	ND		831	514	62	831	518	62	1	61-109/12
92-87-5	Benzidine	ND		1660	1390	84	1660	1310	79	6	10-151/30
56-55-3	Benzo(a)anthracene	ND		831	753	91	831	784	94	4	77-118/10
50-32-8	Benzo(a)pyrene	ND		831	794	96	831	812	98	2	77-121/10
205-99-2	Benzo(b)fluoranthene	ND		831	740	89	831	800	96	8	72-121/11
191-24-2	Benzo(g,h,i)perylene	ND		831	755	91	831	794	96	5	66-131/19
207-08-9	Benzo(k)fluoranthene	ND		831	765	92	831	791	95	3	77-120/12
101-55-3	4-Bromophenyl phenyl ether	ND		831	658	79	831	666	80	1	67-108/12
85-68-7	Butyl benzyl phthalate	ND		831	693	83	831	745	90	7	70-130/14
100-51-6	Benzyl Alcohol	ND		831	558	67	831	593	71	6	46-105/21
91-58-7	2-Chloronaphthalene	ND		831	481	58	831	494	59	3	45-102/17
106-47-8	4-Chloroaniline	ND		831	550	66	831	587	71	7	31-110/17
86-74-8	Carbazole	ND		831	796	96	831	811	98	2	63-139/10
218-01-9	Chrysene	ND		831	757	91	831	781	94	3	76-117/10
111-91-1	bis(2-Chloroethoxy)methane	ND		831	492	59	831	515	62	5	41-110/18
111-44-4	bis(2-Chloroethyl)ether	ND		831	410	49	831	425	51	4	35-110/19
108-60-1	bis(2-Chloroisopropyl)ether	ND		831	304	37	831	314	38	3	23-103/23

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-MS	Y35925.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
OP14483-MSD	Y35926.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
C46048-2	Y35929.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	C46048-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
7005-72-3	4-Chlorophenyl phenyl ether	ND		831	600	72	831	603	73	0	62-107/14
95-50-1	1,2-Dichlorobenzene	ND		831	357	43	831	348	42	3	32-110/20
541-73-1	1,3-Dichlorobenzene	ND		831	327	39	831	304	37	7	31-110/20
106-46-7	1,4-Dichlorobenzene	ND		831	340	41	831	323	39	5	31-110/20
121-14-2	2,4-Dinitrotoluene	ND		831	677	81	831	698	84	3	73-120/11
606-20-2	2,6-Dinitrotoluene	ND		831	651	78	831	668	80	3	66-113/12
91-94-1	3,3'-Dichlorobenzidine	ND		1660	1830	110	1660	1860	112	2	73-160/11
53-70-3	Dibenzo(a,h)anthracene	ND		831	777	93	831	787	95	1	65-133/20
132-64-9	Dibenzofuran	ND		831	576	69	831	583	70	1	57-106/14
122-39-4	Diphenylamine	ND		831	686	83	831	691	83	1	71-112/10
84-74-2	Di-n-butyl phthalate	ND		831	753	91	831	774	93	3	79-124/10
117-84-0	Di-n-octyl phthalate	ND		831	597	72	831	673	81	12	53-144/20
84-66-2	Diethyl phthalate	ND		831	664	80	831	678	82	2	72-119/15
131-11-3	Dimethyl phthalate	ND		831	632	76	831	649	78	3	67-111/11
117-81-7	bis(2-Ethylhexyl)phthalate	ND		831	636	77	831	686	83	8	65-133/12
206-44-0	Fluoranthene	ND		831	801	96	831	821	99	2	74-123/12
86-73-7	Fluorene	ND		831	576	69	831	587	71	2	62-108/13
118-74-1	Hexachlorobenzene	ND		831	683	82	831	668	80	2	65-111/12
87-68-3	Hexachlorobutadiene	ND		831	370	45	831	349	42	6	29-110/20
77-47-4	Hexachlorocyclopentadiene	ND		831	467	56	831	464	56	1	20-103/27
67-72-1	Hexachloroethane	ND		831	295	35	831	279	34	6	30-110/21
193-39-5	Indeno(1,2,3-cd)pyrene	ND		831	827	100	831	836	101	1	67-133/18
78-59-1	Isophorone	ND		831	487	59	831	516	62	6	43-103/20
90-12-0	1-Methylnaphthalene	ND		831	461	55	831	477	57	3	40-100/17
91-57-6	2-Methylnaphthalene	ND		831	493	59	831	503	61	2	42-102/18
88-74-4	2-Nitroaniline	ND		831	592	71	831	615	74	4	61-116/15
99-09-2	3-Nitroaniline	ND		831	666	80	831	694	83	4	59-106/11
100-01-6	4-Nitroaniline	ND		831	795	96	831	806	97	1	64-131/17
91-20-3	Naphthalene	ND		831	438	53	831	443	53	1	37-110/18
98-95-3	Nitrobenzene	ND		831	403	48	831	426	51	6	37-110/20
62-75-9	N-Nitrosodimethylamine	ND		831	426	51	831	450	54	5	34-110/20
621-64-7	N-Nitroso-di-n-propylamine	ND		831	447	54	831	478	57	7	40-100/20
85-01-8	Phenanthrene	ND		831	682	82	831	689	83	1	73-110/10
129-00-0	Pyrene	ND		831	684	82	831	732	88	7	68-124/16
110-86-1	Pyridine	ND		831	280	34	831	298	36	6	17-110/21
120-82-1	1,2,4-Trichlorobenzene	ND		831	453	55	831	454	55	0	37-110/19

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14483-MS	Y35925.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
OP14483-MSD	Y35926.D	1	06/08/16	MT	06/08/16	OP14483	EY1688
C46048-2	Y35929.D	1	06/08/16	MT	06/08/16	OP14483	EY1688

The QC reported here applies to the following samples: **Method:** SW846 8270C

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Surrogate Recoveries	MS	MSD	C46048-2	Limits
367-12-4	2-Fluorophenol	57%	60%	59%	23-116%
4165-62-2	Phenol-d5	63%	66%	63%	28-119%
118-79-6	2,4,6-Tribromophenol	86%	85%	79%	24-160%
4165-60-0	Nitrobenzene-d5	49%	52%	53%	20-115%
321-60-8	2-Fluorobiphenyl	58%	59%	62%	31-123%
1718-51-0	Terphenyl-d14	82%	88%	92%	58-149%

* = Outside of Control Limits.

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14456-MB	OO386003.D	1	06/07/16	SY	06/06/16	OP14456	GOO1662

The QC reported here applies to the following samples: **Method:** SW846 8082

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	33	17	ug/kg	
11141-16-5	Aroclor 1232	ND	33	17	ug/kg	
53469-21-9	Aroclor 1242	ND	33	17	ug/kg	
12672-29-6	Aroclor 1248	ND	33	17	ug/kg	
11097-69-1	Aroclor 1254	ND	33	17	ug/kg	
11096-82-5	Aroclor 1260	ND	33	6.7	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	80%	10-156%
877-09-8	Tetrachloro-m-xylene	76%	10-156%
2051-24-3	Decachlorobiphenyl	103%	10-188%
2051-24-3	Decachlorobiphenyl	94%	10-188%

Method Blank Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14465-MB	HH333143.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822

The QC reported here applies to the following samples: **Method:** SW846 8015B M

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	3.3	1.5	mg/kg	
	TPH (> C28-C40)	ND	3.3	1.3	mg/kg	

CAS No.	Surrogate Recoveries		Limits
630-01-3	Hexacosane	94%	38-146%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14456-BS	OO386001.D	1	06/07/16	SY	06/06/16	OP14456	GOO1662
OP14456-BSD	OO386002.D	1	06/07/16	SY	06/06/16	OP14456	GOO1662

The QC reported here applies to the following samples: **Method:** SW846 8082

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	133	100	75	98.9	74	1	54-104/15
11096-82-5	Aroclor 1260	133	114	86	119	89	4	55-116/12

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	78%	75%	10-156%
877-09-8	Tetrachloro-m-xylene	73%	70%	10-156%
2051-24-3	Decachlorobiphenyl	98%	99%	10-188%
2051-24-3	Decachlorobiphenyl	84%	87%	10-188%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14465-BS	HH333144.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822
OP14465-BSD	HH333145.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822

The QC reported here applies to the following samples: **Method:** SW846 8015B M

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	33.3	35.6	107	35.6	107	0	53-107/12
	TPH (> C28-C40)	33.3	23.1	69	23.7	71	3	59-120/14

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	95%	97%	38-146%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14456-MS [a]	OO385991.D	5	06/07/16	SY	06/06/16	OP14456	GOO1662
OP14456-MSD [a]	OO385992.D	5	06/07/16	SY	06/06/16	OP14456	GOO1662
C46048-1 [a]	OO385987.D	5	06/07/16	SY	06/06/16	OP14456	GOO1662

The QC reported here applies to the following samples: **Method:** SW846 8082

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	C46048-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		133	100	75	133	112	84	11	54-104/15
11096-82-5	Aroclor 1260	ND		133	109	82	133	122	92	11	55-116/12

CAS No.	Surrogate Recoveries	MS	MSD	C46048-1	Limits
877-09-8	Tetrachloro-m-xylene	75%	81%	86%	10-156%
877-09-8	Tetrachloro-m-xylene	92%	98%	106%	10-156%
2051-24-3	Decachlorobiphenyl	91%	101%	105%	10-188%
2051-24-3	Decachlorobiphenyl	83%	92%	101%	10-188%

(a) Dilution required due to matrix interference (yellow and viscous extract).

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C46048
Account: NMCAO Ninyo & Moore
Project: SJSU-1 Washington square, SJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14465-MS	HH333150.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822
OP14465-MSD	HH333151.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822
C46048-3	HH333148.D	1	06/07/16	FL	06/06/16	OP14465	GHH1822

The QC reported here applies to the following samples: **Method:** SW846 8015B M

C46048-1, C46048-2, C46048-3, C46048-4

CAS No.	Compound	C46048-3 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND		33.2	33.4	100	33.2	33.0	99	1	53-107/12
	TPH (> C28-C40)	ND		33.2	23.6	71	33.2	23.0	69	3	59-120/14

CAS No.	Surrogate Recoveries	MS	MSD	C46048-3	Limits
630-01-3	Hexacosane	94%	94%	89%	38-146%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11430 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date: 06/06/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.4	1.5		
Antimony	2.0	.12	.18	0.040	<2.0
Arsenic	2.0	.16	.17	0.050	<2.0
Barium	20	.02	.09	0.0	<20
Beryllium	1.0	.02	.01	0.0	<1.0
Boron	10	.18	.15		
Cadmium	1.0	.02	.031	0.010	<1.0
Calcium	500	2.8	4.5		
Chromium	1.0	.04	.054	0.040	<1.0
Cobalt	1.0	.03	.025	-0.020	<1.0
Copper	2.5	.12	.15	-0.050	<2.5
Iron	20	.53	.76		
Lead	2.0	.1	.14	0.10	<2.0
Magnesium	500	1.6	2.1		
Manganese	1.5	.02	.026		
Molybdenum	2.0	.05	.04	0.010	<2.0
Nickel	1.0	.04	.047	-0.030	<1.0
Potassium	1000	3.5	4.6		
Selenium	2.0	.17	.33	0.22	<2.0
Silicon	20	.24	.43		
Silver	1.0	.05	.067	0.0	<1.0
Sodium	1000	1.1	1.2		
Strontium	1.0	.01	.018		
Thallium	2.0	.17	.12	-0.050	<2.0
Tin	50	.08	.28		
Titanium	1.0	.08	.13		
Vanadium	1.0	.06	.074	-0.020	<1.0
Zinc	2.0	.05	.22	0.030	<2.0

Associated samples MP11430: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11430
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/06/16

Metal	C46048-1 Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony	0.75	25.2	45.5	53.8N(a)	75-125
Arsenic	9.9	52.6	45.5	93.9	75-125
Barium	122	168	45.5	101.2	75-125
Beryllium	0.41	46.5	45.5	101.4	75-125
Boron					
Cadmium	0.12	44.4	45.5	97.4	75-125
Calcium					
Chromium	55.2	104	45.5	107.4	75-125
Cobalt	9.9	52.4	45.5	93.5	75-125
Copper	24.0	68.9	45.5	98.8	75-125
Iron					
Lead	8.6	52.2	45.5	95.9	75-125
Magnesium					
Manganese					
Molybdenum	0.42	41.5	45.5	90.4	75-125
Nickel	84.2	130	45.5	100.8	75-125
Potassium					
Selenium	0.47	42.4	45.5	92.2	75-125
Silicon					
Silver	0.0	40.8	45.5	89.8	75-125
Sodium					
Strontium					
Thallium	0.0	42.2	45.5	92.8	75-125
Tin					
Titanium					
Vanadium	36.8	81.7	45.5	98.8	75-125
Zinc	53.9	98.7	45.5	98.6	75-125

Associated samples MP11430: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11430
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/06/16

Metal	C46048-1 Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.75	24.2	46.3	50.7N(a)	4.0	20
Arsenic	9.9	53.8	46.3	94.8	2.3	20
Barium	122	180	46.3	125.3N(a	6.9	20
Beryllium	0.41	47.4	46.3	101.5	1.9	20
Boron						
Cadmium	0.12	45.3	46.3	97.6	2.0	20
Calcium						
Chromium	55.2	101	46.3	98.9	2.9	20
Cobalt	9.9	53.2	46.3	93.5	1.5	20
Copper	24.0	69.4	46.3	98.1	0.7	20
Iron						
Lead	8.6	52.3	46.3	94.4	0.2	20
Magnesium						
Manganese						
Molybdenum	0.42	42.6	46.3	91.1	2.6	20
Nickel	84.2	131	46.3	101.1	0.8	20
Potassium						
Selenium	0.47	43.0	46.3	91.9	1.4	20
Silicon						
Silver	0.0	41.3	46.3	89.2	1.2	20
Sodium						
Strontium						
Thallium	0.0	42.7	46.3	92.2	1.2	20
Tin						
Titanium						
Vanadium	36.8	83.0	46.3	99.8	1.6	20
Zinc	53.9	99.7	46.3	98.9	1.0	20

Associated samples MP11430: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11430
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/06/16

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony	49.0	50	98.0	80-120
Arsenic	47.8	50	95.6	80-120
Barium	51.5	50	103.0	80-120
Beryllium	52.6	50	105.2	80-120
Boron				
Cadmium	49.0	50	98.0	80-120
Calcium				
Chromium	54.3	50	108.6	80-120
Cobalt	53.1	50	106.2	80-120
Copper	49.3	50	98.6	80-120
Iron				
Lead	47.5	50	95.0	80-120
Magnesium				
Manganese				
Molybdenum	51.0	50	102.0	80-120
Nickel	47.8	50	95.6	80-120
Potassium				
Selenium	46.8	50	93.6	80-120
Silicon				
Silver	46.8	50	93.6	80-120
Sodium				
Strontium				
Thallium	48.4	50	96.8	80-120
Tin				
Titanium				
Vanadium	52.9	50	105.8	80-120
Zinc	53.0	50	106.0	80-120

Associated samples MP11430: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11430
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/06/16

Metal	C46048-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	7.90	10.2	29.1 (a)	0-10
Arsenic	104	111	6.5	0-10
Barium	1290	1290	0.3	0-10
Beryllium	4.30	3.80	11.6 (a)	0-10
Boron				
Cadmium	1.30	0.00	100.0(a)	0-10
Calcium				
Chromium	580	601	3.6	0-10
Cobalt	104	115	10.4*(b)	0-10
Copper	252	246	2.4	0-10
Iron				
Lead	90.2	92.3	2.3	0-10
Magnesium				
Manganese				
Molybdenum	4.40	2.60	40.9 (a)	0-10
Nickel	884	869	1.7	0-10
Potassium				
Selenium	4.90	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	387	398	2.9	0-10
Zinc	566	594	4.9	0-10

Associated samples MP11430: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11437 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 06/07/16

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.017	.00035	.0037	-0.00091	<0.017

Associated samples MP11437: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11437 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 06/07/16

Metal	C46048-1 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.23	0.43	0.159	126.0N(a	4.8	20

Associated samples MP11437: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11437 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 06/07/16

Metal	C46048-1 Original	MS	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.23	0.41	0.154	117.0	75-125

Associated samples MP11437: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C46048
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11437
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 06/07/16

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.17	0.167	102.0	80-120

Associated samples MP11437: C46048-1, C46048-2, C46048-3, C46048-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

e-Hardcopy 2.0
Automated Report

Technical Report for

Ninyo & Moore

SJSU-1 Washington square, SJ

402814001

SGS Accutest Job Number: C46048X

Sampling Date: 06/03/16

Report to:

Ninyo and Moore

edirksen@ninyoandmoore.com
helena.ueng@sgs.com
ATTN: Emily Dirksen

Total number of pages in report: **9**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

Sections: 1 2 3

Table of Contents

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Sample Summary

Ninyo & Moore

Job No: C46048X

SJSU-1 Washington square, SJ
Project No: 402814001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C46048-1X	06/03/16	07:30	ERD	06/03/16	SO	Soil	SB-1-5
C46048-2X	06/03/16	07:45	ERD	06/03/16	SO	Soil	SB-1-10
C46048-3X	06/03/16	09:30	ERD	06/03/16	SO	Soil	SB-2-5
C46048-4X	06/03/16	09:45	ERD	06/03/16	SO	Soil	SB-2-10

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Subcontract Lab Data

Report of Analysis

Forensic Analytical LABORATORIES

Final Report

2

Bulk Asbestos Material Analysis

(Air Resources Board Method 435, June 6, 1991)

Accutest Northern California, Inc.
Project Manager
2105 Lundy Ave

San Jose, CA 95131

Client ID: 3164
Report Number: N008282
Date Received: 06/06/16
Date Analyzed: 06/10/16
Date Printed: 06/10/16

Job ID/Site: C46048X - SJSU, 1 Washington Square, SJ

PLM Report Number: N/A

FALI Job ID: 3164
Total Samples Submitted: 4
Total Samples Analyzed: 4

Sample Preparation and Analysis:

Samples were analyzed by the Air Resources Board's Method 435, Determination of Asbestos Content of Serpentine Aggregate. Samples were ground to 200 particle size in the laboratory. Approximately 1 pint was retained for analysis. Samples were prepared for observation according to the guidelines of Exception I and Exception II as defined by the 435 Method. Samples which contained less than 10% asbestos were prepared for observation according to the point count technique as defined by the 435 Method. This analysis was performed with a standard cross-hair reticle.

Sample ID	Lab Number	Layer Description
SB-1-5	11772012	**Brown Soil**

Visual Estimation Results:

Matrix percentage of entire	100
Visual estimation percentage:	**None Detected**
Asbestos type(s) detected:	None Detected

Comment: This result meets the requirements of Exception I as defined by the 435 Method.

Sample ID	Lab Number	Layer Description
SB-1-10	11772013	**Brown Soil**

Visual Estimation Results:

Matrix percentage of entire	100
Visual estimation percentage:	**None Detected**
Asbestos type(s) detected:	None Detected

Comment: This result meets the requirements of Exception I as defined by the 435 Method.

Sample ID	Lab Number	Layer Description
SB-2-5	11772014	**Brown Soil**

Visual Estimation Results:

Matrix percentage of entire	100
Visual estimation percentage:	**None Detected**
Asbestos type(s) detected:	None Detected

Comment: This result meets the requirements of Exception I as defined by the 435 Method.

Sample ID	Lab Number	Layer Description
SB-2-10	11772015	**Brown Soil**

Visual Estimation Results:

Matrix percentage of entire	100
Visual estimation percentage:	**None Detected**
Asbestos type(s) detected:	None Detected

Comment: This result meets the requirements of Exception I as defined by the 435 Method.

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Forensic Analytical LABORATORIES

Final Report

2

Bulk Asbestos Material Analysis

(Air Resources Board Method 435, June 6, 1991)

Accutest Northern California, Inc.
Project Manager
2105 Lundy Ave

San Jose, CA 95131

Client ID:	3164
Report Number:	N008282
Date Received:	06/06/16
Date Analyzed:	06/10/16
Date Printed:	06/10/16

Job ID/Site: C46048X - SJSU, 1 Washington Square, SJ

PLM Report Number: N/A

FALI Job ID:	3164
Total Samples Submitted:	4
Total Samples Analyzed:	4

Sample Preparation and Analysis:

Samples were analyzed by the Air Resources Board's Method 435, Determination of Asbestos Content of Serpentine Aggregate. Samples were ground to 200 particle size in the laboratory. Approximately 1 pint was retained for analysis. Samples were prepared for observation according to the guidelines of Exception I and Exception II as defined by the 435 Method. Samples which contained less than 10% asbestos were prepared for observation according to the point count technique as defined by the 435 Method. This analysis was performed with a standard cross-hair reticle.

Sample ID	Lab Number	Layer Description

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification (LOQ) = 0.25%. Trace denotes the presence of asbestos below the LOQ. ND = None Detected.

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS ACCUTEST

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #: | Bottle Order Control #:
SGS Accutest Quote #: | SGS Accutest NC Job #: C C46048

Client / Reporting Information

Company Name: Ninyo and Moore
Address: 1956 Webster St, Ste 400
City: Oakland State: CA Zip: 94612
Project Contact: Kris Larson
Phone #: 510 343 3000
Samplers's Name: Emily R Diksen

Project Information

Project Name: SJSU
Street: 1 Washington Square
City: San Jose State: CA
Project #: 4028 14001
EMAIL: klarson@ninyoandmoore.com
Client Purchase Order #:

Requested Analysis

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

SGS Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	Title 22 Metals	TPHg + VOCs 8260/	SVOCs 8270C	PCBs 8082	TPHd/mo 8015/8021	Asbestos Calb 435	LAB USE ONLY
1	SB-1-5	4/3/14	0730	GMD	S	2									X	X	X	X	X	X	
2	SB-1-10	4/3/14	0745	GMD	S	2									X	X	X	X	X	X	
3	SB-2-5	4/3/14	0930	GMD	S	2									X	X	X	X	X	X	
4	SB-2-10	4/3/14	0945	GMD	S	2									X	X	X	X	X	X	

Turnaround Time (Business days)

Approved By / Date:

- [X] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULL1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID:
- Provide EDF Logcode:

Comments / Remarks

AZ

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	E. Diksen	4/3/14 1020	Lee Bautista	2		2
3			3	4		4
5			5			

Custody Seal #: NONE
Appropriate Bottle / Pres. Y / N
Labels match CoC? Y / N
Headspace Y / N
On Ice Y / N
Separate Receiving Check List used: Y / N
Cooler Temp: 18.1 / 19.1 °C

C46048X: Chain of Custody
Page 1 of 2

SGS Accutest Sample Receipt Summary

Job Number: C46048 **Client:** NINYO & MOORE **Project:** SJSU

Date / Time Received: 6/3/2016 10:00:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (18.1/19.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☐		☑
2. Therm ID:	IR3;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

e-Hardcopy 2.0
Automated Report

Technical Report for

Ninyo & Moore

SJSU-1 Washington square, SJ

402814001

SGS Accutest Job Number: C46048W

Sampling Date: 06/03/16

Report to:

Ninyo & Moore
1956 Webster Avenue Suite 400
Oakland, CA 94612
psims@ninyoandmoore.com; klarson@ninyoandmoore.com;
edirksen@ninyoandmoore.com
ATTN: Kris Larson

Total number of pages in report: **19**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

Sections: 1 2 3 4 5

Table of Contents

-1-

Sample Summary

Ninyo & Moore

Job No: C46048W

SJSU-1 Washington square, SJ
Project No: 402814001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C46048-1W	06/03/16	07:30	ERD	06/03/16	SO	Soil	SB-1-5
C46048-2W	06/03/16	07:45	ERD	06/03/16	SO	Soil	SB-1-10
C46048-3W	06/03/16	09:30	ERD	06/03/16	SO	Soil	SB-2-5
C46048-4W	06/03/16	09:45	ERD	06/03/16	SO	Soil	SB-2-10

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: C46048W
Account: Ninyo & Moore
Project: SJSU-1 Washington square, SJ
Collected: 06/03/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C46048-1W	**SB-1-5**					
No hits reported in this sample.						
C46048-2W	**SB-1-10**					
No hits reported in this sample.						
C46048-3W	**SB-2-5**					
No hits reported in this sample.						
C46048-4W	**SB-2-10**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SB-1-5		
Lab Sample ID:	C46048-1W	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a
Project:	SJSU-1 Washington square, SJ		

Metals Analysis, STLC Leachate CA WET

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Chromium	< 0.25		0.25	mg/l	1	07/05/16	07/05/16	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5984
(2) Prep QC Batch: MP11568

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID:	SB-1-10		
Lab Sample ID:	C46048-2W	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a
Project:	SJSU-1 Washington square, SJ		

Metals Analysis, STLC Leachate CA WET

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Chromium	< 0.25		0.25	mg/l	1	07/05/16	07/05/16	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5984
(2) Prep QC Batch: MP11568

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID:	SB-2-5		
Lab Sample ID:	C46048-3W	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a
Project:	SJSU-1 Washington square, SJ		

Metals Analysis, STLC Leachate CA WET

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Chromium	< 0.25		0.25	mg/l	1	07/05/16	07/05/16	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5984
(2) Prep QC Batch: MP11568

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID:	SB-2-10		
Lab Sample ID:	C46048-4W	**Date Sampled:**	06/03/16
Matrix:	SO - Soil	**Date Received:**	06/03/16
		Percent Solids:	n/a
Project:	SJSU-1 Washington square, SJ		

Metals Analysis, STLC Leachate CA WET

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Chromium	< 0.25		0.25	mg/l	1	07/05/16	07/05/16	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5984
(2) Prep QC Batch: MP11568

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS ACCUTEST

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #: | Bottle Order Control #:
SGS Accutest Quote #: | SGS Accutest NC Job #: C46048

Client / Reporting Information

Company Name: Ninyo and Moore
Address: 1956 Webster St, Ste 400
City: Oakland State: CA Zip: 94612
Project Contact: Kris Larson
Phone #: 510 343 3000
Samplers's Name: Emily R Diksen

Project Information

Project Name: SJSU
Street: 1 Washington Square
City: San Jose State: CA
Project #: 4028 14001
EMAIL: klarson@ninyoandmoore.com
Client Purchase Order #:

Requested Analysis

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

SGS Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles	Title 22 metals	TPHg + VOCs 8260/	SVOCs 8270C	PCBs 8082	TPHd/mo 8015/8021	Asbestos Calb 435
1	SB-1-5	4/3/14	0730	QUED	S	2		X	X	X	X	X	X
2	SB-1-10	4/3/14	0745	CUED	S	2		X	X	X	X	X	X
3	SB-2-5	4/3/14	0930					X	X	X	X	X	X
4	SB-2-10	4/3/14	0945	↓	↓	↓		X	X	X	X	X	X

Turnaround Time (Business days)

Approved By / Date:

- [X] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Labtink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULL1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID:
- Provide EDF Logcode:

Comments / Remarks

AZ

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	E. Diksen	4/3/14 1020	Lee Bautista	2		2
3			3	4		4
5			5			

Custody Seal #: NONE
Appropriate Bottle / Pres. Y / N
Labels match Coc? Y / N
Headspace Y / N
On Ice Y / N
Separate Receiving Check List used: Y / N
Cooler Temp: 18.1 / 19.1 °C

C46048W: Chain of Custody
Page 1 of 4

SGS Accutest Sample Receipt Summary

Job Number: C46048 **Client:** NINYO & MOORE **Project:** SJSU

Date / Time Received: 6/3/2016 10:00:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (18.1/19.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☐		☑
2. Therm ID:	IR3;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Job Change Order: C46048W

Requested Date:	6/29/2016	**Received Date:**	6/3/2016
Account Name:	Ninyo & Moore	**Due Date:**	7/7/2016
Project Description:	SJSU-1 Washington square,SJ	**Deliverable:**	COMMB
CSR:	maureenc	**TAT (Days):**	7

==========

Sample #: C46048W-1 **Change:** client wants to add STLCE and Chromium

Dept:

==========

==========

Sample #: C46048W-2 **Change:** client wants to add STLCE and Chromium

Dept:

==========

==========

Sample #: C46048W-3 **Change:** client wants to add STLCE and Chromium

Dept:

==========

==========

Sample #: C46048W-4 **Change:** client wants to add STLCE and Chromium

Dept:

==========

Above Changes Per: Emily **Date/Time:** 6/29/2016 2:49:34 PM

To Client:This Change Order is confirmation of the revisions, previously discussed with the SGS Accutest Client Service Representative.

Job Change Order: C46048W

Requested Date:	6/29/2016	**Received Date:**	6/3/2016
Account Name:	Ninyo & Moore	**Due Date:**	7/7/2016
Project Description:	SJSU-1 Washington square,SJ	**Deliverable:**	COMMB
CSR:	maureenc	**TAT (Days):**	7

C46048W: Chain of Custody
Page 4 of 4

Above Changes Per: Emily **Date/Time:** 6/29/2016 2:49:34 PM

To Client:This Change Order is confirmation of the revisions, previously discussed with the SGS Accutest Client Service Representative.

Page 2 of 2

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C46048W
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11568
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date:				07/05/16		07/05/16	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	0.20	.0054	.027				
Antimony	0.0060	.0016	.0012				
Arsenic	0.010	.0017	.0025				
Barium	0.20	.00025	.0005				
Beryllium	0.0050	.00019	.0006				
Boron	0.10	.0027	.0032				
Cadmium	0.0020	.00032	.0003				
Calcium	5.0	.019	.069				
Chromium	0.010	.0012	.0006	-0.00010	<0.010	0.0	<0.25
Cobalt	0.0050	.00049	.0004				
Copper	0.010	.001	.0018				
Iron	0.20	.0051	.011				
Lead	0.010	.0011	.0017				
Magnesium	5.0	.037	.023				
Manganese	0.015	.00021	.0002				
Molybdenum	0.020	.0011	.0006				
Nickel	0.0050	.00045	.0006				
Potassium	10	.029	.035				
Selenium	0.010	.0049	.0033				
Silicon	0.10	.0022	.0024				
Silver	0.0050	.00089	.0015				
Sodium	10	.026	.025				
Strontium	0.010	.00014	.0002				
Thallium	0.010	.0039	.0048				
Tin	0.050	.003	.0013				
Titanium	0.010	.00076	.0008				
Vanadium	0.010	.00043	.0006				
Zinc	0.020	.0011	.0031				

Associated samples MP11568: C46048-1W, C46048-2W, C46048-3W, C46048-4W

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C46048W
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11568
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 07/05/16

Metal	C46357-1W Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium	0.16	13.0	12.5	102.7	75-125
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP11568: C46048-1W, C46048-2W, C46048-3W, C46048-4W

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C46048W
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11568
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 07/05/16

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	13.1	12.5	104.8	80-120
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP11568: C46048-1W, C46048-2W, C46048-3W, C46048-4W

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C46048W
Account: NMCAO - Ninyo & Moore
Project: SJSU-1 Washington square,SJ

QC Batch ID: MP11568
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/05/16

Metal	C46357-1W Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	6.50	0.00	100.0(a)	0-10
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP11568: C46048-1W, C46048-2W, C46048-3W, C46048-4W

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

APPENDIX E

LIQUEFACTION AND DYNAMIC SETTLEMENT CALCULATIONS

LIQUEFACTION AND DYNAMIC SETTLEMENT EVALUATION BY CPT

Project Name:	SJSU New Science Building		
Project Number:	402814001		
Calculation By:	RH	Date:	6/30/2016
Checked By:		Date:	

CPT Sounding: CPT-1
Location: CPT-1

Depth to GWT during CPT evaluation (ft)	14
Design Depth to GWT (ft)	13
Atmospheric Pressure (tsf)	1.0581
Design EQ Peak Ground Acceleration, amax (g)	0.54
Design Earthquake Moment Magnitude, Mw	7.3
Magnitude Scaling Factor, MSF	1.07
At-Rest Coefficient Lateral EP, Ko	0.5
Number of Strain Cycles, Nc	13.34

Estimated dry soil dynamic settlement (in)	0.20
Estimated saturated soil dynamic settlement (in)	1.92
Total estimated dynamic settlement (in)	2.12

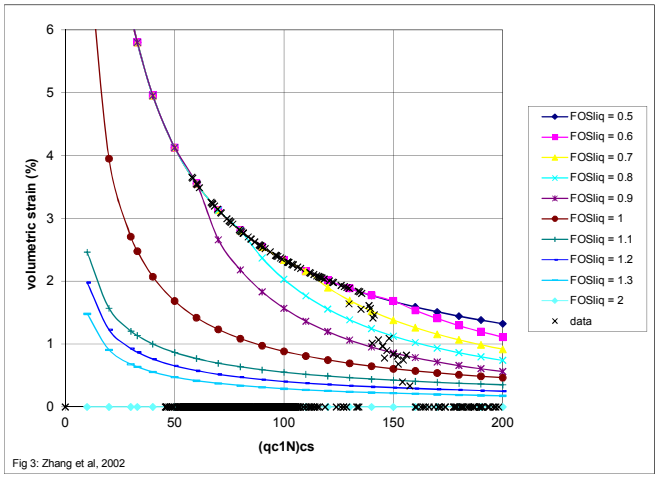
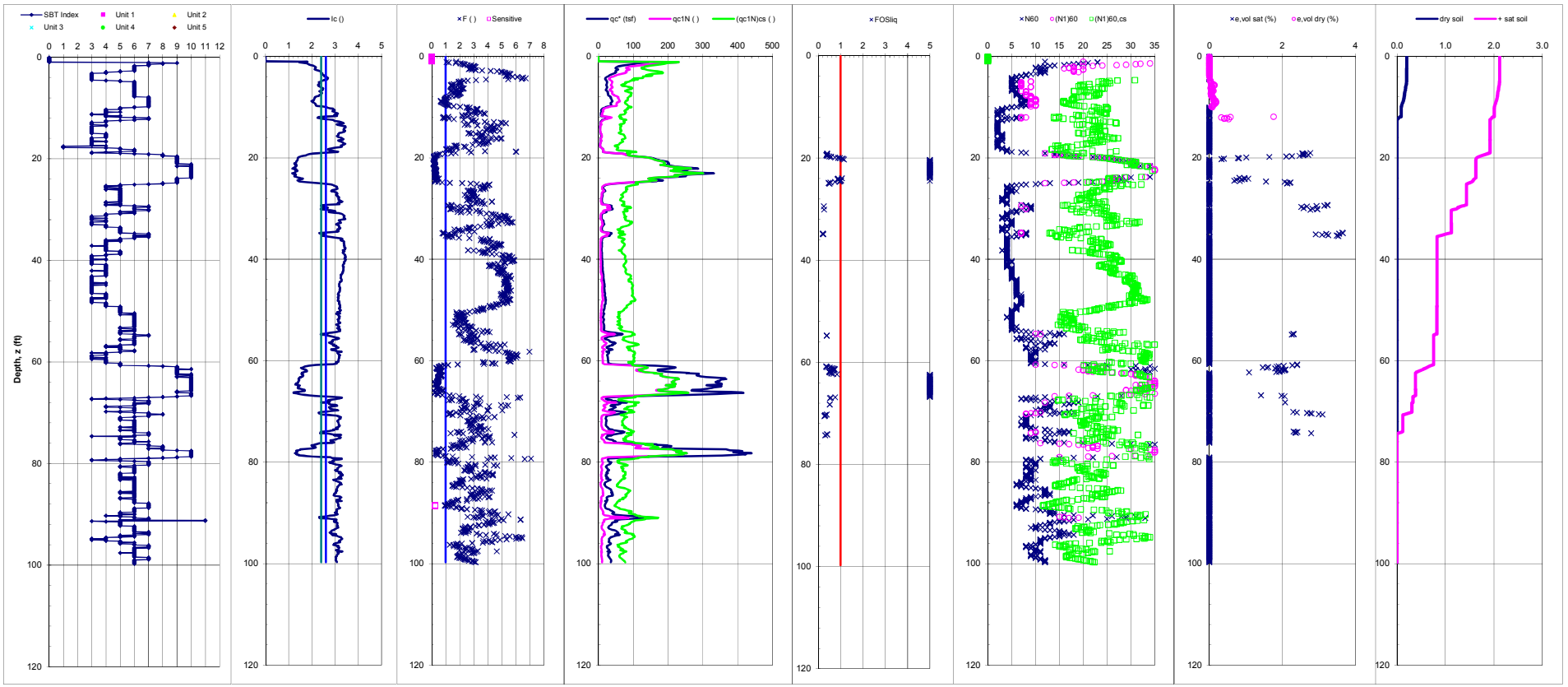


Fig 3: Zhang et al, 2002



LIQUEFACTION AND DYNAMIC SETTLEMENT EVALUATION BY CPT

Project Name:	SJSU New Science Building		
Project Number:	402814001		
Calculation By:	RH	Date:	6/30/2016
Checked By:		Date:	

CPT Sounding: CPT-2
Location: CPT-2

Depth to GWT during CPT evaluation (ft)	17.5
Design Depth to GWT (ft)	12
Atmospheric Pressure (tsf)	1.0581
Design EQ Peak Ground Acceleration, amax (g)	0.54
Design Earthquake Moment Magnitude, Mw	7.3
Magnitude Scaling Factor, MSF	1.07
At-Rest Coefficient Lateral EP, Ko	0.5
Number of Strain Cycles, Nc	13.34

Estimated dry soil dynamic settlement (in)	0.08
Estimated saturated soil dynamic settlement (in)	0.42
Total estimated dynamic settlement (in)	0.50

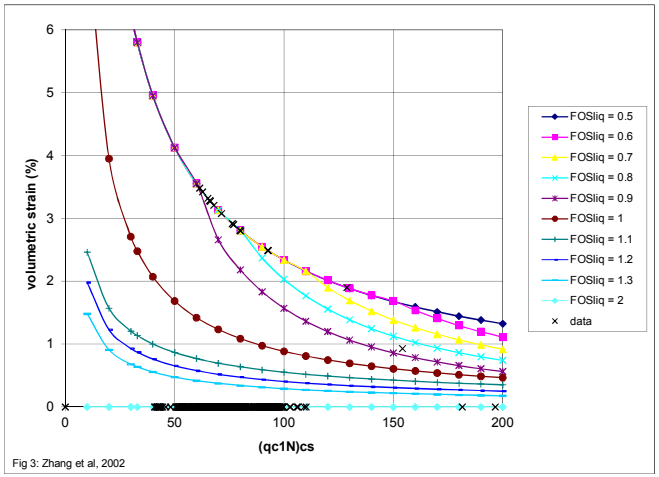
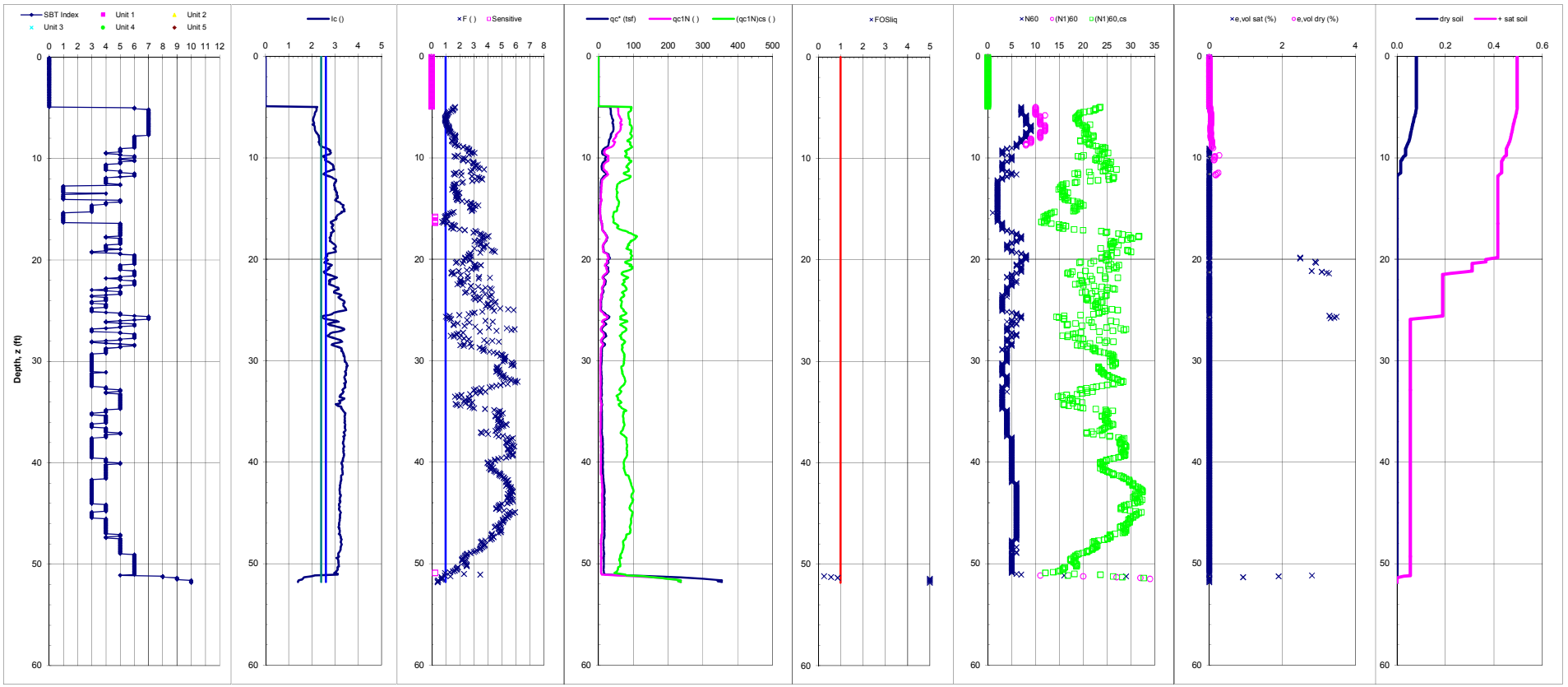


Fig 3: Zhang et al, 2002



LIQUEFACTION AND DYNAMIC SETTLEMENT EVALUATION BY CPT

Project Name:	SJSU New Science Building		
Project Number:	402814001		
Calculation By:	RH	Date:	6/30/2016
Checked By:		Date:	

CPT Sounding: CPT-3
Location: CPT-3

Depth to GWT during CPT evaluation (ft)	12
Design Depth to GWT (ft)	10
Atmospheric Pressure (tsf)	1.0581
Design EQ Peak Ground Acceleration, amax (g)	0.54
Design Earthquake Moment Magnitude, Mw	7.3
Magnitude Scaling Factor, MSF	1.07
At-Rest Coefficient Lateral EP, Ko	0.5
Number of Strain Cycles, Nc	13.34

Estimated dry soil dynamic settlement (in)	0.06
Estimated saturated soil dynamic settlement (in)	5.48
Total estimated dynamic settlement (in)	5.55

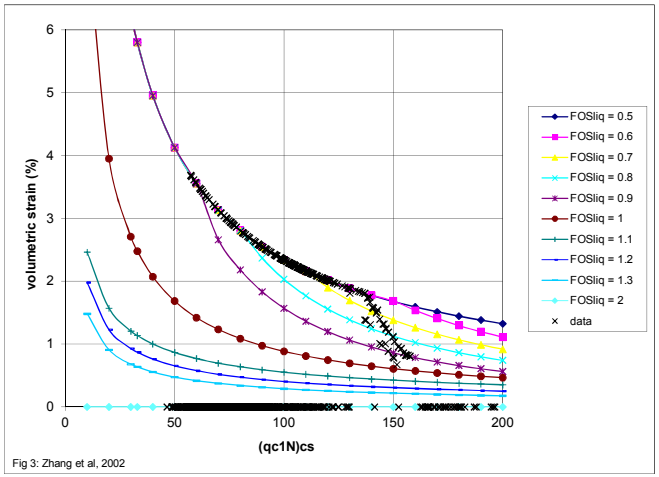
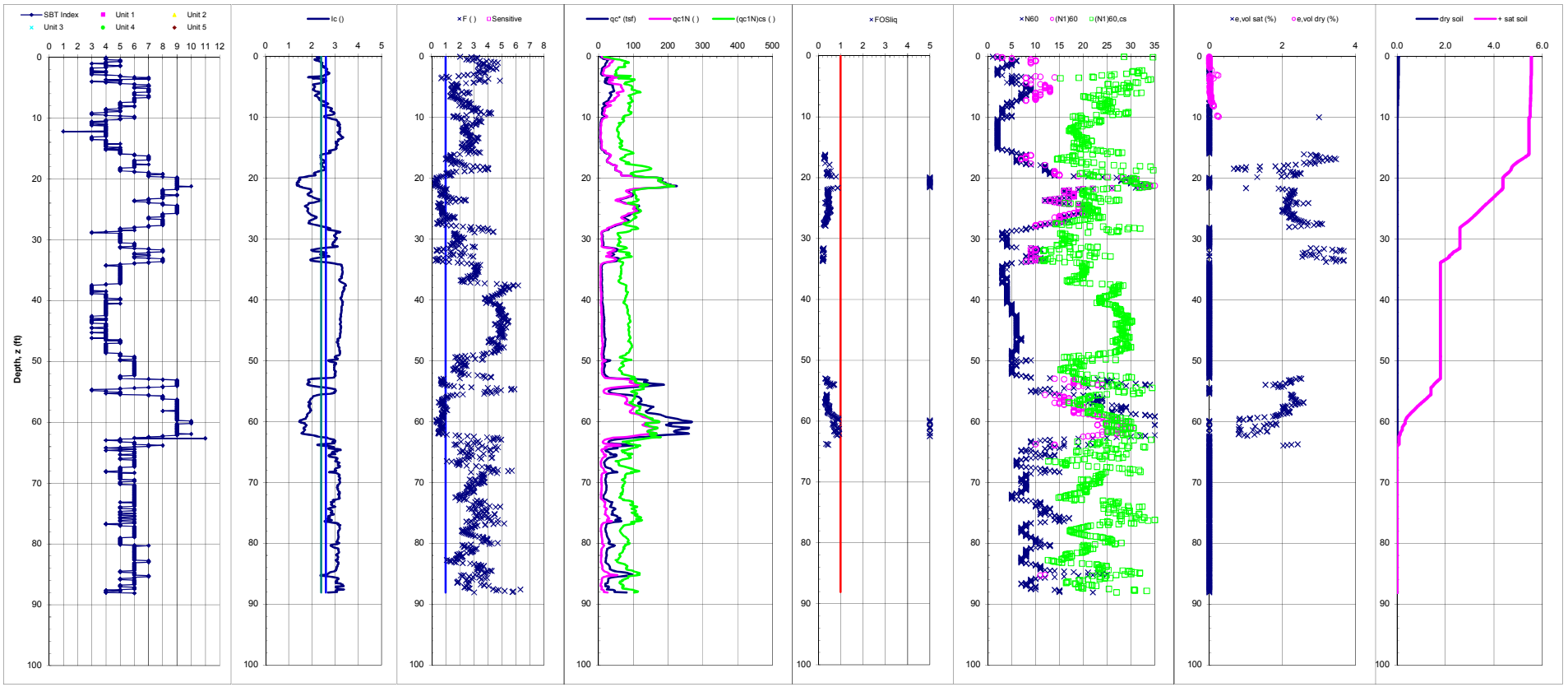


Fig 3: Zhang et al, 2002



LIQUEFACTION AND DYNAMIC SETTLEMENT EVALUATION BY CPT

Project Name:	SJSU New Science Building		
Project Number:	402814001		
Calculation By:	RH	Date:	6/30/2016
Checked By:		Date:	

CPT Sounding: CPT-4
Location: CPT-4

Depth to GWT during CPT evaluation (ft)	18
Design Depth to GWT (ft)	10
Atmospheric Pressure (tsf)	1.0581
Design EQ Peak Ground Acceleration, amax (g)	0.54
Design Earthquake Moment Magnitude, Mw	7.3
Magnitude Scaling Factor, MSF	1.07
At-Rest Coefficient Lateral EP, Ko	0.5
Number of Strain Cycles, Nc	13.34

Estimated dry soil dynamic settlement (in)	0.10
Estimated saturated soil dynamic settlement (in)	0.72
Total estimated dynamic settlement (in)	0.82

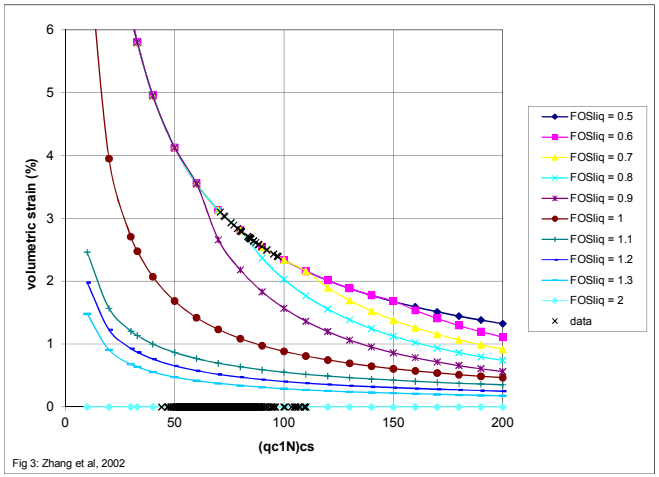
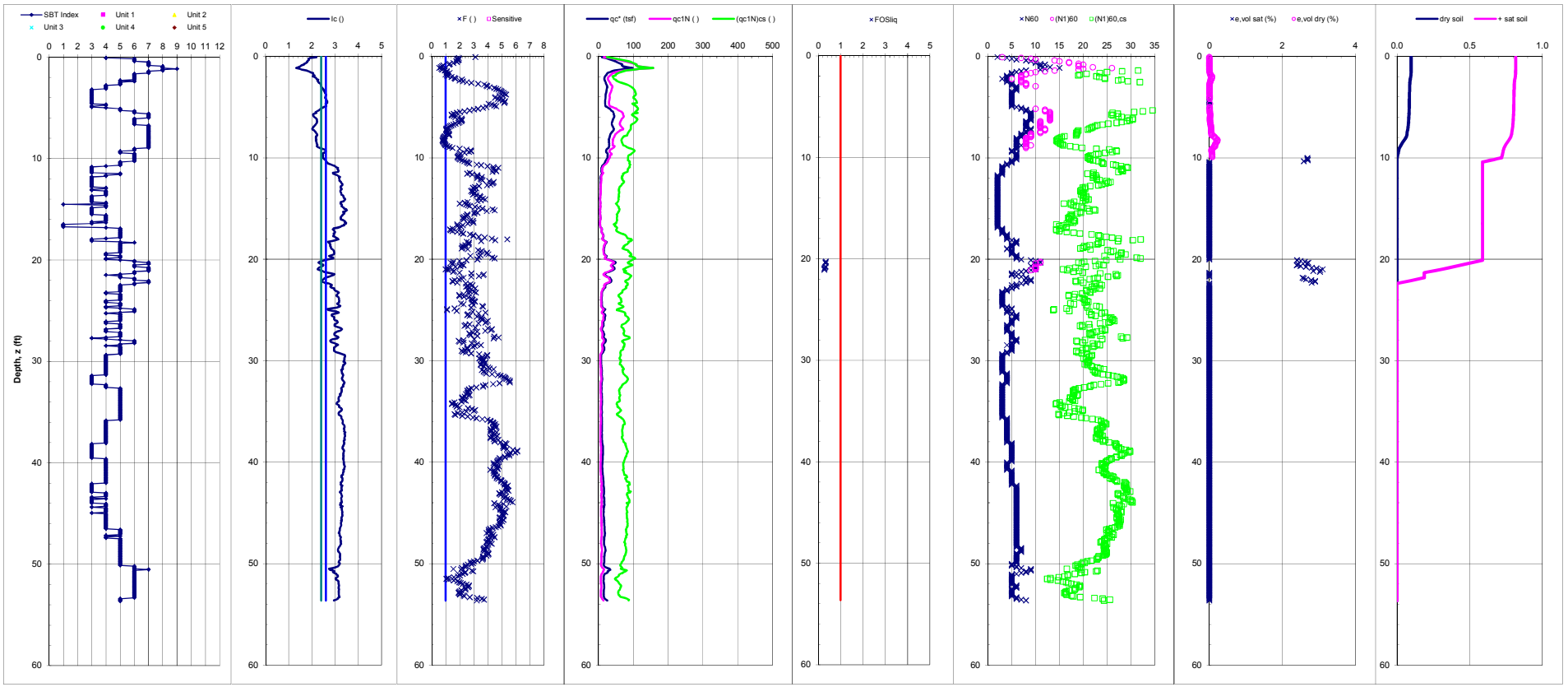


Fig 3: Zhang et al, 2002



APPENDIX F

LATERAL PILE CAPACITY CALCULATIONS

STATIC CASE

LPile Plus for Windows, Version 2012-06.037

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

This copy of LPile is licensed to:

Ninyo and Moore
San Jose

Serial Number of Security Device: 140964469
Company Name Stored in Security Device: Ninyo & Moore

Files Used for Analysis

Path to file locations: C:\Users\RHennefer\Desktop\LPILE\18-inch Pile\
Name of input data file: 18 inch pile.lp6d
Name of output report file: 18 inch pile.lp6o
Name of plot output file: 18 inch pile.lp6p
Name of runtime messeage file: 18 inch pile.lp6r

Date and Time of Analysis

Date: July 7, 2016 Time: 12:53:59

Problem Title

Project Name: San Jose State University New Science Building

Job Number: 402814001

Client: San Jose State University

Engineer: RH

Description:

Program Options

Engineering units are US Customary Units: pounds, inches, feet

Basic Program Options:

This analysis computes pile response to lateral loading and will compute nonlinear
moment-curvature and nominal moment capacity for section types with nonlinear properties.

Computation Options:
- Analysis does not use p-y multipliers (individual pile or shaft only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix values
- Report pile response for full length of pile
- Analysis assumes no loading by soil movements acting on pile
- No p-y curves to be computed and reported for user-specified depths

Solution Control Parameters:
- Number of pile increments = 100
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in

Pile Response Output Options:
- Values of pile-head deflection, bending moment, shear force, and
  soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1

Pile Structural Properties and Geometry

Total number of pile sections = 1

Total length of pile = 40.00 ft

Depth of ground surface below top of pile = 0.00 ft

Pile diameter values used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over
the length of the pile.

Point	Depth X ft	Pile Diameter in
1	0.00000	18.0000000
2	40.000000	18.0000000

Input Structural Properties:

Pile Section No. 1:

Section Type = Drilled Shaft (Bored Pile)
Section Length = 40.00000000 ft
Section Diameter = 18.00000000 in

Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
= 0.000 radians

Pile Batter Angle = 0.000 degrees
= 0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 7 layers

Layer 1 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	0.0000 ft
Distance from top of pile to bottom of layer	=	8.00000 ft
Effective unit weight at top of layer	=	61.00000 pcf
Effective unit weight at bottom of layer	=	61.00000 pcf
Undrained cohesion at top of layer	=	600.00000 psf
Undrained cohesion at bottom of layer	=	600.00000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 2 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	8.00000 ft
Distance from top of pile to bottom of layer	=	18.00000 ft
Effective unit weight at top of layer	=	60.00000 pcf
Effective unit weight at bottom of layer	=	60.00000 pcf
Friction angle at top of layer	=	32.00000 deg.
Friction angle at bottom of layer	=	32.00000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 3 is cemented silt with cohesion and friction

Distance from top of pile to top of layer	=	18.00000 ft
Distance from top of pile to bottom of layer	=	22.00000 ft
Effective unit weight at top of layer	=	53.00000 pcf
Effective unit weight at bottom of layer	=	53.00000 pcf
Undrained cohesion at top of layer	=	1.00000 psf
Undrained cohesion at bottom of layer	=	1.00000 psf
Friction angle at top of layer	=	29.00000 deg.
Friction angle at bottom of layer	=	29.00000 deg.
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	22.00000	ft
Distance from top of pile to bottom of layer	=	24.00000	ft
Effective unit weight at top of layer	=	53.00000	pcf
Effective unit weight at bottom of layer	=	53.00000	pcf
Friction angle at top of layer	=	33.00000	deg.
Friction angle at bottom of layer	=	33.00000	deg.
Subgrade k at top of layer	=	0.0000	pci
Subgrade k at bottom of layer	=	0.0000	pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 5 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	24.00000	ft
Distance from top of pile to bottom of layer	=	43.00000	ft
Effective unit weight at top of layer	=	50.00000	pcf
Effective unit weight at bottom of layer	=	50.00000	pcf
Undrained cohesion at top of layer	=	900.00000	psf
Undrained cohesion at bottom of layer	=	900.00000	psf
Epsilon-50 at top of layer	=	0.0000	
Epsilon-50 at bottom of layer	=	0.0000	

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 6 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	43.00000	ft
Distance from top of pile to bottom of layer	=	52.00000	ft
Effective unit weight at top of layer	=	70.00000	pcf
Effective unit weight at bottom of layer	=	70.00000	pcf
Friction angle at top of layer	=	36.00000	deg.
Friction angle at bottom of layer	=	36.00000	deg.
Subgrade k at top of layer	=	0.0000	pci
Subgrade k at bottom of layer	=	0.0000	pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 7 is stiff clay without free water

Distance from top of pile to top of layer	=	52.00000	ft
Distance from top of pile to bottom of layer	=	100.00000	ft
Effective unit weight at top of layer	=	60.00000	pcf
Effective unit weight at bottom of layer	=	60.00000	pcf
Undrained cohesion at top of layer	=	1500.00000	psf
Undrained cohesion at bottom of layer	=	1500.00000	psf
Epsilon-50 at top of layer	=	0.0000	
Epsilon-50 at bottom of layer	=	0.0000	

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

(Depth of lowest soil layer extends 60.00 ft below pile tip)

Summary of Soil Properties

Layer Num.	Layer Soil Type (p-y Curve Criteria)	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	Angle of Friction deg.	Strain Factor Epsilon 50	kpy pci
1	Soft Clay	0.00	61.000	600.000	--	default	--
		8.000	61.000	600.000	--	default	--
2	Sand (Reese, et al.)	8.000	60.000	--	32.000	--	default
		18.000	60.000	--	32.000	--	default
3	Cemented Silt	18.000	53.000	1.000	29.000	default	default
		22.000	53.000	1.000	29.000	default	default
4	Sand (Reese, et al.)	22.000	53.000	--	33.000	--	default
		24.000	53.000	--	33.000	--	default
5	Soft Clay	24.000	50.000	900.000	--	default	--
		43.000	50.000	900.000	--	default	--
6	Sand (Reese, et al.)	43.000	70.000	--	36.000	--	default
		52.000	70.000	--	36.000	--	default
7	Stiff Clay w/o Free Water	52.000	60.000	1500.000	--	default	--
		100.000	60.000	1500.000	--	default	--

Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 4

Load No.	Load Type	Condition 1		Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	5	y = 1.00000 in	S =	0.0000 in/in	100000.	No
2	5	y = 0.37500 in	S =	0.0000 in/in	100000.	No
3	4	y = 1.00000 in	M =	0.0000 in-lbs	100000.	No
4	4	y = 0.37500 in	M =	0.0000 in-lbs	100000.	No

V = perpendicular shear force applied to pile head
M = bending moment applied to pile head
y = lateral deflection relative to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applie to pile head
Axial thrust is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

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Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	40.00000000 ft
Shaft Diameter	=	18.00000000 in
Concrete Cover Thickness	=	3.00000000 in
Number of Reinforcing Bars	=	7 bars
Yield Stress of Reinforcing Bars	=	60.00000000 ksi
Modulus of Elasticity of Reinforcing Bars	=	29000. ksi
Gross Area of Shaft	=	254.46900494 sq. in.
Total Area of Reinforcing Steel	=	5.53000000 sq. in.
Area Ratio of Steel Reinforcement	=	2.17 percent
Edge-to-Edge Bar Spacing	=	3.77272113 in
Maximum Concrete Aggregate Size	=	0.75000000 in
Ratio of Bar Spacing to Aggregate Size	=	5.03
Offset of Rebar Cage Center from Center of Pile	=	0.0000000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As	=	1178.193 kips
Tensile Load for Cracking of Concrete	=	-122.038 kips
Nominal Axial Tensile Capacity	=	-331.800 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.00000	0.79000	5.50000	0.00000
2	1.00000	0.79000	3.42919	4.30007
3	1.00000	0.79000	-1.22387	5.36210
4	1.00000	0.79000	-4.95533	2.38636
5	1.00000	0.79000	-4.95533	-2.38636
6	1.00000	0.79000	-1.22387	-5.36210
7	1.00000	0.79000	3.42919	-4.30007

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 3.77272 inches between Bars 2 and 3

Spacing to aggregate size ratio = 5.03029

Concrete Properties:

Compressive Strength of Concrete = 4.00000000 ksi
Modulus of Elasticity of Concrete = 3604.99653259 ksi
Modulus of Rupture of Concrete = -0.47434164 ksi
Compression Strain at Peak Stress = 0.00188627
Tensile Strain at Fracture of Concrete = -0.00011537
Maximum Coarse Aggregate Size = 0.75000000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force kips
1	100.000

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318-08 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than than 0.003. See ACI 318-08, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 100.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in	Max Concrete Stress ksi	Max Steel Stress ksi	Run Msg
0.000001250	28.7107821	22968626.	76.0810479	0.0000951	0.0000726	0.3927202	2.7546755	
0.000002500	57.4374167	22974967.	42.5497481	0.0001064	0.0000614	0.4375304	3.0783317	
0.000003750	86.1627387	22976730.	31.3767104	0.0001177	0.0000502	0.4821211	3.4024298	
0.000005000	114.8860970	22977219.	25.7932384	0.0001290	0.0000390	0.5264912	3.7269696	
0.000006250	143.6068402	22977094.	22.4455928	0.0001403	0.0000278	0.5706395	4.0519512	
0.000007500	172.3243171	22976576.	20.2158607	0.0001516	0.0000166	0.6145650	4.3773747	
0.000008750	201.0378760	22975757.	18.6249364	0.0001630	0.000005468	0.6582663	4.7032401	
0.0000100	229.7465113	22974651.	17.4332638	0.0001743	-0.000005667	0.7017424	5.0295465	
0.0000113	258.4382108	22972285.	16.5076560	0.0001857	-0.0000168	0.7449875	5.3562603	
0.0000125	287.0882687	22967061.	15.7680826	0.0001971	-0.0000279	0.7879906	5.6833050	
0.0000138	315.6766523	22958302.	15.1636343	0.0002085	-0.0000390	0.8307419	6.0106117	
0.0000150	344.1894310	22945962.	14.6604085	0.0002199	-0.0000501	0.8732338	6.3381278	
0.0000163	372.6172424	22930292.	14.2349637	0.0002313	-0.0000612	0.9154608	6.6658142	
0.0000175	400.9538614	22911649.	13.8705774	0.0002427	-0.0000723	0.9574189	6.9936431	
0.0000188	429.1948695	22890393.	13.5549983	0.0002542	-0.0000833	0.9991050	7.3215929	
0.0000200	457.3370343	22866852.	13.2790462	0.0002656	-0.0000944	1.0405166	7.6496468	
0.0000213	485.3780908	22841322.	13.0357076	0.0002770	-0.0001055	1.0816520	7.9777924	
0.0000225	485.3780908	21572360.	12.2239089	0.0002750	-0.0001300	1.0740999	7.9173753	C
0.0000238	485.3780908	20436972.	11.9650753	0.0002842	-0.0001433	1.1067272	8.1789582	C
0.0000250	485.3780908	19415124.	11.7269962	0.0002932	-0.0001568	1.1387116	8.4368223	C
0.0000263	485.3780908	18490594.	11.5079553	0.0003021	-0.0001704	1.1701778	8.6919185	C
0.0000275	485.3780908	17650112.	11.3055882	0.0003109	-0.0001841	1.2011539	8.9444316	C

0.0000288	485.3780908	16882716.	11.1179115	0.0003196	-0.0001979	1.2316648	9.1945213 C
0.0000300	485.3780908	16179270.	10.9432602	0.0003283	-0.0002117	1.2617333	9.4423364 C
0.0000313	493.6544977	15796944.	10.7802109	0.0003369	-0.0002256	1.2913790	9.6880037 C
0.0000325	503.9404770	15505861.	10.6276091	0.0003454	-0.0002396	1.3206272	9.9316967 C
0.0000338	514.0200332	15230223.	10.4845219	0.0003539	-0.0002536	1.3495080	10.1736384 C
0.0000350	523.9237880	14969251.	10.3501763	0.0003623	-0.0002677	1.3780547	10.4140790 C
0.0000363	533.5885701	14719685.	10.2229341	0.0003706	-0.0002819	1.4061791	10.6522470 C
0.0000375	543.1212824	14483234.	10.1030737	0.0003789	-0.0002961	1.4340116	10.8892178 C
0.0000388	552.5489561	14259328.	9.9901485	0.0003871	-0.0003104	1.4615896	11.1252919 C
0.0000400	561.7658953	14044147.	9.8823631	0.0003953	-0.0003247	1.4887607	11.3591413 C
0.0000413	570.9170959	13840414.	9.7806660	0.0004035	-0.0003390	1.5157245	11.5924594 C
0.0000425	579.9252559	13645300.	9.6837215	0.0004116	-0.0003534	1.5423689	11.8242619 C
0.0000438	588.8500243	13459429.	9.5916721	0.0004196	-0.0003679	1.5687765	12.0552466 C
0.0000450	597.6635462	13281412.	9.5038189	0.0004277	-0.0003823	1.5949056	12.2850338 C
0.0000463	606.4103174	13111574.	9.4202309	0.0004357	-0.0003968	1.6208204	12.5141723 C
0.0000475	615.0462422	12948342.	9.3401100	0.0004437	-0.0004113	1.6464507	12.7420267 C
0.0000488	623.6605061	12793036.	9.2640831	0.0004516	-0.0004259	1.6719399	12.9698602 C
0.0000513	640.6003736	12499519.	9.1208089	0.0004674	-0.0004551	1.7221172	13.4220399 C
0.0000538	657.3040320	12228912.	8.9891912	0.0004832	-0.0004843	1.7714634	-13.9053106 C
0.0000563	673.8284540	11979173.	8.8681751	0.0004988	-0.0005137	1.8200759	-14.7494766 C
0.0000588	690.1641875	11747476.	8.7562582	0.0005144	-0.0005431	1.8679341	-15.5956875 C
0.0000613	706.3040185	11531494.	8.6521277	0.0005299	-0.0005726	1.9150079	-16.4442956 C
0.0000638	722.3526895	11331023.	8.5559314	0.0005454	-0.0006021	1.9615113	-17.2933342 C
0.0000663	738.1847352	11142411.	8.4653819	0.0005608	-0.0006317	2.0071703	-18.1454725 C
0.0000688	753.9654571	10966770.	8.3815600	0.0005762	-0.0006613	2.0523411	-18.9973270 C
0.0000713	769.5612221	10800859.	8.3022934	0.0005915	-0.0006910	2.0967175	-19.8519236 C
0.0000738	785.0939677	10645342.	8.2283904	0.0006068	-0.0007207	2.1405802	-20.7065424 C
0.0000763	800.5210991	10498637.	8.1588251	0.0006221	-0.0007504	2.1838209	-21.5622853 C
0.0000788	815.8286218	10359729.	8.0930247	0.0006373	-0.0007802	2.2264078	-22.4195170 C
0.0000813	831.0981930	10228901.	8.0314976	0.0006526	-0.0008099	2.2685403	-23.2762209 C
0.0000838	846.2487593	10104463.	7.9729480	0.0006677	-0.0008398	2.3100057	-24.1346149 C
0.0000863	861.3152917	9986264.	7.9174919	0.0006829	-0.0008696	2.3508979	-24.9937606 C
0.0000888	876.3443344	9874302.	7.8653655	0.0006981	-0.0008994	2.3913384	-25.8523779 C
0.0000913	891.3050366	9767726.	7.8159396	0.0007132	-0.0009293	2.4312391	-26.7114071 C
0.0000938	906.1517769	9665619.	7.7684759	0.0007283	-0.0009592	2.4704730	-27.5722683 C
0.0000963	920.9614635	9568431.	7.7236683	0.0007434	-0.0009891	2.5092575	-28.4325982 C
0.0000988	935.7338853	9475786.	7.6813158	0.0007585	-0.0010190	2.5475910	-29.2923941 C
0.0001013	950.4491683	9387152.	7.6410027	0.0007737	-0.0010488	2.5854119	-30.1523431 C
0.0001038	965.0590216	9301774.	7.6020138	0.0007887	-0.0010788	2.6225742	-31.0141533 C
0.0001063	979.6320024	9220066.	7.5650346	0.0008038	-0.0011087	2.6592874	-31.8754243 C
0.0001088	994.1679000	9141774.	7.5299276	0.0008189	-0.0011386	2.6955500	-32.7361532 C
0.0001113	1008.6665019	9066665.	7.4965673	0.0008340	-0.0011685	2.7313603	-33.5963369 C
0.0001138	1023.1160462	8994427.	7.4646966	0.0008491	-0.0011984	2.7666785	-34.4564444 C
0.0001163	1037.4704495	8924477.	7.4336572	0.0008642	-0.0012283	2.8013525	-35.3183702 C
0.0001188	1051.7878874	8857161.	7.4040855	0.0008792	-0.0012583	2.8355757	-36.1797428 C
0.0001213	1066.0681458	8792315.	7.3758915	0.0008943	-0.0012882	2.8693466	-37.0405588 C
0.0001238	1080.3110086	8729786.	7.3489926	0.0009094	-0.0013181	2.9026634	-37.9008150 C
0.0001263	1094.5162575	8669436.	7.3233128	0.0009246	-0.0013479	2.9355244	-38.7605082 C
0.0001288	1108.6836719	8611135.	7.2987820	0.0009397	-0.0013778	2.9679280	-39.6196349 C
0.0001313	1122.7804665	8554518.	7.2749129	0.0009548	-0.0014077	2.9997548	-40.4797998 C
0.0001338	1136.8206555	8499594.	7.2518416	0.0009699	-0.0014376	3.0310567	-41.3403315 C
0.0001363	1150.8232475	8446409.	7.2297633	0.0009851	-0.0014674	3.0619020	-42.2002847 C
0.0001388	1164.7880189	8394869.	7.2086254	0.0010002	-0.0014973	3.0922890	-43.0596556 C
0.0001413	1178.7147429	8344883.	7.1883788	0.0010154	-0.0015271	3.1222158	-43.9184406 C
0.0001438	1192.6031900	8296370.	7.1689778	0.0010305	-0.0015570	3.1516807	-44.7766358 C
0.0001463	1206.4531286	8249252.	7.1503801	0.0010457	-0.0015868	3.1806818	-45.6342376 C
0.0001488	1220.2643243	8203458.	7.1325459	0.0010610	-0.0016165	3.2092175	-46.4912420 C
0.0001588	1275.0274505	8031669.	7.0668885	0.0011219	-0.0017356	3.3183195	-49.9189741 C
0.0001688	1329.1177760	7876253.	7.0104623	0.0011830	-0.0018545	3.4197216	-53.3396123 C
0.0001788	1382.5656857	7734633.	6.9623272	0.0012445	-0.0019730	3.5134857	-56.7499985 C
0.0001888	1435.3384443	7604442.	6.9209520	0.0013063	-0.0020912	3.5994130	-60.0000000 CY

0.0001988	1487.3866776	7483707.	6.8847788	0.0013683	-0.0022092	3.6772463	-60.0000000 CY
0.0002088	1538.7495798	7371255.	6.8539533	0.0014308	-0.0023267	3.7470992	-60.0000000 CY
0.0002188	1589.4074358	7265863.	6.8278006	0.0014936	-0.0024439	3.8088207	-60.0000000 CY
0.0002288	1639.3394268	7166511.	6.8057677	0.0015568	-0.0025607	3.8622521	-60.0000000 CY
0.0002388	1688.5235342	7072350.	6.7873979	0.0016205	-0.0026770	3.9072265	-60.0000000 CY
0.0002488	1736.9364310	6982659.	6.7723118	0.0016846	-0.0027929	3.9435680	-60.0000000 CY
0.0002588	1784.2933862	6895820.	6.7598824	0.0017491	-0.0029084	3.9710618	-60.0000000 CY
0.0002688	1827.6895810	6800705.	6.7462949	0.0018131	-0.0030244	3.9893366	-60.0000000 CY
0.0002788	1864.8955337	6690208.	6.7284136	0.0018755	-0.0031420	3.9985581	-60.0000000 CY
0.0002888	1896.7205414	6568729.	6.7075390	0.0019368	-0.0032607	3.9991540	-60.0000000 CY
0.0002988	1925.8638613	6446406.	6.6871315	0.0019978	-0.0033797	3.9994090	-60.0000000 CY
0.0003088	1951.3066041	6320021.	6.6655946	0.0020580	-0.0034995	3.9994166	-60.0000000 CY
0.0003188	1972.4990533	6188232.	6.6419382	0.0021171	-0.0036204	3.9991596	60.0000000 CY
0.0003288	1990.1129427	6053575.	6.6168228	0.0021753	-0.0037422	3.9985061	60.0000000 CY
0.0003388	2005.4759517	5920224.	6.5918373	0.0022330	-0.0038645	3.9972316	60.0000000 CY
0.0003488	2020.2201776	5792746.	6.5690019	0.0022909	-0.0039866	3.9999872	60.0000000 CY
0.0003588	2034.5017807	5671085.	6.5476083	0.0023490	-0.0041085	3.9994741	60.0000000 CY
0.0003688	2048.4474078	5555112.	6.5283293	0.0024073	-0.0042302	3.9979080	60.0000000 CY
0.0003788	2062.0850344	5444449.	6.5109475	0.0024660	-0.0043515	3.9999175	60.0000000 CY
0.0003888	2075.3609810	5338549.	6.4954009	0.0025251	-0.0044724	3.9992432	60.0000000 CY
0.0003988	2087.5277281	5235179.	6.4800559	0.0025839	-0.0045936	3.9964762	60.0000000 CY
0.0004088	2098.3327329	5133536.	6.4644289	0.0026423	-0.0047152	3.9996949	60.0000000 CY
0.0004188	2107.7770121	5033497.	6.4483968	0.0027003	-0.0048372	3.9968638	60.0000000 CY
0.0004288	2115.8734826	4934982.	6.4317867	0.0027576	-0.0049599	3.9997066	60.0000000 CY
0.0004388	2122.3354516	4837232.	6.4140489	0.0028142	-0.0050833	3.9960474	60.0000000 CY
0.0004488	2127.9526168	4741956.	6.3963905	0.0028704	-0.0052071	3.9992645	60.0000000 CY
0.0004588	2132.8233148	4649206.	6.3783089	0.0029260	-0.0053315	3.9976201	60.0000000 CY
0.0004688	2137.2216381	4559406.	6.3606035	0.0029815	-0.0054560	3.9978432	60.0000000 CY
0.0004788	2141.5416961	4473194.	6.3439647	0.0030372	-0.0055803	3.9998255	60.0000000 CYT
0.0004888	2145.7429004	4390267.	6.3284535	0.0030930	-0.0057045	3.9946667	60.0000000 CYT
0.0004988	2149.8489820	4310474.	6.3139331	0.0031491	-0.0058284	3.9982958	60.0000000 CYT
0.0005088	2153.8871512	4233685.	6.3002669	0.0032053	-0.0059522	3.9999120	60.0000000 CYT
0.0005188	2157.8131473	4159640.	6.2875434	0.0032617	-0.0060758	3.9941849	60.0000000 CYT
0.0005288	2161.6623421	4088250.	6.2756044	0.0033182	-0.0061993	3.9978963	60.0000000 CYT
0.0005388	2165.4534603	4019403.	6.2643521	0.0033749	-0.0063226	3.9997648	60.0000000 CYT
0.0005488	2169.1560978	3952904.	6.2538450	0.0034318	-0.0064457	3.9954495	60.0000000 CYT
0.0006088	2189.9914296	3597522.	6.2026060	0.0037758	-0.0071817	3.9991188	60.0000000 CYT
0.0006688	2189.9914296	3274754.	6.2276338	0.0041647	-0.0078728	3.9946703	60.0000000 CYT

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	100.000	2138.655	0.00300000

Note note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318-08, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction
factor to compute ultimate moment capacity according to ACI 318-08, Section
9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding bending stiffnesses computed for common resistance factor values used for reinforced concrete sections.

Axial Load No.	Resistance Factor for Moment	Nominal Moment Capacity in-kip	Ultimate (Factored) Axial Thrust kips	Ultimate (Factored) Moment Capacity in-kip	Bending Stiffness at Ult. Mom. Cap. kip-in^2
1	0.65	2138.655	65.000	1390.126	7715981.784
1	0.70	2138.655	70.000	1497.059	7462530.927
1	0.75	2138.655	75.000	1603.992	7236843.931

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 1

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 1.000000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	-2087205.	37110.	0.000	0.000	5.237E+09	-146.8075	352.3381	0.000
0.400	0.9954	-1910403.	36366.	-0.001832	0.000	5.237E+09	-155.0843	747.8380	0.000
0.800	0.9824	-1736334.	35603.	-0.003304	0.000	6.984E+09	-162.8712	795.7759	0.000
1.200	0.9637	-1565444.	34803.	-0.004414	0.000	7.314E+09	-170.2404	847.9417	0.000
1.600	0.9400	-1397984.	33970.	-0.005364	0.000	7.695E+09	-177.1771	904.6989	0.000
2.000	0.9122	-1234187.	33103.	-0.006163	0.000	8.158E+09	-183.6685	966.4678	0.000
2.400	0.8809	-1074274.	32207.	-0.006821	0.000	8.756E+09	-189.7039	1033.7254	0.000
2.800	0.8467	-918449.	31283.	-0.007345	0.000	9.584E+09	-195.2754	1107.0053	0.000
3.200	0.8104	-766902.	30334.	-0.007745	0.000	1.083E+10	-200.3778	1186.8989	0.000
3.600	0.7724	-619808.	29361.	-0.008031	0.000	1.286E+10	-205.0086	1274.0609	0.000
4.000	0.7333	-477327.	28367.	-0.008197	0.000	2.285E+10	-209.1673	1369.2256	0.000
4.400	0.6937	-339617.	27354.	-0.008282	0.000	2.295E+10	-212.8714	1472.9894	0.000
4.800	0.6538	-206777.	26325.	-0.008339	0.000	2.298E+10	-216.0967	1586.6266	0.000
5.200	0.6136	-78896.	25281.	-0.008369	0.000	2.298E+10	-218.8171	1711.6751	0.000
5.600	0.5734	43952.	24225.	-0.008373	0.000	2.297E+10	-221.0033	1850.0093	0.000
6.000	0.5332	161703.	23160.	-0.008351	0.000	2.298E+10	-222.6226	2003.9405	0.000
6.400	0.4932	274310.	22089.	-0.008306	0.000	2.297E+10	-223.6382	2176.3569	0.000
6.800	0.4535	381735.	21015.	-0.008237	0.000	2.292E+10	-224.0071	2370.9236	0.000
7.200	0.4142	483962.	19941.	-0.008140	0.000	2.022E+10	-223.6795	2592.3695	0.000
7.600	0.3754	580980.	18870.	-0.007980	0.000	1.362E+10	-222.6076	2846.5883	0.000
8.000	0.3376	672770.	17122.	-0.007743	0.000	1.199E+10	-505.5138	7188.3520	0.000
8.400	0.3010	752784.	14677.	-0.007444	0.000	1.098E+10	-513.3562	8185.4492	0.000
8.800	0.2661	820813.	12203.	-0.007088	0.000	1.032E+10	-517.4849	9334.7367	0.000
9.200	0.2330	876735.	9720.1703	-0.006684	0.000	9.872E+09	-516.9186	10650.	0.000
9.600	0.2019	920543.	7251.7723	-0.006240	0.000	9.571E+09	-511.5806	12161.	0.000
10.000	0.1731	952343.	4820.4376	-0.005766	0.000	9.376E+09	-501.4755	13907.	0.000
10.400	0.1466	972355.	2448.8438	-0.005270	0.000	9.260E+09	-486.6885	15938.	0.000
10.800	0.1225	980911.	159.0678	-0.004762	0.000	9.213E+09	-467.3848	18315.	0.000
11.200	0.1009	978453.	-2027.7887	-0.004252	0.000	9.227E+09	-443.8054	21121.	0.000

11.600	0.0817	965526.	-4091.9464	-0.003749	0.000	9.299E+09	-416.2603	24465.	0.000
12.000	0.0649	942769.	-6015.2490	-0.003259	0.000	9.433E+09	-385.1158	28495.	0.000
12.400	0.0504	910909.	-7755.6372	-0.002793	0.000	9.634E+09	-340.0459	32398.	0.000
12.800	0.0381	870996.	-9208.1110	-0.002355	0.000	9.913E+09	-265.1515	33437.	0.000
13.200	0.0278	824772.	-10323.	-0.001952	0.000	1.028E+10	-199.4690	34475.	0.000
13.600	0.0193	773767.	-11145.	-0.001586	0.000	1.076E+10	-143.0085	35513.	0.000
14.000	0.0125	719301.	-11718.	-0.001262	0.000	1.137E+10	-95.5153	36551.	0.000
14.400	0.007215	662489.	-12082.	-0.000979	0.000	1.215E+10	-56.5034	37589.	0.000
14.800	0.003144	604250.	-12279.	-0.000738	0.000	1.315E+10	-25.2984	38627.	0.000
15.200	0.000131	545322.	-12342.	-0.000537	0.000	1.443E+10	-1.0794	39665.	0.000
15.600	-0.002012	486281.	-12304.	-0.000374	0.000	1.616E+10	17.0589	40703.	0.000
16.000	-0.003461	427565.	-12191.	-0.000257	0.000	2.289E+10	30.0951	41741.	0.000
16.400	-0.004479	369499.	-12023.	-0.000174	0.000	2.293E+10	39.9227	42779.	0.000
16.800	-0.005127	312315.	-11814.	-0.000102	0.000	2.296E+10	46.8020	43817.	0.000
17.200	-0.005461	256179.	-11580.	-4.283E-05	0.000	2.297E+10	51.0325	44856.	0.000
17.600	-0.005538	201193.	-11330.	4.948E-06	0.000	2.298E+10	52.9510	45894.	0.000
18.000	-0.005414	147406.	-10308.	4.136E-05	0.000	2.298E+10	372.7915	330544.	0.000
18.400	-0.005141	102194.	-8657.5029	6.743E-05	0.000	2.298E+10	315.0119	294114.	0.000
18.800	-0.004766	64229.	-7185.7547	8.482E-05	0.000	2.298E+10	298.2165	300335.	0.000
19.200	-0.004327	33129.	-5806.8292	9.499E-05	0.000	2.297E+10	276.3358	306555.	0.000
19.600	-0.003854	8392.5976	-4540.8608	9.933E-05	0.000	2.297E+10	251.1510	312776.	0.000
20.000	-0.003373	-10558.	-3400.0617	9.910E-05	0.000	2.297E+10	224.1819	318997.	0.000
20.400	-0.002903	-24343.	-2389.9840	9.545E-05	0.000	2.297E+10	196.6838	325218.	0.000
20.800	-0.002457	-33594.	-1510.7771	8.940E-05	0.000	2.297E+10	169.6525	331439.	0.000
21.200	-0.002045	-38932.	-758.4058	8.182E-05	0.000	2.297E+10	143.8356	337659.	0.000
21.600	-0.001671	-40953.	-125.8064	7.348E-05	0.000	2.297E+10	119.7475	343880.	0.000
22.000	-0.001339	-40211.	193.5287	6.500E-05	0.000	2.297E+10	13.3087	47697.	0.000
22.400	-0.001048	-39158.	261.7822	5.670E-05	0.000	2.297E+10	15.1302	69331.	0.000
22.800	-0.000795	-37752.	326.1446	4.867E-05	0.000	2.297E+10	11.6874	70568.	0.000
23.200	-0.000580	-36073.	375.0284	4.096E-05	0.000	2.297E+10	8.6809	71804.	0.000
23.600	-0.000402	-34191.	410.5367	3.361E-05	0.000	2.297E+10	6.1142	73041.	0.000
24.000	-0.000258	-32164.	526.0711	2.668E-05	0.000	2.297E+10	42.0251	783069.	0.000
24.400	-0.000146	-29166.	710.3247	2.027E-05	0.000	2.297E+10	34.7472	1145014.	0.000
24.800	-6.298E-05	-25365.	856.7561	1.458E-05	0.000	2.297E+10	26.2658	2001804.	0.000
25.200	-5.743E-06	-20956.	948.0093	9.735E-06	0.000	2.297E+10	11.7563	9826697.	0.000
25.600	3.048E-05	-16273.	926.6535	5.845E-06	0.000	2.297E+10	-20.6546	3253176.	0.000
26.000	5.037E-05	-12065.	818.5028	2.884E-06	0.000	2.297E+10	-24.4082	2325991.	0.000
26.400	5.816E-05	-8418.4126	698.4765	7.436E-07	0.000	2.297E+10	-25.6028	2112981.	0.000
26.800	5.751E-05	-5360.6038	575.8194	-6.962E-07	0.000	2.297E+10	-25.5044	2128768.	0.000
27.200	5.148E-05	-2889.8780	455.6209	-1.558E-06	0.000	2.297E+10	-24.5783	2291798.	0.000
27.600	4.255E-05	-985.1470	341.2770	-1.963E-06	0.000	2.297E+10	-23.0650	2602031.	0.000
28.000	3.263E-05	388.2663	235.2542	-2.026E-06	0.000	2.297E+10	-21.1112	3105475.	0.000
28.400	2.310E-05	1275.2379	139.4315	-1.852E-06	0.000	2.297E+10	-18.8149	3909131.	0.000
28.800	1.485E-05	1728.5860	55.3047	-1.538E-06	0.000	2.297E+10	-16.2379	5247229.	0.000
29.200	8.339E-06	1807.6398	-15.8112	-1.168E-06	0.000	2.297E+10	-13.3938	7709513.	0.000
29.600	3.637E-06	1577.9198	-56.6862	-8.146E-07	0.000	2.297E+10	-3.6375	4800000.	0.000
30.000	5.187E-07	1264.2342	-66.6610	-5.176E-07	0.000	2.297E+10	-0.5187	4800000.	0.000
30.400	-1.332E-06	938.4710	-64.7093	-2.875E-07	0.000	2.297E+10	1.3319	4800000.	0.000
30.800	-2.241E-06	643.3009	-56.1340	-1.222E-07	0.000	2.297E+10	2.2411	4800000.	0.000
31.200	-2.505E-06	399.7019	-44.7432	-1.322E-08	0.000	2.297E+10	2.5051	4800000.	0.000
31.600	-2.368E-06	213.7791	-33.0478	5.088E-08	0.000	2.297E+10	2.3680	4800000.	0.000
32.000	-2.017E-06	82.3943	-22.5248	8.183E-08	0.000	2.297E+10	2.0166	4800000.	0.000
32.400	-1.582E-06	-2.5373	-13.8872	9.018E-08	0.000	2.297E+10	1.5824	4800000.	0.000
32.800	-1.151E-06	-51.0091	-7.3272	8.458E-08	0.000	2.297E+10	1.1509	4800000.	0.000
33.200	-7.705E-07	-72.9598	-2.7160	7.163E-08	0.000	2.297E+10	0.7705	4800000.	0.000
33.600	-4.632E-07	-77.1516	0.2449	5.594E-08	0.000	2.297E+10	0.4632	4800000.	0.000
34.000	-2.334E-07	-70.6625	1.9169	4.050E-08	0.000	2.297E+10	0.2334	4800000.	0.000
34.400	-7.448E-08	-58.7882	2.6559	2.697E-08	0.000	2.297E+10	0.0745	4800000.	0.000
34.800	2.550E-08	-45.1921	2.7734	1.611E-08	0.000	2.297E+10	-0.0255	4800000.	0.000
35.200	8.014E-08	-32.1789	2.5199	8.021E-09	0.000	2.297E+10	-0.0801	4800000.	0.000
35.600	1.025E-07	-21.0088	2.0816	2.464E-09	0.000	2.297E+10	-0.1025	4800000.	0.000

36.000	1.038E-07	-12.1982	1.5865	-1.006E-09	0.000	2.297E+10	-0.1038	4800000.	0.000
36.400	9.284E-08	-5.7777	1.1146	-2.885E-09	0.000	2.297E+10	-0.0928	4800000.	0.000
36.800	7.610E-08	-1.4956	0.7091	-3.645E-09	0.000	2.297E+10	-0.0761	4800000.	0.000
37.200	5.785E-08	1.0333	0.3876	-3.693E-09	0.000	2.297E+10	-0.0579	4800000.	0.000
37.600	4.065E-08	2.2292	0.1512	-3.352E-09	0.000	2.297E+10	-0.0406	4800000.	0.000
38.000	2.567E-08	2.4885	-0.007921	-2.859E-09	0.000	2.297E+10	-0.0257	4800000.	0.000
38.400	1.320E-08	2.1559	-0.1012	-2.374E-09	0.000	2.297E+10	-0.0132	4800000.	0.000
38.800	2.886E-09	1.5191	-0.1398	-1.990E-09	0.000	2.297E+10	-0.002886	4800000.	0.000
39.200	-5.902E-09	0.8156	-0.1326	-1.746E-09	0.000	2.297E+10	0.005902	4800000.	0.000
39.600	-1.387E-08	0.2480	-0.0851	-1.635E-09	0.000	2.297E+10	0.0139	4800000.	0.000
40.000	-2.159E-08	0.000	0.000	-1.609E-09	0.000	2.297E+10	0.0216	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 1:

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Pile-head deflection             =      1.0000000 inches
Computed slope at pile head      =     -0.0000810 radians
Maximum bending moment           =      -2087205. inch-lbs
Maximum shear force              =         37110. lbs
Depth of maximum bending moment  =       0.000000 inches below pile head
Depth of maximum shear force     =       0.000000 inches below pile head
Number of iterations             =             79
Number of zero deflection points =              5
```

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 2

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 0.375000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	-1203520.	23101.	0.000	0.000	8.259E+09	-105.8666	677.5459	0.000
0.400	0.3733	-1093754.	22565.	-0.000668	0.000	8.259E+09	-111.8395	1437.9826	0.000
0.800	0.3686	-986259.	22014.	-0.001243	0.000	9.183E+09	-117.4703	1529.7641	0.000
1.200	0.3614	-881224.	21438.	-0.001716	0.000	9.838E+09	-122.7651	1630.5884	0.000
1.600	0.3521	-778810.	20837.	-0.002106	0.000	1.071E+10	-127.7196	1741.0464	0.000
2.000	0.3412	-679172.	20212.	-0.002417	0.000	1.190E+10	-132.3326	1861.7982	0.000
2.400	0.3289	-582451.	19567.	-0.002657	0.000	1.359E+10	-136.6064	1993.5623	0.000
2.800	0.3157	-488778.	18902.	-0.002833	0.000	1.610E+10	-140.5456	2137.1230	0.000
3.200	0.3017	-398274.	18219.	-0.002947	0.000	2.291E+10	-144.1556	2293.3387	0.000
3.600	0.2874	-311051.	17519.	-0.003021	0.000	2.296E+10	-147.4525	2462.9026	0.000
4.000	0.2727	-227194.	16804.	-0.003078	0.000	2.297E+10	-150.4232	2647.5789	0.000
4.400	0.2578	-146781.	16075.	-0.003117	0.000	2.298E+10	-153.0542	2849.4334	0.000
4.800	0.2428	-69878.	15335.	-0.003139	0.000	2.298E+10	-155.3315	3070.8999	0.000
5.200	0.2277	3451.8526	14585.	-0.003146	0.000	2.297E+10	-157.2408	3314.8663	0.000
5.600	0.2126	73159.	13827.	-0.003138	0.000	2.298E+10	-158.7667	3584.7884	0.000
6.000	0.1976	139201.	13062.	-0.003116	0.000	2.298E+10	-159.8932	3884.8384	0.000
6.400	0.1827	201545.	12293.	-0.003081	0.000	2.298E+10	-160.6029	4220.1045	0.000

6.800	0.1680	260168.	11521.	-0.003032	0.000	2.297E+10	-160.8766	4596.8608	0.000
7.200	0.1536	315059.	10749.	-0.002972	0.000	2.296E+10	-160.6932	5022.9389	0.000
7.600	0.1395	366216.	9979.6551	-0.002901	0.000	2.293E+10	-160.0287	5508.2497	0.000
8.000	0.1257	413649.	8931.2033	-0.002819	0.000	2.290E+10	-276.8262	10570.	0.000
8.400	0.1124	454662.	7590.0113	-0.002728	0.000	2.287E+10	-282.0038	12044.	0.000
8.800	0.0995	489132.	6230.2059	-0.002607	0.000	1.600E+10	-284.5817	13726.	0.000
9.200	0.0874	516975.	4863.9144	-0.002452	0.000	1.515E+10	-284.7064	15644.	0.000
9.600	0.0760	538179.	3502.9135	-0.002282	0.000	1.460E+10	-282.3773	17839.	0.000
10.000	0.0655	552793.	2158.8629	-0.002100	0.000	1.425E+10	-277.6438	20360.	0.000
10.400	0.0558	560920.	843.0585	-0.001911	0.000	1.406E+10	-270.6081	23269.	0.000
10.800	0.0471	562721.	-433.8182	-0.001719	0.000	1.402E+10	-261.4239	26637.	0.000
11.200	0.0393	558406.	-1636.9393	-0.001528	0.000	1.412E+10	-239.8766	29284.	0.000
11.600	0.0324	548473.	-2704.4745	-0.001341	0.000	1.435E+10	-204.9297	30322.	0.000
12.000	0.0264	533731.	-3610.9308	-0.001162	0.000	1.471E+10	-172.7604	31360.	0.000
12.400	0.0213	514924.	-4370.2879	-0.000994	0.000	1.520E+10	-143.6383	32398.	0.000
12.800	0.0169	492730.	-4997.5474	-0.000838	0.000	1.590E+10	-117.7198	33437.	0.000
13.200	0.0132	467753.	-5508.1577	-0.000715	0.000	2.286E+10	-95.0345	34475.	0.000
13.600	0.0100	440538.	-5914.4432	-0.000620	0.000	2.288E+10	-74.2512	35513.	0.000
14.000	0.007284	411569.	-6225.7586	-0.000530	0.000	2.290E+10	-55.4635	36551.	0.000
14.400	0.004945	381280.	-6451.8174	-0.000447	0.000	2.292E+10	-38.7276	37589.	0.000
14.800	0.002990	350061.	-6602.5176	-0.000371	0.000	2.294E+10	-24.0641	38627.	0.000
15.200	0.001387	318252.	-6687.7755	-0.000301	0.000	2.296E+10	-11.4600	39665.	0.000
15.600	0.000103	286147.	-6717.3692	-0.000238	0.000	2.297E+10	-0.8707	40703.	0.000
16.000	-0.000894	253993.	-6700.7924	-0.000181	0.000	2.297E+10	7.7777	41741.	0.000
16.400	-0.001637	221993.	-6647.1169	-0.000131	0.000	2.297E+10	14.5871	42779.	0.000
16.800	-0.002156	190307.	-6564.8629	-8.840E-05	0.000	2.298E+10	19.6854	43817.	0.000
17.200	-0.002485	159055.	-6461.8779	-5.190E-05	0.000	2.298E+10	23.2251	44856.	0.000
17.600	-0.002655	128323.	-6345.2207	-2.189E-05	0.000	2.298E+10	25.3821	45894.	0.000
18.000	-0.002695	98162.	-5838.8271	1.772E-06	0.000	2.298E+10	185.6153	330544.	0.000
18.400	-0.002638	72268.	-5005.4589	1.957E-05	0.000	2.298E+10	161.6214	294114.	0.000
18.800	-0.002508	50091.	-4241.0219	3.236E-05	0.000	2.297E+10	156.8940	300335.	0.000
19.200	-0.002327	31523.	-3507.7864	4.088E-05	0.000	2.297E+10	148.6208	306555.	0.000
19.600	-0.002115	16377.	-2820.3295	4.589E-05	0.000	2.297E+10	137.8196	312776.	0.000
20.000	-0.001887	4404.1920	-2188.6580	4.806E-05	0.000	2.297E+10	125.3769	318997.	0.000
20.400	-0.001654	-4680.3131	-1618.8507	4.803E-05	0.000	2.297E+10	112.0428	325218.	0.000
20.800	-0.001425	-11183.	-1113.7180	4.637E-05	0.000	2.297E+10	98.4292	331439.	0.000
21.200	-0.001209	-15417.	-673.4564	4.359E-05	0.000	2.297E+10	85.0132	337659.	0.000
21.600	-0.001007	-17690.	-296.2824	4.013E-05	0.000	2.297E+10	72.1427	343880.	0.000
22.000	-0.000823	-18299.	-103.5074	3.637E-05	0.000	2.297E+10	8.1803	47697.	0.000
22.400	-0.000658	-18719.	-61.0715	3.250E-05	0.000	2.297E+10	9.5014	69331.	0.000
22.800	-0.000511	-18917.	-20.2319	2.857E-05	0.000	2.297E+10	7.5151	70568.	0.000
23.200	-0.000384	-18940.	11.5736	2.462E-05	0.000	2.297E+10	5.7372	71804.	0.000
23.600	-0.000275	-18829.	35.3808	2.067E-05	0.000	2.297E+10	4.1825	73041.	0.000
24.000	-0.000185	-18620.	135.7246	1.676E-05	0.000	2.297E+10	37.6274	975826.	0.000
24.400	-0.000114	-17543.	302.8425	1.298E-05	0.000	2.297E+10	32.0050	1347681.	0.000
24.800	-6.049E-05	-15726.	441.8069	9.502E-06	0.000	2.297E+10	25.8968	2054816.	0.000
25.200	-2.277E-05	-13310.	548.7513	6.468E-06	0.000	2.297E+10	18.6633	3934056.	0.000
25.600	1.600E-06	-10464.	589.7037	3.984E-06	0.000	2.297E+10	-1.5998	4800000.	0.000
26.000	1.547E-05	-7652.9537	546.2379	2.091E-06	0.000	2.297E+10	-16.5109	5121381.	0.000
26.400	2.167E-05	-5221.8378	462.3649	7.457E-07	0.000	2.297E+10	-18.4361	4083096.	0.000
26.800	2.263E-05	-3214.9665	373.3022	-1.359E-07	0.000	2.297E+10	-18.6733	3960174.	0.000
27.200	2.037E-05	-1638.0058	285.3312	-6.430E-07	0.000	2.297E+10	-17.9813	4237418.	0.000
27.600	1.646E-05	-475.1698	202.1754	-8.638E-07	0.000	2.297E+10	-16.6670	4860138.	0.000
28.000	1.208E-05	303.7069	126.4418	-8.817E-07	0.000	2.297E+10	-14.8887	5917860.	0.000
28.400	7.996E-06	739.5183	60.1499	-7.727E-07	0.000	2.297E+10	-12.7330	7643216.	0.000
28.800	4.658E-06	881.8876	5.0053	-6.033E-07	0.000	2.297E+10	-10.2439	10555299.	0.000
29.200	2.205E-06	788.1487	-24.8721	-4.288E-07	0.000	2.297E+10	-2.2050	4800000.	0.000
29.600	5.422E-07	643.5275	-31.4654	-2.792E-07	0.000	2.297E+10	-0.5422	4800000.	0.000
30.000	-4.751E-07	486.3492	-31.6265	-1.611E-07	0.000	2.297E+10	0.4751	4800000.	0.000
30.400	-1.004E-06	340.0675	-28.0757	-7.476E-08	0.000	2.297E+10	1.0045	4800000.	0.000
30.800	-1.193E-06	216.8945	-22.8024	-1.656E-08	0.000	2.297E+10	1.1927	4800000.	0.000

31.200	-1.163E-06	121.1806	-17.1475	1.876E-08	0.000	2.297E+10	1.1635	4800000.	0.000
31.600	-1.013E-06	52.2607	-11.9249	3.689E-08	0.000	2.297E+10	1.0126	4800000.	0.000
32.000	-8.094E-07	6.6662	-7.5522	4.304E-08	0.000	2.297E+10	0.8094	4800000.	0.000
32.400	-5.994E-07	-20.2815	-4.1712	4.162E-08	0.000	2.297E+10	0.5994	4800000.	0.000
32.800	-4.098E-07	-33.4170	-1.7491	3.601E-08	0.000	2.297E+10	0.4098	4800000.	0.000
33.200	-2.537E-07	-37.1076	-0.1567	2.864E-08	0.000	2.297E+10	0.2537	4800000.	0.000
33.600	-1.348E-07	-34.9493	0.7757	2.111E-08	0.000	2.297E+10	0.1348	4800000.	0.000
34.000	-5.103E-08	-29.6808	1.2218	1.436E-08	0.000	2.297E+10	0.0510	4800000.	0.000
34.400	3.005E-09	-23.2336	1.3371	8.829E-09	0.000	2.297E+10	-0.003005	4800000.	0.000
34.800	3.373E-08	-16.8533	1.2489	4.641E-09	0.000	2.297E+10	-0.0337	4800000.	0.000
35.200	4.756E-08	-11.2486	1.0538	1.704E-09	0.000	2.297E+10	-0.0476	4800000.	0.000
35.600	5.009E-08	-6.7383	0.8195	-1.751E-10	0.000	2.297E+10	-0.0501	4800000.	0.000
36.000	4.587E-08	-3.3816	0.5891	-1.233E-09	0.000	2.297E+10	-0.0459	4800000.	0.000
36.400	3.826E-08	-1.0815	0.3872	-1.699E-09	0.000	2.297E+10	-0.0383	4800000.	0.000
36.800	2.956E-08	0.3372	0.2244	-1.777E-09	0.000	2.297E+10	-0.0296	4800000.	0.000
37.200	2.121E-08	1.0748	0.1026	-1.629E-09	0.000	2.297E+10	-0.0212	4800000.	0.000
37.600	1.392E-08	1.3236	0.0183	-1.379E-09	0.000	2.297E+10	-0.0139	4800000.	0.000
38.000	7.971E-09	1.2515	-0.0343	-1.109E-09	0.000	2.297E+10	-0.007971	4800000.	0.000
38.400	3.273E-09	0.9955	-0.0613	-8.747E-10	0.000	2.297E+10	-0.003273	4800000.	0.000
38.800	-4.257E-10	0.6641	-0.0681	-7.013E-10	0.000	2.297E+10	0.000426	4800000.	0.000
39.200	-3.459E-09	0.3424	-0.0588	-5.961E-10	0.000	2.297E+10	0.003459	4800000.	0.000
39.600	-6.148E-09	0.1004	-0.0357	-5.498E-10	0.000	2.297E+10	0.006148	4800000.	0.000
40.000	-8.737E-09	0.000	0.000	-5.393E-10	0.000	2.297E+10	0.008737	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.3750000 inches
Computed slope at pile head = -0.0000319 radians
Maximum bending moment = -1203520. inch-lbs
Maximum shear force = 23101. lbs
Depth of maximum bending moment = 0.000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 21
Number of zero deflection points = 5

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 3

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 1.000000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	0.000	17333.	-0.0105	0.000	2.297E+10	-146.8075	352.3381	0.000
0.400	0.9495	86553.	16614.	-0.0105	0.000	2.297E+10	-152.6650	771.7289	0.000
0.800	0.8992	169579.	15868.	-0.0105	0.000	2.298E+10	-158.1351	844.1574	0.000
1.200	0.8490	248946.	15097.	-0.0104	0.000	2.297E+10	-163.1986	922.6975	0.000
1.600	0.7990	324527.	14303.	-0.0104	0.000	2.295E+10	-167.8347	1008.2250	0.000

2.000	0.7494	396208.	13487.	-0.0103	0.000	2.291E+10	-172.0202	1101.7921	0.000
2.400	0.7002	463887.	12652.	-0.0102	0.000	2.286E+10	-175.7296	1204.6766	0.000
2.800	0.6514	527470.	11801.	-0.0101	0.000	1.487E+10	-178.9337	1318.4480	0.000
3.200	0.6035	586848.	10936.	-0.009883	0.000	1.350E+10	-181.6279	1444.6080	0.000
3.600	0.5566	641942.	10059.	-0.009655	0.000	1.248E+10	-183.7956	1585.1342	0.000
4.000	0.5108	692683.	9172.7681	-0.009390	0.000	1.171E+10	-185.4214	1742.3877	0.000
4.400	0.4664	739015.	8280.1799	-0.009088	0.000	1.113E+10	-186.4903	1919.2120	0.000
4.800	0.4236	780897.	7383.8311	-0.008754	0.000	1.069E+10	-186.9883	2119.0597	0.000
5.200	0.3824	818303.	6486.4948	-0.008388	0.000	1.034E+10	-186.9018	2346.1592	0.000
5.600	0.3430	851220.	5591.0086	-0.007995	0.000	1.006E+10	-186.2175	2605.7340	0.000
6.000	0.3056	879652.	4700.2720	-0.007578	0.000	9.850E+09	-184.9228	2904.2987	0.000
6.400	0.2703	903618.	3817.2441	-0.007140	0.000	9.683E+09	-183.0055	3250.0591	0.000
6.800	0.2371	923152.	2944.9417	-0.006684	0.000	9.554E+09	-180.4539	3653.4625	0.000
7.200	0.2061	938306.	2086.4354	-0.006214	0.000	9.460E+09	-177.2571	4127.9642	0.000
7.600	0.1774	949147.	1244.8459	-0.005733	0.000	9.395E+09	-173.4052	4691.1086	0.000
8.000	0.1511	955760.	85.7511	-0.005246	0.000	9.356E+09	-309.5509	9835.2293	0.000
8.400	0.1271	955006.	-1386.4427	-0.004756	0.000	9.360E+09	-303.8632	11478.	0.000
8.800	0.1054	947016.	-2823.0411	-0.004269	0.000	9.407E+09	-294.7195	13419.	0.000
9.200	0.0861	932004.	-4207.5935	-0.003792	0.000	9.499E+09	-282.1773	15734.	0.000
9.600	0.0690	910264.	-5524.0244	-0.003330	0.000	9.638E+09	-266.3356	18524.	0.000
10.000	0.0541	882170.	-6756.8033	-0.002888	0.000	9.832E+09	-247.3223	21936.	0.000
10.400	0.0413	848171.	-7891.0321	-0.002471	0.000	1.009E+10	-225.2730	26189.	0.000
10.800	0.0304	808788.	-8860.9854	-0.002083	0.000	1.042E+10	-178.8742	28246.	0.000
11.200	0.0213	765105.	-9602.0568	-0.001727	0.000	1.085E+10	-129.9055	29284.	0.000
11.600	0.0138	718266.	-10123.	-0.001407	0.000	1.138E+10	-87.2651	30322.	0.000
12.000	0.007789	669272.	-10455.	-0.001122	0.000	1.205E+10	-50.8900	31360.	0.000
12.400	0.003044	618977.	-10626.	-0.000873	0.000	1.288E+10	-20.5491	32398.	0.000
12.800	-0.000593	568098.	-10666.	-0.000660	0.000	1.390E+10	4.1293	33437.	0.000
13.200	-0.003289	517220.	-10599.	-0.000480	0.000	1.515E+10	23.6190	34475.	0.000
13.600	-0.005197	466807.	-10450.	-0.000349	0.000	2.286E+10	38.4533	35513.	0.000
14.000	-0.006636	417233.	-10237.	-0.000256	0.000	2.290E+10	50.5304	36551.	0.000
14.400	-0.007654	368781.	-9971.4351	-0.000174	0.000	2.293E+10	59.9422	37589.	0.000
14.800	-0.008303	321674.	-9667.2225	-0.000101	0.000	2.296E+10	66.8130	38627.	0.000
15.200	-0.008628	276073.	-9335.7606	-3.891E-05	0.000	2.297E+10	71.2961	39665.	0.000
15.600	-0.008676	232088.	-8988.0781	1.418E-05	0.000	2.297E+10	73.5716	40703.	0.000
16.000	-0.008492	189774.	-8634.2807	5.825E-05	0.000	2.298E+10	73.8440	41741.	0.000
16.400	-0.008117	149143.	-8283.4379	9.365E-05	0.000	2.298E+10	72.3405	42779.	0.000
16.800	-0.007593	110163.	-7943.4772	0.000121	0.000	2.298E+10	69.3098	43817.	0.000
17.200	-0.006958	72770.	-7621.0860	0.000140	0.000	2.298E+10	65.0199	44856.	0.000
17.600	-0.006250	36867.	-7321.6193	0.000151	0.000	2.297E+10	59.7579	45894.	0.000
18.000	-0.005505	2336.9070	-6268.3224	0.000155	0.000	2.297E+10	379.1158	330544.	0.000
18.400	-0.004758	-23458.	-4658.7070	0.000153	0.000	2.297E+10	291.5573	294114.	0.000
18.800	-0.004035	-42534.	-3353.0826	0.000146	0.000	2.297E+10	252.4529	300335.	0.000
19.200	-0.003354	-55788.	-2233.1219	0.000136	0.000	2.297E+10	214.1975	306555.	0.000
19.600	-0.002729	-64102.	-1292.2733	0.000123	0.000	2.298E+10	177.8228	312776.	0.000
20.000	-0.002168	-68313.	-519.6576	0.000110	0.000	2.298E+10	144.1004	318997.	0.000
20.400	-0.001676	-69196.	98.7421	9.530E-05	0.000	2.298E+10	113.5662	325218.	0.000
20.800	-0.001253	-67456.	579.0152	8.103E-05	0.000	2.298E+10	86.5476	331439.	0.000
21.200	-0.000898	-63716.	938.3898	6.732E-05	0.000	2.298E+10	63.1918	337659.	0.000
21.600	-0.000607	-58512.	1194.4337	5.456E-05	0.000	2.298E+10	43.4931	343880.	0.000
22.000	-0.000375	-52301.	1307.7498	4.298E-05	0.000	2.297E+10	3.7219	47697.	0.000
22.400	-0.000194	-45999.	1323.4240	3.271E-05	0.000	2.297E+10	2.8090	69331.	0.000
22.800	-6.052E-05	-39628.	1332.3010	2.377E-05	0.000	2.297E+10	0.8898	70568.	0.000
23.200	3.368E-05	-33232.	1333.2273	1.615E-05	0.000	2.297E+10	-0.5039	71804.	0.000
23.600	9.455E-05	-26844.	1328.5649	9.877E-06	0.000	2.297E+10	-1.4388	73041.	0.000
24.000	0.000128	-20487.	1245.1351	4.931E-06	0.000	2.297E+10	-33.3236	1244773.	0.000
24.400	0.000142	-14896.	1082.4949	1.234E-06	0.000	2.297E+10	-34.4432	1165146.	0.000
24.800	0.000140	-10096.	917.4726	-1.377E-06	0.000	2.297E+10	-34.3161	1173649.	0.000
25.200	0.000129	-6086.7694	755.1106	-3.068E-06	0.000	2.297E+10	-33.3347	1243538.	0.000
25.600	0.000111	-2844.4767	598.9783	-4.002E-06	0.000	2.297E+10	-31.7204	1373063.	0.000
26.000	9.025E-05	-332.7362	451.7723	-4.334E-06	0.000	2.297E+10	-29.6154	1575037.	0.000

26.400	6.929E-05	1496.6980	315.6071	-4.212E-06	0.000	2.297E+10	-27.1201	1878827.	0.000
26.800	4.982E-05	2701.1355	192.1769	-3.773E-06	0.000	2.297E+10	-24.3092	2342166.	0.000
27.200	3.306E-05	3345.2190	82.8570	-3.142E-06	0.000	2.297E+10	-21.2408	3083849.	0.000
27.600	1.966E-05	3499.5788	-11.2257	-2.426E-06	0.000	2.297E+10	-17.9603	4385195.	0.000
28.000	9.768E-06	3239.7814	-89.1463	-1.722E-06	0.000	2.297E+10	-14.5066	7128737.	0.000
28.400	3.126E-06	2645.4277	-131.4645	-1.107E-06	0.000	2.297E+10	-3.1260	4800000.	0.000
28.800	-8.620E-07	1978.7849	-136.8982	-6.241E-07	0.000	2.297E+10	0.8620	4800000.	0.000
29.200	-2.865E-06	1331.8040	-127.9532	-2.782E-07	0.000	2.297E+10	2.8651	4800000.	0.000
29.600	-3.532E-06	750.7013	-101.3044	-6.055E-08	0.000	2.297E+10	8.2386	11195417.	0.000
30.000	-3.446E-06	359.3396	-62.0384	5.544E-08	0.000	2.297E+10	8.1223	11312486.	0.000
30.400	-3.000E-06	155.0799	-35.3447	1.092E-07	0.000	2.297E+10	3.0000	4800000.	0.000
30.800	-2.398E-06	19.9257	-22.3890	1.275E-07	0.000	2.297E+10	2.3981	4800000.	0.000
31.200	-1.776E-06	-59.9772	-12.3704	1.233E-07	0.000	2.297E+10	1.7763	4800000.	0.000
31.600	-1.215E-06	-98.9489	-5.1925	1.067E-07	0.000	2.297E+10	1.2145	4800000.	0.000
32.000	-7.521E-07	-109.9276	-0.4726	8.486E-08	0.000	2.297E+10	0.7521	4800000.	0.000
32.400	-3.999E-07	-103.5672	2.2922	6.255E-08	0.000	2.297E+10	0.3999	4800000.	0.000
32.800	-1.516E-07	-87.9829	3.6157	4.254E-08	0.000	2.297E+10	0.1516	4800000.	0.000
33.200	8.462E-09	-68.8973	3.9592	2.614E-08	0.000	2.297E+10	-0.008462	4800000.	0.000
33.600	9.940E-08	-49.9997	3.7003	1.372E-08	0.000	2.297E+10	-0.0994	4800000.	0.000
34.000	1.402E-07	-33.3872	3.1253	5.008E-09	0.000	2.297E+10	-0.1402	4800000.	0.000
34.400	1.475E-07	-20.0012	2.4350	-5.710E-10	0.000	2.297E+10	-0.1475	4800000.	0.000
34.800	1.347E-07	-10.0110	1.7578	-3.707E-09	0.000	2.297E+10	-0.1347	4800000.	0.000
35.200	1.119E-07	-3.1232	1.1660	-5.079E-09	0.000	2.297E+10	-0.1119	4800000.	0.000
35.600	8.594E-08	1.1871	0.6912	-5.282E-09	0.000	2.297E+10	-0.0859	4800000.	0.000
36.000	6.118E-08	3.5172	0.3381	-4.790E-09	0.000	2.297E+10	-0.0612	4800000.	0.000
36.400	3.995E-08	4.4374	0.0954	-3.959E-09	0.000	2.297E+10	-0.0400	4800000.	0.000
36.800	2.317E-08	4.4367	-0.0561	-3.032E-09	0.000	2.297E+10	-0.0232	4800000.	0.000
37.200	1.085E-08	3.9016	-0.1378	-2.160E-09	0.000	2.297E+10	-0.0108	4800000.	0.000
37.600	2.434E-09	3.1161	-0.1697	-1.427E-09	0.000	2.297E+10	-0.002434	4800000.	0.000
38.000	-2.853E-09	2.2743	-0.1686	-8.639E-10	0.000	2.297E+10	0.002853	4800000.	0.000
38.400	-5.859E-09	1.4980	-0.1477	-4.697E-10	0.000	2.297E+10	0.005859	4800000.	0.000
38.800	-7.363E-09	0.8565	-0.1160	-2.237E-10	0.000	2.297E+10	0.007363	4800000.	0.000
39.200	-8.007E-09	0.3845	-0.0791	-9.405E-11	0.000	2.297E+10	0.008007	4800000.	0.000
39.600	-8.266E-09	0.0971	-0.0401	-4.373E-11	0.000	2.297E+10	0.008266	4800000.	0.000
40.000	-8.427E-09	0.000	0.000	-3.359E-11	0.000	2.297E+10	0.008427	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 3:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0105112 radians
Maximum bending moment = 955760. inch-lbs
Maximum shear force = 17333. lbs
Depth of maximum bending moment = 96.0000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 17
Number of zero deflection points = 5

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 4

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 0.375000 inches

Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	0.000	11513.	-0.004049	0.000	2.297E+10	-105.8666	677.5459	0.000
0.400	0.3556	55988.	10995.	-0.004043	0.000	2.297E+10	-110.0377	1485.4649	0.000
0.800	0.3362	109434.	10458.	-0.004026	0.000	2.298E+10	-113.9221	1626.5478	0.000
1.200	0.3169	160245.	9902.1674	-0.003997	0.000	2.298E+10	-117.5082	1779.7539	0.000
1.600	0.2978	208333.	9330.2660	-0.003959	0.000	2.298E+10	-120.7840	1946.7395	0.000
2.000	0.2789	253616.	8743.4163	-0.003911	0.000	2.297E+10	-123.7367	2129.4603	0.000
2.400	0.2603	296024.	8143.2019	-0.003853	0.000	2.296E+10	-126.3526	2330.2460	0.000
2.800	0.2419	335490.	7531.2748	-0.003787	0.000	2.295E+10	-128.6170	2551.8977	0.000
3.200	0.2239	371960.	6909.3612	-0.003713	0.000	2.293E+10	-130.5137	2797.8179	0.000
3.600	0.2063	405385.	6279.2697	-0.003632	0.000	2.291E+10	-132.0245	3072.1886	0.000
4.000	0.1890	435727.	5642.9016	-0.003544	0.000	2.288E+10	-133.1289	3380.2173	0.000
4.400	0.1723	462958.	5002.2644	-0.003449	0.000	2.286E+10	-133.8033	3728.4862	0.000
4.800	0.1559	487060.	4359.4894	-0.003328	0.000	1.609E+10	-134.0196	4125.4590	0.000
5.200	0.1403	508005.	3716.6987	-0.003176	0.000	1.539E+10	-133.8098	4577.7399	0.000
5.600	0.1254	525790.	3075.9474	-0.003012	0.000	1.492E+10	-133.1699	5095.7455	0.000
6.000	0.1114	540426.	2439.3084	-0.002839	0.000	1.455E+10	-132.0963	5692.3988	0.000
6.400	0.0982	551932.	1808.8668	-0.002657	0.000	1.427E+10	-130.5876	6383.7432	0.000
6.800	0.0859	560341.	1186.7101	-0.002468	0.000	1.407E+10	-128.6443	7189.8616	0.000
7.200	0.0745	565694.	574.9168	-0.002275	0.000	1.395E+10	-126.2695	8136.0522	0.000
7.600	0.0640	568045.	-24.4565	-0.002080	0.000	1.390E+10	-123.4694	9254.4241	0.000
8.000	0.0545	567456.	-720.6055	-0.001884	0.000	1.391E+10	-166.5927	14665.	0.000
8.400	0.0460	562936.	-1513.3687	-0.001690	0.000	1.401E+10	-163.7253	17102.	0.000
8.800	0.0383	554550.	-2288.5272	-0.001500	0.000	1.421E+10	-159.2575	19957.	0.000
9.200	0.0316	542405.	-3038.6496	-0.001316	0.000	1.450E+10	-153.2935	23318.	0.000
9.600	0.0257	526643.	-3729.1076	-0.001142	0.000	1.490E+10	-134.3973	25132.	0.000
10.000	0.0206	507702.	-4321.1668	-0.000978	0.000	1.543E+10	-112.2940	26170.	0.000
10.400	0.0163	486098.	-4812.1770	-0.000846	0.000	2.200E+10	-92.2936	27208.	0.000
10.800	0.0125	462317.	-5209.8970	-0.000744	0.000	2.286E+10	-73.4231	28246.	0.000
11.200	0.009138	436797.	-5519.9108	-0.000650	0.000	2.288E+10	-55.7493	29284.	0.000
11.600	0.006238	409950.	-5748.2913	-0.000561	0.000	2.290E+10	-39.4093	30322.	0.000
12.000	0.003751	382153.	-5901.6960	-0.000478	0.000	2.292E+10	-24.5093	31360.	0.000
12.400	0.001648	353752.	-5987.2211	-0.000401	0.000	2.294E+10	-11.1261	32398.	0.000
12.800	-9.931E-05	325060.	-6012.2635	-0.000330	0.000	2.295E+10	0.6918	33437.	0.000
13.200	-0.001521	296352.	-5984.3900	-0.000265	0.000	2.296E+10	10.9222	34475.	0.000
13.600	-0.002645	267865.	-5911.2142	-0.000206	0.000	2.297E+10	19.5677	35513.	0.000
14.000	-0.003500	239802.	-5800.2834	-0.000153	0.000	2.297E+10	26.6535	36551.	0.000
14.400	-0.004115	212329.	-5658.9728	-0.000106	0.000	2.298E+10	32.2259	37589.	0.000
14.800	-0.004517	185577.	-5494.3884	-6.436E-05	0.000	2.298E+10	36.3509	38627.	0.000
15.200	-0.004733	159645.	-5313.2775	-2.830E-05	0.000	2.298E+10	39.1120	39665.	0.000
15.600	-0.004789	134597.	-5121.9474	2.430E-06	0.000	2.298E+10	40.6089	40703.	0.000
16.000	-0.004710	110472.	-4926.1908	2.803E-05	0.000	2.298E+10	40.9563	41741.	0.000
16.400	-0.004520	87279.	-4731.2181	4.868E-05	0.000	2.298E+10	40.2823	42779.	0.000
16.800	-0.004242	65005.	-4541.5954	6.459E-05	0.000	2.298E+10	38.7272	43817.	0.000
17.200	-0.003900	43617.	-4361.1874	7.594E-05	0.000	2.297E+10	36.4429	44856.	0.000
17.600	-0.003513	23065.	-4193.1035	8.290E-05	0.000	2.297E+10	33.5921	45894.	0.000
18.000	-0.003104	3284.0493	-3599.4981	8.566E-05	0.000	2.297E+10	213.7435	330544.	0.000
18.400	-0.002691	-11572.	-2690.7717	8.479E-05	0.000	2.297E+10	164.8925	294114.	0.000
18.800	-0.002290	-22629.	-1951.1635	8.122E-05	0.000	2.297E+10	143.2776	300335.	0.000
19.200	-0.001911	-30382.	-1314.3232	7.568E-05	0.000	2.297E+10	122.0725	306555.	0.000
19.600	-0.001563	-35319.	-776.8557	6.881E-05	0.000	2.297E+10	101.8722	312776.	0.000
20.000	-0.001251	-37906.	-332.8644	6.116E-05	0.000	2.297E+10	83.1241	318997.	0.000
20.400	-0.000976	-38573.	25.3735	5.317E-05	0.000	2.297E+10	66.1417	325218.	0.000
20.800	-0.000740	-37713.	306.7986	4.520E-05	0.000	2.297E+10	51.1188	331439.	0.000
21.200	-0.000542	-35671.	521.0329	3.754E-05	0.000	2.297E+10	38.1454	337659.	0.000

21.600	-0.000380	-32747.	677.9145	3.039E-05	0.000	2.297E+10	27.2219	343880.	0.000
22.000	-0.000251	-29192.	749.2219	2.392E-05	0.000	2.297E+10	2.4895	47697.	0.000
22.400	-0.000150	-25578.	760.4097	1.819E-05	0.000	2.297E+10	2.1721	69331.	0.000
22.800	-7.588E-05	-21910.	768.3001	1.323E-05	0.000	2.297E+10	1.1156	70568.	0.000
23.200	-2.336E-05	-18215.	771.8163	9.038E-06	0.000	2.297E+10	0.3495	71804.	0.000
23.600	1.089E-05	-14509.	772.2575	5.619E-06	0.000	2.297E+10	-0.1657	73041.	0.000
24.000	3.058E-05	-10806.	722.2748	2.974E-06	0.000	2.297E+10	-20.6605	3242930.	0.000
24.400	3.943E-05	-7578.2378	618.7240	1.053E-06	0.000	2.297E+10	-22.4857	2736953.	0.000
24.800	4.069E-05	-4867.5236	510.2304	-2.476E-07	0.000	2.297E+10	-22.7199	2680317.	0.000
25.200	3.706E-05	-2679.7882	402.8501	-1.036E-06	0.000	2.297E+10	-22.0219	2852451.	0.000
25.600	3.074E-05	-999.1682	300.3407	-1.421E-06	0.000	2.297E+10	-20.6903	3230811.	0.000
26.000	2.342E-05	204.8464	205.3346	-1.504E-06	0.000	2.297E+10	-18.8955	3872827.	0.000
26.400	1.630E-05	973.4879	119.7971	-1.381E-06	0.000	2.297E+10	-16.7451	4929773.	0.000
26.800	1.017E-05	1356.2242	45.2815	-1.137E-06	0.000	2.297E+10	-14.3031	6753396.	0.000
27.200	5.388E-06	1409.2818	-16.8171	-8.481E-07	0.000	2.297E+10	-11.5714	10308489.	0.000
27.600	2.024E-06	1195.5942	-49.4454	-5.760E-07	0.000	2.297E+10	-2.0238	4800000.	0.000
28.000	-1.412E-07	935.1589	-53.9636	-3.533E-07	0.000	2.297E+10	0.1412	4800000.	0.000
28.400	-1.368E-06	677.8825	-50.3415	-1.848E-07	0.000	2.297E+10	1.3681	4800000.	0.000
28.800	-1.915E-06	452.0582	-42.4622	-6.670E-08	0.000	2.297E+10	1.9150	4800000.	0.000
29.200	-2.008E-06	270.3092	-33.0462	8.779E-09	0.000	2.297E+10	2.0084	4800000.	0.000
29.600	-1.831E-06	134.8064	-23.8324	5.111E-08	0.000	2.297E+10	1.8307	4800000.	0.000
30.000	-1.518E-06	41.4689	-15.7962	6.953E-08	0.000	2.297E+10	1.5177	4800000.	0.000
30.400	-1.163E-06	-16.9042	-9.3620	7.210E-08	0.000	2.297E+10	1.1632	4800000.	0.000
30.800	-8.256E-07	-48.4755	-4.5889	6.526E-08	0.000	2.297E+10	0.8256	4800000.	0.000
31.200	-5.367E-07	-61.0199	-1.3194	5.382E-08	0.000	2.297E+10	0.5367	4800000.	0.000
31.600	-3.089E-07	-61.1935	0.7100	4.105E-08	0.000	2.297E+10	0.3089	4800000.	0.000
32.000	-1.425E-07	-54.2436	1.7935	2.899E-08	0.000	2.297E+10	0.1425	4800000.	0.000
32.400	-3.060E-08	-44.0040	2.2090	1.873E-08	0.000	2.297E+10	0.0306	4800000.	0.000
32.800	3.721E-08	-33.0549	2.1932	1.067E-08	0.000	2.297E+10	-0.0372	4800000.	0.000
33.200	7.186E-08	-22.9599	1.9314	4.820E-09	0.000	2.297E+10	-0.0719	4800000.	0.000
33.600	8.348E-08	-14.5183	1.5585	9.040E-10	0.000	2.297E+10	-0.0835	4800000.	0.000
34.000	8.054E-08	-7.9987	1.1649	-1.449E-09	0.000	2.297E+10	-0.0805	4800000.	0.000
34.400	6.958E-08	-3.3340	0.8046	-2.633E-09	0.000	2.297E+10	-0.0696	4800000.	0.000
34.800	5.527E-08	-0.2720	0.5050	-3.010E-09	0.000	2.297E+10	-0.0553	4800000.	0.000
35.200	4.068E-08	1.5167	0.2747	-2.880E-09	0.000	2.297E+10	-0.0407	4800000.	0.000
35.600	2.762E-08	2.3679	0.1108	-2.474E-09	0.000	2.297E+10	-0.0276	4800000.	0.000
36.000	1.693E-08	2.5826	0.003854	-1.957E-09	0.000	2.297E+10	-0.0169	4800000.	0.000
36.400	8.838E-09	2.4068	-0.0580	-1.435E-09	0.000	2.297E+10	-0.008838	4800000.	0.000
36.800	3.156E-09	2.0272	-0.0868	-9.719E-10	0.000	2.297E+10	-0.003156	4800000.	0.000
37.200	-4.922E-10	1.5746	-0.0932	-5.955E-10	0.000	2.297E+10	0.000492	4800000.	0.000
37.600	-2.561E-09	1.1333	-0.0858	-3.125E-10	0.000	2.297E+10	0.002561	4800000.	0.000
38.000	-3.493E-09	0.7508	-0.0713	-1.157E-10	0.000	2.297E+10	0.003493	4800000.	0.000
38.400	-3.671E-09	0.4487	-0.0541	9.661E-12	0.000	2.297E+10	0.003671	4800000.	0.000
38.800	-3.400E-09	0.2312	-0.0372	8.071E-11	0.000	2.297E+10	0.003400	4800000.	0.000
39.200	-2.897E-09	0.0920	-0.0220	1.145E-10	0.000	2.297E+10	0.002897	4800000.	0.000
39.600	-2.301E-09	0.0195	-0.009568	1.261E-10	0.000	2.297E+10	0.002301	4800000.	0.000
40.000	-1.686E-09	0.000	0.000	1.282E-10	0.000	2.297E+10	0.001686	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 4:

Pile-head deflection = 0.3750000 inches
Computed slope at pile head = -0.0040488 radians
Maximum bending moment = 568045. inch-lbs
Maximum shear force = 11513. lbs
Depth of maximum bending moment = 91.2000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head

Number of iterations = 16
Number of zero deflection points = 5

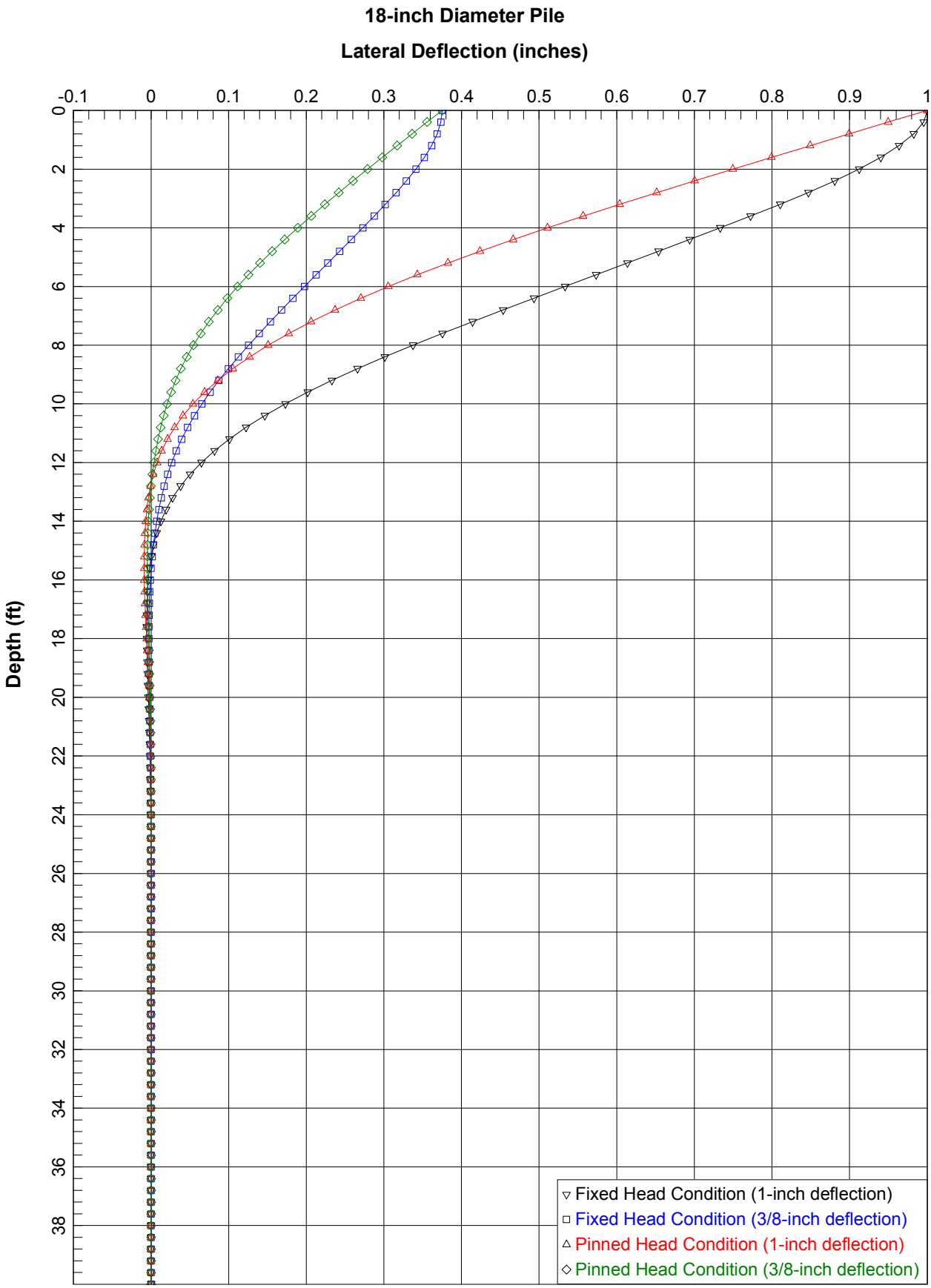
Summary of Pile Response(s)

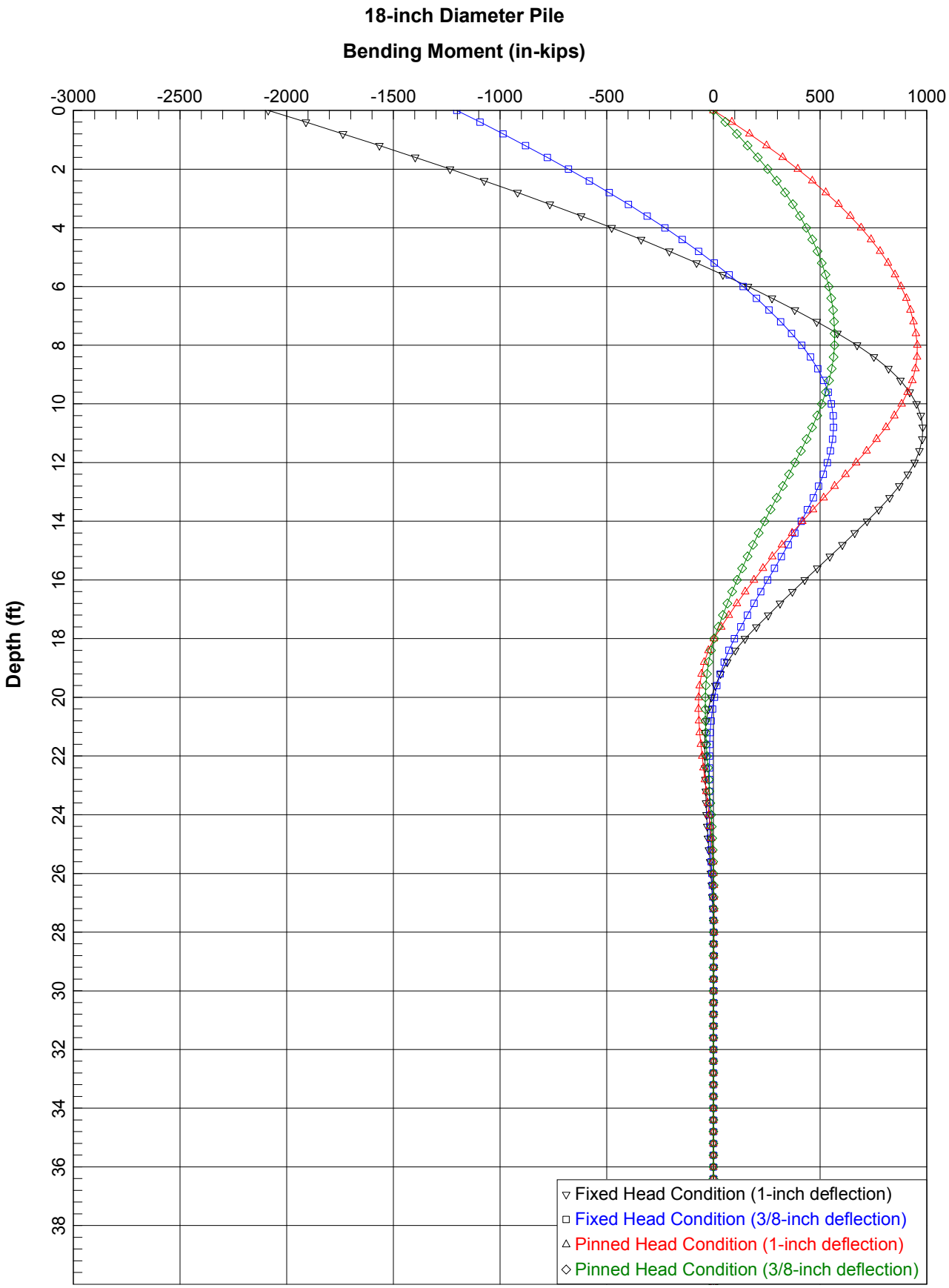
Definitions of Pile-head Loading Conditions:

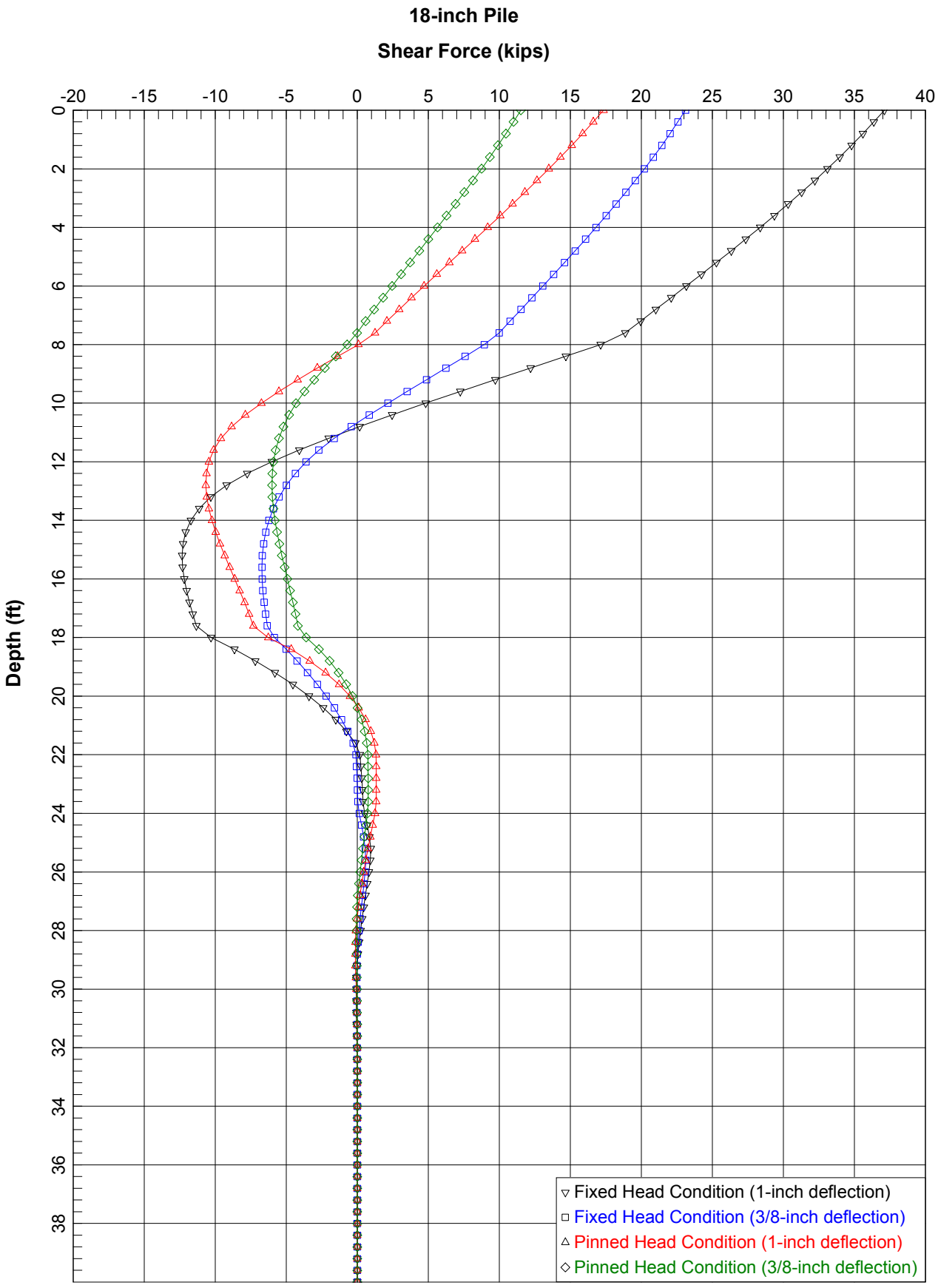
Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or y(inches)		Pile-head Condition 2 in-lb, rad., or in-lb/rad.		Axial Loading lbs	Pile-head Deflection inches	Maximum Moment in Pile in-lbs	Maximum Shear in Pile lbs	Pile-head Rotation radians
1	5	y =	1.0000	S =	0.000	100000.	1.00000000	-2087205.	37110.	-0.00008102
2	5	y =	0.3750	S =	0.000	100000.	0.37500000	-1203520.	23101.	-0.00003190
3	4	y =	1.0000	M =	0.000	100000.	1.00000000	955760.	17333.	-0.01051124
4	4	y =	0.3750	M =	0.000	100000.	0.37500000	568045.	11513.	-0.00404876

The analysis ended normally.


18-inch Diameter Pile
Lateral Deflection (inches)
Depth (ft)
-0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)


18-inch Diameter Pile
Bending Moment (in-kips)
-3000
-2500
-2000
-1500
-1000
-500
0
500
1000
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)


18-inch Pile
Shear Force (kips)
Depth (ft)
-20
-15
-10
-5
0
5
10
15
20
25
30
35
40
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)

LPile Plus for Windows, Version 2012-06.037

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

This copy of LPile is licensed to:

Ninyo and Moore
San Jose

Serial Number of Security Device: 140964469
Company Name Stored in Security Device: Ninyo & Moore

Files Used for Analysis

Path to file locations: C:\Users\RHennefer\Desktop\LPILE\24-inch pile\
Name of input data file: 24 inch pile.lp6d
Name of output report file: 24 inch pile.lp6o
Name of plot output file: 24 inch pile.lp6p
Name of runtime messeage file: 24 inch pile.lp6r

Date and Time of Analysis

Date: July 7, 2016 Time: 12:56:49

Problem Title

Project Name: San Jose State University New Science Building

Job Number: 402814001

Client: San Jose State University

Engineer: RH

Description:

Program Options

Engineering units are US Customary Units: pounds, inches, feet

Basic Program Options:

This analysis computes pile response to lateral loading and will compute nonlinear moment-curvature and nominal moment capacity for section types with nonlinear properties.

Computation Options:
- Analysis does not use p-y multipliers (individual pile or shaft only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix values
- Report pile response for full length of pile
- Analysis assumes no loading by soil movements acting on pile
- No p-y curves to be computed and reported for user-specified depths

Solution Control Parameters:
- Number of pile increments = 100
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in

Pile Response Output Options:
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1

Pile Structural Properties and Geometry

Total number of pile sections = 1

Total length of pile = 40.00 ft

Depth of ground surface below top of pile = 0.00 ft

Pile diameter values used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile.

Point	Depth X ft	Pile Diameter in
1	0.00000	24.0000000
2	40.000000	24.0000000

Input Structural Properties:

Pile Section No. 1:

Section Type	= Drilled Shaft (Bored Pile)
Section Length	= 40.00000000 ft
Section Diameter	= 24.00000000 in

Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
= 0.000 radians

Pile Batter Angle = 0.000 degrees
= 0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 7 layers

Layer 1 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	0.0000 ft
Distance from top of pile to bottom of layer	=	8.00000 ft
Effective unit weight at top of layer	=	61.00000 pcf
Effective unit weight at bottom of layer	=	61.00000 pcf
Undrained cohesion at top of layer	=	600.00000 psf
Undrained cohesion at bottom of layer	=	600.00000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 2 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	8.00000 ft
Distance from top of pile to bottom of layer	=	18.00000 ft
Effective unit weight at top of layer	=	60.00000 pcf
Effective unit weight at bottom of layer	=	60.00000 pcf
Friction angle at top of layer	=	32.00000 deg.
Friction angle at bottom of layer	=	32.00000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 3 is cemented silt with cohesion and friction

Distance from top of pile to top of layer	=	18.00000 ft
Distance from top of pile to bottom of layer	=	22.00000 ft
Effective unit weight at top of layer	=	53.00000 pcf
Effective unit weight at bottom of layer	=	53.00000 pcf
Undrained cohesion at top of layer	=	1.00000 psf
Undrained cohesion at bottom of layer	=	1.00000 psf
Friction angle at top of layer	=	29.00000 deg.
Friction angle at bottom of layer	=	29.00000 deg.
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	22.00000 ft
Distance from top of pile to bottom of layer	=	24.00000 ft
Effective unit weight at top of layer	=	53.00000 pcf
Effective unit weight at bottom of layer	=	53.00000 pcf
Friction angle at top of layer	=	33.00000 deg.
Friction angle at bottom of layer	=	33.00000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 5 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	24.00000 ft
Distance from top of pile to bottom of layer	=	43.00000 ft
Effective unit weight at top of layer	=	50.00000 pcf
Effective unit weight at bottom of layer	=	50.00000 pcf
Undrained cohesion at top of layer	=	900.00000 psf
Undrained cohesion at bottom of layer	=	900.00000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 6 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	43.00000 ft
Distance from top of pile to bottom of layer	=	52.00000 ft
Effective unit weight at top of layer	=	70.00000 pcf
Effective unit weight at bottom of layer	=	70.00000 pcf
Friction angle at top of layer	=	36.00000 deg.
Friction angle at bottom of layer	=	36.00000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 7 is stiff clay without free water

Distance from top of pile to top of layer	=	52.00000 ft
Distance from top of pile to bottom of layer	=	100.00000 ft
Effective unit weight at top of layer	=	60.00000 pcf
Effective unit weight at bottom of layer	=	60.00000 pcf
Undrained cohesion at top of layer	=	1500.00000 psf
Undrained cohesion at bottom of layer	=	1500.00000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

(Depth of lowest soil layer extends 60.00 ft below pile tip)

Summary of Soil Properties

Layer Num.	Layer Soil Type (p-y Curve Criteria)	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	Angle of Friction deg.	Strain Factor Epsilon 50	kpy pci
1	Soft Clay	0.00	61.000	600.000	--	default	--
		8.000	61.000	600.000	--	default	--
2	Sand (Reese, et al.)	8.000	60.000	--	32.000	--	default
		18.000	60.000	--	32.000	--	default
3	Cemented Silt	18.000	53.000	1.000	29.000	default	default
		22.000	53.000	1.000	29.000	default	default
4	Sand (Reese, et al.)	22.000	53.000	--	33.000	--	default
		24.000	53.000	--	33.000	--	default
5	Soft Clay	24.000	50.000	900.000	--	default	--
		43.000	50.000	900.000	--	default	--
6	Sand (Reese, et al.)	43.000	70.000	--	36.000	--	default
		52.000	70.000	--	36.000	--	default
7	Stiff Clay w/o Free Water	52.000	60.000	1500.000	--	default	--
		100.000	60.000	1500.000	--	default	--

Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 4

Load No.	Load Type	Condition 1	Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	5	y = 1.00000 in	S = 0.0000 in/in	100000.	No
2	5	y = 0.37500 in	S = 0.0000 in/in	100000.	No
3	4	y = 1.00000 in	M = 0.0000 in-lbs	100000.	No
4	4	y = 0.37500 in	M = 0.0000 in-lbs	100000.	No

V = perpendicular shear force applied to pile head
M = bending moment applied to pile head
y = lateral deflection relative to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applie to pile head
Axial thrust is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	40.00000000	ft
Shaft Diameter	=	24.00000000	in
Concrete Cover Thickness	=	3.00000000	in
Number of Reinforcing Bars	=	10	bars
Yield Stress of Reinforcing Bars	=	60.00000000	ksi
Modulus of Elasticity of Reinforcing Bars	=	29000.	ksi
Gross Area of Shaft	=	452.38934212	sq. in.
Total Area of Reinforcing Steel	=	7.90000000	sq. in.
Area Ratio of Steel Reinforcement	=	1.75	percent
Edge-to-Edge Bar Spacing	=	4.25328890	in
Maximum Concrete Aggregate Size	=	0.75000000	in
Ratio of Bar Spacing to Aggregate Size	=	5.67	
Offset of Rebar Cage Center from Center of Pile	=	0.0000000	in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As	=	1985.264	kips
Tensile Load for Cracking of Concrete	=	-211.299	kips
Nominal Axial Tensile Capacity	=	-474.000	kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.00000	0.79000	8.50000	0.00000
2	1.00000	0.79000	6.87664	4.99617
3	1.00000	0.79000	2.62664	8.08398
4	1.00000	0.79000	-2.62664	8.08398
5	1.00000	0.79000	-6.87664	4.99617
6	1.00000	0.79000	-8.50000	0.00000
7	1.00000	0.79000	-6.87664	-4.99617
8	1.00000	0.79000	-2.62664	-8.08398
9	1.00000	0.79000	2.62664	-8.08398
10	1.00000	0.79000	6.87664	-4.99617

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 4.25329 inches between Bars 1 and 2

Spacing to aggregate size ratio = 5.67105

Concrete Properties:

Compressive Strength of Concrete	=	4.00000000	ksi
Modulus of Elasticity of Concrete	=	3604.99653259	ksi
Modulus of Rupture of Concrete	=	-0.47434164	ksi
Compression Strain at Peak Stress	=	0.00188627	
Tensile Strain at Fracture of Concrete	=	-0.00011537	
Maximum Coarse Aggregate Size	=	0.75000000	in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force kips
1	100.000

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318-08 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than than 0.003. See ACI 318-08, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 100.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in	Max Concrete Stress ksi	Max Steel Stress ksi	Run Msg
0.000001250	93.0342924	74427434.	50.2821135	0.0000629	0.0000329	0.2615127	1.8183766	
0.000002500	186.0786004	74431440.	31.1574496	0.0000779	0.0000179	0.3223192	2.2502151	
0.000003750	279.1155389	74430810.	24.7898170	0.0000930	0.000002962	0.3827370	2.6828426	
0.000005000	372.1220434	74424409.	21.6112740	0.0001081	-0.0000119	0.4427597	3.1162347	
0.000006250	464.9342905	74389486.	19.7071594	0.0001232	-0.0000268	0.5023550	3.5501727	
0.000007500	557.4108400	74321445.	18.4392426	0.0001383	-0.0000417	0.5614908	3.9844353	
0.000008750	649.4903076	74227464.	17.5344010	0.0001534	-0.0000566	0.6201502	4.4189043	
0.0000100	741.1441906	74114419.	16.8562565	0.0001686	-0.0000714	0.6783238	4.8535144	
0.0000113	832.3589670	73987464.	16.3291337	0.0001837	-0.0000863	0.7360062	5.2882299	
0.0000125	923.1273405	73850187.	15.9076658	0.0001988	-0.0001012	0.7931944	5.7230289	
0.0000138	923.1273405	67136534.	14.1079327	0.0001940	-0.0001360	0.7741343	5.5776882	C
0.0000150	923.1273405	61541823.	13.6585127	0.0002049	-0.0001551	0.8149240	5.8892529	C
0.0000163	923.1273405	56807836.	13.2663371	0.0002156	-0.0001744	0.8547271	6.1952113	C
0.0000175	923.1273405	52750134.	12.9202415	0.0002261	-0.0001939	0.8936295	6.4961226	C
0.0000188	923.1273405	49233458.	12.6129672	0.0002365	-0.0002135	0.9317796	6.7930509	C
0.0000200	923.1273405	46156367.	12.3372586	0.0002467	-0.0002333	0.9691888	7.0860100	C
0.0000213	923.1273405	43441287.	12.0890095	0.0002569	-0.0002531	1.0059805	7.3759022	C
0.0000225	923.1273405	41027882.	11.8645077	0.0002670	-0.0002730	1.0422328	-7.8401087	C
0.0000238	926.1096066	38994089.	11.6601291	0.0002769	-0.0002931	1.0779622	-8.4164360	C
0.0000250	952.3180143	38092721.	11.4729669	0.0002868	-0.0003132	1.1131843	-8.9950990	C
0.0000263	978.2323416	37265994.	11.3012721	0.0002967	-0.0003333	1.1479712	-9.5755565	C
0.0000275	1003.9194873	36506163.	11.1435232	0.0003064	-0.0003536	1.1823844	-10.1573402	C
0.0000288	1029.2683489	35800638.	10.9966623	0.0003162	-0.0003738	1.2163011	-10.7414827	C
0.0000300	1054.4501866	35148340.	10.8608655	0.0003258	-0.0003942	1.2498884	-11.3266469	C
0.0000313	1079.4287053	34541719.	10.7344327	0.0003355	-0.0004145	1.2831081	-11.9131703	C
0.0000325	1104.2275482	33976232.	10.6163842	0.0003450	-0.0004350	1.3159745	-12.5009578	C
0.0000338	1128.8708615	33448026.	10.5060216	0.0003546	-0.0004554	1.3485175	-13.0897813	C
0.0000350	1153.3963511	32954181.	10.4028071	0.0003641	-0.0004759	1.3807737	-13.6793507	C
0.0000363	1177.7380925	32489327.	10.3053195	0.0003736	-0.0004964	1.4126606	-14.2703828	C
0.0000375	1202.0509195	32054691.	10.2145135	0.0003830	-0.0005170	1.4443753	-14.8612165	C
0.0000388	1226.1583949	31642797.	10.1278861	0.0003925	-0.0005375	1.4756751	-15.4539379	C
0.0000400	1250.2024009	31255060.	10.0464828	0.0004019	-0.0005581	1.5067566	-16.0468799	C
0.0000413	1274.2181151	30890136.	9.9701770	0.0004113	-0.0005787	1.5376681	-16.6396256	C
0.0000425	1298.0487497	30542324.	9.8968516	0.0004206	-0.0005994	1.5681748	-17.2342303	C
0.0000438	1321.8266003	30213179.	9.8276095	0.0004300	-0.0006200	1.5984760	-17.8289703	C

0.0000450	1345.5767666	29901706.	9.7623634	0.0004393	-0.0006407	1.6286091	-18.4235156 C
0.0000463	1369.2502325	29605410.	9.7002549	0.0004486	-0.0006614	1.6584936	-19.0185830 C
0.0000475	1392.7915508	29321927.	9.6404400	0.0004579	-0.0006821	1.6880393	-19.6149937 C
0.0000488	1416.3057673	29052426.	9.5838298	0.0004672	-0.0007028	1.7174188	-20.2112104 C
0.0000513	1463.2506992	28551233.	9.4792668	0.0004858	-0.0007442	1.7756746	-21.4030896 C
0.0000538	1509.8355047	28089963.	9.3822416	0.0005043	-0.0007857	1.8328101	-22.5983808 C
0.0000563	1556.3133455	27667793.	9.2943198	0.0005228	-0.0008272	1.8892852	-23.7928906 C
0.0000588	1602.6163247	27278576.	9.2135843	0.0005413	-0.0008687	1.9449617	-24.9879056 C
0.0000613	1648.6771994	26917179.	9.1384144	0.0005597	-0.0009103	1.9997058	-26.1847413 C
0.0000638	1694.6320212	26582463.	9.0695691	0.0005782	-0.0009518	2.0537918	-27.3807840 C
0.0000663	1740.4800664	26271397.	9.0063352	0.0005967	-0.0009933	2.1072168	-28.5760283 C
0.0000688	1786.0822140	25979378.	8.9465164	0.0006151	-0.0010349	2.1596642	-29.7736328 C
0.0000713	1831.5626364	25706142.	8.8911078	0.0006335	-0.0010765	2.2114176	-30.9707984 C
0.0000738	1876.9369503	25449993.	8.8398370	0.0006519	-0.0011181	2.2625115	-32.1671485 C
0.0000763	1922.2044270	25209238.	8.7922997	0.0006704	-0.0011596	2.3129430	-33.3626772 C
0.0000788	1967.3336564	24982015.	8.7477676	0.0006889	-0.0012011	2.3626290	-34.5582356 C
0.0000813	2012.2756720	24766470.	8.7053756	0.0007073	-0.0012427	2.4114420	-35.7552085 C
0.0000838	2057.1111942	24562522.	8.6658623	0.0007258	-0.0012842	2.4595931	-36.9513366 C
0.0000863	2101.8394635	24369153.	8.6289800	0.0007442	-0.0013258	2.5070791	-38.1466135 C
0.0000888	2146.4597105	24185462.	8.5945089	0.0007628	-0.0013672	2.5538972	-39.3410325 C
0.0000913	2190.9711554	24010643.	8.5622533	0.0007813	-0.0014087	2.6000442	-40.5345870 C
0.0000938	2235.3730085	23843979.	8.5320385	0.0007999	-0.0014501	2.6455171	-41.7272701 C
0.0000963	2279.6238246	23684403.	8.5031686	0.0008184	-0.0014916	2.6901867	-42.9205803 C
0.0000988	2323.7361400	23531505.	8.4756966	0.0008370	-0.0015330	2.7340923	-44.1140735 C
0.0001013	2367.7386891	23385073.	8.4498892	0.0008556	-0.0015744	2.7773226	-45.3066626 C
0.0001038	2411.6306461	23244633.	8.4256284	0.0008742	-0.0016158	2.8198742	-46.4983401 C
0.0001063	2455.4111718	23109752.	8.4028078	0.0008928	-0.0016572	2.8617439	-47.6890983 C
0.0001088	2499.0794153	22980041.	8.3813303	0.0009115	-0.0016985	2.9029284	-48.8789292 C
0.0001113	2542.6345132	22855142.	8.3611080	0.0009302	-0.0017398	2.9434244	-50.0678249 C
0.0001138	2586.0755897	22734730.	8.3420606	0.0009489	-0.0017811	2.9832284	-51.2557774 C
0.0001163	2629.4017565	22618510.	8.3241146	0.0009677	-0.0018223	3.0223369	-52.4427783 C
0.0001188	2672.6121121	22506207.	8.3072030	0.0009865	-0.0018635	3.0607466	-53.6288192 C
0.0001213	2715.7057415	22397573.	8.2912642	0.0010053	-0.0019047	3.0984538	-54.8138918 C
0.0001238	2758.6736012	22292312.	8.2761097	0.0010242	-0.0019458	3.1354227	-55.9984609 C
0.0001263	2801.5003480	22190102.	8.2614519	0.0010430	-0.0019870	3.1715925	-57.1834090 C
0.0001288	2844.2092712	22090946.	8.2476356	0.0010619	-0.0020281	3.2070556	-58.3673404 C
0.0001313	2886.7993907	21994662.	8.2346152	0.0010808	-0.0020692	3.2418083	-59.5502454 C
0.0001338	2929.2697109	21901082.	8.2223488	0.0010997	-0.0021103	3.2758468	-60.0000000 CY
0.0001363	2971.6192200	21810049.	8.2107973	0.0011187	-0.0021513	3.3091672	-60.0000000 CY
0.0001388	3013.8468897	21721419.	8.1999246	0.0011377	-0.0021923	3.3417655	-60.0000000 CY
0.0001413	3055.9516750	21635056.	8.1896973	0.0011568	-0.0022332	3.3736378	-60.0000000 CY
0.0001438	3097.9325136	21550835.	8.1800841	0.0011759	-0.0022741	3.4047799	-60.0000000 CY
0.0001463	3139.7883255	21468638.	8.1710562	0.0011950	-0.0023150	3.4351878	-60.0000000 CY
0.0001488	3181.5180125	21388356.	8.1625865	0.0012142	-0.0023558	3.4648572	-60.0000000 CY
0.0001588	3347.1528865	21084428.	8.1338124	0.0012912	-0.0025188	3.5760651	-60.0000000 CY
0.0001688	3508.7962257	20792867.	8.1108256	0.0013687	-0.0026813	3.6748196	-60.0000000 CY
0.0001788	3626.2139127	20286511.	8.0630701	0.0014413	-0.0028487	3.7553998	-60.0000000 CY
0.0001888	3712.2338990	19667464.	8.0002072	0.0015100	-0.0030200	3.8211288	-60.0000000 CY
0.0001988	3796.4923387	19101848.	7.9450367	0.0015791	-0.0031909	3.8767958	-60.0000000 CY
0.0002088	3879.4575412	18584228.	7.8976480	0.0016486	-0.0033614	3.9224238	-60.0000000 CY
0.0002188	3959.6416590	18101219.	7.8558411	0.0017185	-0.0035315	3.9576645	-60.0000000 CY
0.0002288	4020.2218135	17574740.	7.8047857	0.0017853	-0.0037047	3.9814723	-60.0000000 CY
0.0002388	4054.9725904	16984178.	7.7366314	0.0018471	-0.0038829	3.9948321	-60.0000000 CY
0.0002488	4083.4420717	16415848.	7.6706847	0.0019081	-0.0040619	3.9999274	-60.0000000 CY
0.0002588	4111.1124074	15888357.	7.6115753	0.0019695	-0.0042405	3.9998892	-60.0000000 CY
0.0002688	4137.9319238	15396956.	7.5585432	0.0020314	-0.0044186	3.9997063	-60.0000000 CY
0.0002788	4163.5277841	14936423.	7.5083954	0.0020930	-0.0045970	3.9991525	-60.0000000 CY
0.0002888	4188.3784096	14505207.	7.4633321	0.0021550	-0.0047750	3.9979132	60.0000000 CY
0.0002988	4212.5334330	14100530.	7.4227865	0.0022176	-0.0049524	3.9972922	60.0000000 CY
0.0003088	4235.9935867	13719817.	7.3863402	0.0022805	-0.0051295	3.9998015	60.0000000 CY
0.0003188	4258.8027785	13360950.	7.3535640	0.0023439	-0.0053061	3.9982395	60.0000000 CY
0.0003288	4281.0560219	13022224.	7.3239880	0.0024078	-0.0054822	3.9972911	60.0000000 CY
0.0003388	4302.5574243	12701277.	7.2960688	0.0024715	-0.0056585	3.9993264	60.0000000 CY
0.0003488	4323.5431335	12397256.	7.2706510	0.0025356	-0.0058344	3.9956671	60.0000000 CY

0.0003588	4344.0620661	12108884.	7.2477129	0.0026001	-0.0060099	3.9996356	60.0000000 CY
0.0003688	4364.1132086	11834883.	7.2270759	0.0026650	-0.0061850	3.9956734	60.0000000 CY
0.0003788	4383.7683919	11574306.	7.2084428	0.0027302	-0.0063598	3.9995671	60.0000000 CY
0.0003888	4402.9542504	11325927.	7.1916415	0.0027958	-0.0065342	3.9944645	60.0000000 CY
0.0003988	4421.7315499	11088982.	7.1764690	0.0028616	-0.0067084	3.9990214	60.0000000 CY
0.0004088	4437.1444935	10855399.	7.1587839	0.0029262	-0.0068838	3.9969174	60.0000000 CY
0.0004188	4450.8999507	10629015.	7.1409558	0.0029903	-0.0070597	3.9969898	60.0000000 CY
0.0004288	4461.2528302	10405254.	7.1201345	0.0030528	-0.0072372	3.9996803	60.0000000 CYT
0.0004388	4469.1945972	10186199.	7.0978203	0.0031142	-0.0074158	3.9946865	60.0000000 CYT
0.0004488	4474.7041679	9971486.	7.0735183	0.0031742	-0.0075958	3.9961816	60.0000000 CYT
0.0004588	4477.9458132	9761190.	7.0462420	0.0032325	-0.0077775	3.9989843	60.0000000 CYT
0.0004688	4480.0546222	9557450.	7.0188382	0.0032901	-0.0079599	3.9999933	60.0000000 CYT
0.0004788	4481.9758503	9361829.	6.9930121	0.0033479	-0.0081421	3.9920416	60.0000000 CYT
0.0004888	4483.8259405	9174068.	6.9684581	0.0034058	-0.0083242	3.9953971	60.0000000 CYT
0.0004988	4485.6309465	8993746.	6.9451054	0.0034639	-0.0085061	3.9983466	60.0000000 CYT
0.0005088	4487.3900102	8820423.	6.9228863	0.0035220	-0.0086880	3.9998214	60.0000000 CYT
0.0005188	4489.0616846	8653613.	6.9018645	0.0035803	-0.0088697	3.9958234	60.0000000 CYT
0.0005288	4490.6580929	8492970.	6.8819354	0.0036388	-0.0090512	3.9913932	60.0000000 CYT
0.0005388	4492.2208451	8338229.	6.8629133	0.0036974	-0.0092326	3.9954345	60.0000000 CYT
0.0005488	4493.7493595	8189065.	6.8447507	0.0037561	-0.0094139	3.9982135	60.0000000 CYT
0.0006088	4493.7493595	7381929.	6.8498016	0.0041698	-0.0104402	3.9940443	60.0000000 CYT

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	100.000	4452.511	0.00300000

Note note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318-08, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction
factor to compute ultimate moment capacity according to ACI 318-08, Section
9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding
bending stiffnesses computed for common resistance factor values used for
reinforced concrete sections.

Axial Load No.	Resistance Factor for Moment	Nominal Moment Capacity in-kip	Ultimate (Factored) Axial Thrust kips	Ultimate (Factored) Moment Capacity in-kip	Bending Stiffness at Ult. Mom. Cap. kip-in^2
1	0.65	4452.511	65.000	2894.132	21978504.693
1	0.70	4452.511	70.000	3116.758	21513865.561
1	0.75	4452.511	75.000	3339.383	21098684.007

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for Lateral Loading for Load Case Number 1

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 1.000000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	-4147130.	60423.	0.000	0.000	1.522E+10	-177.8447	426.8272	0.000
0.400	0.9969	-3858929.	59530.	-0.001263	0.000	1.522E+10	-185.9886	895.5572	0.000
0.800	0.9879	-3574429.	58619.	-0.002290	0.000	2.050E+10	-193.7335	941.3326	0.000
1.200	0.9749	-3293991.	57671.	-0.003082	0.000	2.118E+10	-201.1487	990.3948	0.000
1.600	0.9583	-3017829.	56689.	-0.003788	0.000	2.171E+10	-208.2231	1042.9687	0.000
2.000	0.9385	-2746145.	55673.	-0.004417	0.000	2.232E+10	-214.9447	1099.3337	0.000
2.400	0.9159	-2479129.	54626.	-0.004971	0.000	2.304E+10	-221.3022	1159.8025	0.000
2.800	0.8908	-2216964.	53549.	-0.005451	0.000	2.391E+10	-227.2857	1224.7231	0.000
3.200	0.8636	-1959822.	52445.	-0.005862	0.000	2.502E+10	-232.8864	1294.4803	0.000
3.600	0.8345	-1707866.	51315.	-0.006205	0.000	2.649E+10	-238.0972	1369.4978	0.000
4.000	0.8040	-1461246.	50160.	-0.006482	0.000	2.857E+10	-242.9122	1450.2403	0.000
4.400	0.7723	-1220106.	48984.	-0.006697	0.000	3.175E+10	-247.3273	1537.2160	0.000
4.800	0.7397	-984575.	47787.	-0.006853	0.000	3.708E+10	-251.3399	1630.9805	0.000
5.200	0.7065	-754774.	46572.	-0.006941	0.000	7.409E+10	-254.9489	1732.1462	0.000
5.600	0.6731	-530824.	45340.	-0.006983	0.000	7.434E+10	-258.1699	1841.1648	0.000
6.000	0.6395	-312805.	44094.	-0.007010	0.000	7.443E+10	-260.9847	1959.0364	0.000
6.400	0.6058	-100790.	42836.	-0.007023	0.000	7.443E+10	-263.3734	2086.9396	0.000
6.800	0.5720	105160.	41567.	-0.007023	0.000	7.443E+10	-265.3141	2226.2737	0.000
7.200	0.5383	304994.	40290.	-0.007010	0.000	7.443E+10	-266.7828	2378.7143	0.000
7.600	0.5047	498672.	39007.	-0.006984	0.000	7.436E+10	-267.7522	2546.2877	0.000
8.000	0.4713	686166.	36986.	-0.006946	0.000	7.418E+10	-574.2392	5848.4899	0.000
8.400	0.4381	860407.	34186.	-0.006896	0.000	7.394E+10	-592.4688	6491.9374	0.000
8.800	0.4051	1020972.	31307.	-0.006800	0.000	3.602E+10	-607.2048	7194.8434	0.000
9.200	0.3728	1167481.	28366.	-0.006646	0.000	3.268E+10	-618.0904	7958.6521	0.000
9.600	0.3413	1299667.	25385.	-0.006458	0.000	3.052E+10	-624.2529	8779.6297	0.000
10.000	0.3108	1417372.	22384.	-0.006239	0.000	2.904E+10	-625.8507	9666.1633	0.000
10.400	0.2814	1520545.	19366.	-0.005991	0.000	2.799E+10	-631.8288	10777.	0.000
10.800	0.2533	1609036.	16328.	-0.005719	0.000	2.723E+10	-634.0240	12016.	0.000
11.200	0.2265	1682782.	13288.	-0.005426	0.000	2.667E+10	-632.3527	13401.	0.000
11.600	0.2012	1741814.	10267.	-0.005115	0.000	2.626E+10	-626.7713	14954.	0.000
12.000	0.1774	1786252.	7280.8747	-0.004791	0.000	2.598E+10	-617.2775	16703.	0.000
12.400	0.1552	1816310.	4350.0229	-0.004457	0.000	2.580E+10	-603.9108	18679.	0.000
12.800	0.1346	1832291.	1492.4307	-0.004117	0.000	2.570E+10	-586.7527	20923.	0.000
13.200	0.1157	1834589.	-1273.9988	-0.003774	0.000	2.569E+10	-565.9263	23485.	0.000
13.600	0.0984	1823684.	-3932.0491	-0.003433	0.000	2.575E+10	-541.5947	26426.	0.000
14.000	0.0827	1800137.	-6465.3773	-0.003096	0.000	2.589E+10	-513.9588	29827.	0.000
14.400	0.0687	1764588.	-8858.6864	-0.002767	0.000	2.611E+10	-483.2534	33788.	0.000
14.800	0.0561	1717750.	-11098.	-0.002449	0.000	2.642E+10	-449.7412	38448.	0.000
15.200	0.0451	1660400.	-13069.	-0.002144	0.000	2.683E+10	-371.4283	39494.	0.000
15.600	0.0356	1594349.	-14681.	-0.001856	0.000	2.735E+10	-300.2963	40532.	0.000
16.000	0.0273	1521245.	-15970.	-0.001585	0.000	2.798E+10	-236.6544	41571.	0.000
16.400	0.0203	1442564.	-16971.	-0.001335	0.000	2.877E+10	-180.5684	42609.	0.000
16.800	0.0145	1359607.	-17721.	-0.001105	0.000	2.972E+10	-131.9676	43647.	0.000
17.200	0.009738	1273503.	-18255.	-0.000896	0.000	3.090E+10	-90.6565	44685.	0.000
17.600	0.005913	1185217.	-18608.	-0.000709	0.000	3.235E+10	-56.3249	45723.	0.000
18.000	0.002932	1095548.	-19223.	-0.000544	0.000	3.417E+10	-200.0485	327522.	0.000
18.400	0.000689	1001196.	-19804.	-0.000402	0.000	3.658E+10	-41.8593	291482.	0.000
18.800	-0.000923	905816.	-19767.	-0.000306	0.000	7.387E+10	57.2236	297703.	0.000
19.200	-0.002252	811727.	-19287.	-0.000251	0.000	7.401E+10	142.5971	303924.	0.000
19.600	-0.003329	720898.	-18429.	-0.000201	0.000	7.414E+10	215.0896	310145.	0.000
20.000	-0.004182	635002.	-17251.	-0.000157	0.000	7.424E+10	275.6070	316365.	0.000
20.400	-0.004837	555436.	-15810.	-0.000119	0.000	7.432E+10	325.0905	322586.	0.000

20.800	-0.005321	483343.	-14155.	-8.513E-05	0.000	7.437E+10	364.4787	328807.	0.000
21.200	-0.005654	419633.	-12333.	-5.599E-05	0.000	7.440E+10	394.6690	335028.	0.000
21.600	-0.005858	365003.	-10386.	-3.069E-05	0.000	7.442E+10	416.4863	341249.	0.000
22.000	-0.005949	319958.	-9243.7339	-8.601E-06	0.000	7.443E+10	59.4244	47946.	0.000
22.400	-0.005941	276272.	-8894.1156	1.062E-05	0.000	7.443E+10	86.2499	69687.	0.000
22.800	-0.005847	234564.	-8479.7669	2.710E-05	0.000	7.443E+10	86.3954	70924.	0.000
23.200	-0.005681	194840.	-8067.4554	4.094E-05	0.000	7.443E+10	85.4011	72161.	0.000
23.600	-0.005454	157077.	-7662.3359	5.229E-05	0.000	7.443E+10	83.3987	73397.	0.000
24.000	-0.005179	121231.	-7129.8661	6.126E-05	0.000	7.443E+10	138.4637	128337.	0.000
24.400	-0.004866	88572.	-6472.0706	6.803E-05	0.000	7.443E+10	135.6178	133780.	0.000
24.800	-0.004526	59034.	-5828.8753	7.279E-05	0.000	7.443E+10	132.3803	140405.	0.000
25.200	-0.004167	32545.	-5202.0710	7.574E-05	0.000	7.443E+10	128.7882	148347.	0.000
25.600	-0.003799	9021.4010	-4593.2833	7.708E-05	0.000	7.443E+10	124.8734	157795.	0.000
26.000	-0.003427	-11625.	-4003.9945	7.700E-05	0.000	7.443E+10	120.6636	168999.	0.000
26.400	-0.003059	-29491.	-3435.5624	7.567E-05	0.000	7.443E+10	116.1831	182286.	0.000
26.800	-0.002701	-44679.	-2889.2350	7.328E-05	0.000	7.443E+10	111.4533	198088.	0.000
27.200	-0.002356	-57298.	-2366.1650	6.999E-05	0.000	7.443E+10	106.4925	216975.	0.000
27.600	-0.002029	-67461.	-1867.4224	6.597E-05	0.000	7.443E+10	101.3169	239712.	0.000
28.000	-0.001723	-75288.	-1394.0068	6.137E-05	0.000	7.443E+10	95.9396	267340.	0.000
28.400	-0.001440	-80903.	-946.8616	5.633E-05	0.000	7.443E+10	90.3709	301308.	0.000
28.800	-0.001182	-84432.	-526.8895	5.100E-05	0.000	7.443E+10	84.6175	343684.	0.000
29.200	-0.000950	-86010.	-134.9734	4.550E-05	0.000	7.443E+10	78.6809	397515.	0.000
29.600	-0.000745	-85772.	227.9940	3.996E-05	0.000	7.443E+10	72.5555	467488.	0.000
30.000	-0.000566	-83859.	561.0641	3.449E-05	0.000	7.443E+10	66.2237	561190.	0.000
30.400	-0.000414	-80419.	863.1540	2.920E-05	0.000	7.443E+10	59.6471	691825.	0.000
30.800	-0.000286	-75601.	1132.8990	2.416E-05	0.000	7.443E+10	52.7467	884795.	0.000
31.200	-0.000182	-69566.	1368.3398	1.948E-05	0.000	7.443E+10	45.3536	1197048.	0.000
31.600	-9.911E-05	-62484.	1566.1126	1.523E-05	0.000	7.443E+10	37.0517	1794477.	0.000
32.000	-3.570E-05	-54546.	1718.3457	1.145E-05	0.000	7.443E+10	26.3787	3546894.	0.000
32.400	1.083E-05	-45999.	1739.2856	8.209E-06	0.000	7.443E+10	-17.6537	7826675.	0.000
32.800	4.311E-05	-37857.	1629.6053	5.505E-06	0.000	7.443E+10	-28.0464	3122607.	0.000
33.200	6.368E-05	-30360.	1485.6117	3.306E-06	0.000	7.443E+10	-31.9509	2408405.	0.000
33.600	7.485E-05	-23598.	1327.9877	1.566E-06	0.000	7.443E+10	-33.7258	2162865.	0.000
34.000	7.871E-05	-17613.	1164.7176	2.369E-07	0.000	7.443E+10	-34.3034	2091940.	0.000
34.400	7.712E-05	-12417.	1000.5961	-7.315E-07	0.000	7.443E+10	-34.0805	2121171.	0.000
34.800	7.169E-05	-8006.2120	838.9445	-1.390E-06	0.000	7.443E+10	-33.2743	2227951.	0.000
35.200	6.378E-05	-4361.8078	682.2317	-1.789E-06	0.000	7.443E+10	-32.0226	2410119.	0.000
35.600	5.451E-05	-1455.0699	532.3666	-1.976E-06	0.000	7.443E+10	-30.4212	2678576.	0.000
36.000	4.480E-05	750.8093	390.8576	-1.999E-06	0.000	7.443E+10	-28.5409	3057786.	0.000
36.400	3.532E-05	2299.0820	258.9142	-1.901E-06	0.000	7.443E+10	-26.4355	3592305.	0.000
36.800	2.655E-05	3238.2103	137.5274	-1.722E-06	0.000	7.443E+10	-24.1424	4363933.	0.000
37.200	1.879E-05	3620.9982	27.5602	-1.501E-06	0.000	7.443E+10	-21.6773	5537796.	0.000
37.600	1.214E-05	3504.2295	-70.0977	-1.271E-06	0.000	7.443E+10	-19.0135	7514873.	0.000
38.000	6.585E-06	2949.2803	-131.5336	-1.063E-06	0.000	7.443E+10	-6.5847	4800000.	0.000
38.400	1.938E-06	2242.5276	-151.9878	-8.958E-07	0.000	7.443E+10	-1.9379	4800000.	0.000
38.800	-2.015E-06	1491.0574	-151.8031	-7.754E-07	0.000	7.443E+10	2.0148	4800000.	0.000
39.200	-5.506E-06	785.9624	-133.7534	-7.020E-07	0.000	7.443E+10	5.5059	4800000.	0.000
39.600	-8.754E-06	207.6991	-81.9381	-6.699E-07	0.000	7.443E+10	16.0838	8819386.	0.000
40.000	-1.194E-05	0.000	0.000	-6.632E-07	0.000	7.443E+10	18.0571	3630418.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 1:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0000455 radians
Maximum bending moment = -4147130. inch-lbs
Maximum shear force = 60423. lbs
Depth of maximum bending moment = 0.000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 30

Number of zero deflection points = 3

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 2

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 0.375000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	-2296099.	36299.	0.000	0.000	2.363E+10	-128.2482	820.7885	0.000
0.400	0.3739	-2123299.	35655.	-0.000449	0.000	2.363E+10	-134.1279	1721.9777	0.000
0.800	0.3707	-1953381.	34998.	-0.000852	0.000	2.505E+10	-139.7356	1809.4103	0.000
1.200	0.3657	-1786503.	34314.	-0.001204	0.000	2.598E+10	-145.0695	1904.0927	0.000
1.600	0.3591	-1622810.	33606.	-0.001513	0.000	2.712E+10	-150.1227	2006.4722	0.000
2.000	0.3512	-1462437.	32874.	-0.001779	0.000	2.856E+10	-154.8900	2117.0551	0.000
2.400	0.3421	-1305515.	32119.	-0.002005	0.000	3.044E+10	-159.3678	2236.4000	0.000
2.800	0.3319	-1152166.	31344.	-0.002192	0.000	3.298E+10	-163.5544	2365.1132	0.000
3.200	0.3210	-1002504.	30550.	-0.002341	0.000	3.655E+10	-167.4501	2503.8430	0.000
3.600	0.3095	-856638.	29738.	-0.002435	0.000	7.395E+10	-171.0568	2653.2808	0.000
4.000	0.2976	-714686.	28908.	-0.002486	0.000	7.414E+10	-174.4178	2812.8745	0.000
4.400	0.2856	-576730.	28064.	-0.002528	0.000	7.430E+10	-177.5242	2983.7125	0.000
4.800	0.2734	-442847.	27205.	-0.002561	0.000	7.440E+10	-180.3666	3167.0328	0.000
5.200	0.2610	-313105.	26333.	-0.002585	0.000	7.443E+10	-182.9354	3364.2517	0.000
5.600	0.2485	-187569.	25449.	-0.002601	0.000	7.443E+10	-185.2206	3576.9971	0.000
6.000	0.2360	-66295.	24556.	-0.002609	0.000	7.443E+10	-187.2116	3807.1498	0.000
6.400	0.2235	50669.	23653.	-0.002610	0.000	7.443E+10	-188.8976	4056.8956	0.000
6.800	0.2110	163278.	22743.	-0.002603	0.000	7.443E+10	-190.2666	4328.7911	0.000
7.200	0.1985	271499.	21827.	-0.002589	0.000	7.443E+10	-191.3063	4625.8477	0.000
7.600	0.1861	375304.	20907.	-0.002568	0.000	7.442E+10	-192.0031	4951.6399	0.000
8.000	0.1739	474673.	19660.	-0.002541	0.000	7.438E+10	-327.7882	9050.0296	0.000
8.400	0.1617	566475.	18067.	-0.002507	0.000	7.431E+10	-335.9465	9970.4802	0.000
8.800	0.1498	650520.	16440.	-0.002468	0.000	7.423E+10	-341.6313	10948.	0.000
9.200	0.1380	726673.	14793.	-0.002423	0.000	7.413E+10	-344.6506	11984.	0.000
9.600	0.1265	794863.	13139.	-0.002374	0.000	7.404E+10	-344.8292	13082.	0.000
10.000	0.1153	855083.	11489.	-0.002320	0.000	7.395E+10	-342.3988	14260.	0.000
10.400	0.1042	907388.	9838.4649	-0.002263	0.000	7.387E+10	-345.4507	15906.	0.000
10.800	0.0935	951705.	8179.0430	-0.002174	0.000	3.811E+10	-345.9751	17757.	0.000
11.200	0.0834	987993.	6522.1265	-0.002050	0.000	3.697E+10	-344.4068	19828.	0.000
11.600	0.0738	1016285.	4877.6955	-0.001918	0.000	3.616E+10	-340.7728	22150.	0.000
12.000	0.0650	1036661.	3255.5163	-0.001781	0.000	3.560E+10	-335.1352	24763.	0.000
12.400	0.0567	1049248.	1664.9700	-0.001640	0.000	3.528E+10	-327.5924	27708.	0.000
12.800	0.0492	1054218.	114.8739	-0.001496	0.000	3.516E+10	-318.2809	31038.	0.000
13.200	0.0424	1051787.	-1376.0041	-0.001353	0.000	3.522E+10	-302.9182	34304.	0.000
13.600	0.0362	1042307.	-2743.3663	-0.001210	0.000	3.546E+10	-266.8160	35342.	0.000
14.000	0.0308	1026612.	-3943.3753	-0.001071	0.000	3.587E+10	-233.1878	36380.	0.000
14.400	0.0260	1005479.	-4988.6255	-0.000936	0.000	3.646E+10	-202.3331	37418.	0.000
14.800	0.0218	979620.	-5892.9952	-0.000807	0.000	3.722E+10	-174.4876	38456.	0.000
15.200	0.0182	949681.	-6671.3445	-0.000684	0.000	3.818E+10	-149.8246	39494.	0.000
15.600	0.0152	916232.	-7339.2196	-0.000595	0.000	7.386E+10	-128.4567	40532.	0.000
16.000	0.0125	879795.	-7907.3586	-0.000536	0.000	7.391E+10	-108.2679	41571.	0.000
16.400	0.0101	840836.	-8381.6197	-0.000480	0.000	7.397E+10	-89.3409	42609.	0.000
16.800	0.007890	799793.	-8768.2171	-0.000427	0.000	7.403E+10	-71.7413	43647.	0.000
17.200	0.005964	757072.	-9073.6403	-0.000377	0.000	7.409E+10	-55.5183	44685.	0.000
17.600	0.004273	713048.	-9304.5759	-0.000329	0.000	7.415E+10	-40.7049	45723.	0.000
18.000	0.002804	668064.	-9861.4954	-0.000284	0.000	7.420E+10	-191.3449	327522.	0.000

18.400	0.001543	618650.	-10546.	-0.000243	0.000	7.426E+10	-93.6837	291482.	0.000
18.800	0.000473	567059.	-10841.	-0.000205	0.000	7.431E+10	-29.3476	297703.	0.000
19.200	-0.000421	514775.	-10847.	-0.000170	0.000	7.435E+10	26.6285	303924.	0.000
19.600	-0.001155	463087.	-10604.	-0.000138	0.000	7.439E+10	74.6140	310145.	0.000
20.000	-0.001746	413105.	-10149.	-0.000110	0.000	7.441E+10	115.0493	316365.	0.000
20.400	-0.002208	365760.	-9516.8666	-8.464E-05	0.000	7.442E+10	148.4192	322586.	0.000
20.800	-0.002558	321824.	-8740.1025	-6.246E-05	0.000	7.443E+10	175.2325	328807.	0.000
21.200	-0.002808	281915.	-7849.1481	-4.300E-05	0.000	7.443E+10	195.9985	335028.	0.000
21.600	-0.002971	246514.	-6871.8515	-2.596E-05	0.000	7.443E+10	211.2084	341249.	0.000
22.000	-0.003057	215971.	-6291.6582	-1.105E-05	0.000	7.443E+10	30.5388	47946.	0.000
22.400	-0.003077	186124.	-6111.1558	1.920E-06	0.000	7.443E+10	44.6705	69687.	0.000
22.800	-0.003039	157302.	-5896.1826	1.299E-05	0.000	7.443E+10	44.9016	70924.	0.000
23.200	-0.002952	129509.	-5681.9042	2.224E-05	0.000	7.443E+10	44.3810	72161.	0.000
23.600	-0.002825	102734.	-5471.7030	2.973E-05	0.000	7.443E+10	43.2028	73397.	0.000
24.000	-0.002667	76952.	-5101.6649	3.552E-05	0.000	7.443E+10	110.9798	199758.	0.000
24.400	-0.002484	53724.	-4575.1789	3.974E-05	0.000	7.443E+10	108.3894	209422.	0.000
24.800	-0.002285	32992.	-4062.0510	4.253E-05	0.000	7.443E+10	105.4138	221414.	0.000
25.200	-0.002076	14687.	-3564.0348	4.407E-05	0.000	7.443E+10	102.0929	236056.	0.000
25.600	-0.001862	-1265.2065	-3082.7067	4.451E-05	0.000	7.443E+10	98.4605	253797.	0.000
26.000	-0.001649	-14949.	-2619.4920	4.398E-05	0.000	7.443E+10	94.5457	275254.	0.000
26.400	-0.001440	-26455.	-2175.6861	4.265E-05	0.000	7.443E+10	90.3735	301260.	0.000
26.800	-0.001239	-35877.	-1752.4725	4.064E-05	0.000	7.443E+10	85.9655	332953.	0.000
27.200	-0.001050	-43317.	-1350.9396	3.808E-05	0.000	7.443E+10	81.3399	371907.	0.000
27.600	-0.000874	-48882.	-972.0963	3.511E-05	0.000	7.443E+10	76.5115	420338.	0.000
28.000	-0.000713	-52683.	-616.8893	3.184E-05	0.000	7.443E+10	71.4914	481457.	0.000
28.400	-0.000568	-54835.	-286.2241	2.837E-05	0.000	7.443E+10	66.2858	560067.	0.000
28.800	-0.000440	-55458.	19.0074	2.481E-05	0.000	7.443E+10	60.8940	663670.	0.000
29.200	-0.000330	-54676.	297.8829	2.126E-05	0.000	7.443E+10	55.3042	804658.	0.000
29.600	-0.000236	-52619.	549.3768	1.780E-05	0.000	7.443E+10	49.4849	1005119.	0.000
30.000	-0.000159	-49420.	772.2176	1.451E-05	0.000	7.443E+10	43.3654	1308974.	0.000
30.400	-9.702E-05	-45219.	964.5738	1.146E-05	0.000	7.443E+10	36.7830	1819781.	0.000
30.800	-4.902E-05	-40171.	1123.1764	8.705E-06	0.000	7.443E+10	29.3014	2869112.	0.000
31.200	-1.346E-05	-34445.	1239.2393	6.299E-06	0.000	7.443E+10	19.0581	6798502.	0.000
31.600	1.145E-05	-28280.	1241.7404	4.276E-06	0.000	7.443E+10	-18.0160	7554838.	0.000
32.000	2.759E-05	-22529.	1140.4808	2.638E-06	0.000	7.443E+10	-24.1755	4205280.	0.000
32.400	3.677E-05	-17334.	1018.6027	1.352E-06	0.000	7.443E+10	-26.6071	3473486.	0.000
32.800	4.058E-05	-12751.	888.7512	3.821E-07	0.000	7.443E+10	-27.4977	3252880.	0.000
33.200	4.044E-05	-8802.2170	756.8344	-3.129E-07	0.000	7.443E+10	-27.4676	3260526.	0.000
33.600	3.757E-05	-5485.5522	626.5821	-7.736E-07	0.000	7.443E+10	-26.8042	3424343.	0.000
34.000	3.301E-05	-2786.2863	500.6367	-1.040E-06	0.000	7.443E+10	-25.6731	3733162.	0.000
34.400	2.758E-05	-678.4412	380.9831	-1.152E-06	0.000	7.443E+10	-24.1826	4208003.	0.000
34.800	2.195E-05	872.2575	269.1608	-1.146E-06	0.000	7.443E+10	-22.4100	4900666.	0.000
35.200	1.658E-05	1906.6027	166.3874	-1.056E-06	0.000	7.443E+10	-20.4123	5907801.	0.000
35.600	1.181E-05	2470.5904	73.6479	-9.151E-07	0.000	7.443E+10	-18.2292	7409077.	0.000
36.000	7.800E-06	2614.5013	-8.2061	-7.511E-07	0.000	7.443E+10	-15.8766	9770427.	0.000
36.400	4.599E-06	2392.5334	-57.3481	-5.897E-07	0.000	7.443E+10	-4.5992	4800000.	0.000
36.800	2.139E-06	2064.5258	-73.5202	-4.459E-07	0.000	7.443E+10	-2.1392	4800000.	0.000
37.200	3.183E-07	1687.1672	-79.4182	-3.250E-07	0.000	7.443E+10	-0.3183	4800000.	0.000
37.600	-9.803E-07	1302.4228	-77.8293	-2.285E-07	0.000	7.443E+10	0.9803	4800000.	0.000
38.000	-1.876E-06	940.2248	-70.9747	-1.562E-07	0.000	7.443E+10	1.8758	4800000.	0.000
38.400	-2.480E-06	621.2153	-60.5206	-1.059E-07	0.000	7.443E+10	2.4801	4800000.	0.000
38.800	-2.892E-06	359.3290	-47.6269	-7.426E-08	0.000	7.443E+10	2.8922	4800000.	0.000
39.200	-3.193E-06	164.0682	-33.0223	-5.738E-08	0.000	7.443E+10	3.1931	4800000.	0.000
39.600	-3.443E-06	42.3703	-17.0955	-5.073E-08	0.000	7.443E+10	3.4431	4800000.	0.000
40.000	-3.680E-06	0.000	0.000	-4.936E-08	0.000	7.443E+10	3.6800	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.3750000 inches

Computed slope at pile head = -0.0000176 radians
Maximum bending moment = -2296099. inch-lbs
Maximum shear force = 36299. lbs
Depth of maximum bending moment = 0.000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 37
Number of zero deflection points = 3

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 3

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 1.000000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	0.000	27408.	-0.008762	0.000	7.443E+10	-177.8447	426.8272	0.000
0.400	0.9579	133717.	26541.	-0.008758	0.000	7.443E+10	-183.5359	919.6520	0.000
0.800	0.9159	263200.	25647.	-0.008745	0.000	7.443E+10	-188.9105	990.0074	0.000
1.200	0.8740	388323.	24728.	-0.008724	0.000	7.442E+10	-193.9550	1065.2155	0.000
1.600	0.8322	508966.	23786.	-0.008695	0.000	7.435E+10	-198.6546	1145.8494	0.000
2.000	0.7905	625015.	22822.	-0.008659	0.000	7.425E+10	-202.9932	1232.5776	0.000
2.400	0.7490	736368.	21838.	-0.008615	0.000	7.412E+10	-206.9533	1326.1851	0.000
2.800	0.7078	842930.	20836.	-0.008563	0.000	7.397E+10	-210.5153	1427.6015	0.000
3.200	0.6668	944616.	19818.	-0.008477	0.000	3.835E+10	-213.6576	1537.9367	0.000
3.600	0.6264	1041322.	18786.	-0.008347	0.000	3.548E+10	-216.3870	1658.0490	0.000
4.000	0.5867	1132975.	17742.	-0.008195	0.000	3.336E+10	-218.6931	1789.1918	0.000
4.400	0.5478	1219511.	16688.	-0.008022	0.000	3.175E+10	-220.5655	1932.8158	0.000
4.800	0.5097	1300877.	15625.	-0.007827	0.000	3.050E+10	-221.9945	2090.6079	0.000
5.200	0.4726	1377030.	14558.	-0.007613	0.000	2.951E+10	-222.9705	2264.5397	0.000
5.600	0.4366	1447938.	13486.	-0.007380	0.000	2.871E+10	-223.4842	2456.9276	0.000
6.000	0.4018	1513580.	12413.	-0.007129	0.000	2.805E+10	-223.5268	2670.5058	0.000
6.400	0.3682	1573949.	11341.	-0.006863	0.000	2.752E+10	-223.0899	2908.5191	0.000
6.800	0.3359	1629045.	10273.	-0.006581	0.000	2.707E+10	-222.1655	3174.8379	0.000
7.200	0.3050	1678884.	9209.7315	-0.006285	0.000	2.669E+10	-220.7465	3474.1031	0.000
7.600	0.2755	1723492.	8154.7558	-0.005978	0.000	2.638E+10	-218.8267	3811.9080	0.000
8.000	0.2476	1762908.	6670.9716	-0.005659	0.000	2.613E+10	-399.4167	7742.8651	0.000
8.400	0.2212	1792966.	4749.0010	-0.005331	0.000	2.594E+10	-401.4043	8709.5021	0.000
8.800	0.1964	1813617.	2826.6265	-0.004997	0.000	2.581E+10	-399.5851	9764.3494	0.000
9.200	0.1733	1824899.	922.2519	-0.004658	0.000	2.575E+10	-393.9043	10913.	0.000
9.600	0.1517	1826942.	-945.6329	-0.004317	0.000	2.573E+10	-384.3810	12161.	0.000
10.000	0.1318	1819965.	-2759.7721	-0.003977	0.000	2.577E+10	-371.5103	13529.	0.000
10.400	0.1135	1804267.	-4524.6025	-0.003641	0.000	2.587E+10	-363.8357	15383.	0.000
10.800	0.0969	1780024.	-6246.0075	-0.003309	0.000	2.602E+10	-353.4164	17514.	0.000
11.200	0.0818	1747482.	-7910.9991	-0.002985	0.000	2.623E+10	-340.3301	19979.	0.000
11.600	0.0682	1706944.	-9507.0385	-0.002670	0.000	2.650E+10	-324.6863	22851.	0.000
12.000	0.0561	1658778.	-11022.	-0.002367	0.000	2.684E+10	-306.6242	26222.	0.000
12.400	0.0455	1603404.	-12445.	-0.002078	0.000	2.727E+10	-286.3102	30220.	0.000
12.800	0.0362	1541298.	-13734.	-0.001804	0.000	2.780E+10	-250.7299	33266.	0.000
13.200	0.0282	1473288.	-14819.	-0.001547	0.000	2.845E+10	-201.2370	34304.	0.000
13.600	0.0213	1400522.	-15679.	-0.001307	0.000	2.923E+10	-157.0599	35342.	0.000
14.000	0.0156	1324027.	-16340.	-0.001087	0.000	3.019E+10	-118.2957	36380.	0.000
14.400	0.0109	1244705.	-16827.	-0.000887	0.000	3.135E+10	-84.9337	37418.	0.000
14.800	0.007097	1163336.	-17168.	-0.000706	0.000	3.277E+10	-56.8632	38456.	0.000
15.200	0.004118	1080574.	-17385.	-0.000546	0.000	3.452E+10	-33.8806	39494.	0.000
15.600	0.001859	996959.	-17504.	-0.000405	0.000	3.673E+10	-15.6988	40532.	0.000

16.000	0.000226	912920.	-17547.	-0.000308	0.000	6.876E+10	-1.9562	41571.	0.000
16.400	-0.001101	828806.	-17528.	-0.000250	0.000	7.399E+10	9.7775	42609.	0.000
16.800	-0.002171	744890.	-17457.	-0.000199	0.000	7.411E+10	19.7386	43647.	0.000
17.200	-0.003008	661407.	-17343.	-0.000153	0.000	7.421E+10	28.0064	44685.	0.000
17.600	-0.003641	578548.	-17192.	-0.000113	0.000	7.430E+10	34.6804	45723.	0.000
18.000	-0.004094	496471.	-16439.	-7.834E-05	0.000	7.436E+10	279.3277	327522.	0.000
18.400	-0.004393	420813.	-15128.	-4.874E-05	0.000	7.440E+10	266.7543	291482.	0.000
18.800	-0.004562	351289.	-13809.	-2.384E-05	0.000	7.443E+10	282.9166	297703.	0.000
19.200	-0.004622	288272.	-12427.	-3.215E-06	0.000	7.443E+10	292.6306	303924.	0.000
19.600	-0.004592	231989.	-11013.	1.356E-05	0.000	7.443E+10	296.7345	310145.	0.000
20.000	-0.004491	182535.	-9590.3234	2.693E-05	0.000	7.443E+10	296.0297	316365.	0.000
20.400	-0.004334	139896.	-8180.8145	3.732E-05	0.000	7.443E+10	291.2657	322586.	0.000
20.800	-0.004133	103963.	-6802.2717	4.519E-05	0.000	7.443E+10	283.1271	328807.	0.000
21.200	-0.003900	74551.	-5469.4347	5.094E-05	0.000	7.443E+10	272.2217	335028.	0.000
21.600	-0.003644	51408.	-4194.3306	5.500E-05	0.000	7.443E+10	259.0717	341249.	0.000
22.000	-0.003372	34232.	-3491.7182	5.777E-05	0.000	7.443E+10	33.6835	47946.	0.000
22.400	-0.003090	17832.	-3303.2277	5.945E-05	0.000	7.443E+10	44.8542	69687.	0.000
22.800	-0.002801	2464.2496	-3096.2332	6.010E-05	0.000	7.443E+10	41.3935	70924.	0.000
23.200	-0.002513	-11950.	-2906.2339	5.979E-05	0.000	7.443E+10	37.7728	72161.	0.000
23.600	-0.002227	-25493.	-2733.8354	5.859E-05	0.000	7.443E+10	34.0599	73397.	0.000
24.000	-0.001950	-38251.	-2412.0538	5.653E-05	0.000	7.443E+10	100.0158	246173.	0.000
24.400	-0.001685	-48703.	-1943.3942	5.373E-05	0.000	7.443E+10	95.2591	271405.	0.000
24.800	-0.001434	-56959.	-1498.0781	5.032E-05	0.000	7.443E+10	90.2893	302144.	0.000
25.200	-0.001202	-63133.	-1077.0969	4.645E-05	0.000	7.443E+10	85.1196	340009.	0.000
25.600	-0.000988	-67344.	-681.3874	4.224E-05	0.000	7.443E+10	79.7594	387306.	0.000
26.000	-0.000796	-69715.	-311.8520	3.782E-05	0.000	7.443E+10	74.2137	447434.	0.000
26.400	-0.000625	-70374.	30.6154	3.330E-05	0.000	7.443E+10	68.4810	525593.	0.000
26.800	-0.000476	-69453.	345.0887	2.879E-05	0.000	7.443E+10	62.5496	630165.	0.000
27.200	-0.000349	-67089.	630.5438	2.439E-05	0.000	7.443E+10	56.3900	775607.	0.000
27.600	-0.000242	-63423.	885.7348	2.018E-05	0.000	7.443E+10	49.9396	989363.	0.000
28.000	-0.000155	-58605.	1108.9381	1.625E-05	0.000	7.443E+10	43.0618	1331581.	0.000
28.400	-8.631E-05	-52793.	1297.3081	1.266E-05	0.000	7.443E+10	35.4257	1970195.	0.000
28.800	-3.373E-05	-46163.	1444.5821	9.465E-06	0.000	7.443E+10	25.9384	3691010.	0.000
29.200	4.554E-06	-38934.	1495.9051	6.721E-06	0.000	7.443E+10	-4.5539	4800000.	0.000
29.600	3.079E-05	-31809.	1424.8718	4.440E-06	0.000	7.443E+10	-25.0433	3904498.	0.000
30.000	4.717E-05	-25259.	1295.4149	2.599E-06	0.000	7.443E+10	-28.8970	2940331.	0.000
30.400	5.574E-05	-19375.	1152.7249	1.160E-06	0.000	7.443E+10	-30.5572	2631375.	0.000
30.800	5.831E-05	-14194.	1004.9420	7.755E-08	0.000	7.443E+10	-31.0190	2553454.	0.000
31.200	5.648E-05	-9727.7441	856.8526	-6.938E-07	0.000	7.443E+10	-30.6849	2607552.	0.000
31.600	5.165E-05	-5967.8583	711.7658	-1.200E-06	0.000	7.443E+10	-29.7679	2766489.	0.000
32.000	4.497E-05	-2893.6402	572.1674	-1.486E-06	0.000	7.443E+10	-28.3981	3031470.	0.000
32.400	3.739E-05	-473.6245	440.0254	-1.594E-06	0.000	7.443E+10	-26.6611	3423032.	0.000
32.800	2.966E-05	1332.1346	316.9646	-1.567E-06	0.000	7.443E+10	-24.6143	3983439.	0.000
33.200	2.235E-05	2570.7393	204.3871	-1.441E-06	0.000	7.443E+10	-22.2930	4788536.	0.000
33.600	1.583E-05	3295.6338	103.5818	-1.252E-06	0.000	7.443E+10	-19.7092	5976795.	0.000
34.000	1.033E-05	3566.3261	15.8628	-1.030E-06	0.000	7.443E+10	-16.8404	7824372.	0.000
34.400	5.937E-06	3448.9062	-57.1690	-8.041E-07	0.000	7.443E+10	-13.5896	10986187.	0.000
34.800	2.612E-06	3018.2760	-96.0516	-5.956E-07	0.000	7.443E+10	-2.6115	4800000.	0.000
35.200	2.200E-07	2527.3825	-102.8472	-4.167E-07	0.000	7.443E+10	-0.2200	4800000.	0.000
35.600	-1.389E-06	2031.3427	-100.0411	-2.697E-07	0.000	7.443E+10	1.3892	4800000.	0.000
36.000	-2.370E-06	1567.2473	-91.0200	-1.537E-07	0.000	7.443E+10	2.3696	4800000.	0.000
36.400	-2.865E-06	1157.6980	-78.4577	-6.583E-08	0.000	7.443E+10	2.8647	4800000.	0.000
36.800	-3.002E-06	814.1167	-64.3786	-2.249E-09	0.000	7.443E+10	3.0016	4800000.	0.000
37.200	-2.886E-06	539.6660	-50.2476	4.140E-08	0.000	7.443E+10	2.8863	4800000.	0.000
37.600	-2.604E-06	331.6998	-37.0706	6.950E-08	0.000	7.443E+10	2.6041	4800000.	0.000
38.000	-2.219E-06	183.7212	-25.4950	8.612E-08	0.000	7.443E+10	2.2191	4800000.	0.000
38.400	-1.777E-06	86.8652	-15.9037	9.485E-08	0.000	7.443E+10	1.7773	4800000.	0.000
38.800	-1.309E-06	30.9551	-8.4976	9.865E-08	0.000	7.443E+10	1.3086	4800000.	0.000
39.200	-8.303E-07	5.1933	-3.3644	9.981E-08	0.000	7.443E+10	0.8303	4800000.	0.000
39.600	-3.504E-07	-1.4394	-0.5310	9.993E-08	0.000	7.443E+10	0.3504	4800000.	0.000
40.000	1.291E-07	0.000	0.000	9.989E-08	0.000	7.443E+10	-0.1291	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic

sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 3:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0087623 radians
Maximum bending moment = 1826942. inch-lbs
Maximum shear force = 27408. lbs
Depth of maximum bending moment = 115.2000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 15
Number of zero deflection points = 4

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 4

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 0.375000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	0.000	17712.	-0.003322	0.000	7.443E+10	-128.2482	820.7885	0.000
0.400	0.3591	85133.	17086.	-0.003319	0.000	7.443E+10	-132.3311	1769.0604	0.000
0.800	0.3431	167215.	16442.	-0.003311	0.000	7.443E+10	-136.1839	1905.0279	0.000
1.200	0.3273	246154.	15780.	-0.003298	0.000	7.443E+10	-139.7982	2050.4031	0.000
1.600	0.3115	321864.	15100.	-0.003279	0.000	7.443E+10	-143.1654	2206.2426	0.000
2.000	0.2958	394266.	14406.	-0.003256	0.000	7.441E+10	-146.2759	2373.7628	0.000
2.400	0.2802	463285.	13697.	-0.003229	0.000	7.439E+10	-149.1200	2554.3722	0.000
2.800	0.2648	528854.	12975.	-0.003197	0.000	7.434E+10	-151.6868	2749.7131	0.000
3.200	0.2495	590912.	12241.	-0.003161	0.000	7.428E+10	-153.9647	2961.7140	0.000
3.600	0.2344	649405.	11498.	-0.003120	0.000	7.423E+10	-155.9409	3192.6577	0.000
4.000	0.2196	704284.	10745.	-0.003077	0.000	7.416E+10	-157.6011	3445.2710	0.000
4.400	0.2049	755511.	9985.3364	-0.003029	0.000	7.409E+10	-158.9294	3722.8417	0.000
4.800	0.1905	803052.	9220.1272	-0.002979	0.000	7.402E+10	-159.9078	4029.3787	0.000
5.200	0.1763	846883.	8451.1116	-0.002925	0.000	7.396E+10	-160.5154	4369.8286	0.000
5.600	0.1624	886991.	7680.1270	-0.002869	0.000	7.390E+10	-160.7282	4750.3802	0.000
6.000	0.1488	923367.	6909.1373	-0.002785	0.000	4.039E+10	-160.5175	5178.8928	0.000
6.400	0.1357	955992.	6140.0320	-0.002670	0.000	3.797E+10	-159.9430	5658.8842	0.000
6.800	0.1231	984875.	5374.5466	-0.002546	0.000	3.706E+10	-159.0092	6198.1289	0.000
7.200	0.1112	1010032.	4614.4052	-0.002415	0.000	3.633E+10	-157.7164	6806.2533	0.000
7.600	0.1000	1031492.	3861.3257	-0.002279	0.000	3.574E+10	-156.0667	7494.7041	0.000
8.000	0.0893	1049289.	2944.4960	-0.002139	0.000	3.528E+10	-225.9456	12139.	0.000
8.400	0.0794	1061812.	1864.0363	-0.001995	0.000	3.497E+10	-224.2459	13553.	0.000
8.800	0.0702	1069098.	796.7849	-0.001848	0.000	3.479E+10	-220.4422	15074.	0.000
9.200	0.0617	1071235.	-247.3801	-0.001700	0.000	3.474E+10	-214.6266	16702.	0.000
9.600	0.0539	1068356.	-1259.1476	-0.001552	0.000	3.481E+10	-206.9432	18437.	0.000
10.000	0.0468	1060638.	-2230.7660	-0.001406	0.000	3.500E+10	-197.8978	20307.	0.000
10.400	0.0404	1048290.	-3171.4769	-0.001262	0.000	3.530E+10	-194.0651	23069.	0.000
10.800	0.0347	1031403.	-4091.3583	-0.001121	0.000	3.575E+10	-189.2188	26202.	0.000
11.200	0.0296	1010090.	-4976.5446	-0.000986	0.000	3.633E+10	-179.6068	29113.	0.000
11.600	0.0252	984574.	-5787.5497	-0.000855	0.000	3.708E+10	-158.3099	30152.	0.000
12.000	0.0214	955350.	-6501.2836	-0.000731	0.000	3.800E+10	-139.0792	31190.	0.000
12.400	0.0182	922864.	-7128.1011	-0.000636	0.000	6.417E+10	-122.0948	32228.	0.000
12.800	0.0153	887531.	-7675.5629	-0.000573	0.000	7.390E+10	-106.0143	33266.	0.000
13.200	0.0127	849728.	-8147.5865	-0.000516	0.000	7.396E+10	-90.6622	34304.	0.000

13.600	0.0103	809810.	-8547.8875	-0.000463	0.000	7.402E+10	-76.1299	35342.	0.000
14.000	0.008245	768112.	-8880.5827	-0.000411	0.000	7.407E+10	-62.4932	36380.	0.000
14.400	0.006390	724951.	-9150.1177	-0.000363	0.000	7.413E+10	-49.8131	37418.	0.000
14.800	0.004760	680620.	-9361.1946	-0.000318	0.000	7.419E+10	-38.1356	38456.	0.000
15.200	0.003341	635389.	-9518.7017	-0.000275	0.000	7.424E+10	-27.4924	39494.	0.000
15.600	0.002120	589504.	-9627.6448	-0.000235	0.000	7.429E+10	-17.9006	40532.	0.000
16.000	0.001081	543189.	-9693.0798	-0.000199	0.000	7.433E+10	-9.3640	41571.	0.000
16.400	0.000211	496642.	-9720.0479	-0.000165	0.000	7.436E+10	-1.8727	42609.	0.000
16.800	-0.000505	450035.	-9713.5125	-0.000135	0.000	7.439E+10	4.5958	43647.	0.000
17.200	-0.001082	403521.	-9678.2988	-0.000107	0.000	7.441E+10	10.0766	44685.	0.000
17.600	-0.001534	357227.	-9619.0343	-8.266E-05	0.000	7.443E+10	14.6169	45723.	0.000
18.000	-0.001876	311258.	-9276.7446	-6.110E-05	0.000	7.443E+10	128.0038	327522.	0.000
18.400	-0.002121	268229.	-8660.4069	-4.242E-05	0.000	7.443E+10	128.8036	291482.	0.000
18.800	-0.002283	228159.	-8011.4247	-2.641E-05	0.000	7.443E+10	141.6057	297703.	0.000
19.200	-0.002375	191344.	-7310.7165	-1.289E-05	0.000	7.443E+10	150.3561	303924.	0.000
19.600	-0.002407	157988.	-6576.6224	-1.622E-06	0.000	7.443E+10	155.5165	310145.	0.000
20.000	-0.002390	128210.	-5825.2938	7.607E-06	0.000	7.443E+10	157.5371	316365.	0.000
20.400	-0.002334	102058.	-5070.7712	1.503E-05	0.000	7.443E+10	156.8473	322586.	0.000
20.800	-0.002246	79516.	-4325.1042	2.089E-05	0.000	7.443E+10	153.8473	328807.	0.000
21.200	-0.002133	60517.	-3598.5080	2.540E-05	0.000	7.443E+10	148.9011	335028.	0.000
21.600	-0.002002	44946.	-2899.5499	2.880E-05	0.000	7.443E+10	142.3314	341249.	0.000
22.000	-0.001857	32654.	-2513.4407	3.131E-05	0.000	7.443E+10	18.5474	47946.	0.000
22.400	-0.001701	20787.	-2409.6409	3.303E-05	0.000	7.443E+10	24.7025	69687.	0.000
22.800	-0.001540	9489.3911	-2295.7529	3.401E-05	0.000	7.443E+10	22.7509	70924.	0.000
23.200	-0.001375	-1284.6026	-2191.5388	3.427E-05	0.000	7.443E+10	20.6717	72161.	0.000
23.600	-0.001211	-11582.	-2097.4937	3.385E-05	0.000	7.443E+10	18.5138	73397.	0.000
24.000	-0.001050	-21453.	-1857.8283	3.279E-05	0.000	7.443E+10	81.3468	371857.	0.000
24.400	-0.000896	-29449.	-1477.4182	3.115E-05	0.000	7.443E+10	77.1574	413357.	0.000
24.800	-0.000751	-35666.	-1117.6384	2.905E-05	0.000	7.443E+10	72.7509	464976.	0.000
25.200	-0.000617	-40206.	-779.4944	2.660E-05	0.000	7.443E+10	68.1425	530031.	0.000
25.600	-0.000496	-43175.	-463.9290	2.391E-05	0.000	7.443E+10	63.3431	613447.	0.000
26.000	-0.000388	-44683.	-171.8475	2.108E-05	0.000	7.443E+10	58.3576	722814.	0.000
26.400	-0.000293	-44845.	95.8483	1.819E-05	0.000	7.443E+10	53.1823	870454.	0.000
26.800	-0.000213	-43780.	338.2033	1.534E-05	0.000	7.443E+10	47.7989	1077765.	0.000
27.200	-0.000146	-41613.	554.1064	1.258E-05	0.000	7.443E+10	42.1607	1385666.	0.000
27.600	-9.209E-05	-38473.	742.0737	9.999E-06	0.000	7.443E+10	36.1590	1884627.	0.000
28.000	-5.005E-05	-34498.	899.6952	7.646E-06	0.000	7.443E+10	29.5166	2830664.	0.000
28.400	-1.869E-05	-29843.	1021.5933	5.572E-06	0.000	7.443E+10	21.2743	5464005.	0.000
28.800	3.436E-06	-24697.	1064.4060	3.813E-06	0.000	7.443E+10	-3.4356	4800000.	0.000
29.200	1.792E-05	-19628.	1005.9526	2.384E-06	0.000	7.443E+10	-20.9199	5605094.	0.000
29.600	2.632E-05	-15042.	898.6380	1.266E-06	0.000	7.443E+10	-23.7945	4339705.	0.000
30.000	3.007E-05	-11003.	781.8202	4.258E-07	0.000	7.443E+10	-24.8796	3972114.	0.000
30.400	3.041E-05	-7536.6094	662.1648	-1.720E-07	0.000	7.443E+10	-24.9768	3942935.	0.000
30.800	2.841E-05	-4645.7518	543.6085	-5.649E-07	0.000	7.443E+10	-24.4217	4125613.	0.000
31.200	2.498E-05	-2317.4253	428.8395	-7.894E-07	0.000	7.443E+10	-23.3988	4495570.	0.000
31.600	2.084E-05	-528.1352	319.8174	-8.812E-07	0.000	7.443E+10	-22.0271	5074506.	0.000
32.000	1.652E-05	753.6673	218.0131	-8.739E-07	0.000	7.443E+10	-20.3914	5923330.	0.000
32.400	1.245E-05	1565.6292	124.5399	-7.991E-07	0.000	7.443E+10	-18.5558	7156170.	0.000
32.800	8.853E-06	1950.0176	40.2457	-6.857E-07	0.000	7.443E+10	-16.5668	8982370.	0.000
33.200	5.863E-06	1952.6463	-13.5866	-5.599E-07	0.000	7.443E+10	-5.8633	4800000.	0.000
33.600	3.478E-06	1820.1235	-36.0061	-4.382E-07	0.000	7.443E+10	-3.4781	4800000.	0.000
34.000	1.656E-06	1607.4081	-48.3290	-3.277E-07	0.000	7.443E+10	-1.6564	4800000.	0.000
34.400	3.323E-07	1356.4794	-53.1018	-2.321E-07	0.000	7.443E+10	-0.3323	4800000.	0.000
34.800	-5.720E-07	1097.8537	-52.5264	-1.530E-07	0.000	7.443E+10	0.5720	4800000.	0.000
35.200	-1.136E-06	852.3724	-48.4265	-9.009E-08	0.000	7.443E+10	1.1364	4800000.	0.000
35.600	-1.437E-06	633.0462	-42.2507	-4.219E-08	0.000	7.443E+10	1.4369	4800000.	0.000
36.000	-1.541E-06	446.8059	-35.1029	-7.372E-09	0.000	7.443E+10	1.5414	4800000.	0.000
36.400	-1.508E-06	296.0658	-27.7852	1.658E-08	0.000	7.443E+10	1.5076	4800000.	0.000
36.800	-1.382E-06	180.0525	-20.8495	3.194E-08	0.000	7.443E+10	1.3822	4800000.	0.000
37.200	-1.201E-06	95.8799	-14.6496	4.083E-08	0.000	7.443E+10	1.2011	4800000.	0.000
37.600	-9.902E-07	39.3767	-9.3906	4.519E-08	0.000	7.443E+10	0.9902	4800000.	0.000
38.000	-7.672E-07	5.6870	-5.1728	4.665E-08	0.000	7.443E+10	0.7672	4800000.	0.000
38.400	-5.424E-07	-10.3270	-2.0298	4.650E-08	0.000	7.443E+10	0.5424	4800000.	0.000
38.800	-3.208E-07	-13.8437	0.0419	4.572E-08	0.000	7.443E+10	0.3208	4800000.	0.000

39.200	-1.035E-07	-9.9687	1.0602	4.495E-08	0.000	7.443E+10	0.1035	4800000.	0.000
39.600	1.107E-07	-3.7089	1.0429	4.451E-08	0.000	7.443E+10	-0.1107	4800000.	0.000
40.000	3.238E-07	0.000	0.000	4.439E-08	0.000	7.443E+10	-0.3238	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 4:

Pile-head deflection = 0.3750000 inches
Computed slope at pile head = -0.0033220 radians
Maximum bending moment = 1071235. inch-lbs
Maximum shear force = 17712. lbs
Depth of maximum bending moment = 110.4000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 23
Number of zero deflection points = 4

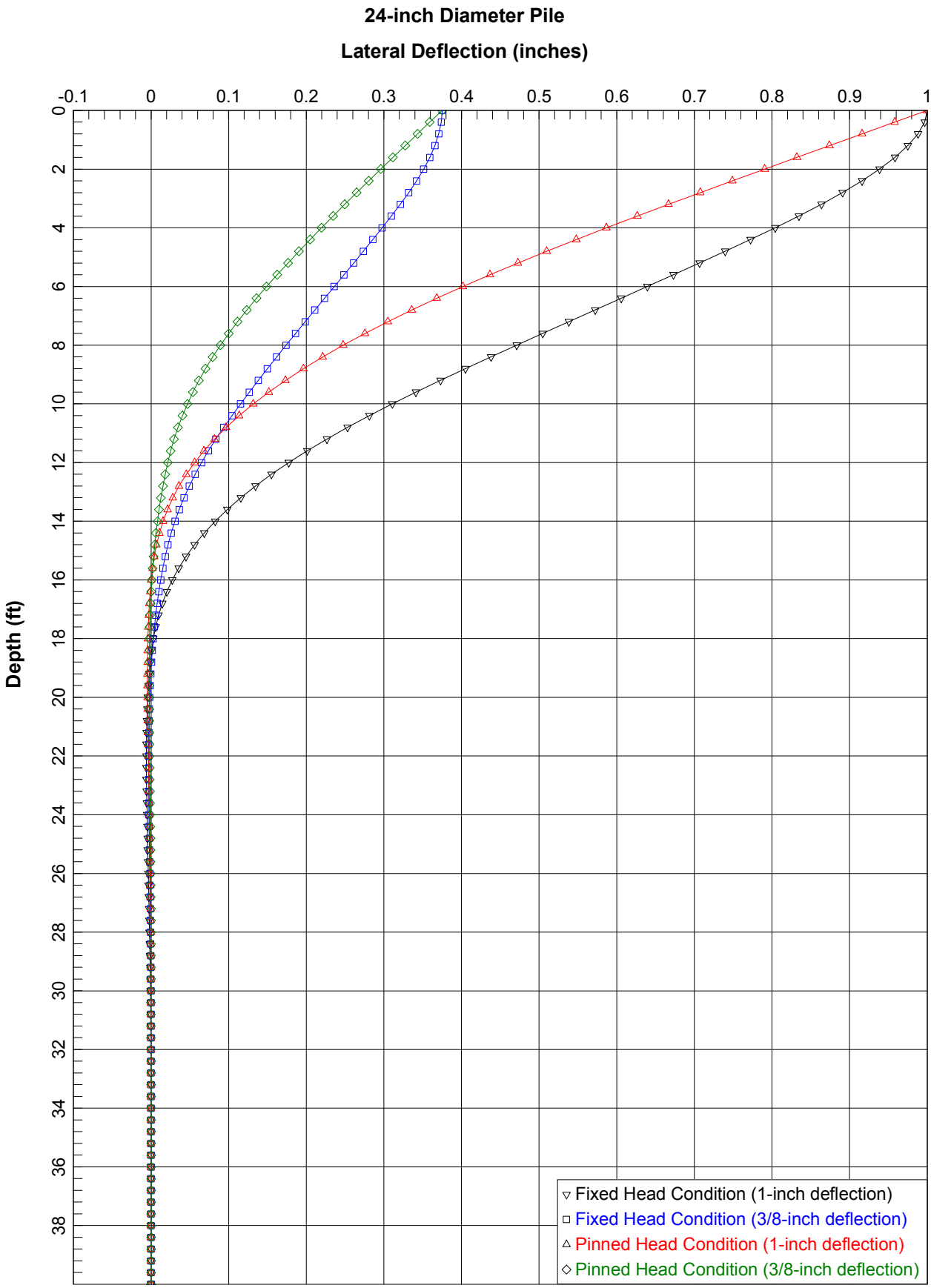
Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

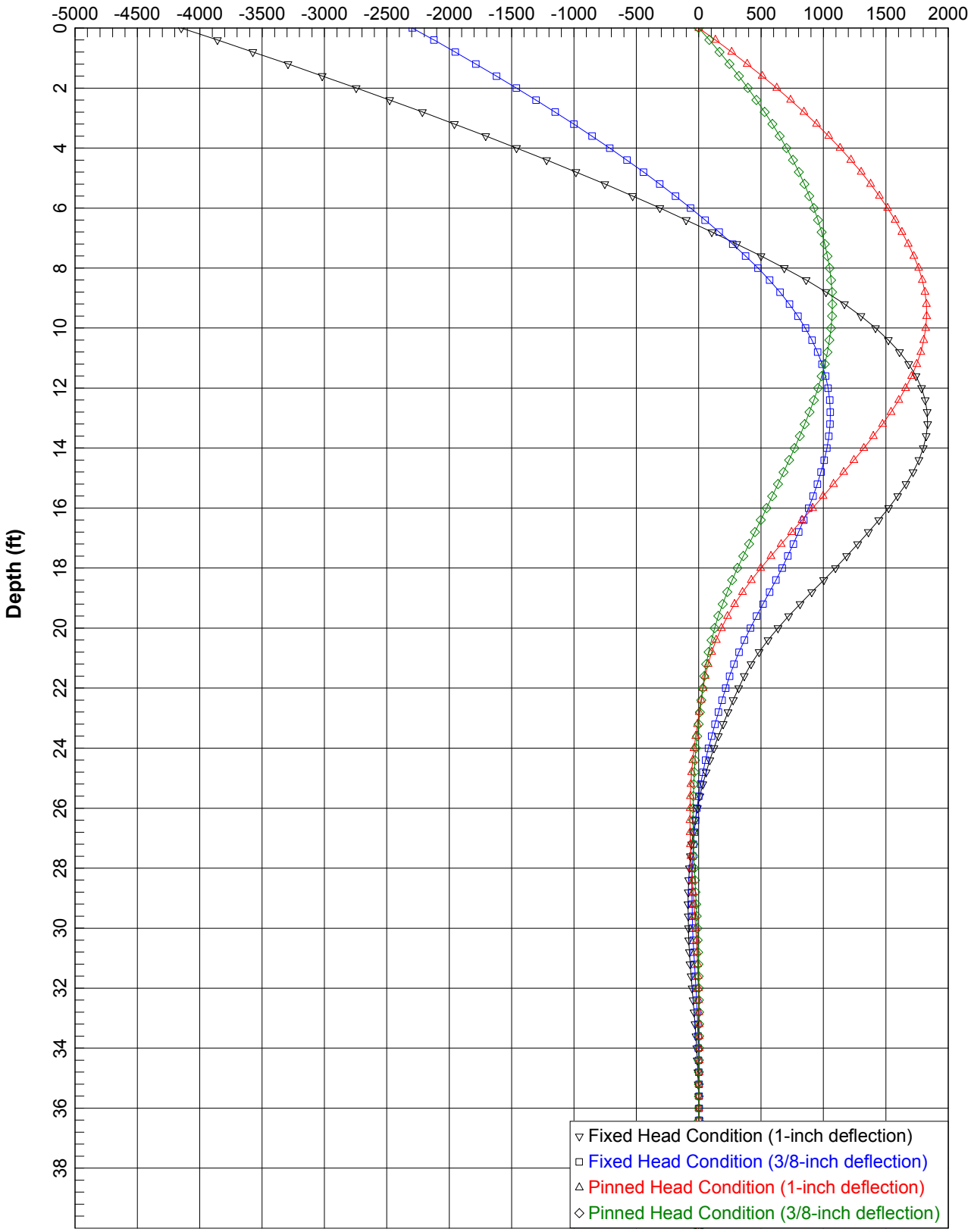
Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or y(inches)	Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Maximum Moment in Pile in-lbs	Maximum Shear in Pile lbs	Pile-head Rotation radians
1	5	y = 1.0000	S = 0.000	100000.	1.00000000	-4147130.	60423.	-0.00004546
2	5	y = 0.3750	S = 0.000	100000.	0.37500000	-2296099.	36299.	-0.00001755
3	4	y = 1.0000	M = 0.000	100000.	1.00000000	1826942.	27408.	-0.00876234
4	4	y = 0.3750	M = 0.000	100000.	0.37500000	1071235.	17712.	-0.00332197

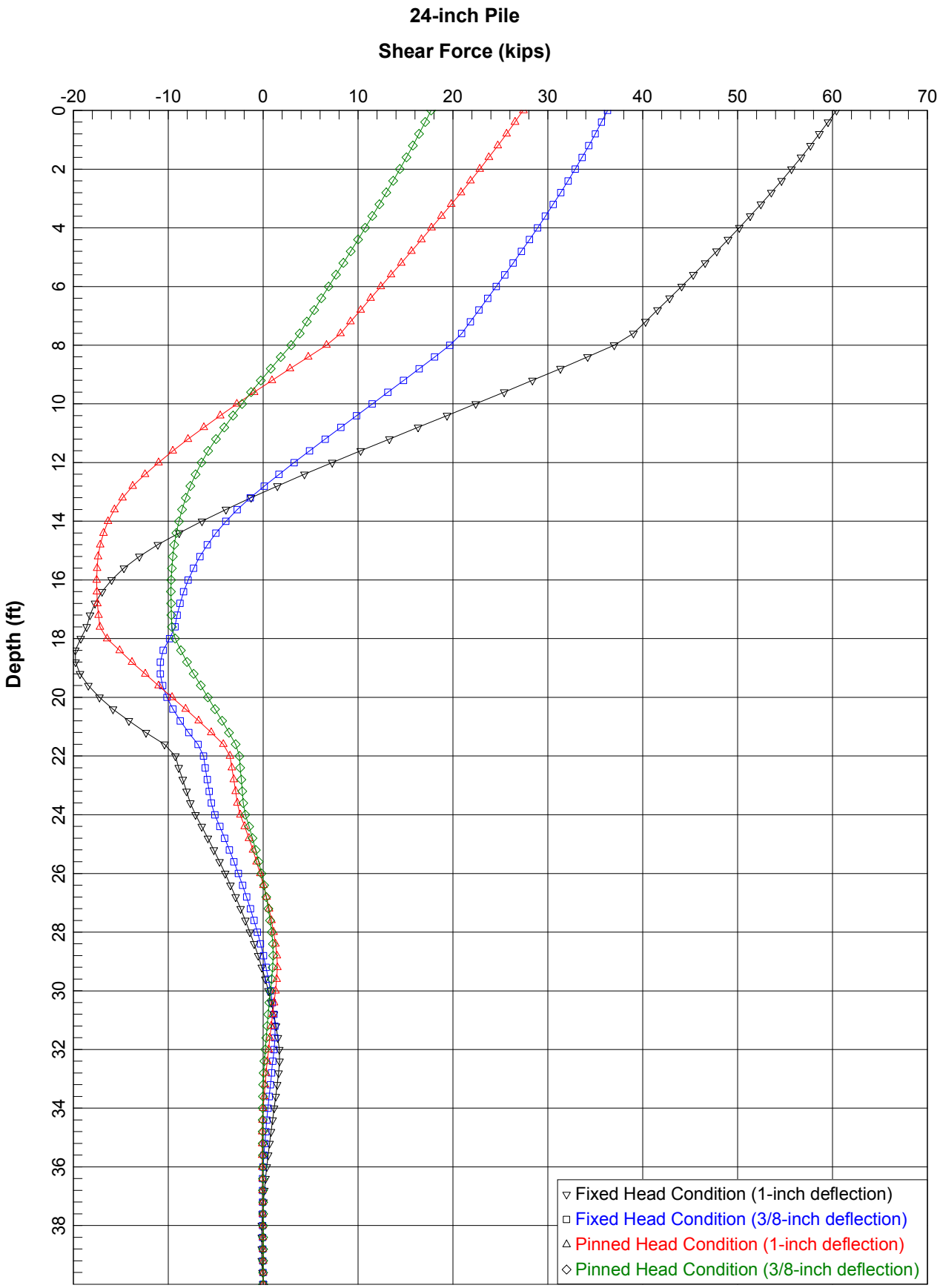
The analysis ended normally.


24-inch Diameter Pile
Lateral Deflection (inches)
Depth (ft)
-0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)

24-inch Diameter Pile

Bending Moment (in-kips)




24-inch Pile
Shear Force (kips)
-20
-10
0
10
20
30
40
50
60
70
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)

LIQUEFACTION CASE

LPile Plus for Windows, Version 2012-06.037

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

This copy of LPile is licensed to:

Ninyo and Moore
San Jose

Serial Number of Security Device: 140964469
Company Name Stored in Security Device: Ninyo & Moore

Files Used for Analysis

Path to file locations: C:\Users\RHennefer\Desktop\LPILE\18-inch Pile - liquefied\
Name of input data file: 18 inch pile - liquefied.lp6d
Name of output report file: 18 inch pile - liquefied.lp6o
Name of plot output file: 18 inch pile - liquefied.lp6p
Name of runtime messeage file: 18 inch pile - liquefied.lp6r

Date and Time of Analysis

Date: July 7, 2016 Time: 15:14:12

Problem Title

Project Name: San Jose State University New Science Building

Job Number: 402814001

Client: San Jose State University

Engineer: RH

Description:

Program Options

Engineering units are US Customary Units: pounds, inches, feet

Basic Program Options:

This analysis computes pile response to lateral loading and will compute nonlinear moment-curvature and nominal moment capacity for section types with nonlinear properties.

Computation Options:
- Analysis does not use p-y multipliers (individual pile or shaft only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix values
- Report pile response for full length of pile
- Analysis assumes no loading by soil movements acting on pile
- No p-y curves to be computed and reported for user-specified depths

Solution Control Parameters:
- Number of pile increments = 100
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in

Pile Response Output Options:
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1

Pile Structural Properties and Geometry

Total number of pile sections = 1

Total length of pile = 40.00 ft

Depth of ground surface below top of pile = 0.00 ft

Pile diameter values used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile.

Point	Depth X ft	Pile Diameter in
1	0.00000	18.0000000
2	40.000000	18.0000000

Input Structural Properties:

Pile Section No. 1:

Section Type = Drilled Shaft (Bored Pile)
Section Length = 40.00000000 ft
Section Diameter = 18.00000000 in

Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
= 0.000 radians

Pile Batter Angle = 0.000 degrees
= 0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 7 layers

Layer 1 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	0.0000 ft
Distance from top of pile to bottom of layer	=	8.00000 ft
Effective unit weight at top of layer	=	61.00000 pcf
Effective unit weight at bottom of layer	=	61.00000 pcf
Undrained cohesion at top of layer	=	600.00000 psf
Undrained cohesion at bottom of layer	=	600.00000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 2 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	8.00000 ft
Distance from top of pile to bottom of layer	=	18.00000 ft
Effective unit weight at top of layer	=	60.00000 pcf
Effective unit weight at bottom of layer	=	60.00000 pcf
Friction angle at top of layer	=	1.00000 deg.
Friction angle at bottom of layer	=	1.00000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 3 is cemented silt with cohesion and friction

Distance from top of pile to top of layer	=	18.00000 ft
Distance from top of pile to bottom of layer	=	22.00000 ft
Effective unit weight at top of layer	=	53.00000 pcf
Effective unit weight at bottom of layer	=	53.00000 pcf
Undrained cohesion at top of layer	=	1.00000 psf
Undrained cohesion at bottom of layer	=	1.00000 psf
Friction angle at top of layer	=	29.00000 deg.
Friction angle at bottom of layer	=	29.00000 deg.
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	22.00000	ft
Distance from top of pile to bottom of layer	=	24.00000	ft
Effective unit weight at top of layer	=	53.00000	pcf
Effective unit weight at bottom of layer	=	53.00000	pcf
Friction angle at top of layer	=	1.00000	deg.
Friction angle at bottom of layer	=	1.00000	deg.
Subgrade k at top of layer	=	0.0000	pci
Subgrade k at bottom of layer	=	0.0000	pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 5 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	24.00000	ft
Distance from top of pile to bottom of layer	=	43.00000	ft
Effective unit weight at top of layer	=	50.00000	pcf
Effective unit weight at bottom of layer	=	50.00000	pcf
Undrained cohesion at top of layer	=	900.00000	psf
Undrained cohesion at bottom of layer	=	900.00000	psf
Epsilon-50 at top of layer	=	0.0000	
Epsilon-50 at bottom of layer	=	0.0000	

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 6 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	43.00000	ft
Distance from top of pile to bottom of layer	=	52.00000	ft
Effective unit weight at top of layer	=	70.00000	pcf
Effective unit weight at bottom of layer	=	70.00000	pcf
Friction angle at top of layer	=	1.00000	deg.
Friction angle at bottom of layer	=	1.00000	deg.
Subgrade k at top of layer	=	0.0000	pci
Subgrade k at bottom of layer	=	0.0000	pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 7 is stiff clay without free water

Distance from top of pile to top of layer	=	52.00000	ft
Distance from top of pile to bottom of layer	=	100.00000	ft
Effective unit weight at top of layer	=	60.00000	pcf
Effective unit weight at bottom of layer	=	60.00000	pcf
Undrained cohesion at top of layer	=	1500.00000	psf
Undrained cohesion at bottom of layer	=	1500.00000	psf
Epsilon-50 at top of layer	=	0.0000	
Epsilon-50 at bottom of layer	=	0.0000	

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

(Depth of lowest soil layer extends 60.00 ft below pile tip)

Summary of Soil Properties

Layer Num.	Layer Soil Type (p-y Curve Criteria)	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	Angle of Friction deg.	Strain Factor Epsilon 50	kpy pci
1	Soft Clay	0.00	61.000	600.000	--	default	--
		8.000	61.000	600.000	--	default	--
2	Sand (Reese, et al.)	8.000	60.000	--	1.000	--	default
		18.000	60.000	--	1.000	--	default
3	Cemented Silt	18.000	53.000	1.000	29.000	default	default
		22.000	53.000	1.000	29.000	default	default
4	Sand (Reese, et al.)	22.000	53.000	--	1.000	--	default
		24.000	53.000	--	1.000	--	default
5	Soft Clay	24.000	50.000	900.000	--	default	--
		43.000	50.000	900.000	--	default	--
6	Sand (Reese, et al.)	43.000	70.000	--	1.000	--	default
		52.000	70.000	--	1.000	--	default
7	Stiff Clay w/o Free Water	52.000	60.000	1500.000	--	default	--
		100.000	60.000	1500.000	--	default	--

Loading Type

Cyclic loading criteria were used for computation of p-y curves for all analyses.

Number of cycles of loading = 10

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 4

Load No.	Load Type	Condition 1		Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	5	y =	1.00000 in	S = 0.0000 in/in	100000.	No
2	5	y =	0.37500 in	S = 0.0000 in/in	100000.	No
3	4	y =	1.00000 in	M = 0.0000 in-lbs	100000.	No
4	4	y =	0.37500 in	M = 0.0000 in-lbs	100000.	No

V = perpendicular shear force applied to pile head
M = bending moment applied to pile head
y = lateral deflection relative to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applie to pile head
Axial thrust is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	40.00000000 ft
Shaft Diameter	=	18.00000000 in
Concrete Cover Thickness	=	3.00000000 in
Number of Reinforcing Bars	=	7 bars
Yield Stress of Reinforcing Bars	=	60.00000000 ksi
Modulus of Elasticity of Reinforcing Bars	=	29000. ksi
Gross Area of Shaft	=	254.46900494 sq. in.
Total Area of Reinforcing Steel	=	5.53000000 sq. in.
Area Ratio of Steel Reinforcement	=	2.17 percent
Edge-to-Edge Bar Spacing	=	3.77272113 in
Maximum Concrete Aggregate Size	=	0.75000000 in
Ratio of Bar Spacing to Aggregate Size	=	5.03
Offset of Rebar Cage Center from Center of Pile	=	0.0000000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As	=	1178.193 kips
Tensile Load for Cracking of Concrete	=	-122.038 kips
Nominal Axial Tensile Capacity	=	-331.800 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.00000	0.79000	5.50000	0.00000
2	1.00000	0.79000	3.42919	4.30007
3	1.00000	0.79000	-1.22387	5.36210
4	1.00000	0.79000	-4.95533	2.38636
5	1.00000	0.79000	-4.95533	-2.38636
6	1.00000	0.79000	-1.22387	-5.36210
7	1.00000	0.79000	3.42919	-4.30007

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 3.77272 inches between Bars 2 and 3

Spacing to aggregate size ratio = 5.03029

Concrete Properties:

Compressive Strength of Concrete	=	4.00000000 ksi
Modulus of Elasticity of Concrete	=	3604.99653259 ksi
Modulus of Rupture of Concrete	=	-0.47434164 ksi
Compression Strain at Peak Stress	=	0.00188627
Tensile Strain at Fracture of Concrete	=	-0.00011537
Maximum Coarse Aggregate Size	=	0.75000000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force kips
1	100.000

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318-08 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than than 0.003. See ACI 318-08, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 100.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in	Max Concrete Stress ksi	Max Steel Stress ksi	Run Msg
0.000001250	28.7107821	22968626.	76.0810479	0.0000951	0.0000726	0.3927202	2.7546755	
0.000002500	57.4374167	22974967.	42.5497481	0.0001064	0.0000614	0.4375304	3.0783317	
0.000003750	86.1627387	22976730.	31.3767104	0.0001177	0.0000502	0.4821211	3.4024298	
0.000005000	114.8860970	22977219.	25.7932384	0.0001290	0.0000390	0.5264912	3.7269696	
0.000006250	143.6068402	22977094.	22.4455928	0.0001403	0.0000278	0.5706395	4.0519512	
0.000007500	172.3243171	22976576.	20.2158607	0.0001516	0.0000166	0.6145650	4.3773747	
0.000008750	201.0378760	22975757.	18.6249364	0.0001630	0.000005468	0.6582663	4.7032401	
0.0000100	229.7465113	22974651.	17.4332638	0.0001743	-0.000005667	0.7017424	5.0295465	
0.0000113	258.4382108	22972285.	16.5076560	0.0001857	-0.0000168	0.7449875	5.3562603	
0.0000125	287.0882687	22967061.	15.7680826	0.0001971	-0.0000279	0.7879906	5.6833050	
0.0000138	315.6766523	22958302.	15.1636343	0.0002085	-0.0000390	0.8307419	6.0106117	
0.0000150	344.1894310	22945962.	14.6604085	0.0002199	-0.0000501	0.8732338	6.3381278	
0.0000163	372.6172424	22930292.	14.2349637	0.0002313	-0.0000612	0.9154608	6.6658142	
0.0000175	400.9538614	22911649.	13.8705774	0.0002427	-0.0000723	0.9574189	6.9936431	
0.0000188	429.1948695	22890393.	13.5549983	0.0002542	-0.0000833	0.9991050	7.3215929	
0.0000200	457.3370343	22866852.	13.2790462	0.0002656	-0.0000944	1.0405166	7.6496468	
0.0000213	485.3780908	22841322.	13.0357076	0.0002770	-0.0001055	1.0816520	7.9777924	
0.0000225	485.3780908	21572360.	12.2239089	0.0002750	-0.0001300	1.0740999	7.9173753	C
0.0000238	485.3780908	20436972.	11.9650753	0.0002842	-0.0001433	1.1067272	8.1789582	C
0.0000250	485.3780908	19415124.	11.7269962	0.0002932	-0.0001568	1.1387116	8.4368223	C
0.0000263	485.3780908	18490594.	11.5079553	0.0003021	-0.0001704	1.1701778	8.6919185	C
0.0000275	485.3780908	17650112.	11.3055882	0.0003109	-0.0001841	1.2011539	8.9444316	C
0.0000288	485.3780908	16882716.	11.1179115	0.0003196	-0.0001979	1.2316648	9.1945213	C
0.0000300	485.3780908	16179270.	10.9432602	0.0003283	-0.0002117	1.2617333	9.4423364	C
0.0000313	493.6544977	15796944.	10.7802109	0.0003369	-0.0002256	1.2913790	9.6880037	C
0.0000325	503.9404770	15505861.	10.6276091	0.0003454	-0.0002396	1.3206272	9.9316967	C
0.0000338	514.0200332	15230223.	10.4845219	0.0003539	-0.0002536	1.3495080	10.1736384	C
0.0000350	523.9237880	14969251.	10.3501763	0.0003623	-0.0002677	1.3780547	10.4140790	C
0.0000363	533.5885701	14719685.	10.2229341	0.0003706	-0.0002819	1.4061791	10.6522470	C
0.0000375	543.1212824	14483234.	10.1030737	0.0003789	-0.0002961	1.4340116	10.8892178	C
0.0000388	552.5489561	14259328.	9.9901485	0.0003871	-0.0003104	1.4615896	11.1252919	C
0.0000400	561.7658953	14044147.	9.8823631	0.0003953	-0.0003247	1.4887607	11.3591413	C
0.0000413	570.9170959	13840414.	9.7806660	0.0004035	-0.0003390	1.5157245	11.5924594	C
0.0000425	579.9252559	13645300.	9.6837215	0.0004116	-0.0003534	1.5423689	11.8242619	C
0.0000438	588.8500243	13459429.	9.5916721	0.0004196	-0.0003679	1.5687765	12.0552466	C
0.0000450	597.6635462	13281412.	9.5038189	0.0004277	-0.0003823	1.5949056	12.2850338	C

0.0000463	606.4103174	13111574.	9.4202309	0.0004357	-0.0003968	1.6208204	12.5141723	C
0.0000475	615.0462422	12948342.	9.3401100	0.0004437	-0.0004113	1.6464507	12.7420267	C
0.0000488	623.6605061	12793036.	9.2640831	0.0004516	-0.0004259	1.6719399	12.9698602	C
0.0000513	640.6003736	12499519.	9.1208089	0.0004674	-0.0004551	1.7221172	13.4220399	C
0.0000538	657.3040320	12228912.	8.9891912	0.0004832	-0.0004843	1.7714634	-13.9053106	C
0.0000563	673.8284540	11979173.	8.8681751	0.0004988	-0.0005137	1.8200759	-14.7494766	C
0.0000588	690.1641875	11747476.	8.7562582	0.0005144	-0.0005431	1.8679341	-15.5956875	C
0.0000613	706.3040185	11531494.	8.6521277	0.0005299	-0.0005726	1.9150079	-16.4442956	C
0.0000638	722.3526895	11331023.	8.5559314	0.0005454	-0.0006021	1.9615113	-17.2933342	C
0.0000663	738.1847352	11142411.	8.4653819	0.0005608	-0.0006317	2.0071703	-18.1454725	C
0.0000688	753.9654571	10966770.	8.3815600	0.0005762	-0.0006613	2.0523411	-18.9973270	C
0.0000713	769.5612221	10800859.	8.3022934	0.0005915	-0.0006910	2.0967175	-19.8519236	C
0.0000738	785.0939677	10645342.	8.2283904	0.0006068	-0.0007207	2.1405802	-20.7065424	C
0.0000763	800.5210991	10498637.	8.1588251	0.0006221	-0.0007504	2.1838209	-21.5622853	C
0.0000788	815.8286218	10359729.	8.0930247	0.0006373	-0.0007802	2.2264078	-22.4195170	C
0.0000813	831.0981930	10228901.	8.0314976	0.0006526	-0.0008099	2.2685403	-23.2762209	C
0.0000838	846.2487593	10104463.	7.9729480	0.0006677	-0.0008398	2.3100057	-24.1346149	C
0.0000863	861.3152917	9986264.	7.9174919	0.0006829	-0.0008696	2.3508979	-24.9937606	C
0.0000888	876.3443344	9874302.	7.8653655	0.0006981	-0.0008994	2.3913384	-25.8523779	C
0.0000913	891.3050366	9767726.	7.8159396	0.0007132	-0.0009293	2.4312391	-26.7114071	C
0.0000938	906.1517769	9665619.	7.7684759	0.0007283	-0.0009592	2.4704730	-27.5722683	C
0.0000963	920.9614635	9568431.	7.7236683	0.0007434	-0.0009891	2.5092575	-28.4325982	C
0.0000988	935.7338853	9475786.	7.6813158	0.0007585	-0.0010190	2.5475910	-29.2923941	C
0.0001013	950.4491683	9387152.	7.6410027	0.0007737	-0.0010488	2.5854119	-30.1523431	C
0.0001038	965.0590216	9301774.	7.6020138	0.0007887	-0.0010788	2.6225742	-31.0141533	C
0.0001063	979.6320024	9220066.	7.5650346	0.0008038	-0.0011087	2.6592874	-31.8754243	C
0.0001088	994.1679000	9141774.	7.5299276	0.0008189	-0.0011386	2.6955500	-32.7361532	C
0.0001113	1008.6665019	9066665.	7.4965673	0.0008340	-0.0011685	2.7313603	-33.5963369	C
0.0001138	1023.1160462	8994427.	7.4646966	0.0008491	-0.0011984	2.7666785	-34.4564444	C
0.0001163	1037.4704495	8924477.	7.4336572	0.0008642	-0.0012283	2.8013525	-35.3183702	C
0.0001188	1051.7878874	8857161.	7.4040855	0.0008792	-0.0012583	2.8355757	-36.1797428	C
0.0001213	1066.0681458	8792315.	7.3758915	0.0008943	-0.0012882	2.8693466	-37.0405588	C
0.0001238	1080.3110086	8729786.	7.3489926	0.0009094	-0.0013181	2.9026634	-37.9008150	C
0.0001263	1094.5162575	8669436.	7.3233128	0.0009246	-0.0013479	2.9355244	-38.7605082	C
0.0001288	1108.6836719	8611135.	7.2987820	0.0009397	-0.0013778	2.9679280	-39.6196349	C
0.0001313	1122.7804665	8554518.	7.2749129	0.0009548	-0.0014077	2.9997548	-40.4797998	C
0.0001338	1136.8206555	8499594.	7.2518416	0.0009699	-0.0014376	3.0310567	-41.3403315	C
0.0001363	1150.8232475	8446409.	7.2297633	0.0009851	-0.0014674	3.0619020	-42.2002847	C
0.0001388	1164.7880189	8394869.	7.2086254	0.0010002	-0.0014973	3.0922890	-43.0596556	C
0.0001413	1178.7147429	8344883.	7.1883788	0.0010154	-0.0015271	3.1222158	-43.9184406	C
0.0001438	1192.6031900	8296370.	7.1689778	0.0010305	-0.0015570	3.1516807	-44.7766358	C
0.0001463	1206.4531286	8249252.	7.1503801	0.0010457	-0.0015868	3.1806818	-45.6342376	C
0.0001488	1220.2643243	8203458.	7.1325459	0.0010610	-0.0016165	3.2092175	-46.4912420	C
0.0001588	1275.0274505	8031669.	7.0668885	0.0011219	-0.0017356	3.3183195	-49.9189741	C
0.0001688	1329.1177760	7876253.	7.0104623	0.0011830	-0.0018545	3.4197216	-53.3396123	C
0.0001788	1382.5656857	7734633.	6.9623272	0.0012445	-0.0019730	3.5134857	-56.7499985	C
0.0001888	1435.3384443	7604442.	6.9209520	0.0013063	-0.0020912	3.5994130	-60.0000000	CY
0.0001988	1487.3866776	7483707.	6.8847788	0.0013683	-0.0022092	3.6772463	-60.0000000	CY
0.0002088	1538.7495798	7371255.	6.8539533	0.0014308	-0.0023267	3.7470992	-60.0000000	CY
0.0002188	1589.4074358	7265863.	6.8278006	0.0014936	-0.0024439	3.8088207	-60.0000000	CY
0.0002288	1639.3394268	7166511.	6.8057677	0.0015568	-0.0025607	3.8622521	-60.0000000	CY
0.0002388	1688.5235342	7072350.	6.7873979	0.0016205	-0.0026770	3.9072265	-60.0000000	CY
0.0002488	1736.9364310	6982659.	6.7723118	0.0016846	-0.0027929	3.9435680	-60.0000000	CY
0.0002588	1784.2933862	6895820.	6.7598824	0.0017491	-0.0029084	3.9710618	-60.0000000	CY
0.0002688	1827.6895810	6800705.	6.7462949	0.0018131	-0.0030244	3.9893366	-60.0000000	CY
0.0002788	1864.8955337	6690208.	6.7284136	0.0018755	-0.0031420	3.9985581	-60.0000000	CY
0.0002888	1896.7205414	6568729.	6.7075390	0.0019368	-0.0032607	3.9991540	-60.0000000	CY
0.0002988	1925.8638613	6446406.	6.6871315	0.0019978	-0.0033797	3.9994090	-60.0000000	CY
0.0003088	1951.3066041	6320021.	6.6655946	0.0020580	-0.0034995	3.9994166	-60.0000000	CY
0.0003188	1972.4990533	6188232.	6.6419382	0.0021171	-0.0036204	3.9991596	60.0000000	CY
0.0003288	1990.1129427	6053575.	6.6168228	0.0021753	-0.0037422	3.9985061	60.0000000	CY
0.0003388	2005.4759517	5920224.	6.5918373	0.0022330	-0.0038645	3.9972316	60.0000000	CY
0.0003488	2020.2201776	5792746.	6.5690019	0.0022909	-0.0039866	3.9999872	60.0000000	CY
0.0003588	2034.5017807	5671085.	6.5476083	0.0023490	-0.0041085	3.9994741	60.0000000	CY

0.0003688	2048.4474078	5555112.	6.5283293	0.0024073	-0.0042302	3.9979080	60.0000000 CY
0.0003788	2062.0850344	5444449.	6.5109475	0.0024660	-0.0043515	3.9999175	60.0000000 CY
0.0003888	2075.3609810	5338549.	6.4954009	0.0025251	-0.0044724	3.9992432	60.0000000 CY
0.0003988	2087.5277281	5235179.	6.4800559	0.0025839	-0.0045936	3.9964762	60.0000000 CY
0.0004088	2098.3327329	5133536.	6.4644289	0.0026423	-0.0047152	3.9996949	60.0000000 CY
0.0004188	2107.7770121	5033497.	6.4483968	0.0027003	-0.0048372	3.9968638	60.0000000 CY
0.0004288	2115.8734826	4934982.	6.4317867	0.0027576	-0.0049599	3.9997066	60.0000000 CY
0.0004388	2122.3354516	4837232.	6.4140489	0.0028142	-0.0050833	3.9960474	60.0000000 CY
0.0004488	2127.9526168	4741956.	6.3963905	0.0028704	-0.0052071	3.9992645	60.0000000 CY
0.0004588	2132.8233148	4649206.	6.3783089	0.0029260	-0.0053315	3.9976201	60.0000000 CY
0.0004688	2137.2216381	4559406.	6.3606035	0.0029815	-0.0054560	3.9978432	60.0000000 CY
0.0004788	2141.5416961	4473194.	6.3439647	0.0030372	-0.0055803	3.9998255	60.0000000 CYT
0.0004888	2145.7429004	4390267.	6.3284535	0.0030930	-0.0057045	3.9946667	60.0000000 CYT
0.0004988	2149.8489820	4310474.	6.3139331	0.0031491	-0.0058284	3.9982958	60.0000000 CYT
0.0005088	2153.8871512	4233685.	6.3002669	0.0032053	-0.0059522	3.9999120	60.0000000 CYT
0.0005188	2157.8131473	4159640.	6.2875434	0.0032617	-0.0060758	3.9941849	60.0000000 CYT
0.0005288	2161.6623421	4088250.	6.2756044	0.0033182	-0.0061993	3.9978963	60.0000000 CYT
0.0005388	2165.4534603	4019403.	6.2643521	0.0033749	-0.0063226	3.9997648	60.0000000 CYT
0.0005488	2169.1560978	3952904.	6.2538450	0.0034318	-0.0064457	3.9954495	60.0000000 CYT
0.0006088	2189.9914296	3597522.	6.2026060	0.0037758	-0.0071817	3.9991188	60.0000000 CYT
0.0006688	2189.9914296	3274754.	6.2276338	0.0041647	-0.0078728	3.9946703	60.0000000 CYT

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	100.000	2138.655	0.00300000

Note note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318-08, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction
factor to compute ultimate moment capacity according to ACI 318-08, Section
9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding
bending stiffnesses computed for common resistance factor values used for
reinforced concrete sections.

Axial Load No.	Resistance Factor for Moment	Nominal Moment Capacity in-kip	Ultimate (Factored) Axial Thrust kips	Ultimate (Factored) Moment Capacity in-kip	Bending Stiffness at Ult. Mom. Cap. kip-in^2
1	0.65	2138.655	65.000	1390.126	7715981.784
1	0.70	2138.655	70.000	1497.059	7462530.927
1	0.75	2138.655	75.000	1603.992	7236843.931

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for Lateral Loading for Load Case Number 1

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 1.000000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	-1500343.	25141.	0.000	0.000	7.454E+09	-146.8075	352.3381	0.000
0.400	0.9977	-1381225.	24396.	-0.000928	0.000	7.454E+09	-155.2022	746.7021	0.000
0.800	0.9911	-1265255.	23631.	-0.001749	0.000	8.061E+09	-163.3494	791.1232	0.000
1.200	0.9809	-1152688.	22828.	-0.002454	0.000	8.439E+09	-171.2471	838.0011	0.000
1.600	0.9675	-1043751.	21988.	-0.003063	0.000	8.895E+09	-178.8883	887.4733	0.000
2.000	0.9515	-938666.	21111.	-0.003583	0.000	9.458E+09	-186.2682	939.6780	0.000
2.400	0.9331	-837643.	20200.	-0.004019	0.000	1.017E+10	-193.3843	994.7527	0.000
2.800	0.9129	-740886.	19255.	-0.004376	0.000	1.111E+10	-200.2361	1052.8326	0.000
3.200	0.8911	-648590.	18278.	-0.004662	0.000	1.237E+10	-206.8252	1114.0505	0.000
3.600	0.8681	-560937.	17271.	-0.004884	0.000	1.407E+10	-213.1545	1178.5386	0.000
4.000	0.8442	-478104.	16233.	-0.005030	0.000	2.285E+10	-219.2277	1246.4342	0.000
4.400	0.8199	-400274.	15167.	-0.005122	0.000	2.291E+10	-225.0658	1317.6851	0.000
4.800	0.7951	-327588.	14073.	-0.005198	0.000	2.295E+10	-230.6626	1392.5532	0.000
5.200	0.7700	-260185.	12953.	-0.005260	0.000	2.297E+10	-236.0121	1471.3260	0.000
5.600	0.7446	-198193.	11808.	-0.005307	0.000	2.298E+10	-241.1078	1554.3205	0.000
6.000	0.7190	-141736.	10639.	-0.005343	0.000	2.298E+10	-245.9432	1641.8881	0.000
6.400	0.6933	-90932.	9447.2451	-0.005367	0.000	2.298E+10	-250.5114	1734.4206	0.000
6.800	0.6675	-45890.	8234.4860	-0.005382	0.000	2.297E+10	-254.8049	1832.3579	0.000
7.200	0.6416	-6714.5854	7001.7965	-0.005387	0.000	2.297E+10	-258.8157	1936.1970	0.000
7.600	0.6158	26499.	5750.5556	-0.005385	0.000	2.297E+10	-262.5347	2046.5040	0.000
8.000	0.5899	53660.	5120.4716	-0.005377	0.000	2.297E+10	-0.000286	0.002327	0.000
8.400	0.5642	80817.	5120.4703	-0.005363	0.000	2.298E+10	-0.000274	0.002330	0.000
8.800	0.5385	107965.	5120.4690	-0.005343	0.000	2.298E+10	-0.000262	0.002333	0.000
9.200	0.5129	135102.	5120.4677	-0.005317	0.000	2.298E+10	-0.000250	0.002335	0.000
9.600	0.4874	162226.	5120.4666	-0.005286	0.000	2.298E+10	-0.000237	0.002338	0.000
10.000	0.4621	189334.	5120.4655	-0.005250	0.000	2.298E+10	-0.000225	0.002341	0.000
10.400	0.4370	216422.	5120.4644	-0.005207	0.000	2.298E+10	-0.000213	0.002344	0.000
10.800	0.4121	243489.	5120.4634	-0.005159	0.000	2.297E+10	-0.000201	0.002347	0.000
11.200	0.3875	270531.	5120.4625	-0.005105	0.000	2.297E+10	-0.000190	0.002349	0.000
11.600	0.3631	297547.	5120.4616	-0.005046	0.000	2.296E+10	-0.000178	0.002352	0.000
12.000	0.3390	324532.	5120.4608	-0.004981	0.000	2.295E+10	-0.000166	0.002355	0.000
12.400	0.3153	351485.	5120.4600	-0.004910	0.000	2.294E+10	-0.000155	0.002358	0.000
12.800	0.2919	378403.	5120.4593	-0.004834	0.000	2.293E+10	-0.000144	0.002361	0.000
13.200	0.2689	405282.	5120.4586	-0.004752	0.000	2.291E+10	-0.000132	0.002363	0.000
13.600	0.2463	432121.	5120.4580	-0.004664	0.000	2.289E+10	-0.000121	0.002366	0.000
14.000	0.2241	458916.	5120.4575	-0.004571	0.000	2.287E+10	-0.000111	0.002369	0.000
14.400	0.2024	485665.	5120.4570	-0.004450	0.000	1.616E+10	-0.000100	0.002372	0.000
14.800	0.1814	512345.	5120.4565	-0.004298	0.000	1.528E+10	-8.973E-05	0.002375	0.000
15.200	0.1611	538947.	5120.4561	-0.004129	0.000	1.459E+10	-7.981E-05	0.002377	0.000
15.600	0.1417	565465.	5120.4557	-0.003943	0.000	1.396E+10	-7.029E-05	0.002380	0.000
16.000	0.1233	591889.	5120.4554	-0.003739	0.000	1.340E+10	-6.121E-05	0.002383	0.000
16.400	0.1058	618211.	5120.4551	-0.003518	0.000	1.289E+10	-5.261E-05	0.002386	0.000
16.800	0.0895	644423.	5120.4549	-0.003279	0.000	1.244E+10	-4.454E-05	0.002388	0.000
17.200	0.0744	670515.	5120.4547	-0.003021	0.000	1.203E+10	-3.705E-05	0.002391	0.000
17.600	0.0605	696479.	5120.4545	-0.002744	0.000	1.166E+10	-3.018E-05	0.002394	0.000
18.000	0.0480	722305.	2962.6440	-0.002447	0.000	1.133E+10	-899.0877	89847.	0.000
18.400	0.0370	727270.	-909.4264	-0.002139	0.000	1.127E+10	-714.2749	92611.	0.000
18.800	0.0275	715629.	-3934.8422	-0.001834	0.000	1.141E+10	-546.3150	95376.	0.000
19.200	0.0194	691256.	-6198.6006	-0.001542	0.000	1.173E+10	-396.9177	98141.	0.000
19.600	0.0127	657603.	-7791.3952	-0.001272	0.000	1.222E+10	-266.7467	100906.	0.000
20.000	0.007204	617680.	-8805.0224	-0.001028	0.000	1.290E+10	-155.5979	103671.	0.000
20.400	0.002823	574061.	-9328.6782	-0.000813	0.000	1.377E+10	-62.5920	106435.	0.000

20.800	-0.000598	528904.	-9446.2281	-0.000627	0.000	1.484E+10	13.6128	109200.	0.000
21.200	-0.003198	483979.	-9234.5062	-0.000484	0.000	2.030E+10	74.6046	111965.	0.000
21.600	-0.005249	440718.	-8754.3439	-0.000381	0.000	2.288E+10	125.4630	114730.	0.000
22.000	-0.006856	400303.	-8450.2203	-0.000293	0.000	2.291E+10	1.2552	878.7974	0.000
22.400	-0.008060	359877.	-8447.2078	-0.000213	0.000	2.294E+10	3.010E-07	0.000179	0.000
22.800	-0.008903	319415.	-8447.2077	-0.000142	0.000	2.296E+10	3.377E-07	0.000182	0.000
23.200	-0.009426	278921.	-8447.2077	-7.967E-05	0.000	2.297E+10	3.629E-07	0.000185	0.000
23.600	-0.009668	238398.	-8447.2077	-2.562E-05	0.000	2.297E+10	3.779E-07	0.000188	0.000
24.000	-0.009671	197852.	-8109.3252	1.995E-05	0.000	2.298E+10	140.7844	69872.	0.000
24.400	-0.009477	160530.	-7435.8326	5.739E-05	0.000	2.298E+10	139.8375	70830.	0.000
24.800	-0.009121	126413.	-6768.8539	8.736E-05	0.000	2.298E+10	138.0703	72664.	0.000
25.200	-0.008638	95465.	-6112.0533	0.000111	0.000	2.298E+10	135.5967	75350.	0.000
25.600	-0.008059	67631.	-5468.6049	0.000128	0.000	2.298E+10	132.5068	78918.	0.000
26.000	-0.007413	42844.	-4841.2915	0.000139	0.000	2.297E+10	128.8738	83445.	0.000
26.400	-0.006724	21021.	-4232.5754	0.000146	0.000	2.297E+10	124.7579	89060.	0.000
26.800	-0.006014	2070.9991	-3644.6520	0.000148	0.000	2.297E+10	120.2101	95949.	0.000
27.200	-0.005301	-14110.	-3079.4912	0.000147	0.000	2.297E+10	115.2735	104373.	0.000
27.600	-0.004603	-27633.	-2538.8706	0.000143	0.000	2.297E+10	109.9851	114690.	0.000
28.000	-0.003933	-38620.	-2024.4031	0.000136	0.000	2.297E+10	104.3764	127399.	0.000
28.400	-0.003301	-47198.	-1537.5618	0.000127	0.000	2.297E+10	98.4742	143200.	0.000
28.800	-0.002716	-53502.	-1079.7035	0.000116	0.000	2.297E+10	92.3001	163100.	0.000
29.200	-0.002186	-57674.	-652.0940	0.000105	0.000	2.297E+10	85.8705	188590.	0.000
29.600	-0.001713	-59862.	-255.9381	9.228E-05	0.000	2.298E+10	79.1945	221958.	0.000
30.000	-0.001300	-60220.	107.5783	7.973E-05	0.000	2.298E+10	72.2707	266903.	0.000
30.400	-0.000947	-58906.	437.2217	6.729E-05	0.000	2.298E+10	65.0807	329802.	0.000
30.800	-0.000654	-56087.	731.5922	5.528E-05	0.000	2.297E+10	57.5736	422724.	0.000
31.200	-0.000417	-51936.	988.8785	4.399E-05	0.000	2.297E+10	49.6290	571903.	0.000
31.600	-0.000231	-46636.	1206.2596	3.370E-05	0.000	2.297E+10	40.9465	849308.	0.000
32.000	-9.306E-05	-40388.	1377.9064	2.460E-05	0.000	2.297E+10	30.5730	1576862.	0.000
32.400	4.778E-06	-33432.	1431.1266	1.689E-05	0.000	2.297E+10	-8.3980	8435974.	0.000
32.800	6.909E-05	-26666.	1347.2392	1.061E-05	0.000	2.297E+10	-26.5551	1844948.	0.000
33.200	0.000107	-20509.	1209.1779	5.682E-06	0.000	2.297E+10	-30.9704	1393887.	0.000
33.600	0.000124	-15063.	1056.5260	1.965E-06	0.000	2.297E+10	-32.6346	1266960.	0.000
34.000	0.000126	-10368.	899.3703	-6.918E-07	0.000	2.297E+10	-32.8470	1256115.	0.000
34.400	0.000117	-6428.4260	743.4703	-2.447E-06	0.000	2.297E+10	-32.1113	1317414.	0.000
34.800	0.000102	-3228.1943	592.7428	-3.456E-06	0.000	2.297E+10	-30.6918	1443915.	0.000
35.200	8.382E-05	-734.7773	450.0796	-3.870E-06	0.000	2.297E+10	-28.7513	1646435.	0.000
35.600	6.488E-05	1096.2846	317.7136	-3.832E-06	0.000	2.297E+10	-26.4012	1953337.	0.000
36.000	4.703E-05	2318.9519	197.4130	-3.475E-06	0.000	2.297E+10	-23.7240	2421234.	0.000
36.400	3.151E-05	2994.7857	90.5935	-2.920E-06	0.000	2.297E+10	-20.7841	3165768.	0.000
36.800	1.900E-05	3191.4532	-1.6158	-2.274E-06	0.000	2.297E+10	-17.6365	4455814.	0.000
37.200	9.686E-06	2981.4566	-78.3669	-1.629E-06	0.000	2.297E+10	-14.3432	7108179.	0.000
37.600	3.363E-06	2440.6947	-120.8622	-1.062E-06	0.000	2.297E+10	-3.3632	4800000.	0.000
38.000	-5.109E-07	1822.1997	-127.7076	-6.167E-07	0.000	2.297E+10	0.5109	4800000.	0.000
38.400	-2.557E-06	1215.2938	-120.3440	-2.993E-07	0.000	2.297E+10	2.5572	4800000.	0.000
38.800	-3.384E-06	667.1844	-96.7282	-1.026E-07	0.000	2.297E+10	7.2827	10328787.	0.000
39.200	-3.542E-06	286.8017	-62.3672	-2.939E-09	0.000	2.297E+10	7.0343	9531698.	0.000
39.600	-3.413E-06	68.4617	-29.8718	3.418E-08	0.000	2.297E+10	6.5054	9150135.	0.000
40.000	-3.214E-06	0.000	0.000	4.134E-08	0.000	2.297E+10	5.9411	4436135.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 1:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0000384 radians
Maximum bending moment = -1500343. inch-lbs
Maximum shear force = 25141. lbs
Depth of maximum bending moment = 0.000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 16

Number of zero deflection points = 3

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 2

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 0.375000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	-903806.	16764.	0.000	0.000	9.680E+09	-105.8666	677.5459	0.000
0.400	0.3739	-824523.	16226.	-0.000428	0.000	9.680E+09	-111.8997	1436.4356	0.000
0.800	0.3709	-747621.	15675.	-0.000796	0.000	1.103E+10	-117.7136	1523.4456	0.000
1.200	0.3663	-673276.	15097.	-0.001093	0.000	1.199E+10	-123.3175	1616.0099	0.000
1.600	0.3604	-601642.	14492.	-0.001337	0.000	1.321E+10	-128.7123	1714.2863	0.000
2.000	0.3535	-532869.	13862.	-0.001533	0.000	1.475E+10	-133.9009	1818.4232	0.000
2.400	0.3457	-467098.	13207.	-0.001669	0.000	2.286E+10	-138.8876	1928.5696	0.000
2.800	0.3374	-404480.	12529.	-0.001760	0.000	2.291E+10	-143.7023	2044.1895	0.000
3.200	0.3288	-345131.	11828.	-0.001839	0.000	2.295E+10	-148.3402	2165.7001	0.000
3.600	0.3198	-289166.	11105.	-0.001905	0.000	2.297E+10	-152.7969	2293.5464	0.000
4.000	0.3105	-236693.	10361.	-0.001960	0.000	2.297E+10	-157.0686	2428.2052	0.000
4.400	0.3010	-187814.	9597.7707	-0.002004	0.000	2.298E+10	-161.1516	2570.1898	0.000
4.800	0.2912	-142630.	8814.9042	-0.002039	0.000	2.298E+10	-165.0427	2720.0544	0.000
5.200	0.2814	-101234.	8013.8282	-0.002064	0.000	2.298E+10	-168.7389	2878.4006	0.000
5.600	0.2714	-63715.	7195.4854	-0.002082	0.000	2.298E+10	-172.2372	3045.8858	0.000
6.000	0.2614	-30159.	6360.8325	-0.002091	0.000	2.297E+10	-175.5348	3223.2329	0.000
6.400	0.2514	-643.6864	5510.8404	-0.002095	0.000	2.297E+10	-178.6286	3411.2428	0.000
6.800	0.2413	24756.	4646.4949	-0.002092	0.000	2.297E+10	-181.5153	3610.8112	0.000
7.200	0.2313	45971.	3768.7989	-0.002085	0.000	2.297E+10	-184.1913	3822.9483	0.000
7.600	0.2213	62938.	2878.7749	-0.002073	0.000	2.298E+10	-186.6520	4048.8062	0.000
8.000	0.2114	75598.	2430.8098	-0.002059	0.000	2.298E+10	-0.000102	0.002327	0.000
8.400	0.2015	88250.	2430.8093	-0.002042	0.000	2.298E+10	-9.782E-05	0.002330	0.000
8.800	0.1918	100894.	2430.8089	-0.002022	0.000	2.298E+10	-9.319E-05	0.002333	0.000
9.200	0.1821	113527.	2430.8084	-0.002000	0.000	2.298E+10	-8.861E-05	0.002335	0.000
9.600	0.1726	126149.	2430.8080	-0.001975	0.000	2.298E+10	-8.406E-05	0.002338	0.000
10.000	0.1631	138758.	2430.8076	-0.001947	0.000	2.298E+10	-7.957E-05	0.002341	0.000
10.400	0.1539	151354.	2430.8073	-0.001917	0.000	2.298E+10	-7.514E-05	0.002344	0.000
10.800	0.1448	163934.	2430.8069	-0.001884	0.000	2.298E+10	-7.077E-05	0.002347	0.000
11.200	0.1358	176498.	2430.8066	-0.001848	0.000	2.298E+10	-6.646E-05	0.002349	0.000
11.600	0.1270	189044.	2430.8063	-0.001810	0.000	2.298E+10	-6.224E-05	0.002352	0.000
12.000	0.1184	201571.	2430.8060	-0.001769	0.000	2.298E+10	-5.810E-05	0.002355	0.000
12.400	0.1100	214078.	2430.8057	-0.001726	0.000	2.298E+10	-5.404E-05	0.002358	0.000
12.800	0.1018	226564.	2430.8055	-0.001680	0.000	2.297E+10	-5.009E-05	0.002361	0.000
13.200	0.0939	239026.	2430.8052	-0.001631	0.000	2.297E+10	-4.623E-05	0.002363	0.000
13.600	0.0862	251465.	2430.8050	-0.001580	0.000	2.297E+10	-4.249E-05	0.002366	0.000
14.000	0.0787	263879.	2430.8048	-0.001526	0.000	2.297E+10	-3.886E-05	0.002369	0.000
14.400	0.0715	276266.	2430.8047	-0.001470	0.000	2.297E+10	-3.535E-05	0.002372	0.000
14.800	0.0646	288625.	2430.8045	-0.001410	0.000	2.297E+10	-3.197E-05	0.002375	0.000
15.200	0.0580	300956.	2430.8043	-0.001349	0.000	2.296E+10	-2.873E-05	0.002377	0.000
15.600	0.0517	313256.	2430.8042	-0.001285	0.000	2.296E+10	-2.562E-05	0.002380	0.000
16.000	0.0457	325525.	2430.8041	-0.001218	0.000	2.295E+10	-2.267E-05	0.002383	0.000
16.400	0.0400	337761.	2430.8040	-0.001149	0.000	2.295E+10	-1.987E-05	0.002386	0.000
16.800	0.0346	349963.	2430.8039	-0.001077	0.000	2.294E+10	-1.724E-05	0.002388	0.000
17.200	0.0297	362130.	2430.8038	-0.001002	0.000	2.294E+10	-1.477E-05	0.002391	0.000
17.600	0.0250	374261.	2430.8038	-0.000925	0.000	2.293E+10	-1.248E-05	0.002394	0.000
18.000	0.0208	386354.	1497.7481	-0.000845	0.000	2.292E+10	-388.7732	89847.	0.000

18.400	0.0169	389451.	-218.1615	-0.000764	0.000	2.292E+10	-326.1892	92611.	0.000
18.800	0.0134	384993.	-1641.6560	-0.000683	0.000	2.292E+10	-266.9335	95376.	0.000
19.200	0.0103	374346.	-2790.1121	-0.000604	0.000	2.293E+10	-211.5899	98141.	0.000
19.600	0.007640	358787.	-3683.3671	-0.000527	0.000	2.294E+10	-160.5997	100906.	0.000
20.000	0.005291	339492.	-4343.0598	-0.000454	0.000	2.295E+10	-114.2723	103671.	0.000
20.400	0.003283	317530.	-4792.0268	-0.000385	0.000	2.296E+10	-72.7973	106435.	0.000
20.800	0.001594	293858.	-5053.7618	-0.000321	0.000	2.296E+10	-36.2590	109200.	0.000
21.200	0.000199	269322.	-5151.9476	-0.000262	0.000	2.297E+10	-4.6517	111965.	0.000
21.600	-0.000925	244651.	-5110.0600	-0.000209	0.000	2.297E+10	22.1049	114730.	0.000
22.000	-0.001804	220466.	-5056.2156	-0.000160	0.000	2.297E+10	0.3302	878.7974	0.000
22.400	-0.002461	196265.	-5055.4231	-0.000117	0.000	2.298E+10	9.193E-08	0.000179	0.000
22.800	-0.002922	172045.	-5055.4231	-7.807E-05	0.000	2.298E+10	1.108E-07	0.000182	0.000
23.200	-0.003211	147808.	-5055.4231	-4.466E-05	0.000	2.298E+10	1.236E-07	0.000185	0.000
23.600	-0.003351	123556.	-5055.4231	-1.631E-05	0.000	2.298E+10	1.310E-07	0.000188	0.000
24.000	-0.003367	99292.	-4817.5321	6.966E-06	0.000	2.298E+10	99.1213	141287.	0.000
24.400	-0.003284	77301.	-4343.7079	2.541E-05	0.000	2.298E+10	98.3055	143675.	0.000
24.800	-0.003124	57568.	-3875.7319	3.950E-05	0.000	2.297E+10	96.6846	148577.	0.000
25.200	-0.002905	40056.	-3417.1587	4.970E-05	0.000	2.297E+10	94.3876	155955.	0.000
25.600	-0.002646	24715.	-2970.9970	5.647E-05	0.000	2.297E+10	91.5131	165984.	0.000
26.000	-0.002363	11480.	-2539.8329	6.025E-05	0.000	2.297E+10	88.1386	179038.	0.000
26.400	-0.002068	275.0879	-2125.9156	6.148E-05	0.000	2.297E+10	84.3269	195726.	0.000
26.800	-0.001773	-8987.3833	-1731.2203	6.057E-05	0.000	2.297E+10	80.1295	216954.	0.000
27.200	-0.001487	-16403.	-1357.4959	5.791E-05	0.000	2.297E+10	75.5890	244063.	0.000
27.600	-0.001217	-22075.	-1006.3042	5.389E-05	0.000	2.297E+10	70.7409	279043.	0.000
28.000	-0.000969	-26115.	-679.0543	4.886E-05	0.000	2.297E+10	65.6133	324937.	0.000
28.400	-0.000748	-28641.	-377.0377	4.314E-05	0.000	2.297E+10	60.2269	386570.	0.000
28.800	-0.000555	-29776.	-101.4708	3.703E-05	0.000	2.297E+10	54.5926	472028.	0.000
29.200	-0.000392	-29650.	146.4444	3.082E-05	0.000	2.297E+10	48.7054	595891.	0.000
29.600	-0.000259	-28400.	365.4111	2.476E-05	0.000	2.297E+10	42.5307	787441.	0.000
30.000	-0.000155	-26166.	553.8072	1.905E-05	0.000	2.297E+10	35.9677	1116236.	0.000
30.400	-7.633E-05	-23101.	709.0736	1.391E-05	0.000	2.297E+10	28.7266	1806534.	0.000
30.800	-2.116E-05	-19372.	825.3970	9.469E-06	0.000	2.297E+10	19.7415	4478045.	0.000
31.200	1.457E-05	-15187.	837.0281	5.858E-06	0.000	2.297E+10	-14.8952	4906144.	0.000
31.600	3.507E-05	-11343.	750.7465	3.086E-06	0.000	2.297E+10	-21.0555	2881617.	0.000
32.000	4.419E-05	-7982.5400	645.0246	1.066E-06	0.000	2.297E+10	-22.9953	2497533.	0.000
32.400	4.531E-05	-5151.4398	533.8957	-3.061E-07	0.000	2.297E+10	-23.3084	2469257.	0.000
32.800	4.126E-05	-2856.8477	423.5481	-1.143E-06	0.000	2.297E+10	-22.6698	2637532.	0.000
33.200	3.434E-05	-1084.2808	317.8134	-1.555E-06	0.000	2.297E+10	-21.3863	2989547.	0.000
33.600	2.633E-05	195.6539	219.3660	-1.648E-06	0.000	2.297E+10	-19.6335	3579005.	0.000
34.000	1.852E-05	1023.2143	130.1876	-1.520E-06	0.000	2.297E+10	-17.5242	4541547.	0.000
34.400	1.174E-05	1446.9138	51.8140	-1.262E-06	0.000	2.297E+10	-15.1314	6187702.	0.000
34.800	6.406E-06	1521.8408	-14.4541	-9.519E-07	0.000	2.297E+10	-12.4803	9351879.	0.000
35.200	2.600E-06	1309.0684	-50.6471	-6.561E-07	0.000	2.297E+10	-2.6001	4800000.	0.000
35.600	1.076E-07	1036.2583	-57.1457	-4.110E-07	0.000	2.297E+10	-0.1076	4800000.	0.000
36.000	-1.345E-06	760.8645	-54.1751	-2.232E-07	0.000	2.297E+10	1.3454	4800000.	0.000
36.400	-2.035E-06	516.3918	-46.0618	-8.974E-08	0.000	2.297E+10	2.0352	4800000.	0.000
36.800	-2.207E-06	318.7573	-35.8808	-2.480E-09	0.000	2.297E+10	2.2069	4800000.	0.000
37.200	-2.059E-06	171.9384	-25.6427	4.879E-08	0.000	2.297E+10	2.0590	4800000.	0.000
37.600	-1.739E-06	72.5406	-16.5288	7.434E-08	0.000	2.297E+10	1.7385	4800000.	0.000
38.000	-1.345E-06	13.1910	-9.1276	8.330E-08	0.000	2.297E+10	1.3453	4800000.	0.000
38.400	-9.389E-07	-15.1641	-3.6456	8.309E-08	0.000	2.297E+10	0.9389	4800000.	0.000
38.800	-5.476E-07	-21.8863	-0.0780	7.922E-08	0.000	2.297E+10	0.5476	4800000.	0.000
39.200	-1.784E-07	-15.9887	1.6644	7.526E-08	0.000	2.297E+10	0.1784	4800000.	0.000
39.600	1.749E-07	-5.9800	1.6728	7.297E-08	0.000	2.297E+10	-0.1749	4800000.	0.000
40.000	5.221E-07	0.000	0.000	7.234E-08	0.000	2.297E+10	-0.5221	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.3750000 inches

Computed slope at pile head = -0.0000197 radians
Maximum bending moment = -903806. inch-lbs
Maximum shear force = 16764. lbs
Depth of maximum bending moment = 0.000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 14
Number of zero deflection points = 4

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 3

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 1.000000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	0.000	15040.	-0.008504	0.000	2.297E+10	-146.8075	352.3381	0.000
0.400	0.9592	74583.	14320.	-0.008496	0.000	2.297E+10	-153.1797	766.5512	0.000
0.800	0.9184	145629.	13570.	-0.008473	0.000	2.298E+10	-159.2563	832.3132	0.000
1.200	0.8778	212991.	12792.	-0.008435	0.000	2.298E+10	-165.0275	902.3602	0.000
1.600	0.8375	276530.	11987.	-0.008384	0.000	2.297E+10	-170.4832	977.1423	0.000
2.000	0.7974	336113.	11156.	-0.008320	0.000	2.295E+10	-175.6130	1057.1713	0.000
2.400	0.7576	391616.	10302.	-0.008244	0.000	2.292E+10	-180.4059	1143.0323	0.000
2.800	0.7182	442923.	9425.0636	-0.008156	0.000	2.288E+10	-184.8502	1235.3986	0.000
3.200	0.6793	489927.	8527.9826	-0.008036	0.000	1.596E+10	-188.9335	1335.0494	0.000
3.600	0.6411	532507.	7612.1498	-0.007876	0.000	1.475E+10	-192.6635	1442.5747	0.000
4.000	0.6037	570564.	6679.2634	-0.007690	0.000	1.385E+10	-196.0392	1558.7623	0.000
4.400	0.5672	604010.	5731.0223	-0.007481	0.000	1.316E+10	-199.0613	1684.4716	0.000
4.800	0.5319	632764.	4769.1178	-0.007251	0.000	1.263E+10	-201.7323	1820.6381	0.000
5.200	0.4976	656755.	3795.2252	-0.007002	0.000	1.224E+10	-204.0563	1968.2817	0.000
5.600	0.4646	675920.	2810.9975	-0.006737	0.000	1.195E+10	-206.0386	2128.5175	0.000
6.000	0.4329	690208.	1818.0588	-0.006461	0.000	1.175E+10	-207.6859	2302.5681	0.000
6.400	0.4026	699576.	818.0001	-0.006175	0.000	1.162E+10	-209.0053	2491.7802	0.000
6.800	0.3737	703989.	-187.6236	-0.005884	0.000	1.156E+10	-210.0046	2697.6472	0.000
7.200	0.3461	703424.	-1197.2936	-0.005592	0.000	1.157E+10	-210.6912	2921.8423	0.000
7.600	0.3200	697864.	-2209.5242	-0.005303	0.000	1.164E+10	-211.0716	3166.2667	0.000
8.000	0.2952	687303.	-2716.0964	-0.005019	0.000	1.179E+10	-0.000143	0.002327	0.000
8.400	0.2718	676607.	-2716.0970	-0.004743	0.000	1.194E+10	-0.000132	0.002330	0.000
8.800	0.2497	665781.	-2716.0976	-0.004475	0.000	1.210E+10	-0.000121	0.002333	0.000
9.200	0.2288	654829.	-2716.0982	-0.004214	0.000	1.227E+10	-0.000111	0.002335	0.000
9.600	0.2092	643753.	-2716.0987	-0.003962	0.000	1.245E+10	-0.000102	0.002338	0.000
10.000	0.1908	632558.	-2716.0992	-0.003718	0.000	1.263E+10	-9.306E-05	0.002341	0.000
10.400	0.1735	621247.	-2716.0996	-0.003482	0.000	1.283E+10	-8.474E-05	0.002344	0.000
10.800	0.1574	609825.	-2716.1000	-0.003253	0.000	1.305E+10	-7.694E-05	0.002347	0.000
11.200	0.1423	598296.	-2716.1003	-0.003033	0.000	1.327E+10	-6.965E-05	0.002349	0.000
11.600	0.1283	586662.	-2716.1007	-0.002820	0.000	1.350E+10	-6.286E-05	0.002352	0.000
12.000	0.1152	574929.	-2716.1009	-0.002616	0.000	1.375E+10	-5.654E-05	0.002355	0.000
12.400	0.1032	563099.	-2716.1012	-0.002419	0.000	1.401E+10	-5.067E-05	0.002358	0.000
12.800	0.0920	551176.	-2716.1014	-0.002230	0.000	1.429E+10	-4.525E-05	0.002361	0.000
13.200	0.0818	539165.	-2716.1016	-0.002049	0.000	1.458E+10	-4.025E-05	0.002363	0.000
13.600	0.0723	527068.	-2716.1018	-0.001875	0.000	1.488E+10	-3.566E-05	0.002366	0.000
14.000	0.0638	514890.	-2716.1020	-0.001709	0.000	1.520E+10	-3.146E-05	0.002369	0.000
14.400	0.0559	502634.	-2716.1021	-0.001550	0.000	1.554E+10	-2.764E-05	0.002372	0.000
14.800	0.0489	490303.	-2716.1022	-0.001398	0.000	1.600E+10	-2.418E-05	0.002375	0.000
15.200	0.0425	477902.	-2716.1024	-0.001275	0.000	2.285E+10	-2.106E-05	0.002377	0.000
15.600	0.0366	465452.	-2716.1024	-0.001176	0.000	2.286E+10	-1.817E-05	0.002380	0.000

16.000	0.0312	452956.	-2716.1025	-0.001079	0.000	2.287E+10	-1.550E-05	0.002383	0.000
16.400	0.0263	440414.	-2716.1026	-0.000986	0.000	2.288E+10	-1.306E-05	0.002386	0.000
16.800	0.0218	427827.	-2716.1027	-0.000894	0.000	2.289E+10	-1.083E-05	0.002388	0.000
17.200	0.0177	415198.	-2716.1027	-0.000806	0.000	2.290E+10	-8.814E-06	0.002391	0.000
17.600	0.0140	402527.	-2716.1027	-0.000720	0.000	2.291E+10	-6.999E-06	0.002394	0.000
18.000	0.0108	389815.	-3200.2379	-0.000637	0.000	2.292E+10	-201.7230	89847.	0.000
18.400	0.007913	372416.	-4050.7960	-0.000558	0.000	2.293E+10	-152.6763	92611.	0.000
18.800	0.005424	351463.	-4675.8568	-0.000482	0.000	2.294E+10	-107.7657	95376.	0.000
19.200	0.003287	327991.	-5095.7842	-0.000411	0.000	2.295E+10	-67.2040	98141.	0.000
19.600	0.001480	302938.	-5331.7190	-0.000345	0.000	2.296E+10	-31.1021	100906.	0.000
20.000	-2.393E-05	277137.	-5405.1240	-0.000284	0.000	2.297E+10	0.5168	103671.	0.000
20.400	-0.001249	251321.	-5337.3958	-0.000229	0.000	2.297E+10	27.7033	106435.	0.000
20.800	-0.002223	226118.	-5149.5465	-0.000179	0.000	2.297E+10	50.5672	109200.	0.000
21.200	-0.002969	202058.	-4861.9537	-0.000134	0.000	2.298E+10	69.2631	111965.	0.000
21.600	-0.003513	179573.	-4494.1800	-9.457E-05	0.000	2.298E+10	83.9760	114730.	0.000
22.000	-0.003877	159004.	-4290.9340	-5.921E-05	0.000	2.298E+10	0.7099	878.7974	0.000
22.400	-0.004082	138436.	-4289.2304	-2.814E-05	0.000	2.298E+10	1.524E-07	0.000179	0.000
22.800	-0.004147	117855.	-4289.2304	-1.370E-06	0.000	2.298E+10	1.573E-07	0.000182	0.000
23.200	-0.004095	97261.	-4289.2304	2.110E-05	0.000	2.298E+10	1.577E-07	0.000185	0.000
23.600	-0.003945	76658.	-4289.2304	3.927E-05	0.000	2.298E+10	1.542E-07	0.000188	0.000
24.000	-0.003718	56047.	-4043.6277	5.313E-05	0.000	2.297E+10	102.3344	132117.	0.000
24.400	-0.003435	37788.	-3558.8239	6.293E-05	0.000	2.297E+10	99.6671	139280.	0.000
24.800	-0.003114	21822.	-3088.1208	6.916E-05	0.000	2.297E+10	96.4592	148694.	0.000
25.200	-0.002771	8075.6305	-2633.9500	7.228E-05	0.000	2.297E+10	92.7787	160719.	0.000
25.600	-0.002420	-3533.6195	-2198.4450	7.276E-05	0.000	2.297E+10	88.6817	175905.	0.000
26.000	-0.002072	-13099.	-1783.4933	7.102E-05	0.000	2.297E+10	84.2148	195051.	0.000
26.400	-0.001738	-20723.	-1390.7775	6.749E-05	0.000	2.297E+10	79.4168	219319.	0.000
26.800	-0.001425	-26516.	-1021.8096	6.255E-05	0.000	2.297E+10	74.3198	250414.	0.000
27.200	-0.001138	-30593.	-677.9634	5.658E-05	0.000	2.297E+10	68.9495	290915.	0.000
27.600	-0.000881	-33078.	-360.5071	4.993E-05	0.000	2.297E+10	63.3240	344858.	0.000
28.000	-0.000658	-34102.	-70.6461	4.291E-05	0.000	2.297E+10	57.4514	418894.	0.000
28.400	-0.000469	-33798.	190.4145	3.582E-05	0.000	2.297E+10	51.3238	524766.	0.000
28.800	-0.000314	-32308.	421.3577	2.891E-05	0.000	2.297E+10	44.9025	685341.	0.000
29.200	-0.000192	-29780.	620.5146	2.242E-05	0.000	2.297E+10	38.0795	952344.	0.000
29.600	-9.924E-05	-26373.	785.2260	1.655E-05	0.000	2.297E+10	30.5502	1477634.	0.000
30.000	-3.301E-05	-22258.	909.2619	1.147E-05	0.000	2.297E+10	21.1314	3072993.	0.000
30.400	1.090E-05	-17655.	924.5895	7.302E-06	0.000	2.297E+10	-14.7449	6493798.	0.000
30.800	3.710E-05	-13389.	836.2524	4.059E-06	0.000	2.297E+10	-22.0622	2854749.	0.000
31.200	4.986E-05	-9630.5144	724.9177	1.653E-06	0.000	2.297E+10	-24.3273	2341910.	0.000
31.600	5.297E-05	-6431.4701	606.9950	-2.506E-08	0.000	2.297E+10	-24.8072	2248095.	0.000
32.000	4.962E-05	-3803.3383	489.2470	-1.094E-06	0.000	2.297E+10	-24.2545	2346222.	0.000
32.400	4.246E-05	-1733.6484	375.8437	-1.673E-06	0.000	2.297E+10	-22.9969	2599764.	0.000
32.800	3.356E-05	-193.6330	269.7411	-1.874E-06	0.000	2.297E+10	-21.2125	3034016.	0.000
33.200	2.447E-05	857.6660	173.2201	-1.805E-06	0.000	2.297E+10	-19.0046	3728674.	0.000
33.600	1.623E-05	1471.0131	88.1950	-1.562E-06	0.000	2.297E+10	-16.4225	4856668.	0.000
34.000	9.472E-06	1705.8375	16.5024	-1.230E-06	0.000	2.297E+10	-13.4494	6815307.	0.000
34.400	4.425E-06	1630.6164	-39.5779	-8.812E-07	0.000	2.297E+10	-9.9174	10757857.	0.000
34.800	1.013E-06	1326.7352	-65.8116	-5.721E-07	0.000	2.297E+10	-1.0133	4800000.	0.000
35.200	-1.068E-06	999.3747	-65.6813	-3.291E-07	0.000	2.297E+10	1.0676	4800000.	0.000
35.600	-2.146E-06	696.5106	-57.9689	-1.519E-07	0.000	2.297E+10	2.1459	4800000.	0.000
36.000	-2.526E-06	443.0188	-46.7572	-3.281E-08	0.000	2.297E+10	2.5256	4800000.	0.000
36.400	-2.461E-06	247.6728	-34.7895	3.936E-08	0.000	2.297E+10	2.4609	4800000.	0.000
36.800	-2.148E-06	109.0014	-23.7287	7.663E-08	0.000	2.297E+10	2.1478	4800000.	0.000
37.200	-1.725E-06	19.8037	-14.4334	9.009E-08	0.000	2.297E+10	1.7253	4800000.	0.000
37.600	-1.283E-06	-29.6455	-7.2137	8.906E-08	0.000	2.297E+10	1.2829	4800000.	0.000
38.000	-8.703E-07	-49.5330	-2.0459	8.079E-08	0.000	2.297E+10	0.8703	4800000.	0.000
38.400	-5.074E-07	-49.3634	1.2606	7.045E-08	0.000	2.297E+10	0.5074	4800000.	0.000
38.800	-1.940E-07	-37.4985	2.9439	6.138E-08	0.000	2.297E+10	0.1940	4800000.	0.000
39.200	8.181E-08	-21.1606	3.2131	5.525E-08	0.000	2.297E+10	-0.0818	4800000.	0.000
39.600	3.364E-07	-6.7055	2.2095	5.233E-08	0.000	2.297E+10	-0.3364	4800000.	0.000
40.000	5.842E-07	0.000	0.000	5.163E-08	0.000	2.297E+10	-0.5842	2400000.	0.000

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  The above values of total stress are computed for combined axial and bending stress in elastic

sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 3:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0085036 radians
Maximum bending moment = 703989. inch-lbs
Maximum shear force = 15040. lbs
Depth of maximum bending moment = 81.6000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 32
Number of zero deflection points = 4

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 4

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 0.375000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	0.000	10546.	-0.003240	0.000	2.297E+10	-105.8666	677.5459	0.000
0.400	0.3594	50958.	10027.	-0.003235	0.000	2.297E+10	-110.4363	1474.7546	0.000
0.800	0.3439	99367.	9486.6738	-0.003219	0.000	2.298E+10	-114.7911	1602.0027	0.000
1.200	0.3285	145121.	8925.7511	-0.003194	0.000	2.298E+10	-118.9267	1737.5334	0.000
1.600	0.3133	188120.	8345.5124	-0.003159	0.000	2.298E+10	-122.8395	1882.1074	0.000
2.000	0.2982	228271.	7747.0347	-0.003116	0.000	2.297E+10	-126.5262	2036.5563	0.000
2.400	0.2834	265483.	7131.4090	-0.003064	0.000	2.297E+10	-129.9845	2201.7900	0.000
2.800	0.2688	299674.	6499.7374	-0.003005	0.000	2.296E+10	-133.2120	2378.8050	0.000
3.200	0.2545	330765.	5853.1309	-0.002939	0.000	2.295E+10	-136.2074	2568.6936	0.000
3.600	0.2406	358685.	5192.7062	-0.002867	0.000	2.294E+10	-138.9696	2772.6540	0.000
4.000	0.2270	383367.	4519.5839	-0.002789	0.000	2.292E+10	-141.4981	2992.0022	0.000
4.400	0.2138	404751.	3834.8851	-0.002707	0.000	2.291E+10	-143.7931	3228.1852	0.000
4.800	0.2010	422781.	3139.7298	-0.002620	0.000	2.289E+10	-145.8550	3482.7973	0.000
5.200	0.1887	437407.	2435.2337	-0.002530	0.000	2.288E+10	-147.6850	3757.5978	0.000
5.600	0.1767	448587.	1722.5072	-0.002437	0.000	2.287E+10	-149.2844	4054.5343	0.000
6.000	0.1653	456283.	1002.6529	-0.002342	0.000	2.287E+10	-150.6549	4375.7703	0.000
6.400	0.1542	460461.	276.7650	-0.002246	0.000	2.286E+10	-151.7984	4723.7203	0.000
6.800	0.1437	461096.	-454.0709	-0.002149	0.000	2.286E+10	-152.7166	5101.0953	0.000
7.200	0.1336	458165.	-1188.7780	-0.002052	0.000	2.287E+10	-153.4113	5510.9627	0.000
7.600	0.1240	451654.	-1926.2854	-0.001957	0.000	2.287E+10	-153.8834	5956.8269	0.000
8.000	0.1148	441551.	-2295.6058	-0.001863	0.000	2.288E+10	-5.567E-05	0.002327	0.000
8.400	0.1061	431405.	-2295.6060	-0.001772	0.000	2.289E+10	-5.151E-05	0.002330	0.000
8.800	0.0978	421214.	-2295.6063	-0.001682	0.000	2.290E+10	-4.754E-05	0.002333	0.000
9.200	0.0900	410982.	-2295.6065	-0.001595	0.000	2.290E+10	-4.377E-05	0.002335	0.000
9.600	0.0825	400708.	-2295.6067	-0.001510	0.000	2.291E+10	-4.019E-05	0.002338	0.000
10.000	0.0755	390394.	-2295.6069	-0.001427	0.000	2.292E+10	-3.681E-05	0.002341	0.000
10.400	0.0688	380040.	-2295.6070	-0.001347	0.000	2.293E+10	-3.360E-05	0.002344	0.000
10.800	0.0625	369648.	-2295.6072	-0.001268	0.000	2.293E+10	-3.057E-05	0.002347	0.000
11.200	0.0566	359220.	-2295.6073	-0.001192	0.000	2.294E+10	-2.772E-05	0.002349	0.000
11.600	0.0511	348755.	-2295.6075	-0.001118	0.000	2.294E+10	-2.504E-05	0.002352	0.000
12.000	0.0459	338255.	-2295.6076	-0.001046	0.000	2.295E+10	-2.252E-05	0.002355	0.000
12.400	0.0411	327721.	-2295.6077	-0.000976	0.000	2.295E+10	-2.017E-05	0.002358	0.000
12.800	0.0365	317154.	-2295.6078	-0.000909	0.000	2.296E+10	-1.797E-05	0.002361	0.000
13.200	0.0323	306556.	-2295.6078	-0.000844	0.000	2.296E+10	-1.592E-05	0.002363	0.000

13.600	0.0284	295926.	-2295.6079	-0.000781	0.000	2.296E+10	-1.402E-05	0.002366	0.000
14.000	0.0248	285267.	-2295.6080	-0.000720	0.000	2.297E+10	-1.226E-05	0.002369	0.000
14.400	0.0215	274579.	-2295.6080	-0.000661	0.000	2.297E+10	-1.064E-05	0.002372	0.000
14.800	0.0185	263864.	-2295.6081	-0.000605	0.000	2.297E+10	-9.147E-06	0.002375	0.000
15.200	0.0157	253122.	-2295.6081	-0.000551	0.000	2.297E+10	-7.784E-06	0.002377	0.000
15.600	0.0132	242355.	-2295.6082	-0.000499	0.000	2.297E+10	-6.545E-06	0.002380	0.000
16.000	0.0109	231564.	-2295.6082	-0.000450	0.000	2.297E+10	-5.423E-06	0.002383	0.000
16.400	0.008880	220749.	-2295.6082	-0.000403	0.000	2.297E+10	-4.414E-06	0.002386	0.000
16.800	0.007059	209913.	-2295.6082	-0.000358	0.000	2.298E+10	-3.512E-06	0.002388	0.000
17.200	0.005447	199055.	-2295.6082	-0.000315	0.000	2.298E+10	-2.714E-06	0.002391	0.000
17.600	0.004036	188177.	-2295.6083	-0.000274	0.000	2.298E+10	-2.013E-06	0.002394	0.000
18.000	0.002813	177281.	-2421.9688	-0.000236	0.000	2.298E+10	-52.6502	89847.	0.000
18.400	0.001768	165153.	-2630.1807	-0.000200	0.000	2.298E+10	-34.1048	92611.	0.000
18.800	0.000888	152223.	-2754.3823	-0.000167	0.000	2.298E+10	-17.6459	95376.	0.000
19.200	0.000161	138872.	-2804.6395	-0.000137	0.000	2.298E+10	-3.2947	98141.	0.000
19.600	-0.000427	125430.	-2791.0268	-0.000109	0.000	2.298E+10	8.9666	100906.	0.000
20.000	-0.000888	112183.	-2723.4546	-8.451E-05	0.000	2.298E+10	19.1885	103671.	0.000
20.400	-0.001238	99366.	-2611.5269	-6.242E-05	0.000	2.298E+10	27.4481	106435.	0.000
20.800	-0.001488	87172.	-2464.4274	-4.293E-05	0.000	2.298E+10	33.8434	109200.	0.000
21.200	-0.001650	75749.	-2290.8332	-2.591E-05	0.000	2.298E+10	38.4875	111965.	0.000
21.600	-0.001736	65205.	-2098.8557	-1.119E-05	0.000	2.298E+10	41.5031	114730.	0.000
22.000	-0.001757	55611.	-1998.4761	1.431E-06	0.000	2.297E+10	0.3217	878.7974	0.000
22.400	-0.001723	46018.	-1997.7039	1.205E-05	0.000	2.297E+10	6.433E-08	0.000179	0.000
22.800	-0.001642	36421.	-1997.7039	2.066E-05	0.000	2.297E+10	6.227E-08	0.000182	0.000
23.200	-0.001524	26820.	-1997.7039	2.727E-05	0.000	2.297E+10	5.870E-08	0.000185	0.000
23.600	-0.001380	17217.	-1997.7039	3.187E-05	0.000	2.297E+10	5.394E-08	0.000188	0.000
24.000	-0.001218	7611.7776	-1828.2540	3.446E-05	0.000	2.297E+10	70.6042	278163.	0.000
24.400	-0.001049	-367.4061	-1497.5793	3.522E-05	0.000	2.297E+10	67.1769	307356.	0.000
24.800	-0.000880	-6798.7964	-1184.2747	3.447E-05	0.000	2.297E+10	63.3667	345546.	0.000
25.200	-0.000718	-11770.	-890.0684	3.253E-05	0.000	2.297E+10	59.2193	395800.	0.000
25.600	-0.000568	-15375.	-616.4915	2.970E-05	0.000	2.297E+10	54.7711	462918.	0.000
26.000	-0.000433	-17716.	-364.9227	2.624E-05	0.000	2.297E+10	50.0492	554699.	0.000
26.400	-0.000316	-18903.	-136.6382	2.241E-05	0.000	2.297E+10	45.0693	684518.	0.000
26.800	-0.000218	-19050.	67.1181	1.845E-05	0.000	2.297E+10	39.8292	877208.	0.000
27.200	-0.000139	-18277.	245.0092	1.455E-05	0.000	2.297E+10	34.2922	1184572.	0.000
27.600	-7.830E-05	-16711.	395.3200	1.089E-05	0.000	2.297E+10	28.3373	1737104.	0.000
28.000	-3.441E-05	-14492.	515.0752	7.629E-06	0.000	2.297E+10	21.5607	3007360.	0.000
28.400	-5.060E-06	-11774.	594.2505	4.885E-06	0.000	2.297E+10	11.4290	10841471.	0.000
28.800	1.248E-05	-8791.7719	584.8400	2.736E-06	0.000	2.297E+10	-15.3500	5903008.	0.000
29.200	2.120E-05	-6162.2448	503.9873	1.173E-06	0.000	2.297E+10	-18.3386	4151222.	0.000
29.600	2.375E-05	-3954.6202	414.2382	1.162E-07	0.000	2.297E+10	-19.0569	3852132.	0.000
30.000	2.232E-05	-2185.6695	323.6702	-5.254E-07	0.000	2.297E+10	-18.6798	4017051.	0.000
30.400	1.870E-05	-846.8819	236.5427	-8.422E-07	0.000	2.297E+10	-17.6233	4522989.	0.000
30.800	1.424E-05	85.9491	155.5943	-9.217E-07	0.000	2.297E+10	-16.1052	5430526.	0.000
31.200	9.854E-06	647.7086	82.7090	-8.451E-07	0.000	2.297E+10	-14.2637	6948037.	0.000
31.600	6.122E-06	880.7665	19.2137	-6.854E-07	0.000	2.297E+10	-12.1926	9558942.	0.000
32.000	3.274E-06	832.8183	-17.9073	-5.063E-07	0.000	2.297E+10	-3.2745	4800000.	0.000
32.400	1.262E-06	709.3425	-28.7946	-3.452E-07	0.000	2.297E+10	-1.2619	4800000.	0.000
32.800	-3.916E-08	556.7215	-31.7291	-2.129E-07	0.000	2.297E+10	0.0392	4800000.	0.000
33.200	-7.818E-07	404.9471	-29.7589	-1.124E-07	0.000	2.297E+10	0.7818	4800000.	0.000
33.600	-1.118E-06	271.1439	-25.1991	-4.175E-08	0.000	2.297E+10	1.1182	4800000.	0.000
34.000	-1.183E-06	163.0759	-19.6774	3.622E-09	0.000	2.297E+10	1.1826	4800000.	0.000
34.400	-1.083E-06	82.2379	-14.2390	2.925E-08	0.000	2.297E+10	1.0834	4800000.	0.000
34.800	-9.017E-07	26.3530	-9.4748	4.060E-08	0.000	2.297E+10	0.9017	4800000.	0.000
35.200	-6.936E-07	-8.7589	-5.6459	4.244E-08	0.000	2.297E+10	0.6936	4800000.	0.000
35.600	-4.943E-07	-27.8888	-2.7949	3.861E-08	0.000	2.297E+10	0.4943	4800000.	0.000
36.000	-3.230E-07	-35.6271	-0.8335	3.197E-08	0.000	2.297E+10	0.3230	4800000.	0.000
36.400	-1.874E-07	-35.9208	0.3913	2.450E-08	0.000	2.297E+10	0.1874	4800000.	0.000
36.800	-8.779E-08	-31.8941	1.0517	1.741E-08	0.000	2.297E+10	0.0878	4800000.	0.000
37.200	-2.021E-08	-25.8416	1.3109	1.138E-08	0.000	2.297E+10	0.0202	4800000.	0.000
37.600	2.144E-08	-19.3207	1.3079	6.659E-09	0.000	2.297E+10	-0.0214	4800000.	0.000
38.000	4.372E-08	-13.2921	1.1515	3.252E-09	0.000	2.297E+10	-0.0437	4800000.	0.000
38.400	5.266E-08	-8.2694	0.9202	9.988E-10	0.000	2.297E+10	-0.0527	4800000.	0.000
38.800	5.331E-08	-4.4591	0.6659	-3.312E-10	0.000	2.297E+10	-0.0533	4800000.	0.000

39.200	4.948E-08	-1.8767	0.4192	-9.932E-10	0.000	2.297E+10	-0.0495	4800000.	0.000
39.600	4.377E-08	-0.4341	0.1954	-1.235E-09	0.000	2.297E+10	-0.0438	4800000.	0.000
40.000	3.763E-08	0.000	0.000	-1.280E-09	0.000	2.297E+10	-0.0376	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 4:

Pile-head deflection = 0.3750000 inches
Computed slope at pile head = -0.0032405 radians
Maximum bending moment = 461096. inch-lbs
Maximum shear force = 10546. lbs
Depth of maximum bending moment = 81.6000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 16
Number of zero deflection points = 4

Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or y(inches)	Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Maximum Moment in Pile in-lbs	Maximum Shear in Pile lbs	Pile-head Rotation radians
1	5	y = 1.0000	S = 0.000	100000.	1.00000000	-1500343.	25141.	-0.00003835
2	5	y = 0.3750	S = 0.000	100000.	0.37500000	-903806.	16764.	-0.00001966
3	4	y = 1.0000	M = 0.000	100000.	1.00000000	703989.	15040.	-0.00850356
4	4	y = 0.3750	M = 0.000	100000.	0.37500000	461096.	10546.	-0.00324045

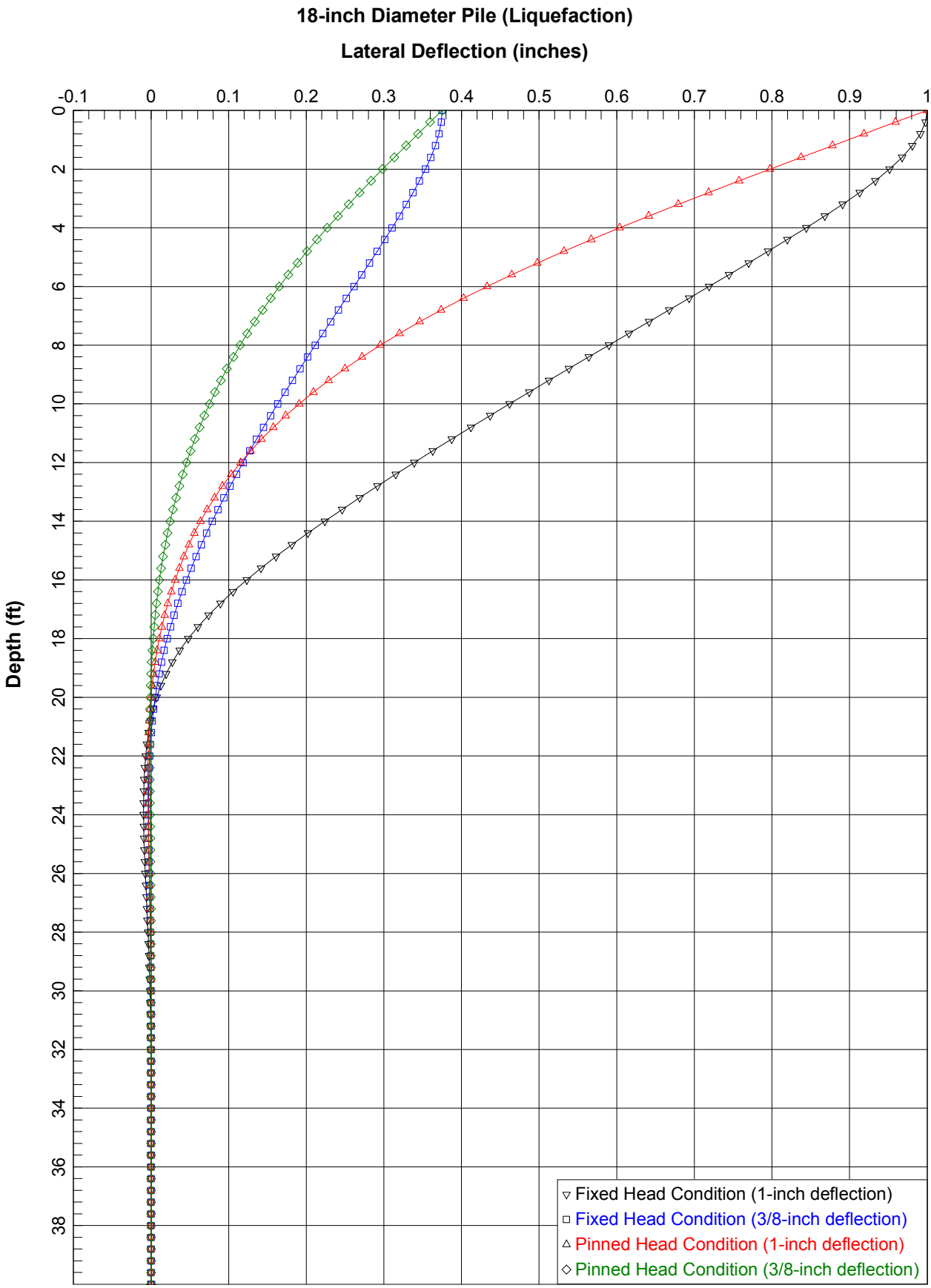
Summary of Warning Messages

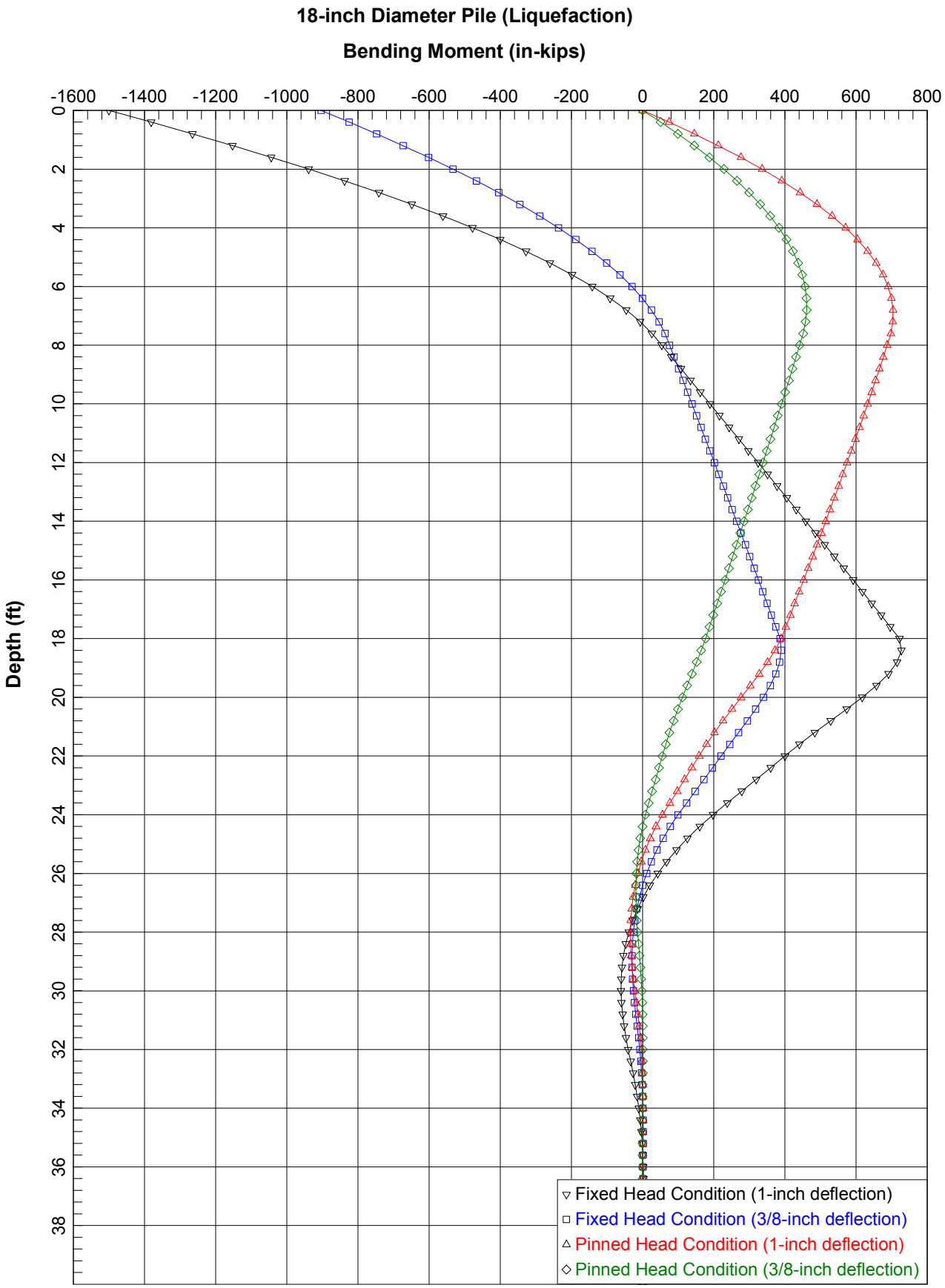
The following warning was reported 480 times

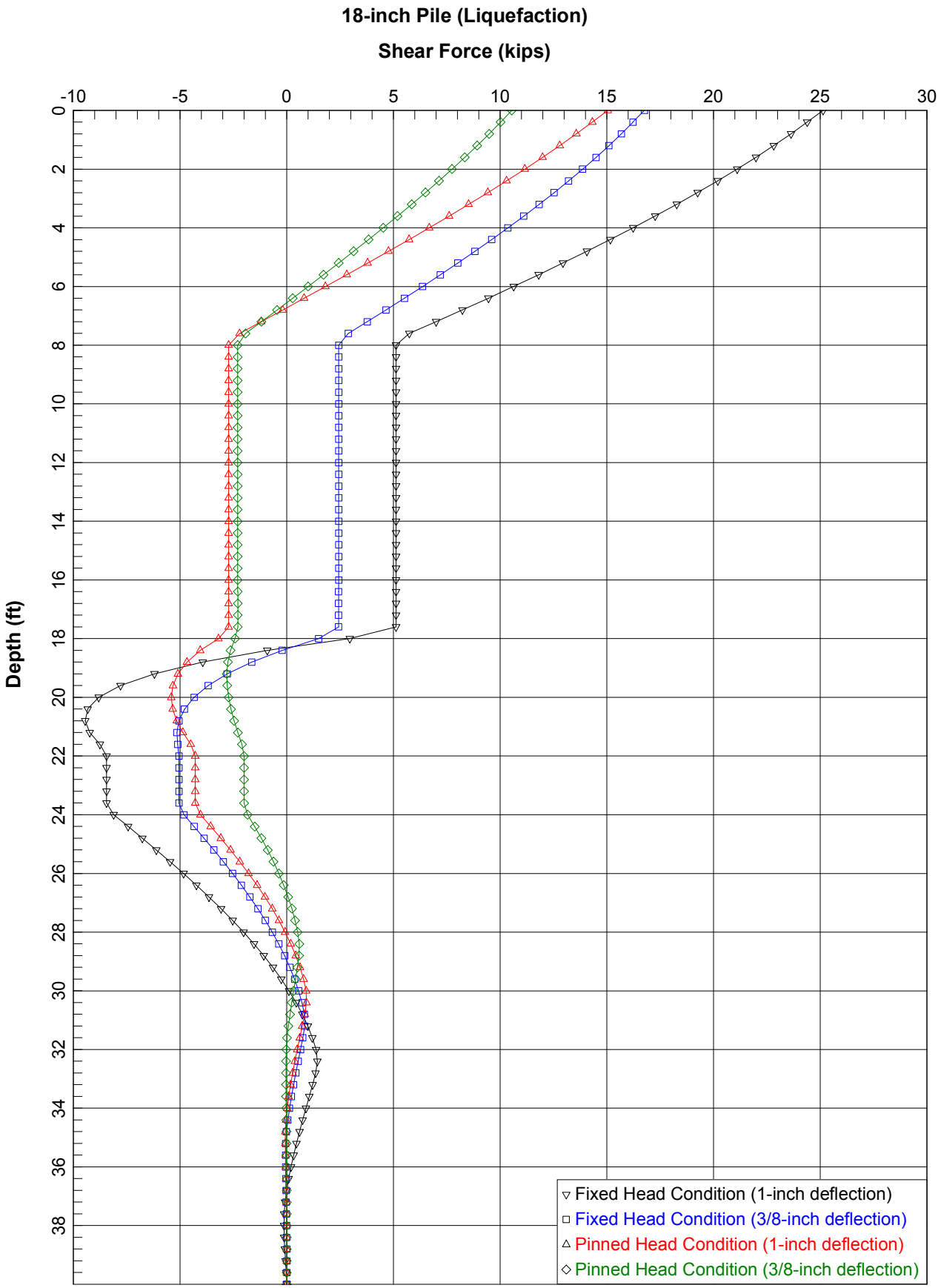
**** Warning ****

An unreasonable value was input for friction angle has been specified
for a soil layer defined uisng the sand criteria. The input value is
either smaller than 20 degrees or higher than 48 degrees. The input
data should be checked for correctness.

The analysis ended normally.


18-inch Diameter Pile (Liquefaction)
Lateral Deflection (inches)
Depth (ft)
-0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)


18-inch Diameter Pile (Liquefaction)
Bending Moment (in-kips)
-1600
-1400
-1200
-1000
-800
-600
-400
-200
0
200
400
600
800
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)


18-inch Pile (Liquefaction)
Shear Force (kips)
-10
-5
0
5
10
15
20
25
30
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)

LPile Plus for Windows, Version 2012-06.037

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

This copy of LPile is licensed to:

Ninyo and Moore
San Jose

Serial Number of Security Device: 140964469
Company Name Stored in Security Device: Ninyo & Moore

Files Used for Analysis

Path to file locations: C:\Users\RHennefer\Desktop\LPILE\24-inch pile - liquefied\
Name of input data file: 24 inch pile - liquefied.lp6d
Name of output report file: 24 inch pile - liquefied.lp6o
Name of plot output file: 24 inch pile - liquefied.lp6p
Name of runtime messeage file: 24 inch pile - liquefied.lp6r

Date and Time of Analysis

Date: July 7, 2016 Time: 13:02:29

Problem Title

Project Name: San Jose State University New Science Building

Job Number: 402814001

Client: San Jose State University

Engineer: RH

Description:

Program Options

Engineering units are US Customary Units: pounds, inches, feet

Basic Program Options:

This analysis computes pile response to lateral loading and will compute nonlinear moment-curvature and nominal moment capacity for section types with nonlinear properties.

Computation Options:
- Analysis does not use p-y multipliers (individual pile or shaft only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix values
- Report pile response for full length of pile
- Analysis assumes no loading by soil movements acting on pile
- No p-y curves to be computed and reported for user-specified depths

Solution Control Parameters:
- Number of pile increments = 100
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in

Pile Response Output Options:
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1

Pile Structural Properties and Geometry

Total number of pile sections = 1

Total length of pile = 40.00 ft

Depth of ground surface below top of pile = 0.00 ft

Pile diameter values used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile.

Point	Depth X ft	Pile Diameter in
1	0.00000	24.0000000
2	40.000000	24.0000000

Input Structural Properties:

Pile Section No. 1:

Section Type = Drilled Shaft (Bored Pile)
Section Length = 40.00000000 ft
Section Diameter = 24.00000000 in

Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
= 0.000 radians

Pile Batter Angle = 0.000 degrees
= 0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 7 layers

Layer 1 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	0.0000 ft
Distance from top of pile to bottom of layer	=	8.00000 ft
Effective unit weight at top of layer	=	61.00000 pcf
Effective unit weight at bottom of layer	=	61.00000 pcf
Undrained cohesion at top of layer	=	600.00000 psf
Undrained cohesion at bottom of layer	=	600.00000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 2 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	8.00000 ft
Distance from top of pile to bottom of layer	=	18.00000 ft
Effective unit weight at top of layer	=	60.00000 pcf
Effective unit weight at bottom of layer	=	60.00000 pcf
Friction angle at top of layer	=	1.00000 deg.
Friction angle at bottom of layer	=	1.00000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 3 is cemented silt with cohesion and friction

Distance from top of pile to top of layer	=	18.00000 ft
Distance from top of pile to bottom of layer	=	22.00000 ft
Effective unit weight at top of layer	=	53.00000 pcf
Effective unit weight at bottom of layer	=	53.00000 pcf
Undrained cohesion at top of layer	=	1.00000 psf
Undrained cohesion at bottom of layer	=	1.00000 psf
Friction angle at top of layer	=	29.00000 deg.
Friction angle at bottom of layer	=	29.00000 deg.
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	22.00000	ft
Distance from top of pile to bottom of layer	=	24.00000	ft
Effective unit weight at top of layer	=	53.00000	pcf
Effective unit weight at bottom of layer	=	53.00000	pcf
Friction angle at top of layer	=	1.00000	deg.
Friction angle at bottom of layer	=	1.00000	deg.
Subgrade k at top of layer	=	0.0000	pci
Subgrade k at bottom of layer	=	0.0000	pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 5 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	24.00000	ft
Distance from top of pile to bottom of layer	=	43.00000	ft
Effective unit weight at top of layer	=	50.00000	pcf
Effective unit weight at bottom of layer	=	50.00000	pcf
Undrained cohesion at top of layer	=	900.00000	psf
Undrained cohesion at bottom of layer	=	900.00000	psf
Epsilon-50 at top of layer	=	0.0000	
Epsilon-50 at bottom of layer	=	0.0000	

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

Layer 6 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	43.00000	ft
Distance from top of pile to bottom of layer	=	52.00000	ft
Effective unit weight at top of layer	=	70.00000	pcf
Effective unit weight at bottom of layer	=	70.00000	pcf
Friction angle at top of layer	=	1.00000	deg.
Friction angle at bottom of layer	=	1.00000	deg.
Subgrade k at top of layer	=	0.0000	pci
Subgrade k at bottom of layer	=	0.0000	pci

NOTE: Internal default values for subgrade k will be computed for the above soil layer.

Layer 7 is stiff clay without free water

Distance from top of pile to top of layer	=	52.00000	ft
Distance from top of pile to bottom of layer	=	100.00000	ft
Effective unit weight at top of layer	=	60.00000	pcf
Effective unit weight at bottom of layer	=	60.00000	pcf
Undrained cohesion at top of layer	=	1500.00000	psf
Undrained cohesion at bottom of layer	=	1500.00000	psf
Epsilon-50 at top of layer	=	0.0000	
Epsilon-50 at bottom of layer	=	0.0000	

NOTE: Internal default values for Epsilon-50 will be computed for the above soil layer.

(Depth of lowest soil layer extends 60.00 ft below pile tip)

Summary of Soil Properties

Layer Num.	Layer Soil Type (p-y Curve Criteria)	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	Angle of Friction deg.	Strain Factor Epsilon 50	kpy pci
1	Soft Clay	0.00	61.000	600.000	--	default	--
		8.000	61.000	600.000	--	default	--
2	Sand (Reese, et al.)	8.000	60.000	--	1.000	--	default
		18.000	60.000	--	1.000	--	default
3	Cemented Silt	18.000	53.000	1.000	29.000	default	default
		22.000	53.000	1.000	29.000	default	default
4	Sand (Reese, et al.)	22.000	53.000	--	1.000	--	default
		24.000	53.000	--	1.000	--	default
5	Soft Clay	24.000	50.000	900.000	--	default	--
		43.000	50.000	900.000	--	default	--
6	Sand (Reese, et al.)	43.000	70.000	--	1.000	--	default
		52.000	70.000	--	1.000	--	default
7	Stiff Clay w/o Free Water	52.000	60.000	1500.000	--	default	--
		100.000	60.000	1500.000	--	default	--

Loading Type

Cyclic loading criteria were used for computation of p-y curves for all analyses.

Number of cycles of loading = 10

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 4

Load No.	Load Type	Condition 1		Condition 2		Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	5	y =	1.00000 in	S =	0.0000 in/in	100000.	No
2	5	y =	0.37500 in	S =	0.0000 in/in	100000.	No
3	4	y =	1.00000 in	M =	0.0000 in-lbs	100000.	No
4	4	y =	0.37500 in	M =	0.0000 in-lbs	100000.	No

V = perpendicular shear force applied to pile head
M = bending moment applied to pile head
y = lateral deflection relative to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applie to pile head
Axial thrust is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	40.00000000 ft
Shaft Diameter	=	24.00000000 in
Concrete Cover Thickness	=	3.00000000 in
Number of Reinforcing Bars	=	10 bars
Yield Stress of Reinforcing Bars	=	60.00000000 ksi
Modulus of Elasticity of Reinforcing Bars	=	29000. ksi
Gross Area of Shaft	=	452.38934212 sq. in.
Total Area of Reinforcing Steel	=	7.90000000 sq. in.
Area Ratio of Steel Reinforcement	=	1.75 percent
Edge-to-Edge Bar Spacing	=	4.25328890 in
Maximum Concrete Aggregate Size	=	0.75000000 in
Ratio of Bar Spacing to Aggregate Size	=	5.67
Offset of Rebar Cage Center from Center of Pile	=	0.0000000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As	=	1985.264 kips
Tensile Load for Cracking of Concrete	=	-211.299 kips
Nominal Axial Tensile Capacity	=	-474.000 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.00000	0.79000	8.50000	0.00000
2	1.00000	0.79000	6.87664	4.99617
3	1.00000	0.79000	2.62664	8.08398
4	1.00000	0.79000	-2.62664	8.08398
5	1.00000	0.79000	-6.87664	4.99617
6	1.00000	0.79000	-8.50000	0.00000
7	1.00000	0.79000	-6.87664	-4.99617
8	1.00000	0.79000	-2.62664	-8.08398
9	1.00000	0.79000	2.62664	-8.08398
10	1.00000	0.79000	6.87664	-4.99617

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 4.25329 inches between Bars 1 and 2

Spacing to aggregate size ratio = 5.67105

Concrete Properties:

Compressive Strength of Concrete	=	4.00000000 ksi
Modulus of Elasticity of Concrete	=	3604.99653259 ksi
Modulus of Rupture of Concrete	=	-0.47434164 ksi
Compression Strain at Peak Stress	=	0.00188627
Tensile Strain at Fracture of Concrete	=	-0.00011537
Maximum Coarse Aggregate Size	=	0.75000000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force kips
1	100.000

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318-08 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than than 0.003. See ACI 318-08, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 100.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in	Max Concrete Stress ksi	Max Steel Stress ksi	Run Msg
0.000001250	93.0342924	74427434.	50.2821135	0.0000629	0.0000329	0.2615127	1.8183766	
0.000002500	186.0786004	74431440.	31.1574496	0.0000779	0.0000179	0.3223192	2.2502151	
0.000003750	279.1155389	74430810.	24.7898170	0.0000930	0.000002962	0.3827370	2.6828426	
0.000005000	372.1220434	74424409.	21.6112740	0.0001081	-0.0000119	0.4427597	3.1162347	
0.000006250	464.9342905	74389486.	19.7071594	0.0001232	-0.0000268	0.5023550	3.5501727	
0.000007500	557.4108400	74321445.	18.4392426	0.0001383	-0.0000417	0.5614908	3.9844353	
0.000008750	649.4903076	74227464.	17.5344010	0.0001534	-0.0000566	0.6201502	4.4189043	
0.0000100	741.1441906	74114419.	16.8562565	0.0001686	-0.0000714	0.6783238	4.8535144	
0.0000113	832.3589670	73987464.	16.3291337	0.0001837	-0.0000863	0.7360062	5.2882299	
0.0000125	923.1273405	73850187.	15.9076658	0.0001988	-0.0001012	0.7931944	5.7230289	
0.0000138	923.1273405	67136534.	14.1079327	0.0001940	-0.0001360	0.7741343	5.5776882	C
0.0000150	923.1273405	61541823.	13.6585127	0.0002049	-0.0001551	0.8149240	5.8892529	C
0.0000163	923.1273405	56807836.	13.2663371	0.0002156	-0.0001744	0.8547271	6.1952113	C
0.0000175	923.1273405	52750134.	12.9202415	0.0002261	-0.0001939	0.8936295	6.4961226	C
0.0000188	923.1273405	49233458.	12.6129672	0.0002365	-0.0002135	0.9317796	6.7930509	C
0.0000200	923.1273405	46156367.	12.3372586	0.0002467	-0.0002333	0.9691888	7.0860100	C
0.0000213	923.1273405	43441287.	12.0890095	0.0002569	-0.0002531	1.0059805	7.3759022	C
0.0000225	923.1273405	41027882.	11.8645077	0.0002670	-0.0002730	1.0422328	-7.8401087	C
0.0000238	926.1096066	38994089.	11.6601291	0.0002769	-0.0002931	1.0779622	-8.4164360	C
0.0000250	952.3180143	38092721.	11.4729669	0.0002868	-0.0003132	1.1131843	-8.9950990	C
0.0000263	978.2323416	37265994.	11.3012721	0.0002967	-0.0003333	1.1479712	-9.5755565	C
0.0000275	1003.9194873	36506163.	11.1435232	0.0003064	-0.0003536	1.1823844	-10.1573402	C
0.0000288	1029.2683489	35800638.	10.9966623	0.0003162	-0.0003738	1.2163011	-10.7414827	C
0.0000300	1054.4501866	35148340.	10.8608655	0.0003258	-0.0003942	1.2498884	-11.3266469	C
0.0000313	1079.4287053	34541719.	10.7344327	0.0003355	-0.0004145	1.2831081	-11.9131703	C
0.0000325	1104.2275482	33976232.	10.6163842	0.0003450	-0.0004350	1.3159745	-12.5009578	C
0.0000338	1128.8708615	33448026.	10.5060216	0.0003546	-0.0004554	1.3485175	-13.0897813	C
0.0000350	1153.3963511	32954181.	10.4028071	0.0003641	-0.0004759	1.3807737	-13.6793507	C
0.0000363	1177.7380925	32489327.	10.3053195	0.0003736	-0.0004964	1.4126606	-14.2703828	C
0.0000375	1202.0509195	32054691.	10.2145135	0.0003830	-0.0005170	1.4443753	-14.8612165	C
0.0000388	1226.1583949	31642797.	10.1278861	0.0003925	-0.0005375	1.4756751	-15.4539379	C
0.0000400	1250.2024009	31255060.	10.0464828	0.0004019	-0.0005581	1.5067566	-16.0468799	C
0.0000413	1274.2181151	30890136.	9.9701770	0.0004113	-0.0005787	1.5376681	-16.6396256	C

0.0000425	1298.0487497	30542324.	9.8968516	0.0004206	-0.0005994	1.5681748	-17.2342303	C
0.0000438	1321.8266003	30213179.	9.8276095	0.0004300	-0.0006200	1.5984760	-17.8289703	C
0.0000450	1345.5767666	29901706.	9.7623634	0.0004393	-0.0006407	1.6286091	-18.4235156	C
0.0000463	1369.2502325	29605410.	9.7002549	0.0004486	-0.0006614	1.6584936	-19.0185830	C
0.0000475	1392.7915508	29321927.	9.6404400	0.0004579	-0.0006821	1.6880393	-19.6149937	C
0.0000488	1416.3057673	29052426.	9.5838298	0.0004672	-0.0007028	1.7174188	-20.2112104	C
0.0000513	1463.2506992	28551233.	9.4792668	0.0004858	-0.0007442	1.7756746	-21.4030896	C
0.0000538	1509.8355047	28089963.	9.3822416	0.0005043	-0.0007857	1.8328101	-22.5983808	C
0.0000563	1556.3133455	27667793.	9.2943198	0.0005228	-0.0008272	1.8892852	-23.7928906	C
0.0000588	1602.6163247	27278576.	9.2135843	0.0005413	-0.0008687	1.9449617	-24.9879056	C
0.0000613	1648.6771994	26917179.	9.1384144	0.0005597	-0.0009103	1.9997058	-26.1847413	C
0.0000638	1694.6320212	26582463.	9.0695691	0.0005782	-0.0009518	2.0537918	-27.3807840	C
0.0000663	1740.4800664	26271397.	9.0063352	0.0005967	-0.0009933	2.1072168	-28.5760283	C
0.0000688	1786.0822140	25979378.	8.9465164	0.0006151	-0.0010349	2.1596642	-29.7736328	C
0.0000713	1831.5626364	25706142.	8.8911078	0.0006335	-0.0010765	2.2114176	-30.9707984	C
0.0000738	1876.9369503	25449993.	8.8398370	0.0006519	-0.0011181	2.2625115	-32.1671485	C
0.0000763	1922.2044270	25209238.	8.7922997	0.0006704	-0.0011596	2.3129430	-33.3626772	C
0.0000788	1967.3336564	24982015.	8.7477676	0.0006889	-0.0012011	2.3626290	-34.5582356	C
0.0000813	2012.2756720	24766470.	8.7053756	0.0007073	-0.0012427	2.4114420	-35.7552085	C
0.0000838	2057.1111942	24562522.	8.6658623	0.0007258	-0.0012842	2.4595931	-36.9513366	C
0.0000863	2101.8394635	24369153.	8.6289800	0.0007442	-0.0013258	2.5070791	-38.1466135	C
0.0000888	2146.4597105	24185462.	8.5945089	0.0007628	-0.0013672	2.5538972	-39.3410325	C
0.0000913	2190.9711554	24010643.	8.5622533	0.0007813	-0.0014087	2.6000442	-40.5345870	C
0.0000938	2235.3730085	23843979.	8.5320385	0.0007999	-0.0014501	2.6455171	-41.7272701	C
0.0000963	2279.6238246	23684403.	8.5031686	0.0008184	-0.0014916	2.6901867	-42.9205803	C
0.0000988	2323.7361400	23531505.	8.4756966	0.0008370	-0.0015330	2.7340923	-44.1140735	C
0.0001013	2367.7386891	23385073.	8.4498892	0.0008556	-0.0015744	2.7773226	-45.3066626	C
0.0001038	2411.6306461	23244633.	8.4256284	0.0008742	-0.0016158	2.8198742	-46.4983401	C
0.0001063	2455.4111718	23109752.	8.4028078	0.0008928	-0.0016572	2.8617439	-47.6890983	C
0.0001088	2499.0794153	22980041.	8.3813303	0.0009115	-0.0016985	2.9029284	-48.8789292	C
0.0001113	2542.6345132	22855142.	8.3611080	0.0009302	-0.0017398	2.9434244	-50.0678249	C
0.0001138	2586.0755897	22734730.	8.3420606	0.0009489	-0.0017811	2.9832284	-51.2557774	C
0.0001163	2629.4017565	22618510.	8.3241146	0.0009677	-0.0018223	3.0223369	-52.4427783	C
0.0001188	2672.6121121	22506207.	8.3072030	0.0009865	-0.0018635	3.0607466	-53.6288192	C
0.0001213	2715.7057415	22397573.	8.2912642	0.0010053	-0.0019047	3.0984538	-54.8138918	C
0.0001238	2758.6736012	22292312.	8.2761097	0.0010242	-0.0019458	3.1354227	-55.9984609	C
0.0001263	2801.5003480	22190102.	8.2614519	0.0010430	-0.0019870	3.1715925	-57.1834090	C
0.0001288	2844.2092712	22090946.	8.2476356	0.0010619	-0.0020281	3.2070556	-58.3673404	C
0.0001313	2886.7993907	21994662.	8.2346152	0.0010808	-0.0020692	3.2418083	-59.5502454	C
0.0001338	2929.2697109	21901082.	8.2223488	0.0010997	-0.0021103	3.2758468	-60.0000000	CY
0.0001363	2971.6192200	21810049.	8.2107973	0.0011187	-0.0021513	3.3091672	-60.0000000	CY
0.0001388	3013.8468897	21721419.	8.1999246	0.0011377	-0.0021923	3.3417655	-60.0000000	CY
0.0001413	3055.9516750	21635056.	8.1896973	0.0011568	-0.0022332	3.3736378	-60.0000000	CY
0.0001438	3097.9325136	21550835.	8.1800841	0.0011759	-0.0022741	3.4047799	-60.0000000	CY
0.0001463	3139.7883255	21468638.	8.1710562	0.0011950	-0.0023150	3.4351878	-60.0000000	CY
0.0001488	3181.5180125	21388356.	8.1625865	0.0012142	-0.0023558	3.4648572	-60.0000000	CY
0.0001588	3347.1528865	21084428.	8.1338124	0.0012912	-0.0025188	3.5760651	-60.0000000	CY
0.0001688	3508.7962257	20792867.	8.1108256	0.0013687	-0.0026813	3.6748196	-60.0000000	CY
0.0001788	3626.2139127	20286511.	8.0630701	0.0014413	-0.0028487	3.7553998	-60.0000000	CY
0.0001888	3712.2338990	19667464.	8.0002072	0.0015100	-0.0030200	3.8211288	-60.0000000	CY
0.0001988	3796.4923387	19101848.	7.9450367	0.0015791	-0.0031909	3.8767958	-60.0000000	CY
0.0002088	3879.4575412	18584228.	7.8976480	0.0016486	-0.0033614	3.9224238	-60.0000000	CY
0.0002188	3959.6416590	18101219.	7.8558411	0.0017185	-0.0035315	3.9576645	-60.0000000	CY
0.0002288	4020.2218135	17574740.	7.8047857	0.0017853	-0.0037047	3.9814723	-60.0000000	CY
0.0002388	4054.9725904	16984178.	7.7366314	0.0018471	-0.0038829	3.9948321	-60.0000000	CY
0.0002488	4083.4420717	16415848.	7.6706847	0.0019081	-0.0040619	3.9999274	-60.0000000	CY
0.0002588	4111.1124074	15888357.	7.6115753	0.0019695	-0.0042405	3.9998892	-60.0000000	CY
0.0002688	4137.9319238	15396956.	7.5585432	0.0020314	-0.0044186	3.9997063	-60.0000000	CY
0.0002788	4163.5277841	14936423.	7.5083954	0.0020930	-0.0045970	3.9991525	-60.0000000	CY
0.0002888	4188.3784096	14505207.	7.4633321	0.0021550	-0.0047750	3.9979132	60.0000000	CY
0.0002988	4212.5334330	14100530.	7.4227865	0.0022176	-0.0049524	3.9972922	60.0000000	CY
0.0003088	4235.9935867	13719817.	7.3863402	0.0022805	-0.0051295	3.9998015	60.0000000	CY
0.0003188	4258.8027785	13360950.	7.3535640	0.0023439	-0.0053061	3.9982395	60.0000000	CY
0.0003288	4281.0560219	13022224.	7.3239880	0.0024078	-0.0054822	3.9972911	60.0000000	CY

0.0003388	4302.5574243	12701277.	7.2960688	0.0024715	-0.0056585	3.9993264	60.0000000 CY
0.0003488	4323.5431335	12397256.	7.2706510	0.0025356	-0.0058344	3.9956671	60.0000000 CY
0.0003588	4344.0620661	12108884.	7.2477129	0.0026001	-0.0060099	3.9996356	60.0000000 CY
0.0003688	4364.1132086	11834883.	7.2270759	0.0026650	-0.0061850	3.9956734	60.0000000 CY
0.0003788	4383.7683919	11574306.	7.2084428	0.0027302	-0.0063598	3.9995671	60.0000000 CY
0.0003888	4402.9542504	11325927.	7.1916415	0.0027958	-0.0065342	3.9944645	60.0000000 CY
0.0003988	4421.7315499	11088982.	7.1764690	0.0028616	-0.0067084	3.9990214	60.0000000 CY
0.0004088	4437.1444935	10855399.	7.1587839	0.0029262	-0.0068838	3.9969174	60.0000000 CY
0.0004188	4450.8999507	10629015.	7.1409558	0.0029903	-0.0070597	3.9969898	60.0000000 CY
0.0004288	4461.2528302	10405254.	7.1201345	0.0030528	-0.0072372	3.9996803	60.0000000 CYT
0.0004388	4469.1945972	10186199.	7.0978203	0.0031142	-0.0074158	3.9946865	60.0000000 CYT
0.0004488	4474.7041679	9971486.	7.0735183	0.0031742	-0.0075958	3.9961816	60.0000000 CYT
0.0004588	4477.9458132	9761190.	7.0462420	0.0032325	-0.0077775	3.9989843	60.0000000 CYT
0.0004688	4480.0546222	9557450.	7.0188382	0.0032901	-0.0079599	3.9999933	60.0000000 CYT
0.0004788	4481.9758503	9361829.	6.9930121	0.0033479	-0.0081421	3.9920416	60.0000000 CYT
0.0004888	4483.8259405	9174068.	6.9684581	0.0034058	-0.0083242	3.9953971	60.0000000 CYT
0.0004988	4485.6309465	8993746.	6.9451054	0.0034639	-0.0085061	3.9983466	60.0000000 CYT
0.0005088	4487.3900102	8820423.	6.9228863	0.0035220	-0.0086880	3.9998214	60.0000000 CYT
0.0005188	4489.0616846	8653613.	6.9018645	0.0035803	-0.0088697	3.9958234	60.0000000 CYT
0.0005288	4490.6580929	8492970.	6.8819354	0.0036388	-0.0090512	3.9913932	60.0000000 CYT
0.0005388	4492.2208451	8338229.	6.8629133	0.0036974	-0.0092326	3.9954345	60.0000000 CYT
0.0005488	4493.7493595	8189065.	6.8447507	0.0037561	-0.0094139	3.9982135	60.0000000 CYT
0.0006088	4493.7493595	7381929.	6.8498016	0.0041698	-0.0104402	3.9940443	60.0000000 CYT

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	100.000	4452.511	0.00300000

Note note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318-08, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction
factor to compute ultimate moment capacity according to ACI 318-08, Section
9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding
bending stiffnesses computed for common resistance factor values used for
reinforced concrete sections.

Axial Load No.	Resistance Factor for Moment	Nominal Moment Capacity in-kip	Ultimate (Factored) Axial Thrust kips	Ultimate (Factored) Moment Capacity in-kip	Bending Stiffness at Ult. Mom. Cap. kip-in^2
1	0.65	4452.511	65.000	2894.132	21978504.693
1	0.70	4452.511	70.000	3116.758	21513865.561
1	0.75	4452.511	75.000	3339.383	21098684.007

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 1

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 1.000000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	-2978999.	38220.	0.000	0.000	2.179E+10	-177.8447	426.8272	0.000
0.400	0.9984	-2797529.	37327.	-0.000636	0.000	2.179E+10	-186.0858	894.6207	0.000
0.800	0.9939	-2620051.	36414.	-0.001222	0.000	2.264E+10	-194.1258	937.5289	0.000
1.200	0.9867	-2446778.	35464.	-0.001753	0.000	2.314E+10	-201.9578	982.4689	0.000
1.600	0.9771	-2277916.	34476.	-0.002238	0.000	2.369E+10	-209.5730	1029.5680	0.000
2.000	0.9652	-2113660.	33452.	-0.002677	0.000	2.432E+10	-216.9634	1078.9607	0.000
2.400	0.9514	-1954202.	32394.	-0.003073	0.000	2.505E+10	-224.1219	1130.7890	0.000
2.800	0.9357	-1799729.	31301.	-0.003427	0.000	2.590E+10	-231.0424	1185.2028	0.000
3.200	0.9185	-1650419.	30176.	-0.003741	0.000	2.690E+10	-237.7195	1242.3603	0.000
3.600	0.8998	-1506445.	29020.	-0.004017	0.000	2.812E+10	-244.1487	1302.4282	0.000
4.000	0.8799	-1367972.	27833.	-0.004256	0.000	2.962E+10	-250.3263	1365.5828	0.000
4.400	0.8589	-1235160.	26617.	-0.004461	0.000	3.149E+10	-256.2491	1432.0101	0.000
4.800	0.8371	-1108162.	25374.	-0.004634	0.000	3.389E+10	-261.9148	1501.9077	0.000
5.200	0.8144	-987124.	24104.	-0.004777	0.000	3.699E+10	-267.3215	1575.4861	0.000
5.600	0.7912	-872183.	22808.	-0.004869	0.000	7.392E+10	-272.4676	1652.9721	0.000
6.000	0.7677	-763492.	21488.	-0.004922	0.000	7.408E+10	-277.3777	1734.2856	0.000
6.400	0.7440	-661168.	20146.	-0.004968	0.000	7.421E+10	-282.0441	1819.7447	0.000
6.800	0.7200	-565322.	18781.	-0.005008	0.000	7.431E+10	-286.4586	1909.7042	0.000
7.200	0.6959	-476059.	17396.	-0.005041	0.000	7.438E+10	-290.6125	2004.5618	0.000
7.600	0.6716	-393477.	15992.	-0.005069	0.000	7.441E+10	-294.4963	2104.7651	0.000
8.000	0.6472	-317667.	15285.	-0.005092	0.000	7.443E+10	-0.000279	0.002071	0.000
8.400	0.6227	-241848.	15285.	-0.005110	0.000	7.443E+10	-0.000269	0.002074	0.000
8.800	0.5982	-166021.	15285.	-0.005124	0.000	7.443E+10	-0.000259	0.002076	0.000
9.200	0.5735	-90189.	15285.	-0.005132	0.000	7.443E+10	-0.000248	0.002079	0.000
9.600	0.5489	-14355.	15285.	-0.005135	0.000	7.443E+10	-0.000238	0.002082	0.000
10.000	0.5242	61480.	15285.	-0.005134	0.000	7.443E+10	-0.000228	0.002085	0.000
10.400	0.4996	137314.	15285.	-0.005127	0.000	7.443E+10	-0.000217	0.002087	0.000
10.800	0.4750	213143.	15285.	-0.005116	0.000	7.443E+10	-0.000207	0.002090	0.000
11.200	0.4505	288965.	15285.	-0.005100	0.000	7.443E+10	-0.000196	0.002093	0.000
11.600	0.4261	364778.	15285.	-0.005079	0.000	7.442E+10	-0.000186	0.002096	0.000
12.000	0.4017	440580.	15285.	-0.005053	0.000	7.440E+10	-0.000176	0.002099	0.000
12.400	0.3776	516369.	15285.	-0.005022	0.000	7.435E+10	-0.000165	0.002101	0.000
12.800	0.3535	592141.	15285.	-0.004986	0.000	7.428E+10	-0.000155	0.002104	0.000
13.200	0.3297	667895.	15285.	-0.004945	0.000	7.420E+10	-0.000145	0.002107	0.000
13.600	0.3061	743629.	15285.	-0.004900	0.000	7.411E+10	-0.000135	0.002110	0.000
14.000	0.2827	819339.	15285.	-0.004849	0.000	7.400E+10	-0.000124	0.002113	0.000
14.400	0.2595	895023.	15285.	-0.004793	0.000	7.389E+10	-0.000114	0.002115	0.000
14.800	0.2366	970680.	15285.	-0.004702	0.000	3.750E+10	-0.000104	0.002118	0.000
15.200	0.2144	1046277.	15285.	-0.004569	0.000	3.535E+10	-9.472E-05	0.002121	0.000
15.600	0.1928	1121806.	15285.	-0.004418	0.000	3.360E+10	-8.529E-05	0.002124	0.000
16.000	0.1720	1197258.	15285.	-0.004248	0.000	3.214E+10	-7.618E-05	0.002127	0.000
16.400	0.1520	1272624.	15285.	-0.004060	0.000	3.091E+10	-6.743E-05	0.002129	0.000
16.800	0.1330	1347896.	15285.	-0.003853	0.000	2.987E+10	-5.907E-05	0.002132	0.000
17.200	0.1150	1423063.	15285.	-0.003627	0.000	2.898E+10	-5.115E-05	0.002135	0.000
17.600	0.0982	1498117.	15285.	-0.003381	0.000	2.820E+10	-4.372E-05	0.002138	0.000
18.000	0.0825	1573049.	11991.	-0.003117	0.000	2.752E+10	-1372.8670	79832.	0.000
18.400	0.0682	1616218.	5476.8604	-0.002837	0.000	2.717E+10	-1341.1584	94333.	0.000
18.800	0.0553	1628350.	-427.2344	-0.002550	0.000	2.707E+10	-1118.8811	97098.	0.000
19.200	0.0438	1614565.	-5297.8390	-0.002263	0.000	2.718E+10	-910.5375	99863.	0.000
19.600	0.0336	1579663.	-9206.6983	-0.001982	0.000	2.747E+10	-718.1538	102627.	0.000

20.000	0.0247	1528083.	-12234.	-0.001713	0.000	2.792E+10	-543.1398	105392.	0.000
20.400	0.0171	1463863.	-14465.	-0.001458	0.000	2.854E+10	-386.3423	108157.	0.000
20.800	0.0107	1390623.	-15987.	-0.001222	0.000	2.935E+10	-248.1042	110922.	0.000
21.200	0.005419	1311558.	-16891.	-0.001004	0.000	3.035E+10	-128.3399	113687.	0.000
21.600	0.001097	1229437.	-17263.	-0.000807	0.000	3.159E+10	-26.6026	116451.	0.000
22.000	-0.002329	1146613.	-17325.	-0.000630	0.000	3.309E+10	0.4154	856.0774	0.000
22.400	-0.004956	1063718.	-17324.	-0.000474	0.000	3.492E+10	1.804E-07	0.000175	0.000
22.800	-0.006881	980753.	-17324.	-0.000338	0.000	3.719E+10	2.544E-07	0.000177	0.000
23.200	-0.008199	897728.	-17324.	-0.000245	0.000	7.389E+10	3.079E-07	0.000180	0.000
23.600	-0.009236	814675.	-17324.	-0.000190	0.000	7.401E+10	3.522E-07	0.000183	0.000
24.000	-0.0100	731596.	-16910.	-0.000140	0.000	7.412E+10	172.5452	82655.	0.000
24.400	-0.0106	652470.	-16075.	-9.486E-05	0.000	7.422E+10	175.6821	79729.	0.000
24.800	-0.0109	577371.	-15227.	-5.511E-05	0.000	7.430E+10	177.6207	77997.	0.000
25.200	-0.0111	506347.	-14372.	-2.012E-05	0.000	7.436E+10	178.5636	77176.	0.000
25.600	-0.0111	439421.	-13514.	1.040E-05	0.000	7.440E+10	178.6607	77092.	0.000
26.000	-0.0110	376598.	-12658.	3.672E-05	0.000	7.442E+10	178.0271	77642.	0.000
26.400	-0.0108	317865.	-11807.	5.912E-05	0.000	7.443E+10	176.7536	78765.	0.000
26.800	-0.0104	263195.	-10963.	7.785E-05	0.000	7.443E+10	174.9137	80432.	0.000
27.200	-0.0100	212547.	-10129.	9.319E-05	0.000	7.443E+10	172.5680	82634.	0.000
27.600	-0.009544	165867.	-9307.3643	0.000105	0.000	7.443E+10	169.7676	85383.	0.000
28.000	-0.009012	123095.	-8500.1877	0.000115	0.000	7.443E+10	166.5560	88709.	0.000
28.400	-0.008443	84155.	-7709.3239	0.000121	0.000	7.443E+10	162.9706	92656.	0.000
28.800	-0.007847	48969.	-6936.4880	0.000126	0.000	7.443E+10	159.0444	97288.	0.000
29.200	-0.007236	17445.	-6183.2471	0.000128	0.000	7.443E+10	154.8060	102690.	0.000
29.600	-0.006620	-10513.	-5451.0382	0.000128	0.000	7.443E+10	150.2810	108969.	0.000
30.000	-0.006007	-35008.	-4741.1831	0.000127	0.000	7.443E+10	145.4920	116264.	0.000
30.400	-0.005405	-56150.	-4054.9011	0.000124	0.000	7.443E+10	140.4589	124748.	0.000
30.800	-0.004820	-74054.	-3393.3218	0.000119	0.000	7.443E+10	135.1992	134646.	0.000
31.200	-0.004258	-88841.	-2757.4962	0.000114	0.000	7.443E+10	129.7281	146247.	0.000
31.600	-0.003723	-100636.	-2148.4098	0.000108	0.000	7.443E+10	124.0579	159926.	0.000
32.000	-0.003220	-109569.	-1566.9958	0.000101	0.000	7.443E+10	118.1979	176184.	0.000
32.400	-0.002751	-115776.	-1014.1523	9.404E-05	0.000	7.443E+10	112.1535	195694.	0.000
32.800	-0.002317	-119395.	-490.7645	8.646E-05	0.000	7.443E+10	105.9247	219397.	0.000
33.200	-0.001921	-120570.	2.2640	7.872E-05	0.000	7.443E+10	99.5038	248639.	0.000
33.600	-0.001562	-119449.	463.9646	7.098E-05	0.000	7.443E+10	92.8714	285440.	0.000
34.000	-0.001240	-116185.	893.2296	6.338E-05	0.000	7.443E+10	85.9890	332987.	0.000
34.400	-0.000953	-110935.	1288.6881	5.606E-05	0.000	7.443E+10	78.7854	396703.	0.000
34.800	-0.000701	-103867.	1648.4807	4.913E-05	0.000	7.443E+10	71.1282	486778.	0.000
35.200	-0.000482	-95157.	1969.8025	4.271E-05	0.000	7.443E+10	62.7560	625443.	0.000
35.600	-0.000291	-84998.	2247.8082	3.690E-05	0.000	7.443E+10	53.0798	874553.	0.000
36.000	-0.000127	-73613.	2471.9114	3.179E-05	0.000	7.443E+10	40.2966	1518879.	0.000
36.400	1.385E-05	-61298.	2522.7057	2.744E-05	0.000	7.443E+10	-19.1322	6631131.	0.000
36.800	0.000136	-49422.	2378.0133	2.387E-05	0.000	7.443E+10	-41.1563	1451841.	0.000
37.200	0.000243	-38492.	2159.3728	2.103E-05	0.000	7.443E+10	-49.9439	986591.	0.000
37.600	0.000338	-28712.	1905.6905	1.887E-05	0.000	7.443E+10	-55.7571	791830.	0.000
38.000	0.000424	-20215.	1627.5311	1.729E-05	0.000	7.443E+10	-60.1427	680683.	0.000
38.400	0.000504	-13104.	1330.2955	1.621E-05	0.000	7.443E+10	-63.7055	606756.	0.000
38.800	0.000580	-7460.2072	1017.1933	1.555E-05	0.000	7.443E+10	-66.7538	552663.	0.000
39.200	0.000653	-3354.0318	690.2688	1.520E-05	0.000	7.443E+10	-69.4648	510408.	0.000
39.600	0.000726	-848.2219	350.8850	1.507E-05	0.000	7.443E+10	-71.9451	475854.	0.000
40.000	0.000798	0.000	0.000	1.504E-05	0.000	7.443E+10	-74.2570	223355.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 1:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0000200 radians
Maximum bending moment = -2978999. inch-lbs
Maximum shear force = 38220. lbs
Depth of maximum bending moment = 0.000000 inches below pile head

Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 27
Number of zero deflection points = 2

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 2

Pile-head conditions are Displacement and Pile-head Rotation (Loading Type 5)
Displacement of pile head = 0.375000 inches
Rotation of pile head = 0.000E+00 radians
Axial load on pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	-1701590.	24609.	0.000	0.000	2.653E+10	-128.2482	820.7885	0.000
0.400	0.3743	-1584941.	23965.	-0.000297	0.000	2.653E+10	-134.1734	1720.8101	0.000
0.800	0.3721	-1471245.	23307.	-0.000565	0.000	2.846E+10	-139.9184	1804.6908	0.000
1.200	0.3688	-1360654.	22622.	-0.000799	0.000	2.971E+10	-145.4834	1893.2883	0.000
1.600	0.3645	-1253310.	21911.	-0.001005	0.000	3.120E+10	-150.8646	1986.8125	0.000
2.000	0.3592	-1149348.	21174.	-0.001185	0.000	3.302E+10	-156.0598	2085.4813	0.000
2.400	0.3531	-1048902.	20413.	-0.001340	0.000	3.527E+10	-161.0676	2189.5182	0.000
2.800	0.3463	-952099.	19628.	-0.001471	0.000	3.826E+10	-165.8878	2299.1511	0.000
3.200	0.3390	-859060.	18821.	-0.001559	0.000	7.394E+10	-170.5206	2414.5852	0.000
3.600	0.3314	-769924.	17991.	-0.001611	0.000	7.407E+10	-175.0045	2535.0243	0.000
4.000	0.3235	-684795.	17141.	-0.001659	0.000	7.418E+10	-179.3351	2660.8261	0.000
4.400	0.3154	-603777.	16270.	-0.001700	0.000	7.427E+10	-183.5083	2792.3764	0.000
4.800	0.3072	-526969.	15380.	-0.001737	0.000	7.434E+10	-187.5200	2930.0940	0.000
5.200	0.2988	-454464.	14470.	-0.001768	0.000	7.439E+10	-191.3658	3074.4350	0.000
5.600	0.2902	-386355.	13543.	-0.001795	0.000	7.442E+10	-195.0417	3225.8982	0.000
6.000	0.2815	-322727.	12598.	-0.001818	0.000	7.443E+10	-198.5431	3385.0320	0.000
6.400	0.2728	-263664.	11637.	-0.001837	0.000	7.443E+10	-201.8656	3552.4414	0.000
6.800	0.2639	-209244.	10661.	-0.001853	0.000	7.443E+10	-205.0045	3728.7976	0.000
7.200	0.2550	-159540.	9669.8922	-0.001864	0.000	7.443E+10	-207.9546	3914.8488	0.000
7.600	0.2460	-114623.	8665.0957	-0.001873	0.000	7.443E+10	-210.7106	4111.4340	0.000
8.000	0.2370	-74557.	8159.3901	-0.001879	0.000	7.443E+10	-0.000102	0.002071	0.000
8.400	0.2280	-34488.	8159.3896	-0.001883	0.000	7.443E+10	-9.848E-05	0.002074	0.000
8.800	0.2189	5580.8971	8159.3891	-0.001884	0.000	7.443E+10	-9.470E-05	0.002076	0.000
9.200	0.2099	45650.	8159.3887	-0.001882	0.000	7.443E+10	-9.091E-05	0.002079	0.000
9.600	0.2008	85718.	8159.3882	-0.001878	0.000	7.443E+10	-8.711E-05	0.002082	0.000
10.000	0.1918	125783.	8159.3878	-0.001871	0.000	7.443E+10	-8.332E-05	0.002085	0.000
10.400	0.1829	165844.	8159.3874	-0.001862	0.000	7.443E+10	-7.953E-05	0.002087	0.000
10.800	0.1740	205900.	8159.3871	-0.001850	0.000	7.443E+10	-7.576E-05	0.002090	0.000
11.200	0.1651	245950.	8159.3867	-0.001835	0.000	7.443E+10	-7.200E-05	0.002093	0.000
11.600	0.1564	285992.	8159.3864	-0.001818	0.000	7.443E+10	-6.827E-05	0.002096	0.000
12.000	0.1477	326025.	8159.3860	-0.001798	0.000	7.443E+10	-6.457E-05	0.002099	0.000
12.400	0.1391	366049.	8159.3857	-0.001776	0.000	7.442E+10	-6.089E-05	0.002101	0.000
12.800	0.1306	406060.	8159.3855	-0.001751	0.000	7.441E+10	-5.726E-05	0.002104	0.000
13.200	0.1223	446060.	8159.3852	-0.001724	0.000	7.440E+10	-5.368E-05	0.002107	0.000
13.600	0.1141	486045.	8159.3849	-0.001693	0.000	7.437E+10	-5.014E-05	0.002110	0.000
14.000	0.1060	526016.	8159.3847	-0.001661	0.000	7.434E+10	-4.666E-05	0.002113	0.000
14.400	0.0981	565970.	8159.3845	-0.001626	0.000	7.431E+10	-4.325E-05	0.002115	0.000
14.800	0.0904	605906.	8159.3843	-0.001588	0.000	7.427E+10	-3.990E-05	0.002118	0.000
15.200	0.0829	645824.	8159.3841	-0.001547	0.000	7.423E+10	-3.663E-05	0.002121	0.000
15.600	0.0756	685722.	8159.3839	-0.001504	0.000	7.418E+10	-3.343E-05	0.002124	0.000
16.000	0.0685	725598.	8159.3838	-0.001458	0.000	7.413E+10	-3.033E-05	0.002127	0.000
16.400	0.0616	765452.	8159.3837	-0.001410	0.000	7.408E+10	-2.731E-05	0.002129	0.000
16.800	0.0549	805282.	8159.3835	-0.001359	0.000	7.402E+10	-2.439E-05	0.002132	0.000
17.200	0.0485	845087.	8159.3834	-0.001306	0.000	7.397E+10	-2.158E-05	0.002135	0.000

17.600	0.0424	884865.	8159.3833	-0.001250	0.000	7.390E+10	-1.887E-05	0.002138	0.000
18.000	0.0365	924616.	6487.2916	-0.001173	0.000	4.682E+10	-696.7049	91568.	0.000
18.400	0.0311	948270.	3347.5599	-0.001067	0.000	3.823E+10	-611.5167	94333.	0.000
18.800	0.0263	957777.	603.9292	-0.000946	0.000	3.791E+10	-531.6628	97098.	0.000
19.200	0.0220	954976.	-1772.1029	-0.000825	0.000	3.800E+10	-458.3506	99863.	0.000
19.600	0.0184	941557.	-3814.1906	-0.000706	0.000	3.849E+10	-392.5193	102627.	0.000
20.000	0.0152	919038.	-5559.8360	-0.000605	0.000	5.206E+10	-334.8330	105392.	0.000
20.400	0.0125	888764.	-7041.9889	-0.000534	0.000	7.390E+10	-282.7307	108157.	0.000
20.800	0.0101	851948.	-8281.9479	-0.000478	0.000	7.396E+10	-233.9189	110922.	0.000
21.200	0.007963	809715.	-9295.9926	-0.000424	0.000	7.402E+10	-188.5997	113687.	0.000
21.600	0.006055	763113.	-10101.	-0.000373	0.000	7.408E+10	-146.9076	116451.	0.000
22.000	0.004385	713102.	-10456.	-0.000325	0.000	7.415E+10	-0.7821	856.0774	0.000
22.400	0.002937	663050.	-10458.	-0.000280	0.000	7.421E+10	-1.069E-07	0.000175	0.000
22.800	0.001694	612978.	-10458.	-0.000239	0.000	7.426E+10	-6.263E-08	0.000177	0.000
23.200	0.000641	562887.	-10458.	-0.000201	0.000	7.432E+10	-2.408E-08	0.000180	0.000
23.600	-0.000237	512779.	-10458.	-0.000166	0.000	7.435E+10	9.036E-09	0.000183	0.000
24.000	-0.000956	462655.	-10268.	-0.000135	0.000	7.439E+10	78.8454	395824.	0.000
24.400	-0.001532	414333.	-9857.6469	-0.000107	0.000	7.441E+10	92.2656	289079.	0.000
24.800	-0.001980	368124.	-9395.0178	-8.138E-05	0.000	7.442E+10	100.4966	243676.	0.000
25.200	-0.002313	324219.	-8899.7794	-5.905E-05	0.000	7.443E+10	105.8528	219646.	0.000
25.600	-0.002547	282743.	-8383.4170	-3.948E-05	0.000	7.443E+10	109.2982	206020.	0.000
26.000	-0.002692	243776.	-7853.8723	-2.250E-05	0.000	7.443E+10	111.3454	198518.	0.000
26.400	-0.002763	207367.	-7317.1076	-7.955E-06	0.000	7.443E+10	112.3065	195137.	0.000
26.800	-0.002769	173539.	-6777.8373	4.327E-06	0.000	7.443E+10	112.3895	194852.	0.000
27.200	-0.002721	142296.	-6239.9226	1.451E-05	0.000	7.443E+10	111.7417	197120.	0.000
27.600	-0.002629	113622.	-5706.6082	2.276E-05	0.000	7.443E+10	110.4727	201676.	0.000
28.000	-0.002502	87490.	-5180.6730	2.925E-05	0.000	7.443E+10	108.6670	208435.	0.000
28.400	-0.002349	63859.	-4664.5325	3.413E-05	0.000	7.443E+10	106.3916	217446.	0.000
28.800	-0.002175	42678.	-4160.3102	3.756E-05	0.000	7.443E+10	103.7010	228875.	0.000
29.200	-0.001988	23884.	-3669.8907	3.971E-05	0.000	7.443E+10	100.6404	243005.	0.000
29.600	-0.001794	7408.9033	-3194.9593	4.072E-05	0.000	7.443E+10	97.2477	260251.	0.000
30.000	-0.001597	-6826.2684	-2737.0331	4.074E-05	0.000	7.443E+10	93.5549	281190.	0.000
30.400	-0.001403	-18906.	-2297.4857	3.991E-05	0.000	7.443E+10	89.5898	306612.	0.000
30.800	-0.001214	-28920.	-1877.5684	3.837E-05	0.000	7.443E+10	85.3757	337594.	0.000
31.200	-0.001034	-36967.	-1478.4286	3.624E-05	0.000	7.443E+10	80.9325	375625.	0.000
31.600	-0.000866	-43148.	-1101.1274	3.366E-05	0.000	7.443E+10	76.2763	422791.	0.000
32.000	-0.000711	-47570.	-746.6578	3.073E-05	0.000	7.443E+10	71.4193	482092.	0.000
32.400	-0.000571	-50346.	-415.9663	2.758E-05	0.000	7.443E+10	66.3688	557976.	0.000
32.800	-0.000446	-51590.	-109.9811	2.429E-05	0.000	7.443E+10	61.1250	657303.	0.000
33.200	-0.000338	-51425.	170.3457	2.097E-05	0.000	7.443E+10	55.6778	791227.	0.000
33.600	-0.000245	-49975.	423.9684	1.770E-05	0.000	7.443E+10	49.9983	979192.	0.000
34.000	-0.000168	-47372.	649.6154	1.456E-05	0.000	7.443E+10	44.0213	1258635.	0.000
34.400	-0.000105	-43753.	845.5075	1.162E-05	0.000	7.443E+10	37.6003	1713366.	0.000
34.800	-5.634E-05	-39266.	1008.6063	8.942E-06	0.000	7.443E+10	30.3575	2586512.	0.000
35.200	-1.949E-05	-34079.	1131.5456	6.577E-06	0.000	7.443E+10	20.8672	5138744.	0.000
35.600	6.804E-06	-28409.	1165.2966	4.562E-06	0.000	7.443E+10	-6.8042	4800000.	0.000
36.000	2.431E-05	-22896.	1091.9214	2.908E-06	0.000	7.443E+10	-23.7688	4693996.	0.000
36.400	3.472E-05	-17930.	971.2411	1.591E-06	0.000	7.443E+10	-26.5147	3665719.	0.000
36.800	3.958E-05	-13574.	841.3918	5.755E-07	0.000	7.443E+10	-27.5892	3345639.	0.000
37.200	4.024E-05	-9852.8916	708.7528	-1.800E-07	0.000	7.443E+10	-27.6771	3301153.	0.000
37.600	3.785E-05	-6769.4796	577.3539	-7.160E-07	0.000	7.443E+10	-27.0724	3432800.	0.000
38.000	3.337E-05	-4309.6069	450.1710	-1.073E-06	0.000	7.443E+10	-25.9205	3728411.	0.000
38.400	2.755E-05	-2446.8081	329.6897	-1.291E-06	0.000	7.443E+10	-24.2801	4230006.	0.000
38.800	2.098E-05	-1143.3462	218.3143	-1.407E-06	0.000	7.443E+10	-22.1264	5063276.	0.000
39.200	1.405E-05	-349.6401	118.9162	-1.455E-06	0.000	7.443E+10	-19.2895	6591908.	0.000
39.600	7.008E-06	-0.3537	36.2742	-1.466E-06	0.000	7.443E+10	-15.1446	10373284.	0.000
40.000	-3.039E-08	0.000	0.000	-1.466E-06	0.000	7.443E+10	0.0304	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.3750000 inches
Computed slope at pile head = -0.0000106 radians
Maximum bending moment = -1701590. inch-lbs
Maximum shear force = 24609. lbs
Depth of maximum bending moment = 0.000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 18
Number of zero deflection points = 3

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 3

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 1.000000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	1.0000	0.000	20911.	-0.006579	0.000	7.443E+10	-177.8447	426.8272	0.000
0.400	0.9684	101482.	20042.	-0.006576	0.000	7.443E+10	-184.2028	913.0049	0.000
0.800	0.9369	198716.	19143.	-0.006566	0.000	7.443E+10	-190.3402	975.1926	0.000
1.200	0.9054	291559.	18215.	-0.006550	0.000	7.443E+10	-196.2508	1040.4414	0.000
1.600	0.8740	379872.	17260.	-0.006528	0.000	7.442E+10	-201.9285	1108.9981	0.000
2.000	0.8427	463520.	16277.	-0.006501	0.000	7.439E+10	-207.3670	1181.1360	0.000
2.400	0.8116	542376.	15270.	-0.006469	0.000	7.433E+10	-212.5596	1257.1579	0.000
2.800	0.7806	616318.	14237.	-0.006431	0.000	7.426E+10	-217.4992	1337.4017	0.000
3.200	0.7498	685229.	13182.	-0.006389	0.000	7.418E+10	-222.1785	1422.2451	0.000
3.600	0.7193	749000.	12105.	-0.006343	0.000	7.410E+10	-226.5896	1512.1129	0.000
4.000	0.6889	807528.	11008.	-0.006292	0.000	7.402E+10	-230.7241	1607.4847	0.000
4.400	0.6589	860714.	9890.8928	-0.006238	0.000	7.394E+10	-234.5727	1708.9048	0.000
4.800	0.6291	908469.	8756.4172	-0.006181	0.000	7.387E+10	-238.1255	1816.9947	0.000
5.200	0.5995	950709.	7605.6244	-0.006091	0.000	3.815E+10	-241.3716	1932.4676	0.000
5.600	0.5706	987331.	6439.9204	-0.005968	0.000	3.699E+10	-244.3384	2055.4817	0.000
6.000	0.5422	1018261.	5260.6488	-0.005836	0.000	3.610E+10	-247.0247	2186.6773	0.000
6.400	0.5146	1043436.	4069.1598	-0.005697	0.000	3.543E+10	-249.4290	2326.7645	0.000
6.800	0.4876	1062795.	2866.8113	-0.005554	0.000	3.494E+10	-251.5495	2476.5354	0.000
7.200	0.4612	1076289.	1654.9702	-0.005406	0.000	3.462E+10	-253.3842	2636.8808	0.000
7.600	0.4357	1083873.	435.0156	-0.005256	0.000	3.444E+10	-254.9302	2808.8109	0.000
8.000	0.4108	1085510.	-176.8172	-0.005105	0.000	3.440E+10	-0.000177	0.002071	0.000
8.400	0.3866	1087076.	-176.8181	-0.004953	0.000	3.436E+10	-0.000167	0.002074	0.000
8.800	0.3632	1088568.	-176.8188	-0.004801	0.000	3.433E+10	-0.000157	0.002076	0.000
9.200	0.3406	1089987.	-176.8196	-0.004649	0.000	3.430E+10	-0.000148	0.002079	0.000
9.600	0.3186	1091333.	-176.8203	-0.004496	0.000	3.426E+10	-0.000138	0.002082	0.000
10.000	0.2974	1092606.	-176.8209	-0.004343	0.000	3.424E+10	-0.000129	0.002085	0.000
10.400	0.2769	1093805.	-176.8215	-0.004190	0.000	3.421E+10	-0.000120	0.002087	0.000
10.800	0.2572	1094930.	-176.8221	-0.004036	0.000	3.418E+10	-0.000112	0.002090	0.000
11.200	0.2382	1095982.	-176.8226	-0.003882	0.000	3.416E+10	-0.000104	0.002093	0.000
11.600	0.2199	1096959.	-176.8231	-0.003728	0.000	3.414E+10	-9.602E-05	0.002096	0.000
12.000	0.2024	1097863.	-176.8235	-0.003574	0.000	3.412E+10	-8.849E-05	0.002099	0.000
12.400	0.1856	1098693.	-176.8239	-0.003419	0.000	3.410E+10	-8.126E-05	0.002101	0.000
12.800	0.1696	1099448.	-176.8243	-0.003264	0.000	3.408E+10	-7.433E-05	0.002104	0.000
13.200	0.1543	1100129.	-176.8246	-0.003109	0.000	3.407E+10	-6.772E-05	0.002107	0.000
13.600	0.1397	1100735.	-176.8249	-0.002954	0.000	3.405E+10	-6.141E-05	0.002110	0.000
14.000	0.1259	1101267.	-176.8252	-0.002799	0.000	3.404E+10	-5.541E-05	0.002113	0.000
14.400	0.1128	1101725.	-176.8255	-0.002644	0.000	3.403E+10	-4.973E-05	0.002115	0.000
14.800	0.1005	1102108.	-176.8257	-0.002488	0.000	3.402E+10	-4.436E-05	0.002118	0.000

15.200	0.0890	1102416.	-176.8259	-0.002333	0.000	3.402E+10	-3.931E-05	0.002121	0.000
15.600	0.0781	1102650.	-176.8261	-0.002177	0.000	3.401E+10	-3.457E-05	0.002124	0.000
16.000	0.0681	1102809.	-176.8262	-0.002022	0.000	3.401E+10	-3.015E-05	0.002127	0.000
16.400	0.0587	1102893.	-176.8264	-0.001866	0.000	3.401E+10	-2.605E-05	0.002129	0.000
16.800	0.0501	1102902.	-176.8265	-0.001710	0.000	3.401E+10	-2.227E-05	0.002132	0.000
17.200	0.0423	1102837.	-176.8266	-0.001554	0.000	3.401E+10	-1.882E-05	0.002135	0.000
17.600	0.0352	1102697.	-176.8267	-0.001399	0.000	3.401E+10	-1.568E-05	0.002138	0.000
18.000	0.0289	1102482.	-1499.0091	-0.001243	0.000	3.401E+10	-550.9093	91568.	0.000
18.400	0.0233	1089500.	-3919.4371	-0.001089	0.000	3.431E+10	-457.6023	94333.	0.000
18.800	0.0184	1065901.	-5912.0474	-0.000940	0.000	3.486E+10	-372.6520	97098.	0.000
19.200	0.0143	1033646.	-7518.6235	-0.000797	0.000	3.568E+10	-296.7547	99863.	0.000
19.600	0.0108	994488.	-8783.6434	-0.000662	0.000	3.678E+10	-230.3369	102627.	0.000
20.000	0.007905	949959.	-9753.0370	-0.000538	0.000	3.817E+10	-173.5771	105392.	0.000
20.400	0.005611	901375.	-10473.	-0.000449	0.000	7.388E+10	-126.4340	108157.	0.000
20.800	0.003598	849849.	-10976.	-0.000392	0.000	7.396E+10	-83.1438	110922.	0.000
21.200	0.001849	796381.	-11281.	-0.000338	0.000	7.403E+10	-43.8048	113687.	0.000
21.600	0.000349	741879.	-11406.	-0.000289	0.000	7.411E+10	-8.4644	116451.	0.000
22.000	-0.000921	687158.	-11426.	-0.000242	0.000	7.418E+10	0.1643	856.0774	0.000
22.400	-0.001978	632421.	-11426.	-0.000200	0.000	7.424E+10	7.198E-08	0.000175	0.000
22.800	-0.002838	577663.	-11426.	-0.000161	0.000	7.430E+10	1.049E-07	0.000177	0.000
23.200	-0.003519	522888.	-11426.	-0.000125	0.000	7.434E+10	1.322E-07	0.000180	0.000
23.600	-0.004038	468097.	-11426.	-9.304E-05	0.000	7.439E+10	1.540E-07	0.000183	0.000
24.000	-0.004412	413291.	-11111.	-6.461E-05	0.000	7.441E+10	131.2615	142798.	0.000
24.400	-0.004658	361496.	-10475.	-3.962E-05	0.000	7.442E+10	133.6584	137722.	0.000
24.800	-0.004793	312770.	-9830.2511	-1.788E-05	0.000	7.443E+10	134.9302	135139.	0.000
25.200	-0.004830	267143.	-9181.7457	8.222E-07	0.000	7.443E+10	135.2804	134441.	0.000
25.600	-0.004785	224625.	-8533.4170	1.668E-05	0.000	7.443E+10	134.8565	135288.	0.000
26.000	-0.004670	185206.	-7888.7151	2.989E-05	0.000	7.443E+10	133.7693	137497.	0.000
26.400	-0.004498	148864.	-7250.6162	4.067E-05	0.000	7.443E+10	132.1052	140984.	0.000
26.800	-0.004279	115561.	-6621.7231	4.919E-05	0.000	7.443E+10	129.9335	145738.	0.000
27.200	-0.004025	85248.	-6004.3368	5.567E-05	0.000	7.443E+10	127.3108	151807.	0.000
27.600	-0.003745	57866.	-5400.5092	6.028E-05	0.000	7.443E+10	124.2841	159294.	0.000
28.000	-0.003447	33346.	-4812.0834	6.322E-05	0.000	7.443E+10	120.8933	168358.	0.000
28.400	-0.003138	11610.	-4240.7249	6.467E-05	0.000	7.443E+10	117.1727	179225.	0.000
28.800	-0.002826	-7427.3667	-3687.9467	6.481E-05	0.000	7.443E+10	113.1516	192197.	0.000
29.200	-0.002516	-23857.	-3155.1295	6.380E-05	0.000	7.443E+10	108.8556	207678.	0.000
29.600	-0.002213	-37778.	-2643.5391	6.181E-05	0.000	7.443E+10	104.3071	226200.	0.000
30.000	-0.001923	-49294.	-2154.3418	5.900E-05	0.000	7.443E+10	99.5252	248482.	0.000
30.400	-0.001647	-58516.	-1688.6182	5.553E-05	0.000	7.443E+10	94.5263	275492.	0.000
30.800	-0.001389	-65558.	-1247.3776	5.153E-05	0.000	7.443E+10	89.3239	308569.	0.000
31.200	-0.001152	-70540.	-831.5732	4.714E-05	0.000	7.443E+10	83.9279	349605.	0.000
31.600	-0.000937	-73587.	-442.1201	4.249E-05	0.000	7.443E+10	78.3442	401350.	0.000
32.000	-0.000744	-74826.	-79.9204	3.770E-05	0.000	7.443E+10	72.5724	467955.	0.000
32.400	-0.000575	-74390.	254.1015	3.289E-05	0.000	7.443E+10	66.6034	555991.	0.000
32.800	-0.000429	-72418.	558.9399	2.816E-05	0.000	7.443E+10	60.4126	676530.	0.000
33.200	-0.000305	-69051.	833.4048	2.360E-05	0.000	7.443E+10	53.9477	849921.	0.000
33.600	-0.000202	-64440.	1075.9149	1.929E-05	0.000	7.443E+10	47.0982	1118637.	0.000
34.000	-0.000119	-58741.	1284.0183	1.532E-05	0.000	7.443E+10	39.6116	1591571.	0.000
34.400	-5.502E-05	-52128.	1452.9380	1.175E-05	0.000	7.443E+10	30.7715	2684672.	0.000
34.800	-6.707E-06	-44804.	1542.8871	8.620E-06	0.000	7.443E+10	6.7073	4800000.	0.000
35.200	2.773E-05	-37324.	1501.9093	5.971E-06	0.000	7.443E+10	-23.7814	4116051.	0.000
35.600	5.062E-05	-30392.	1374.4058	3.788E-06	0.000	7.443E+10	-29.3451	2782672.	0.000
36.000	6.410E-05	-24134.	1227.5587	2.030E-06	0.000	7.443E+10	-31.8412	2384477.	0.000
36.400	7.010E-05	-18609.	1072.2966	6.514E-07	0.000	7.443E+10	-32.8514	2249323.	0.000
36.800	7.035E-05	-13840.	914.4691	-3.950E-07	0.000	7.443E+10	-32.9101	2245456.	0.000
37.200	6.631E-05	-9829.6668	758.0405	-1.158E-06	0.000	7.443E+10	-32.2685	2335750.	0.000
37.600	5.923E-05	-6562.0970	606.0653	-1.687E-06	0.000	7.443E+10	-31.0545	2516612.	0.000
38.000	5.012E-05	-4009.8203	461.1675	-2.028E-06	0.000	7.443E+10	-29.3196	2808016.	0.000
38.400	3.976E-05	-2132.9428	325.9030	-2.226E-06	0.000	7.443E+10	-27.0406	3264054.	0.000
38.800	2.875E-05	-879.0147	203.2202	-2.323E-06	0.000	7.443E+10	-24.0772	4019719.	0.000
39.200	1.746E-05	-179.7986	97.4510	-2.357E-06	0.000	7.443E+10	-19.9933	5494920.	0.000
39.600	6.123E-06	58.7781	18.4929	-2.361E-06	0.000	7.443E+10	-12.9059	10117311.	0.000
40.000	-5.201E-06	0.000	0.000	-2.359E-06	0.000	7.443E+10	5.2006	2400000.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 3:

Pile-head deflection = 1.0000000 inches
Computed slope at pile head = -0.0065789 radians
Maximum bending moment = 1102902. inch-lbs
Maximum shear force = 20911. lbs
Depth of maximum bending moment = 201.6000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 48
Number of zero deflection points = 3

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 4

Pile-head conditions are Displacement and Moment (Loading Type 4)
Displacement of pile head = 0.375000 inches
Moment at pile head = 0.000 in-lbs
Axial load at pile head = 100000.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.3750	0.000	15102.	-0.002472	0.000	7.443E+10	-128.2482	820.7885	0.000
0.400	0.3631	72196.	14475.	-0.002469	0.000	7.443E+10	-132.8305	1755.7796	0.000
0.800	0.3513	141330.	13827.	-0.002462	0.000	7.443E+10	-137.2546	1875.4153	0.000
1.200	0.3395	207297.	13158.	-0.002451	0.000	7.443E+10	-141.5179	2000.8658	0.000
1.600	0.3278	269998.	12469.	-0.002436	0.000	7.443E+10	-145.6178	2132.5399	0.000
2.000	0.3161	329334.	11760.	-0.002417	0.000	7.443E+10	-149.5522	2270.8767	0.000
2.400	0.3046	385215.	11033.	-0.002393	0.000	7.442E+10	-153.3190	2416.3482	0.000
2.800	0.2931	437552.	10289.	-0.002367	0.000	7.440E+10	-156.9161	2569.4625	0.000
3.200	0.2818	486259.	9527.3048	-0.002337	0.000	7.437E+10	-160.3419	2730.7674	0.000
3.600	0.2707	531257.	8749.8570	-0.002304	0.000	7.434E+10	-163.5947	2900.8549	0.000
4.000	0.2597	572470.	7957.2145	-0.002269	0.000	7.430E+10	-166.6730	3080.3655	0.000
4.400	0.2489	609825.	7150.2183	-0.002230	0.000	7.426E+10	-169.5754	3269.9941	0.000
4.800	0.2383	643253.	6329.7157	-0.002190	0.000	7.423E+10	-172.3007	3470.4964	0.000
5.200	0.2279	672692.	5496.5601	-0.002147	0.000	7.420E+10	-174.8475	3682.6966	0.000
5.600	0.2177	698082.	4651.6111	-0.002103	0.000	7.416E+10	-177.2146	3907.4965	0.000
6.000	0.2077	719367.	3795.7341	-0.002057	0.000	7.414E+10	-179.4008	4145.8862	0.000
6.400	0.1979	736496.	2929.8006	-0.002010	0.000	7.412E+10	-181.4048	4398.9578	0.000
6.800	0.1884	749422.	2054.6893	-0.001962	0.000	7.410E+10	-183.2250	4667.9212	0.000
7.200	0.1791	758104.	1171.2863	-0.001913	0.000	7.409E+10	-184.8596	4954.1239	0.000
7.600	0.1700	762503.	280.4869	-0.001864	0.000	7.408E+10	-186.3068	5259.0752	0.000
8.000	0.1612	762586.	-166.6495	-0.001814	0.000	7.408E+10	-6.955E-05	0.002071	0.000
8.400	0.1526	762645.	-166.6498	-0.001765	0.000	7.408E+10	-6.593E-05	0.002074	0.000
8.800	0.1443	762681.	-166.6501	-0.001716	0.000	7.408E+10	-6.241E-05	0.002076	0.000
9.200	0.1362	762692.	-166.6504	-0.001666	0.000	7.408E+10	-5.898E-05	0.002079	0.000
9.600	0.1283	762680.	-166.6507	-0.001617	0.000	7.408E+10	-5.564E-05	0.002082	0.000
10.000	0.1206	762645.	-166.6509	-0.001567	0.000	7.408E+10	-5.239E-05	0.002085	0.000
10.400	0.1132	762585.	-166.6512	-0.001518	0.000	7.408E+10	-4.924E-05	0.002087	0.000
10.800	0.1061	762502.	-166.6514	-0.001469	0.000	7.408E+10	-4.619E-05	0.002090	0.000
11.200	0.0991	762395.	-166.6516	-0.001419	0.000	7.408E+10	-4.323E-05	0.002093	0.000
11.600	0.0924	762264.	-166.6518	-0.001370	0.000	7.408E+10	-4.036E-05	0.002096	0.000
12.000	0.0860	762110.	-166.6520	-0.001320	0.000	7.408E+10	-3.759E-05	0.002099	0.000
12.400	0.0798	761932.	-166.6522	-0.001271	0.000	7.408E+10	-3.492E-05	0.002101	0.000

12.800	0.0738	761730.	-166.6523	-0.001222	0.000	7.408E+10	-3.234E-05	0.002104	0.000
13.200	0.0680	761505.	-166.6525	-0.001172	0.000	7.408E+10	-2.987E-05	0.002107	0.000
13.600	0.0625	761256.	-166.6526	-0.001123	0.000	7.408E+10	-2.748E-05	0.002110	0.000
14.000	0.0573	760983.	-166.6528	-0.001074	0.000	7.408E+10	-2.520E-05	0.002113	0.000
14.400	0.0522	760687.	-166.6529	-0.001024	0.000	7.408E+10	-2.301E-05	0.002115	0.000
14.800	0.0474	760367.	-166.6530	-0.000975	0.000	7.409E+10	-2.093E-05	0.002118	0.000
15.200	0.0429	760023.	-166.6531	-0.000926	0.000	7.409E+10	-1.894E-05	0.002121	0.000
15.600	0.0385	759656.	-166.6532	-0.000877	0.000	7.409E+10	-1.705E-05	0.002124	0.000
16.000	0.0344	759265.	-166.6532	-0.000827	0.000	7.409E+10	-1.526E-05	0.002127	0.000
16.400	0.0306	758850.	-166.6533	-0.000778	0.000	7.409E+10	-1.357E-05	0.002129	0.000
16.800	0.0270	758412.	-166.6534	-0.000729	0.000	7.409E+10	-1.198E-05	0.002132	0.000
17.200	0.0236	757950.	-166.6534	-0.000680	0.000	7.409E+10	-1.049E-05	0.002135	0.000
17.600	0.0204	757465.	-166.6535	-0.000631	0.000	7.409E+10	-9.106E-06	0.002138	0.000
18.000	0.0175	756956.	-969.6127	-0.000582	0.000	7.409E+10	-334.5663	91568.	0.000
18.400	0.0149	748715.	-2473.6164	-0.000533	0.000	7.410E+10	-292.1019	94333.	0.000
18.800	0.0124	733721.	-3777.6973	-0.000485	0.000	7.412E+10	-251.2652	97098.	0.000
19.200	0.0102	712914.	-4890.3980	-0.000438	0.000	7.415E+10	-212.3602	99863.	0.000
19.600	0.008215	687193.	-5821.6013	-0.000393	0.000	7.418E+10	-175.6412	102627.	0.000
20.000	0.006436	657404.	-6582.2929	-0.000349	0.000	7.422E+10	-141.3136	105392.	0.000
20.400	0.004861	624339.	-7184.3305	-0.000308	0.000	7.425E+10	-109.5354	108157.	0.000
20.800	0.003480	588730.	-7640.2230	-0.000269	0.000	7.429E+10	-80.4198	110922.	0.000
21.200	0.002282	551251.	-7962.9217	-0.000232	0.000	7.433E+10	-54.0380	113687.	0.000
21.600	0.001254	512509.	-8165.6235	-0.000198	0.000	7.435E+10	-30.4211	116451.	0.000
22.000	0.000385	473050.	-8238.7991	-0.000166	0.000	7.438E+10	-0.0687	856.0774	0.000
22.400	-0.000337	433575.	-8238.9640	-0.000136	0.000	7.440E+10	1.227E-08	0.000175	0.000
22.800	-0.000925	394087.	-8238.9640	-0.000110	0.000	7.441E+10	3.421E-08	0.000177	0.000
23.200	-0.001391	354587.	-8238.9640	-8.565E-05	0.000	7.443E+10	5.225E-08	0.000180	0.000
23.600	-0.001747	315075.	-8238.9640	-6.405E-05	0.000	7.443E+10	6.664E-08	0.000183	0.000
24.000	-0.002006	275554.	-7996.1883	-4.501E-05	0.000	7.443E+10	101.1565	242036.	0.000
24.400	-0.002180	238355.	-7503.8595	-2.844E-05	0.000	7.443E+10	103.9804	228999.	0.000
24.800	-0.002279	203544.	-7001.0155	-1.419E-05	0.000	7.443E+10	105.5379	222270.	0.000
25.200	-0.002316	171159.	-6493.0802	-2.108E-06	0.000	7.443E+10	106.1018	219925.	0.000
25.600	-0.002299	141213.	-5984.3795	7.965E-06	0.000	7.443E+10	105.8568	220980.	0.000
26.000	-0.002239	113701.	-5478.4779	1.618E-05	0.000	7.443E+10	104.9355	224934.	0.000
26.400	-0.002144	88604.	-4978.3836	2.271E-05	0.000	7.443E+10	103.4372	231577.	0.000
26.800	-0.002021	65887.	-4486.6804	2.769E-05	0.000	7.443E+10	101.4392	240891.	0.000
27.200	-0.001878	45505.	-4005.6184	3.128E-05	0.000	7.443E+10	99.0033	253020.	0.000
27.600	-0.001721	27403.	-3537.1783	3.363E-05	0.000	7.443E+10	96.1800	268257.	0.000
28.000	-0.001555	11516.	-3083.1189	3.489E-05	0.000	7.443E+10	93.0114	287054.	0.000
28.400	-0.001386	-2228.3178	-2645.0129	3.519E-05	0.000	7.443E+10	89.5328	310057.	0.000
28.800	-0.001218	-13910.	-2224.2756	3.467E-05	0.000	7.443E+10	85.7744	338165.	0.000
29.200	-0.001053	-23615.	-1822.1875	3.346E-05	0.000	7.443E+10	81.7622	372614.	0.000
29.600	-0.000896	-31435.	-1439.9145	3.168E-05	0.000	7.443E+10	77.5182	415128.	0.000
30.000	-0.000749	-37468.	-1078.5251	2.946E-05	0.000	7.443E+10	73.0607	468141.	0.000
30.400	-0.000614	-41817.	-739.0088	2.690E-05	0.000	7.443E+10	68.4044	535187.	0.000
30.800	-0.000491	-44589.	-422.2952	2.412E-05	0.000	7.443E+10	63.5596	621552.	0.000
31.200	-0.000382	-45894.	-129.2788	2.120E-05	0.000	7.443E+10	58.5306	735488.	0.000
31.600	-0.000287	-45850.	139.1455	1.824E-05	0.000	7.443E+10	53.3129	890604.	0.000
32.000	-0.000207	-44576.	382.0245	1.532E-05	0.000	7.443E+10	47.8867	1111077.	0.000
32.400	-0.000140	-42197.	598.2402	1.253E-05	0.000	7.443E+10	42.2032	1444718.	0.000
32.800	-8.662E-05	-38845.	786.2856	9.913E-06	0.000	7.443E+10	36.1491	2003151.	0.000
33.200	-4.505E-05	-34658.	943.6986	7.543E-06	0.000	7.443E+10	29.4396	3136751.	0.000
33.600	-1.421E-05	-29793.	1065.1864	5.465E-06	0.000	7.443E+10	21.1803	7155829.	0.000
34.000	7.412E-06	-24438.	1082.5987	3.716E-06	0.000	7.443E+10	-13.9252	9017332.	0.000
34.400	2.147E-05	-19403.	997.4456	2.302E-06	0.000	7.443E+10	-21.5553	4819689.	0.000
34.800	2.952E-05	-14865.	887.3192	1.197E-06	0.000	7.443E+10	-24.3307	3956826.	0.000
35.200	3.296E-05	-10886.	767.9323	3.670E-07	0.000	7.443E+10	-25.4138	3700797.	0.000
35.600	3.304E-05	-7492.8179	645.6426	-2.256E-07	0.000	7.443E+10	-25.5402	3710572.	0.000
36.000	3.080E-05	-4687.7327	524.2786	-6.184E-07	0.000	7.443E+10	-25.0281	3900976.	0.000
36.400	2.710E-05	-2459.1501	406.4871	-8.489E-07	0.000	7.443E+10	-24.0517	4259724.	0.000
36.800	2.265E-05	-784.6417	294.2416	-9.535E-07	0.000	7.443E+10	-22.7173	4814884.	0.000
37.200	1.795E-05	366.4847	189.1076	-9.669E-07	0.000	7.443E+10	-21.0886	5639603.	0.000
37.600	1.336E-05	1031.7191	92.4414	-9.219E-07	0.000	7.443E+10	-19.1890	6891984.	0.000
38.000	9.099E-06	1254.8076	5.6344	-8.481E-07	0.000	7.443E+10	-16.9806	8957657.	0.000

38.400	5.222E-06	1086.6238	-47.6527	-7.726E-07	0.000	7.443E+10	-5.2224	4800000.	0.000
38.800	1.682E-06	798.0834	-64.2230	-7.119E-07	0.000	7.443E+10	-1.6819	4800000.	0.000
39.200	-1.611E-06	470.7664	-64.3923	-6.709E-07	0.000	7.443E+10	1.6114	4800000.	0.000
39.600	-4.759E-06	180.5619	-49.1032	-6.499E-07	0.000	7.443E+10	4.7590	4800000.	0.000
40.000	-7.851E-06	0.000	0.000	-6.441E-07	0.000	7.443E+10	15.7006	4799720.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 4:

Pile-head deflection = 0.3750000 inches
Computed slope at pile head = -0.0024717 radians
Maximum bending moment = 762692. inch-lbs
Maximum shear force = 15102. lbs
Depth of maximum bending moment = 110.4000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 13
Number of zero deflection points = 3

Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or y(inches)	Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Maximum Moment in Pile in-lbs	Maximum Shear in Pile lbs	Pile-head Rotation radians
1	5	y = 1.0000	S = 0.000	100000.	1.00000000	-2978999.	38220.	-0.00001998
2	5	y = 0.3750	S = 0.000	100000.	0.37500000	-1701590.	24609.	-0.00001055
3	4	y = 1.0000	M = 0.000	100000.	1.00000000	1102902.	20911.	-0.00657886
4	4	y = 0.3750	M = 0.000	100000.	0.37500000	762692.	15102.	-0.00247170

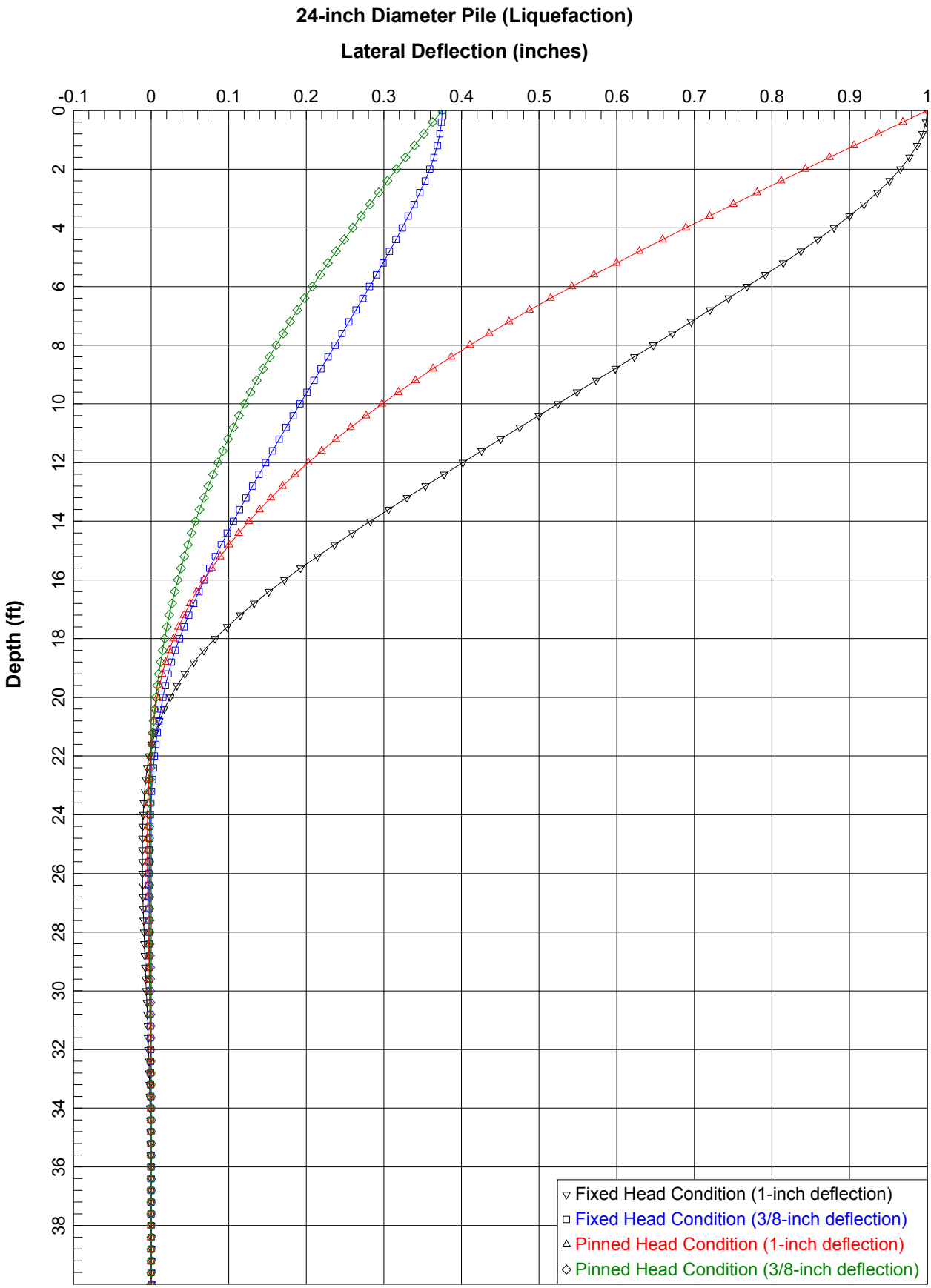
Summary of Warning Messages

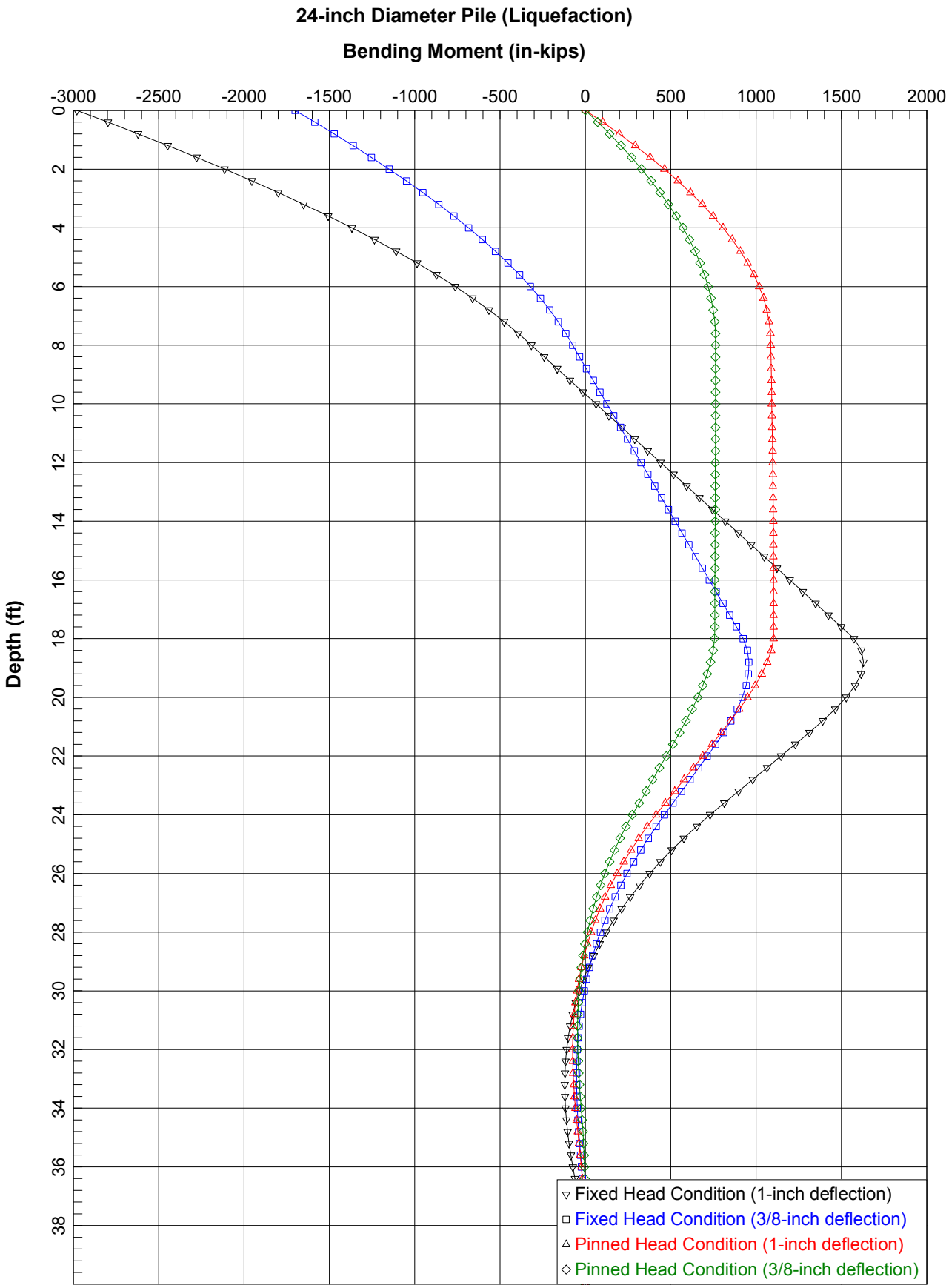
The following warning was reported 390 times

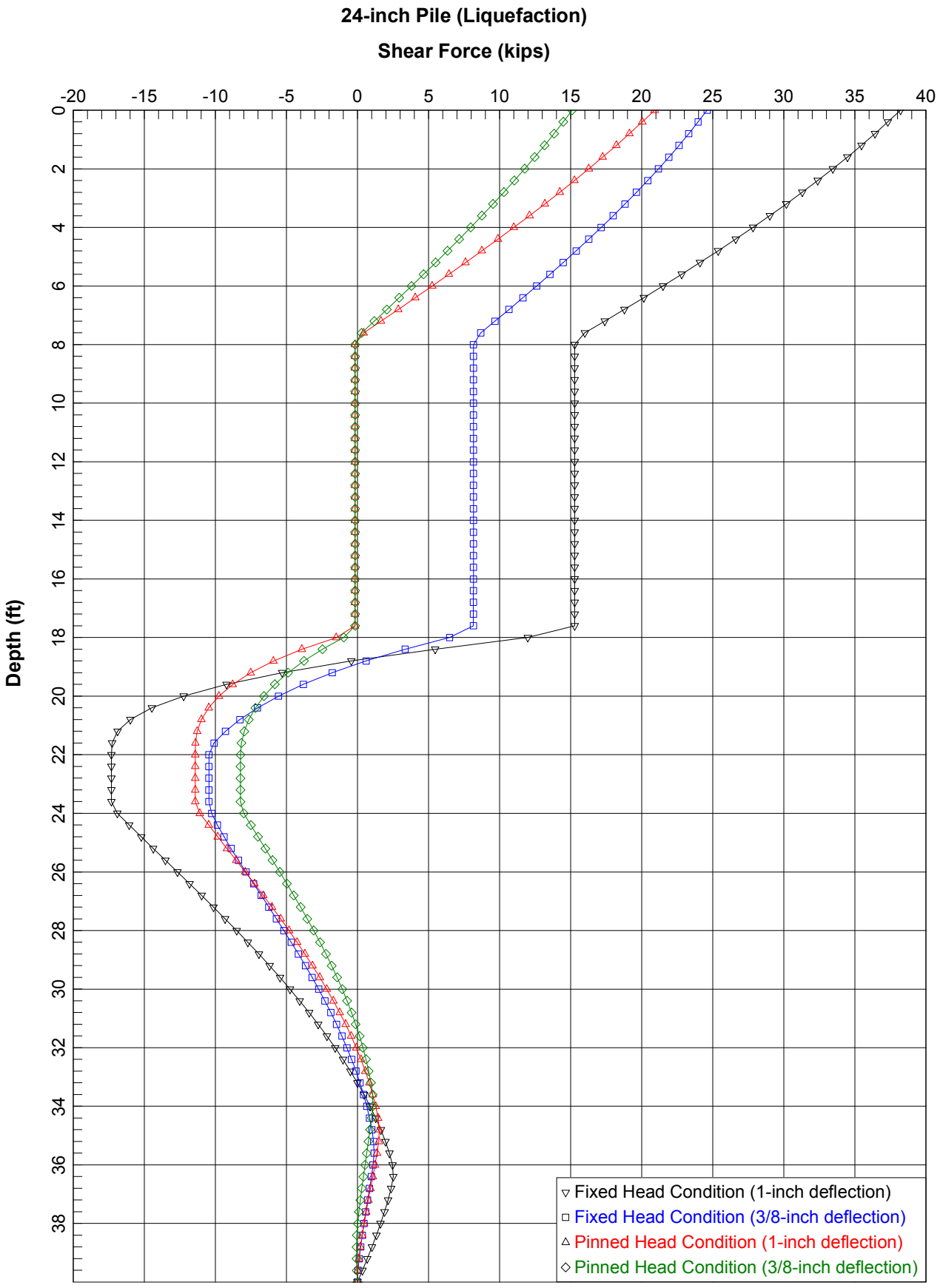
**** Warning ****

An unreasonable value was input for friction angle has been specified
for a soil layer defined uisng the sand criteria. The input value is
either smaller than 20 degrees or higher than 48 degrees. The input
data should be checked for correctness.

The analysis ended normally.


24-inch Diameter Pile (Liquefaction)
Lateral Deflection (inches)
Depth (ft)
-0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)


24-inch Diameter Pile (Liquefaction)
Bending Moment (in-kips)
-3000
-2500
-2000
-1500
-1000
-500
0
500
1000
1500
2000
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)


24-inch Pile (Liquefaction)
Shear Force (kips)
Depth (ft)
-20
-15
-10
-5
0
5
10
15
20
25
30
35
40
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
Fixed Head Condition (1-inch deflection)
Fixed Head Condition (3/8-inch deflection)
Pinned Head Condition (1-inch deflection)
Pinned Head Condition (3/8-inch deflection)

Appendix D

Environmental Records Source Review

SJSU ISB Building
1 Washington
San Jose, CA 95192

Inquiry Number: 04701417.2r
August 16, 2016

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1 WASHINGTON
SAN JOSE, CA 95192

COORDINATES

Latitude (North):	37.3332190 - 37° 19' 59.58''
Longitude (West):	121.8821440 - 121° 52' 55.71''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	599030.8
UTM Y (Meters):	4132220.2
Elevation:	93 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640416 SAN JOSE WEST, CA
Version Date:	2012
East Map:	5640414 SAN JOSE EAST, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1 WASHINGTON
SAN JOSE, CA 95112

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	SAN JOSE STATE UNIVE	1 WASHINGTON SQUARE	CA RGA LUST		TP
A2	SAN JOSE STATE UNIVE	1 WASHINGTON SQ	CA CUPA Listings, CA HAZNET		TP
A3	PARKER WEST INTERNAT	1 WASHINGTON SQ	CA HAZNET		TP
A4	VERIZON WIRELESS: SA	1 WASHINGTON SQ BLDG	CA CUPA Listings		TP
A5	SAN JOSE STATE UNIVE	ONE WASHINGTON SQUAR	MLTS		TP
A6	ARTHUR CORDOVA	ONE WASHINGTON SQUAR	CA PEST LIC		TP
A7	SAN JOSE STATE UNIVE	ONE WASHINGTON SQUAR	RCRA-LQG, CA SWEEPS UST, CA HIST CORTESE, NY...		TP
A8	CALIFORNIA STATE UNI	ONE WASHINGTON SQUAR	FINDS, ECHO		TP
A9	SPRINT SF59XC001	1 WASHINGTON SQ SUIT	CA SAN JOSE HAZMAT		TP
A10	SJSU CENTRAL PLANT	1 WASHINGTON SQ	CA RGA LUST		TP
A11	CSU, SAN JOSE STATE	1 WASHINGTON SQUARE	ICIS, FINDS, ECHO		TP
A12	SAN JOSE STATE UNIVE	1 WASHINGTON SQ.	CA AST		TP
A13	SAN JOSE STATE UNIVE	ONE WASHINGTON SQUAR	CA EMI, CA NPDES		TP
A14	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE	CA LUST, CA HIST LUST, CA HIST CORTESE		TP
A15	SJSU-SPX EAST (46)	1 WASHINGTON SQ	CA LUST, CA CUPA Listings, CA ENF, CA HIST...		TP
A16	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE	CA UST		TP
A17	SJSU ENGINEERING BUI	1 WASHINGTON SQUARE	CA RGA LUST		TP
A18	SJSU ENGINEERING BUI	1 WASHINGTON SQ	CA RGA LUST		TP
A19	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE	CA RGA LUST		TP
Reg	LORENTZ BARREL & DRU	1515 S 10TH ST	NPL, SEMS, US ENG CONTROLS, US INST CONTROL, CA...	Same	5053, 0.957, SE
20	SPARTAN CLEANERS	398 S 5TH ST	EDR Hist Cleaner	Higher	497, 0.094, SSE
21	ALVA J B	368 S 4TH ST	EDR Hist Cleaner	Higher	521, 0.099, SSW
B22	COLLEGE CLEANERS	288 E SAN CARLOS ST	EDR Hist Cleaner	Lower	529, 0.100, WSW
B23	HAYS P W	260 E SAN CARLOS ST	EDR Hist Auto	Lower	531, 0.101, WSW
24	SJSU	SAN CARLOS & 7TH	CA LUST, CA HIST LUST	Lower	643, 0.122, NE
C25	AT&T MOBILITY CENTRA	201 S 4TH ST SUITE C	CA SAN JOSE HAZMAT	Lower	661, 0.125, West
C26	COLONNADE APARTMENTS	201 S 4TH ST	CA CUPA Listings	Lower	661, 0.125, West
C27	THE COLONNADE	201 S 4TH ST SUITE H	CA SAN JOSE HAZMAT	Lower	661, 0.125, West
28	MISSION PAINTING	330 S 3RD STREET	RCRA-SQG, FINDS, ECHO	Higher	782, 0.148, WSW
D29	SPARTAN GAS STATION	498 4TH	CA LUST, CA HIST CORTESE	Higher	1043, 0.198, South
D30	SPARTAN GAS STATION	498 S 4TH ST	CA LUST, CA HIST LUST, CA SWEEPS UST, CA HIST UST,...	Higher	1049, 0.199, South
E31	SAN CARLOS PLAZA / R	300 SOUTH SECOND ST.	RCRA NonGen / NLR	Higher	1132, 0.214, WSW
E32	GENUITY	300 S 2ND ST	CA AST	Higher	1132, 0.214, WSW
E33	TECH SHOP SAN JOSE L	300 S 2ND ST	CA CUPA Listings, CA SAN JOSE HAZMAT	Higher	1132, 0.214, WSW
34	YWCA OF SILICON VALL	350 S 2ND ST	CA CUPA Listings, CA SAN JOSE HAZMAT	Higher	1177, 0.223, SW
35	SJSU	SAN CARLOS & 7TH	CA LUST	Lower	1314, 0.249, North
36	SAN JOSE CO GENERATI	9TH & SAN CARLOS	RCRA-SQG	Higher	1317, 0.249, ENE
37	SAN ANTONIO PLAZA	UNKNOWN SAN FERNANDO	CA LUST	Lower	1328, 0.252, NW
F38	PASEO VILLAS	130 E SAN FERNANDO	CA LUST, CA HIST LUST	Lower	1442, 0.273, WNW

MAPPED SITES SUMMARY

Target Property Address:
1 WASHINGTON
SAN JOSE, CA 95112

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
39	VALLEY TITLE COMPANY	300 SOUTH FIRST STRE	CA LUST, CA SLIC	Higher	1447, 0.274, WSW
F40	SAN JOSE GAS WORKS	E. SAN FERNANDO AND	EDR MGP	Lower	1449, 0.274, NW
G41	SAN ANTONIO PLAZA RE	SAN FERNANDO & 4TH S	CA LUST, CA HIST LUST	Lower	1470, 0.278, NW
G42	SAN ANTONIO PLAZA BL	W. SAN FERNANDO ST &	CA HIST CORTESE	Lower	1471, 0.279, NW
G43	SAN ANTONIO PLAZA BL	WEST SAN FERNANDO ST	CA ENVIROSTOR, CA VCP	Lower	1471, 0.279, NW
G44	SAN ANTONIO PLAZA RE	SAN FERNANDO & 4TH S	CA LUST	Lower	1471, 0.279, NW
F45	REDEVELOPMENT BLOCK	UNKNOWN PARCELS 2 &	CA SLIC	Lower	1525, 0.289, WNW
46	FOREST CITY DEVELOPM	101 SAN FERNANDO AVE	CA LUST, CA HIST LUST	Lower	1624, 0.308, NW
H47	FOX CALIFORNIA THEAT	345 S 1ST ST	CA LUST, CA HIST LUST	Higher	1628, 0.308, WSW
48	HEART OF THE CITY -	100 SOUTH SECOND STR	CA SLIC	Lower	1664, 0.315, WNW
H49	DOHRMAN BUILDING	325 S 1ST ST	CA LUST, CA HIST LUST	Higher	1670, 0.316, WSW
H50	DOHRMANN ASSOCIATES	325 1ST	CA HIST CORTESE	Higher	1670, 0.316, WSW
I51	TEXACO	78 S 4TH ST	CA LUST, CA HIST LUST	Lower	1742, 0.330, NW
I52	TEXACO	78 S 4TH ST	CA LUST	Lower	1742, 0.330, NW
53	MARKET PLACE	439 1ST	CA HIST CORTESE	Higher	1763, 0.334, SW
J54	PETE'S STOP INC.	447 EAST WILLIAM STR	CA LUST	Higher	1839, 0.348, East
J55	PETE'S STOP INC.	447 E WILLIAM ST	CA LUST, CA HIST LUST	Higher	1839, 0.348, East
J56	PETE'S STOP INC	447 WILLIAM	CA LUST, CA HIST CORTESE	Higher	1839, 0.348, East
K57	SJSU CORPORATE YARD	404 SAN FERNANDO	CA HIST CORTESE	Lower	1847, 0.350, North
K58	SJSU-INDUSTRIAL STUD	404 E SAN FERNANDO S	CA LUST, CA HIST LUST	Lower	1847, 0.350, North
59	PF CHANGS CHINA BIST	98 S. 2ND STREET	CA LUST, CA HIST LUST	Lower	1872, 0.355, WNW
L60	SJRA-CONVENTION CENT	S MARKET ST @ VIOLA	CA LUST	Higher	1900, 0.360, SW
L61	SJRA-CONVENTION CENT	S MARKET ST @ VIOLA	CA LUST, CA HIST LUST	Higher	1900, 0.360, SW
62	JONES/SCHAEZLEIN PRO	520 S. 1ST STREET	CA LUST, CA HIST LUST	Higher	1914, 0.363, SSW
63	BLOCK 2 CITY OF SAN	8 EAST SAN FERNANADO	CA SLIC, CA BROWNFIELDS	Lower	1944, 0.368, WNW
64	SAN JOSE CONVENTION	SOUTH MARKET STREET	CA SLIC	Higher	1955, 0.370, WSW
65	SAN JOSE NEW CITY HA	200 E SANTA CLARA ST	CA SLIC, CA EMI, CA HAZNET	Lower	1963, 0.372, NW
M66	CENTURY CENTER	53 S 3RD ST	CA LUST, CA HIST LUST	Lower	1992, 0.377, WNW
M67	CENTURY CENTER	62 S 2ND ST.	CA LUST	Lower	2018, 0.382, WNW
N68	SAN JOSE STATE UNIV	125 S 7TH	SEMS-ARCHIVE	Lower	2053, 0.389, West
N69	SAN JOSE STATE UNIVE	125 S 7TH ST	CA ENVIROSTOR	Lower	2053, 0.389, West
O70	TATE FAMILY COMPLETE	477 S MARKET ST	CA LUST, CA HIST LUST, CA SWEEPS UST, CA CUPA...	Higher	2068, 0.392, SW
O71	ROSE MURTY TIRE COMP	477 MARKET	CA HIST CORTESE	Higher	2068, 0.392, SW
M72	PRIVATE RESIDENCE	PRIVATE RESIDENCE	CA LUST	Lower	2074, 0.393, WNW
P73	SJRA HOTEL EAST	301 MARKET	CA LUST, CA HIST CORTESE	Higher	2106, 0.399, WSW
P74	SJRA-HOTEL EAST	301 S MARKET ST	CA LUST, CA HIST LUST, CA SAN JOSE HAZMAT	Higher	2106, 0.399, WSW
P75	SAN JOSE MARRIOTT	301 S MARKET ST	CA LUST, CA CUPA Listings	Higher	2106, 0.399, WSW
76	MERCADOS SUVIANDA	272 E. SANTA CLARA S	CA LUST	Lower	2126, 0.403, NNW
Q77	598 S. 1ST. ST. (SS#	598 S FIRST ST.	CA LUST, CA WDS	Higher	2137, 0.405, SSW

MAPPED SITES SUMMARY

Target Property Address:
1 WASHINGTON
SAN JOSE, CA 95112

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Q78	TEXACO	598 1ST	CA HIST CORTESE	Higher	2137, 0.405, SSW
Q79	FORMER TEXACO STATIO	598 S 1ST ST	CA LUST, CA HIST LUST	Higher	2137, 0.405, SSW
80	APTON PROPERTY	505 E SAN CARLOS ST	CA LUST, CA HIST LUST, CA HIST CORTESE	Higher	2142, 0.406, NE
R81	MERRY OLDSMOBILE	525 MARKET	CA HIST CORTESE	Higher	2147, 0.407, SSW
R82	MERRY OLDSMOBILE	525 S MARKET ST	CA LUST, CA HIST LUST	Higher	2147, 0.407, SSW
S83	DE LUXE CLEANERS	224 E SANTA CLARA ST	CA SLIC, CA SWEEPS UST, CA EMI	Lower	2153, 0.408, NNW
S84	DELUXE CLEANERS	224 SANTA CLARA E	CA SLIC, CA HIST CORTESE	Lower	2178, 0.412, NNW
T85	DELUXE CLEANERS	250 SANTA CLARA ST E	CA SLIC	Lower	2183, 0.413, NNW
U86	DOWNTOWN AUTO EXPRES	154 E SANTA CLARA ST	CA LUST, CA HIST LUST, CA SWEEPS UST	Lower	2205, 0.418, NW
87	CENTURY CITY PARKING	15 SOUTH THIRD STREE	CA SLIC	Lower	2210, 0.419, NW
88	BANK OF TRADE BUILDI	100 E SANTA CLARA ST	CA LUST, CA HIST LUST, CA HIST CORTESE	Lower	2245, 0.425, NW
U89	DOWNTOWN AUTO EXPRES	154 SANTA CLARA	CA HIST CORTESE	Lower	2248, 0.426, NW
U90	94259	147 E SANTA CLARA	CA LUST, CA HIST LUST, CA SWEEPS UST, CA HIST UST,...	Lower	2255, 0.427, NW
U91	CHEVRON	147 SANTA CLARA	CA HIST CORTESE	Lower	2255, 0.427, NW
T92	VINTAGE TOWERS	235 E. SANTA CLARA S	CA LUST, CA HAZNET	Lower	2267, 0.429, NNW
93	PIERCE DEVELOPMENT	561-599 S. MARKET ST	CA SLIC, CA DEED	Higher	2283, 0.432, SSW
94	N 5TH SIDEWALK	24 N 5TH ST	CA LUST	Lower	2285, 0.433, NNW
V95	FIRESTONE BUILDING	599 1ST	CA HIST CORTESE	Higher	2286, 0.433, SSW
V96	FIRESTONE BUILDING	599 S 1ST ST	CA LUST, CA HIST LUST	Higher	2353, 0.446, SSW
97	KAPPA SIGMA	148 11TH	CA LUST, CA HIST LUST, CA HIST CORTESE	Lower	2374, 0.450, NNE
98	N 5TH SIDEWALK	24 5TH	CA LUST	Lower	2410, 0.456, NNW
99	CET DEVELOPMENT	630 1ST	CA LUST, CA HIST LUST, CA HIST CORTESE	Higher	2418, 0.458, South
100	DIOCESE OF SAN JOSE	80 S MARKET ST	CA LUST, CA HIST LUST, CA HIST CORTESE	Higher	2488, 0.471, West
101	SAN JOSE CONVENTION	150 SAN CARLOS	CA HIST CORTESE	Higher	2494, 0.472, WSW
102	BUTCHER ELECTRIC	510 SAN FERNANDO	CA HIST CORTESE	Lower	2497, 0.473, NNE
W103	ART'S CLEANERS	400 E SANTA CLARA ST	CA LUST	Lower	2505, 0.474, North
W104	ART'S CLEANERS	400 E SANTA CLARA ST	CA LUST, CA HIST LUST	Lower	2505, 0.474, North
W105	ART CLEANERS - SAN J	400 EAST SANTA CLARA	CA SLIC, CA ENF	Lower	2505, 0.474, North
X106	HORACE MANN ELEMENTA	55 N 7TH ST	CA LUST, CA HIST LUST	Lower	2587, 0.490, NNW
X107	HORACE MANN ELEMENTA	55 NORTH 7TH ST	CA LUST	Lower	2587, 0.490, NNW
108	DR. EU BUILDING	35 & 43 SANTA CLARA	CA SLIC	Lower	2597, 0.492, WNW
109	7-ELEVEN STORE #1749	452 EAST SANTA CLARA	CA SWEEPS UST, CA EMI, CA HIST CORTESE, CA Notify...	Lower	2708, 0.513, North
110	RIVER PARK DEVELOPME	333 WEST SAN CARLOS	CA ENVIROSTOR, CA SLIC, CA CHMIRS	Lower	3688, 0.698, WSW
111	MISSION VILLAS	44 EAST JULIAN STREE	CA ENVIROSTOR	Lower	4195, 0.795, NW
112	3RD STREET DEVELOPME	1010 SOUTH 3RD STREE	CA ENVIROSTOR, CA VCP, CA NPDES	Higher	4271, 0.809, SSE
113	UNKNOWN	35 NORTH RIVER STREE	CA Notify 65	Lower	4517, 0.855, West
114	STATE RADIATOR SJ RE	331 GIFFORD AVE	CA ENVIROSTOR, CA LUST, CA HIST CORTESE, CA SAN...	Higher	4995, 0.946, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
SAN JOSE STATE UNIVE 1 WASHINGTON SQUARE SAN JOSE, CA	CA RGA LUST	N/A
SAN JOSE STATE UNIVE 1 WASHINGTON SQ SAN JOSE, CA 95192	CA CUPA Listings Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016 CA HAZNET GEPAID: CAT080031206	N/A
PARKER WEST INTERNAT 1 WASHINGTON SQ SAN JOSE, CA 95112	CA HAZNET GEPAID: CAC002606421	N/A
VERIZON WIRELESS: SA 1 WASHINGTON SQ BLDG SAN JOSE, CA 95112	CA CUPA Listings Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016	N/A
SAN JOSE STATE UNIVE ONE WASHINGTON SQUAR SAN JOSE, CA 95192	MLTS License Number:: AS-NMMSS-HQ-6	N/A
ARTHUR CORDOVA ONE WASHINGTON SQUAR SAN JOSE, CA 95192	CA PEST LIC	N/A
SAN JOSE STATE UNIVE ONE WASHINGTON SQUAR SAN JOSE, CA 95192	RCRA-LQG EPA ID:: CAT080031206 CA SWEEPS UST Status: A Tank Status: A Comp Number: 403591 CA HIST CORTESE Reg Id: 43-2111 NY MANIFEST EPA ID: CAT080031206	CAT080031206
CALIFORNIA STATE UNI ONE WASHINGTON SQUAR SAN JOSE, CA 95192	FINDS Registry ID:: 110060292071 ECHO	N/A
SPRINT SF59XC001 1 WASHINGTON SQ SUIT SAN JOSE, CA 95112	CA SAN JOSE HAZMAT	N/A

EXECUTIVE SUMMARY

File Num: 411892

SJSU CENTRAL PLANT 1 WASHINGTON SQ SAN JOSE, CA	CA RGA LUST	N/A
CSU, SAN JOSE STATE 1 WASHINGTON SQUARE SAN JOSE, CA 95192	ICIS FRS ID:: 110000786249 FINDS Registry ID:: 110057056732 Registry ID:: 110064541107 Registry ID:: 110000786249 ECHO	N/A
SAN JOSE STATE UNIVE 1 WASHINGTON SQ. SAN JOSE, CA 95192	CA AST	N/A
SAN JOSE STATE UNIVE ONE WASHINGTON SQUAR SAN JOSE, CA 95192	CA EMI Facility Id: 9339 CA NPDES Facility Status: Active	N/A
SJSU CENTRAL PLANT 1 WASHINGTON SQUARE SAN JOSE, CA 95192	CA LUST Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Status: Case Closed date9: 3/30/2000 date9: 4/18/1996 CA HIST LUST SCVWD ID: 07S1E08J02 SCVWD ID: 07S1E08K04 CA HIST CORTESE Reg Id: 43-2273	N/A
SJSU-SPX EAST (46) 1 WASHINGTON SQ SAN JOSE, CA 95112	CA LUST Database: LUST, Date of Government Version: 06/13/2016 Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014 Status: Completed - Case Closed Date Closed: 03/30/2000 Date Closed: 04/18/1996 Global Id: T0608502088 Global Id: T0608501816 SCVWD ID: 07S1E08J02F SCVWD ID: 07S1E08K04F CA CUPA Listings Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016 CA ENF	N/A

	Status: Historical Status: Active Facility Id: 631093 CA HIST CORTESE Reg Id: 43-1898 CA SAN JOSE HAZMAT File Num: 600212 File Num: 601213	
SJSU CENTRAL PLANT 1 WASHINGTON SQUARE SAN JOSE, CA 95112	CA UST Database: UST, Date of Government Version: 06/13/2016 Facility Id: 43-000-250796	N/A
SJSU ENGINEERING BUI 1 WASHINGTON SQUARE SAN JOSE, CA	CA RGA LUST	N/A
SJSU ENGINEERING BUI 1 WASHINGTON SQ SAN JOSE, CA	CA RGA LUST	N/A
SJSU CENTRAL PLANT 1 WASHINGTON SQUARE SAN JOSE, CA	CA RGA LUST	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

EXECUTIVE SUMMARY

Federal RCRA CORRACTS facilities list

CORRACTS---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS---------- Land Use Control Information System

Federal ERNS list

ERNS---------- Emergency Response Notification System

State- and tribal - equivalent NPL

CA RESPONSE---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

CA SWF/LF---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST---------- Underground Storage Tank Listing
INDIAN UST---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

CA WMUDS/SWAT---------- Waste Management Unit Database
CA SWRCY---------- Recycler Database
CA HAULERS---------- Registered Waste Tire Haulers Listing
INDIAN ODI---------- Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register
CA SCH ..... School Property Evaluation Program
CA CDL ..... Clandestine Drug Labs
CA Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ..... Facility Inventory Database

Local Land Records

CA LIENS ..... Environmental Liens Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CA LDS ..... Land Disposal Sites Listing
CA MCS ..... Military Cleanup Sites Listing
CA SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ..... Formerly Used Defense Sites
DOD ..... Department of Defense Sites
SCRD DRYCLEANERS ..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ..... Financial Assurance Information
EPA WATCH LIST ..... EPA WATCH LIST
2020 COR ACTION ..... 2020 Corrective Action Program List
TSCA ..... Toxic Substances Control Act
TRIS ..... Toxic Chemical Release Inventory System
SSTS ..... Section 7 Tracking Systems
RMP ..... Risk Management Plans
RAATS ..... RCRA Administrative Action Tracking System
PADS ..... PCB Activity Database System
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
COAL ASH DOE ..... Steam-Electric Plant Operation Data
COAL ASH EPA ..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ..... PCB Transformer Registration Database
RADINFO ..... Radiation Information Database
HIST FTTS ..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ..... Incident and Accident Data
INDIAN RESERV ..... Indian Reservations
FUSRAP ..... Formerly Utilized Sites Remedial Action Program
UMTRA ..... Uranium Mill Tailings Sites
LEAD SMELTERS ..... Lead Smelter Sites
US AIRS ..... Aerometric Information Retrieval System Facility Subsystem
US MINES ..... Mines Master Index File
UXO ..... Unexploded Ordnance Sites

DOCKET HWC ---------- Hazardous Waste Compliance Docket Listing
CA BOND EXP. PLAN ---------- Bond Expenditure Plan
CA DRYCLEANERS ---------- Cleaner Facilities
CA Financial Assurance ---------- Financial Assurance Information Listing
CA HWP ---------- EnviroStor Permitted Facilities Listing
CA HWT ---------- Registered Hazardous Waste Transporter Database
CA MINES ---------- Mines Site Location Listing
CA MWMP ---------- Medical Waste Management Program Listing
CA PROC ---------- Certified Processors Database
CA UIC ---------- UIC Listing
CA WASTEWATER PITS ---------- Oil Wastewater Pits Listing
CA WIP ---------- Well Investigation Program Case List
FUELS PROGRAM ---------- EPA Fuels Program Registered Listing

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

CA RGA LF ---------- Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LORENTZ BARREL & DRU	***1515 S 10TH ST***	***SE 1/2 - 1 (0.957 mi.)***	***0***	***44***

EXECUTIVE SUMMARY

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 SEMS-ARCHIVE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAN JOSE STATE UNIV	125 S 7TH	W 1/4 - 1/2 (0.389 mi.)	N68	190

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/09/2015 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MISSION PAINTING	***330 S 3RD STREET***	***WSW 1/8 - 1/4 (0.148 mi.)***	***28***	***112***
SAN JOSE CO GENERATI	9TH & SAN CARLOS	ENE 1/8 - 1/4 (0.249 mi.)	36	136

State- and tribal - equivalent CERCLIS

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the CA ENVIROSTOR list, as provided by EDR, and dated 05/02/2016 has revealed that there

are 7 CA ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LORENTZ BARREL & DRU	***1515 S 10TH ST***	***SE 1/2 - 1 (0.957 mi.)***	***0***	***44***
Facility Id: 43300026				
Status: Active				
3RD STREET DEVELOPME	***1010 SOUTH 3RD STREE***	***SSE 1/2 - 1 (0.809 mi.)***	***112***	***276***
Facility Id: 60001210				
Status: Certified				
STATE RADIATOR SJ RE	***331 GIFFORD AVE***	***WSW 1/2 - 1 (0.946 mi.)***	***114***	***285***
Facility Id: 43750007				
Status: Refer: RWQCB				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAN ANTONIO PLAZA BL	***WEST SAN FERNANDO ST***	***NW 1/4 - 1/2 (0.279 mi.)***	***G43***	***145***
Facility Id: 43490065				
Status: Certified				
SAN JOSE STATE UNIVE	125 S 7TH ST	W 1/4 - 1/2 (0.389 mi.)	N69	191
Facility Id: 43820001				
Status: No Further Action				
RIVER PARK DEVELOPME	***333 WEST SAN CARLOS***	***WSW 1/2 - 1 (0.698 mi.)***	***110***	***273***
Facility Id: 43150003				
Status: Refer: RWQCB				
MISSION VILLAS	44 EAST JULIAN STREE	NW 1/2 - 1 (0.795 mi.)	111	275
Facility Id: 60001042				
Status: Refer: 1248 Local Agency				

State and tribal leaking storage tank lists

CA LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the CA LUST list, as provided by EDR, has revealed that there are 48 CA LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION	***498 4TH***	***S 1/8 - 1/4 (0.198 mi.)***	***D29***	***114***
Database: LUST, Date of Government Version: 06/13/2016				
Status: Open - Site Assessment				
Global Id: T0608501344				
SPARTAN GAS STATION	***498 S 4TH ST***	***S 1/8 - 1/4 (0.199 mi.)***	***D30***	***128***
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014				
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Status: Pollution Characterization				
SCVWD ID: 07S1E17B03F				
VALLEY TITLE COMPANY	***300 SOUTH FIRST STRE***	***WSW 1/4 - 1/2 (0.274 mi.)***	***39***	***141***
Database: LUST, Date of Government Version: 06/13/2016				
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014				

Status: Completed - Case Closed
Date Closed: 06/03/2011
Global Id: T10000002005
SCVWD ID: 07S1E08P02F

FOX CALIFORNIA THEAT ***345 S 1ST ST*** ***WSW 1/4 - 1/2 (0.308 mi.)*** ***H47*** ***153***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 02/07/2002
Global Id: T0608504232
SCVWD ID: 07S1E08P01F
date9: 2/7/2002

DOHRMAN BUILDING ***325 S 1ST ST*** ***WSW 1/4 - 1/2 (0.316 mi.)*** ***H49*** ***156***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 02/02/1995
Global Id: T0608502304
SCVWD ID: 07S1E17C04F
date9: 2/2/1995

PETE'S STOP INC. 447 EAST WILLIAM STR E 1/4 - 1/2 (0.348 mi.) J54 161
Database: LUST, Date of Government Version: 06/13/2016
Status: Open - Remediation
Global Id: T0608501689

PETE'S STOP INC. ***447 E WILLIAM ST*** ***E 1/4 - 1/2 (0.348 mi.)*** ***J55*** ***169***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Pollution Characterization

PETE'S STOP INC ***447 WILLIAM*** ***E 1/4 - 1/2 (0.348 mi.)*** ***J56*** ***169***
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
SCVWD ID: 07S1E09N01F

SJRA-CONVENTION CENT S MARKET ST @ VIOLA SW 1/4 - 1/2 (0.360 mi.) L60 177
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Status: Completed - Case Closed
Date Closed: 09/16/1997
Global Id: T0608502011
SCVWD ID: 07S1E17C03F

SJRA-CONVENTION CENT ***S MARKET ST @ VIOLA*** ***SW 1/4 - 1/2 (0.360 mi.)*** ***L61*** ***179***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 9/16/1997

JONES/SCHAEZLEIN PRO ***520 S. 1ST STREET*** ***SSW 1/4 - 1/2 (0.363 mi.)*** ***62*** ***180***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Remedial action (cleanup) Underway
Date Closed: 08/18/2005

Global Id: T0608560815
SCVWD ID: 07S1E17B04F

TATE FAMILY COMPLETE ***477 S MARKET ST*** ***SW 1/4 - 1/2 (0.392 mi.)*** ***O70*** ***192***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 04/25/2002
Global Id: T0608501121
SCVWD ID: 07S1E17C02F
date9: 4/25/2002

SJRA HOTEL EAST ***301 MARKET*** ***WSW 1/4 - 1/2 (0.399 mi.)*** ***P73*** ***198***
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 10/18/2001
SCVWD ID: 07S1E17C05F

SJRA-HOTEL EAST ***301 S MARKET ST*** ***WSW 1/4 - 1/2 (0.399 mi.)*** ***P74*** ***198***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 10/18/2001

SAN JOSE MARRIOTT ***301 S MARKET ST*** ***WSW 1/4 - 1/2 (0.399 mi.)*** ***P75*** ***199***
Database: LUST, Date of Government Version: 06/13/2016
Status: Completed - Case Closed
Global Id: T0608501186

598 S. 1ST. ST. (SS# ***598 S FIRST ST.*** ***SSW 1/4 - 1/2 (0.405 mi.)*** ***Q77*** ***206***
Database: LUST, Date of Government Version: 06/13/2016
Status: Open - Site Assessment
Global Id: T0608501801

FORMER TEXACO STATIO ***598 S 1ST ST*** ***SSW 1/4 - 1/2 (0.405 mi.)*** ***Q79*** ***216***
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Remedial action (cleanup) Underway
SCVWD ID: 07S1E17G02F

APTON PROPERTY ***505 E SAN CARLOS ST*** ***NE 1/4 - 1/2 (0.406 mi.)*** ***80*** ***217***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 10/05/1994
Global Id: T0608500973
SCVWD ID: 07S1E08J01F
date9: 10/5/1994

MERRY OLDSMOBILE ***525 S MARKET ST*** ***SSW 1/4 - 1/2 (0.407 mi.)*** ***R82*** ***219***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 06/02/1997
Global Id: T0608500894
SCVWD ID: 07S1E17B01F

date9: 6/2/1997

FIRESTONE BUILDING ***599 S 1ST ST*** ***SSW 1/4 - 1/2 (0.446 mi.)*** ***V96*** ***252***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 09/26/1996
Global Id: T0608500619
SCVWD ID: 07S1E17G01F
date9: 9/26/1996

CET DEVELOPMENT ***630 1ST*** ***S 1/4 - 1/2 (0.458 mi.)*** ***99*** ***258***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 10/15/1999
Global Id: T0608560823
SCVWD ID: 07S1E17G04F
date9: 10/15/1999

DIOCESE OF SAN JOSE ***80 S MARKET ST*** ***W 1/4 - 1/2 (0.471 mi.)*** ***100*** ***261***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 05/22/2001
Global Id: T0608500516
SCVWD ID: 07S1E08N01F
date9: 5/22/2001

Lower Elevation	Address	Direction / Distance	Map ID	Page
SJSU	***SAN CARLOS & 7TH***	***NE 0 - 1/8 (0.122 mi.)***	***24***	***111***

Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 8/27/1998

SJSU SAN CARLOS & 7TH N 1/8 - 1/4 (0.249 mi.) 35 134
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Status: Completed - Case Closed
Date Closed: 08/27/1998
Global Id: T0608502106
SCVWD ID: 07S1E08J03F

SAN ANTONIO PLAZA UNKNOWN SAN FERNANDO NW 1/4 - 1/2 (0.252 mi.) 37 137
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Id: 43-1706
Facility Status: Case Closed
Global Id: T0608501647
date9: 8/17/1992

PASEO VILLAS ***130 E SAN FERNANDO*** ***WNW 1/4 - 1/2 (0.273 mi.)*** ***F38*** ***139***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004

Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 04/19/2002
Global Id: T0608502417
SCVWD ID: 07S1E08K05F
date9: 4/19/2002

SAN ANTONIO PLAZA RE ***SAN FERNANDO & 4TH S*** ***NW 1/4 - 1/2 (0.278 mi.)*** ***G41*** ***144***
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
Date Closed: 08/17/1992
SCVWD ID: 07S1E08K01F
date9: 8/17/1992

SAN ANTONIO PLAZA RE SAN FERNANDO & 4TH S NW 1/4 - 1/2 (0.279 mi.) G44 148
Database: LUST, Date of Government Version: 06/13/2016
Status: Completed - Case Closed
Global Id: T0608502303

FOREST CITY DEVELOPM ***101 SAN FERNANDO AVE*** ***NW 1/4 - 1/2 (0.308 mi.)*** ***46*** ***150***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Preliminary site assessment underway
Global Id: T0608502387
SCVWD ID: 07S1E08L06F

TEXACO ***78 S 4TH ST*** ***NW 1/4 - 1/2 (0.330 mi.)*** ***I51*** ***158***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Global Id: T0608501328
date9: 10/21/1999

TEXACO 78 S 4TH ST NW 1/4 - 1/2 (0.330 mi.) I52 161
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 10/21/1999
SCVWD ID: 07S1E08L03F

SJSU-INDUSTRIAL STUD ***404 E SAN FERNANDO S*** ***N 1/4 - 1/2 (0.350 mi.)*** ***K58*** ***170***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 03/30/2000
Date Closed: 04/10/2000
Global Id: T0608501837
Global Id: T0608502071
SCVWD ID: 07S1E08K02F
SCVWD ID: 07S1E08K03F
date9: 3/30/2000
date9: 4/10/2000

PF CHANGS CHINA BIST ***98 S. 2ND STREET*** ***WNW 1/4 - 1/2 (0.355 mi.)*** ***59*** ***175***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004

Status: Completed - Case Closed
Date Closed: 08/09/2006
Global Id: T0608503601
SCVWD ID: 07S1E08L08F

CENTURY CENTER ***53 S 3RD ST*** ***WNW 1/4 - 1/2 (0.377 mi.)*** ***M66*** ***187***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 11/01/2002
Global Id: T0608561183
SCVWD ID: 07S1E08L07F
date9: 11/1/2002

CENTURY CENTER 62 S 2ND ST. WNW 1/4 - 1/2 (0.382 mi.) M67 190
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 07/13/2005
SCVWD ID: 07S1E08L10F

PRIVATE RESIDENCE PRIVATE RESIDENCE WNW 1/4 - 1/2 (0.393 mi.) M72 197
Database: LUST, Date of Government Version: 06/13/2016
Status: Completed - Case Closed
Global Id: T0608516469

MERCADOS SUVIANDA 272 E. SANTA CLARA S NNW 1/4 - 1/2 (0.403 mi.) 76 201
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Status: Completed - Case Closed
Date Closed: 12/24/2013
Global Id: T0608558142
SCVWD ID: 07S1E08G02F

DOWNTOWN AUTO EXPRES ***154 E SANTA CLARA ST*** ***NW 1/4 - 1/2 (0.418 mi.)*** ***U86*** ***223***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 01/12/1998
Global Id: T0608500529
SCVWD ID: 07S1E08L02F
date9: 1/12/1998

BANK OF TRADE BUILDI ***100 E SANTA CLARA ST*** ***NW 1/4 - 1/2 (0.425 mi.)*** ***88*** ***228***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 11/22/2000
Global Id: T0608500212
SCVWD ID: 07S1E08L04F
date9: 11/22/2000

94259 ***147 E SANTA CLARA*** ***NW 1/4 - 1/2 (0.427 mi.)*** ***U90*** ***231***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004

Status: Completed - Case Closed
Facility Status: Remedial action (cleanup) Underway
Date Closed: 05/21/2010
Global Id: T0608500345
SCVWD ID: 07S1E08L01F

VINTAGE TOWERS ***235 E. SANTA CLARA S*** ***NNW 1/4 - 1/2 (0.429 mi.)*** ***T92*** ***247***
Database: LUST, Date of Government Version: 06/13/2016
Status: Completed - Case Closed
Global Id: T10000007007

N 5TH SIDEWALK 24 N 5TH ST NNW 1/4 - 1/2 (0.433 mi.) 94 251
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 12/28/2006
SCVWD ID: 07S1E08F04F

KAPPA SIGMA ***148 11TH*** ***NNE 1/4 - 1/2 (0.450 mi.)*** ***97*** ***254***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 08/16/1994
Global Id: T0608597933
SCVWD ID: 07S1E08H03F
date9: 8/16/1994

N 5TH SIDEWALK 24 5TH NNW 1/4 - 1/2 (0.456 mi.) 98 256
Database: LUST, Date of Government Version: 06/13/2016
Status: Completed - Case Closed
Global Id: T0608576161

ART'S CLEANERS 400 E SANTA CLARA ST N 1/4 - 1/2 (0.474 mi.) W103 265
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
SCVWD ID: 07S1E08H05F

ART'S CLEANERS ***400 E SANTA CLARA ST*** ***N 1/4 - 1/2 (0.474 mi.)*** ***W104*** ***265***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Preliminary site assessment underway

HORACE MANN ELEMENTA ***55 N 7TH ST*** ***NNW 1/4 - 1/2 (0.490 mi.)*** ***X106*** ***268***
Database: LUST, Date of Government Version: 06/13/2016
Database: LUST REG 2, Date of Government Version: 09/30/2004
Status: Completed - Case Closed
Facility Status: Case Closed
Global Id: T0608541457
date9: 10/17/2001

HORACE MANN ELEMENTA 55 NORTH 7TH ST NNW 1/4 - 1/2 (0.490 mi.) X107 270
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Date Closed: 10/17/2001
SCVWD ID: 07S1E08G01F

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, has revealed that there are 13 CA SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VALLEY TITLE COMPANY	***300 SOUTH FIRST STRE***	***WSW 1/4 - 1/2 (0.274 mi.)***	***39***	***141***

Database: SLIC, Date of Government Version: 06/13/2016

Facility Status: Open - Inactive
Global Id: T10000008025

SAN JOSE CONVENTION | SOUTH MARKET STREET | WSW 1/4 - 1/2 (0.370 mi.) | 64 | 184
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Open - Site Assessment
Global Id: SL0608531982

PIERCE DEVELOPMENT | 561-599 S. MARKET ST | SSW 1/4 - 1/2 (0.432 mi.) | 93 | 250
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Completed - Case Closed
Global Id: T10000005812

Lower Elevation	Address	Direction / Distance	Map ID	Page

REDEVELOPMENT BLOCK | UNKNOWN PARCELS 2 & | WNW 1/4 - 1/2 (0.289 mi.) | F45 | 150
Database: SLIC, Date of Government Version: 06/13/2016
Database: SLIC REG 2, Date of Government Version: 09/30/2004
Facility Status: Completed - Case Closed
Facility Id: 43S0381
Global Id: T0608591637

HEART OF THE CITY - | 100 SOUTH SECOND STR | WNW 1/4 - 1/2 (0.315 mi.) | 48 | 155
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Open - Inactive
Global Id: SL0608548367

BLOCK 2 CITY OF SAN | 8 EAST SAN FERNANADO | WNW 1/4 - 1/2 (0.368 mi.) | 63 | 183
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Completed - Case Closed
Global Id: SL0608508545

SAN JOSE NEW CITY HA | 200 E SANTA CLARA ST | NW 1/4 - 1/2 (0.372 mi.) | 65 | 185
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Open - Remediation
Global Id: SL0608520959

DE LUXE CLEANERS | 224 E SANTA CLARA ST | NNW 1/4 - 1/2 (0.408 mi.) | S83 | 221
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Completed - Case Closed
Global Id: T10000007690

DELUXE CLEANERS | 224 SANTA CLARA E | NNW 1/4 - 1/2 (0.412 mi.) | S84 | 222
Database: SLIC REG 2, Date of Government Version: 09/30/2004
Facility Id: SLT2O286177

DELUXE CLEANERS | 250 SANTA CLARA ST E | NNW 1/4 - 1/2 (0.413 mi.) | T85 | 223
Database: SLIC REG 2, Date of Government Version: 09/30/2004
Facility Id: 43-1918

CENTURY CITY PARKING | 15 SOUTH THIRD STREE | NW 1/4 - 1/2 (0.419 mi.) | 87 | 227
Database: SLIC, Date of Government Version: 06/13/2016
Database: SLIC REG 2, Date of Government Version: 09/30/2004
Facility Status: Completed - Case Closed
Facility Id: SL20295912
Global Id: SL20295912

ART CLEANERS - SAN J | 400 EAST SANTA CLARA | N 1/4 - 1/2 (0.474 mi.) | W105 | 265
Database: SLIC, Date of Government Version: 06/13/2016
Facility Status: Open - Site Assessment
Global Id: T0608578883

DR. EU BUILDING | 35 & 43 SANTA CLARA | WNW 1/4 - 1/2 (0.492 mi.) | 108 | 270
Database: SLIC, Date of Government Version: 06/13/2016
Database: SLIC REG 2, Date of Government Version: 09/30/2004

EXECUTIVE SUMMARY

Facility Status: Open - Site Assessment
Facility Id: SLT2O287178
Global Id: SLT2O287178

CA HIST LUST: A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

A review of the CA HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there are 28 CA HIST LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION SCVWD ID: 07S1E17B03	***498 S 4TH ST***	***S 1/8 - 1/4 (0.199 mi.)***	***D30***	***128***
FOX CALIFORNIA THEAT SCVWD ID: 07S1E08P01	***345 S 1ST ST***	***WSW 1/4 - 1/2 (0.308 mi.)***	***H47***	***153***
DOHRMAN BUILDING SCVWD ID: 07S1E17C04	***325 S 1ST ST***	***WSW 1/4 - 1/2 (0.316 mi.)***	***H49***	***156***
PETE'S STOP INC. SCVWD ID: 07S1E09N01	***447 E WILLIAM ST***	***E 1/4 - 1/2 (0.348 mi.)***	***J55***	***169***
SJRA-CONVENTION CENT SCVWD ID: 07S1E17C03	***S MARKET ST @ VIOLA***	***SW 1/4 - 1/2 (0.360 mi.)***	***L61***	***179***
JONES/SCHAEZLEIN PRO SCVWD ID: 07S1E17B04	***520 S. 1ST STREET***	***SSW 1/4 - 1/2 (0.363 mi.)***	***62***	***180***
TATE FAMILY COMPLETE SCVWD ID: 07S1E17C02	***477 S MARKET ST***	***SW 1/4 - 1/2 (0.392 mi.)***	***O70***	***192***
SJRA-HOTEL EAST SCVWD ID: 07S1E17C05	***301 S MARKET ST***	***WSW 1/4 - 1/2 (0.399 mi.)***	***P74***	***198***
FORMER TEXACO STATIO SCVWD ID: 07S1E17G02	***598 S 1ST ST***	***SSW 1/4 - 1/2 (0.405 mi.)***	***Q79***	***216***
APTON PROPERTY SCVWD ID: 07S1E08J01	***505 E SAN CARLOS ST***	***NE 1/4 - 1/2 (0.406 mi.)***	***80***	***217***
MERRY OLDSMOBILE SCVWD ID: 07S1E17B01	***525 S MARKET ST***	***SSW 1/4 - 1/2 (0.407 mi.)***	***R82***	***219***
FIRESTONE BUILDING SCVWD ID: 07S1E17G01	***599 S 1ST ST***	***SSW 1/4 - 1/2 (0.446 mi.)***	***V96***	***252***
CET DEVELOPMENT SCVWD ID: 07S1E17G04	***630 1ST***	***S 1/4 - 1/2 (0.458 mi.)***	***99***	***258***
DIOCESE OF SAN JOSE SCVWD ID: 07S1E08N01	***80 S MARKET ST***	***W 1/4 - 1/2 (0.471 mi.)***	***100***	***261***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SJSU SCVWD ID: 07S1E08J03	***SAN CARLOS & 7TH***	***NE 0 - 1/8 (0.122 mi.)***	***24***	***111***
PASEO VILLAS SCVWD ID: 07S1E08K05	***130 E SAN FERNANDO***	***WNW 1/4 - 1/2 (0.273 mi.)***	***F38***	***139***
SAN ANTONIO PLAZA RE	***SAN FERNANDO & 4TH S***	***NW 1/4 - 1/2 (0.278 mi.)***	***G41***	***144***

SCVWD ID: 07S1E08K01				
FOREST CITY DEVELOPM	***101 SAN FERNANDO AVE***	***NW 1/4 - 1/2 (0.308 mi.)***	***46***	***150***
SCVWD ID: 07S1E08L06				
TEXACO	***78 S 4TH ST***	***NW 1/4 - 1/2 (0.330 mi.)***	***I51***	***158***
SCVWD ID: 07S1E08L03				
SJSU-INDUSTRIAL STUD	***404 E SAN FERNANDO S***	***N 1/4 - 1/2 (0.350 mi.)***	***K58***	***170***
SCVWD ID: 07S1E08K02				
SCVWD ID: 07S1E08K03				
PF CHANGS CHINA BIST	***98 S. 2ND STREET***	***WNW 1/4 - 1/2 (0.355 mi.)***	***59***	***175***
SCVWD ID: 07S1E08L08				
CENTURY CENTER	***53 S 3RD ST***	***WNW 1/4 - 1/2 (0.377 mi.)***	***M66***	***187***
SCVWD ID: 07S1E08L07				
DOWNTOWN AUTO EXPRES	***154 E SANTA CLARA ST***	***NW 1/4 - 1/2 (0.418 mi.)***	***U86***	***223***
SCVWD ID: 07S1E08L02				
BANK OF TRADE BUILDI	***100 E SANTA CLARA ST***	***NW 1/4 - 1/2 (0.425 mi.)***	***88***	***228***
SCVWD ID: 07S1E08L04				
94259	***147 E SANTA CLARA***	***NW 1/4 - 1/2 (0.427 mi.)***	***U90***	***231***
SCVWD ID: 07S1E08L01				
KAPPA SIGMA	***148 11TH***	***NNE 1/4 - 1/2 (0.450 mi.)***	***97***	***254***
SCVWD ID: 07S1E08H03				
ART'S CLEANERS	***400 E SANTA CLARA ST***	***N 1/4 - 1/2 (0.474 mi.)***	***W104***	***265***
SCVWD ID: 07S1E08H05				
HORACE MANN ELEMENTA	***55 N 7TH ST***	***NNW 1/4 - 1/2 (0.490 mi.)***	***X106***	***268***
SCVWD ID: 07S1E08G01				

State and tribal registered storage tank lists

CA AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the CA AST list, as provided by EDR, and dated 08/01/2009 has revealed that there is 1 CA AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GENUITY	300 S 2ND ST	WSW 1/8 - 1/4 (0.214 mi.)	E32	133

State and tribal voluntary cleanup sites

CA VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the CA VCP list, as provided by EDR, and dated 05/02/2016 has revealed that there is 1 CA VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAN ANTONIO PLAZA BL	***WEST SAN FERNANDO ST***	***NW 1/4 - 1/2 (0.279 mi.)***	***G43***	***145***

Status: Certified
Facility Id: 43490065

State and tribal Brownfields sites

CA BROWNFIELDS: A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

A review of the CA BROWNFIELDS list, as provided by EDR, and dated 02/29/2016 has revealed that there is 1 CA BROWNFIELDS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BLOCK 2 CITY OF SAN	***8 EAST SAN FERNANADO***	***WNW 1/4 - 1/2 (0.368 mi.)***	***63***	***183***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CA HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the CA HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 CA HIST Cal-Sites site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LORENTZ BARREL & DRU	***1515 S 10TH ST***	***SE 1/2 - 1 (0.957 mi.)***	***0***	***44***

Local Lists of Registered Storage Tanks

CA SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the CA SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 CA SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION	***498 S 4TH ST***	***S 1/8 - 1/4 (0.199 mi.)***	***D30***	***128***

Status: A
Tank Status: A
Comp Number: 400569

CA HIST UST: Historical UST Registered Database.

A review of the CA HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 CA HIST UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION	***498 S 4TH ST***	***S 1/8 - 1/4 (0.199 mi.)***	***D30***	***128***
Facility Id: 00000005700				

Local Land Records

CA DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the CA DEED list, as provided by EDR, and dated 06/06/2016 has revealed that there is 1 CA DEED site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PIERCE DEVELOPMENT	***561-599 S. MARKET ST***	***SSW 1/4 - 1/2 (0.432 mi.)***	***93***	***250***
Status: COMPLETED - CASE CLOSED				
Envirostor ID: T10000005812				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAN CARLOS PLAZA / R	300 SOUTH SECOND ST.	WSW 1/8 - 1/4 (0.214 mi.)	E31	132

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LORENTZ BARREL & DRU	***1515 S 10TH ST***	***SE 1/2 - 1 (0.957 mi.)***	***0***	***44***

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 12/31/2014 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LORENTZ BARREL & DRU	***1515 S 10TH ST***	***SE 1/2 - 1 (0.957 mi.)***	***0***	***44***

CA CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CA CUPA Listings list, as provided by EDR, has revealed that there are 4 CA CUPA Listings sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION	***498 S 4TH ST***	***S 1/8 - 1/4 (0.199 mi.)***	***D30***	***128***
Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016				
TECH SHOP SAN JOSE L	***300 S 2ND ST***	***WSW 1/8 - 1/4 (0.214 mi.)***	***E33***	***134***
Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016				
YWCA OF SILICON VALL	***350 S 2ND ST***	***SW 1/8 - 1/4 (0.223 mi.)***	***34***	***134***
Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016				

Lower Elevation	Address	Direction / Distance	Map ID	Page
COLONNADE APARTMENTS	201 S 4TH ST	W 1/8 - 1/4 (0.125 mi.)	C26	112
Database: CUPA SANTA CLARA, Date of Government Version: 05/25/2016				

CA HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the CA HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 21 CA HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION	***498 4TH***	***S 1/8 - 1/4 (0.198 mi.)***	***D29***	***114***
Reg Id: 43-1368				
DOHRMANN ASSOCIATES	325 1ST	WSW 1/4 - 1/2 (0.316 mi.)	H50	158
Reg Id: 43-0476				
MARKET PLACE	439 1ST	SW 1/4 - 1/2 (0.334 mi.)	53	161
Reg Id: 2930				
PETE'S STOP INC	***447 WILLIAM***	***E 1/4 - 1/2 (0.348 mi.)***	***J56***	***169***
Reg Id: 43-1755				
ROSE MURTY TIRE COMP	477 MARKET	SW 1/4 - 1/2 (0.392 mi.)	O71	196
Reg Id: 43-1130				
SJRA HOTEL EAST	***301 MARKET***	***WSW 1/4 - 1/2 (0.399 mi.)***	***P73***	***198***

Reg Id: 43-1199				
TEXACO Reg Id: 43-1881	598 1ST	SSW 1/4 - 1/2 (0.405 mi.)	Q78	216
APTON PROPERTY Reg Id: 43-0973	***505 E SAN CARLOS ST***	***NE 1/4 - 1/2 (0.406 mi.)***	***80***	***217***
MERRY OLDSMOBILE Reg Id: 43-0885	525 MARKET	SSW 1/4 - 1/2 (0.407 mi.)	R81	219
FIRESTONE BUILDING Reg Id: 43-0582	599 1ST	SSW 1/4 - 1/2 (0.433 mi.)	V95	251
CET DEVELOPMENT Reg Id: 43-2342	***630 1ST***	***S 1/4 - 1/2 (0.458 mi.)***	***99***	***258***
DIOCESE OF SAN JOSE Reg Id: 43-0470	***80 S MARKET ST***	***W 1/4 - 1/2 (0.471 mi.)***	***100***	***261***
SAN JOSE CONVENTION Reg Id: 43-1177	150 SAN CARLOS	WSW 1/4 - 1/2 (0.472 mi.)	101	264

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAN ANTONIO PLAZA BL Reg Id: 43490065	W. SAN FERNANDO ST &	NW 1/4 - 1/2 (0.279 mi.)	G42	145
SJSU CORPORATE YARD Reg Id: 43-2256 Reg Id: 43-1994	404 SAN FERNANDO	N 1/4 - 1/2 (0.350 mi.)	K57	170
DELUXE CLEANERS Reg Id: 43-1907	***224 SANTA CLARA E***	***NNW 1/4 - 1/2 (0.412 mi.)***	***S84***	***222***
BANK OF TRADE BUILDI Reg Id: 43-0146	***100 E SANTA CLARA ST***	***NW 1/4 - 1/2 (0.425 mi.)***	***88***	***228***
DOWNTOWN AUTO EXPRES Reg Id: 43-0483	154 SANTA CLARA	NW 1/4 - 1/2 (0.426 mi.)	U89	231
CHEVRON Reg Id: 43-0288	147 SANTA CLARA	NW 1/4 - 1/2 (0.427 mi.)	U91	247
KAPPA SIGMA Reg Id: 43-0775	***148 11TH***	***NNE 1/4 - 1/2 (0.450 mi.)***	***97***	***254***
BUTCHER ELECTRIC Reg Id: 43-0218	510 SAN FERNANDO	NNE 1/4 - 1/2 (0.473 mi.)	102	264

CA Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the CA Notify 65 list, as provided by EDR, and dated 09/10/2015 has revealed that there are 2 CA Notify 65 sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
7-ELEVEN STORE #1749	***452 EAST SANTA CLARA***	***N 1/2 - 1 (0.513 mi.)***	***109***	***271***
UNKNOWN	35 NORTH RIVER STREE	W 1/2 - 1 (0.855 mi.)	113	285

CA SAN JOSE HAZMAT: San Jose Hazmat Facilities.

A review of the CA SAN JOSE HAZMAT list, as provided by EDR, and dated 05/26/2016 has revealed that there are 5 CA SAN JOSE HAZMAT sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN GAS STATION File Num: 400569	***498 S 4TH ST***	***S 1/8 - 1/4 (0.199 mi.)***	***D30***	***128***
TECH SHOP SAN JOSE L File Num: 601094	***300 S 2ND ST***	***WSW 1/8 - 1/4 (0.214 mi.)***	***E33***	***134***
YWCA OF SILICON VALL File Num: 401152	***350 S 2ND ST***	***SW 1/8 - 1/4 (0.223 mi.)***	***34***	***134***

Lower Elevation	Address	Direction / Distance	Map ID	Page
AT&T MOBILITY CENTRA File Num: 601889	201 S 4TH ST SUITE C	W 1/8 - 1/4 (0.125 mi.)	C25	112
THE COLONNADE File Num: 403611	201 S 4TH ST SUITE H	W 1/8 - 1/4 (0.125 mi.)	C27	112

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAN JOSE GAS WORKS	E. SAN FERNANDO AND	NW 1/4 - 1/2 (0.274 mi.)	F40	144

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto

site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HAYS P W	260 E SAN CARLOS ST	WSW 0 - 1/8 (0.101 mi.)	B23	111
Database: EDR Hist Auto, Date of Government Version: 02/20/2007				

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 3 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPARTAN CLEANERS	398 S 5TH ST	SSE 0 - 1/8 (0.094 mi.)	20	110
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				
ALVA J B	368 S 4TH ST	SSW 0 - 1/8 (0.099 mi.)	21	110
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				

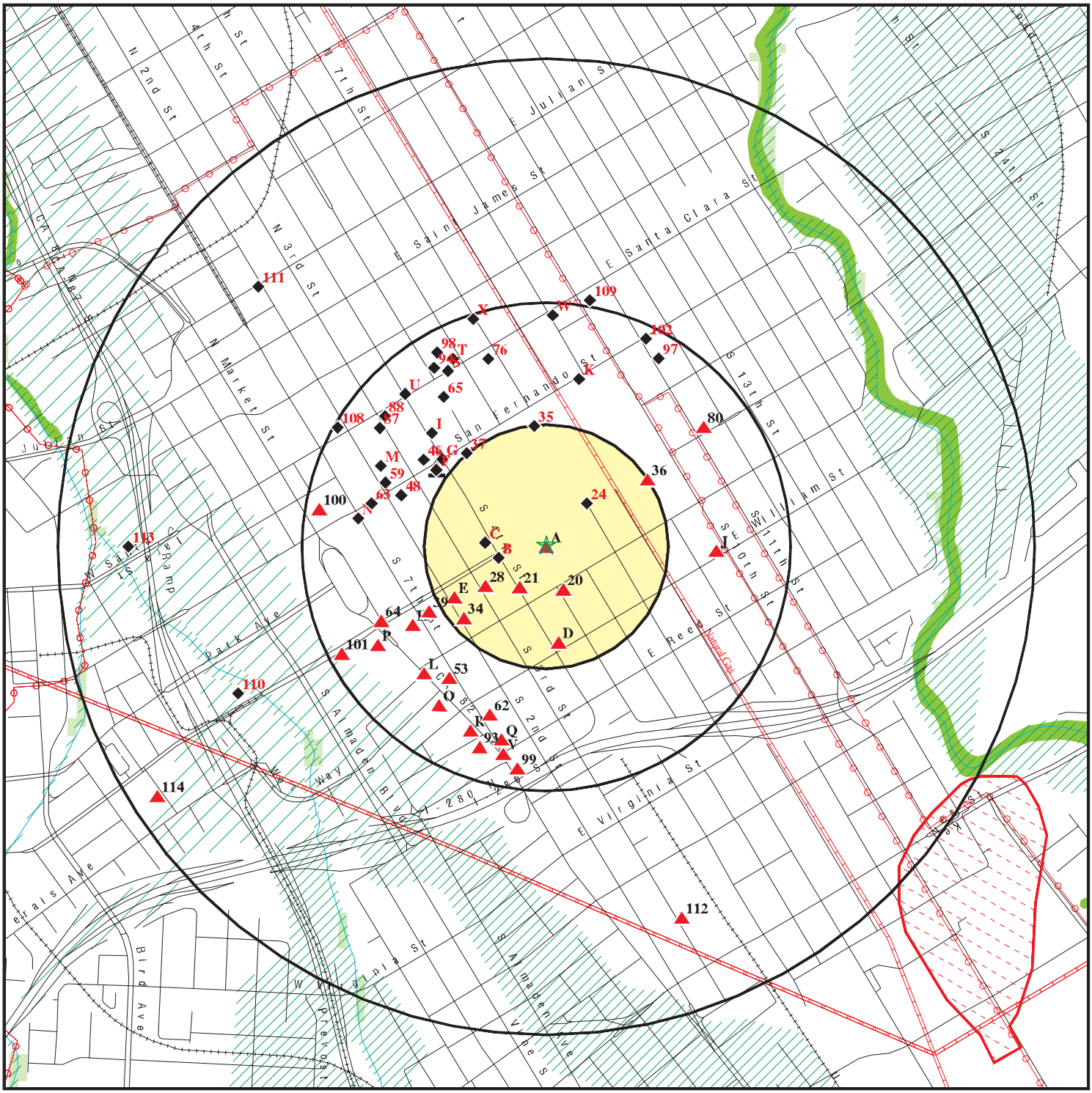
Lower Elevation	Address	Direction / Distance	Map ID	Page
COLLEGE CLEANERS	288 E SAN CARLOS ST	WSW 0 - 1/8 (0.100 mi.)	B22	110
Database: EDR Hist Cleaner, Date of Government Version: 02/20/2007				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 7 records.

Site Name	Database(s)
PG&E GAS PLANT SAN JOSE 408 5A	SEMS-ARCHIVE
STAUFFER CHEM CO RAISCH QUARRY	SEMS-ARCHIVE
MCDONALDS PROPERTY	CA LUST, CA HIST LUST
MCDONALDS PROPERTY	CA LUST
PACIFIC WEST COMMUNITIES	CA SLIC
UNION PACIFIC RAILROAD	CA SLIC
PROPOSED MCDONALD'S RESTAURANT	CA SLIC

OVERVIEW MAP - 04701417.2R

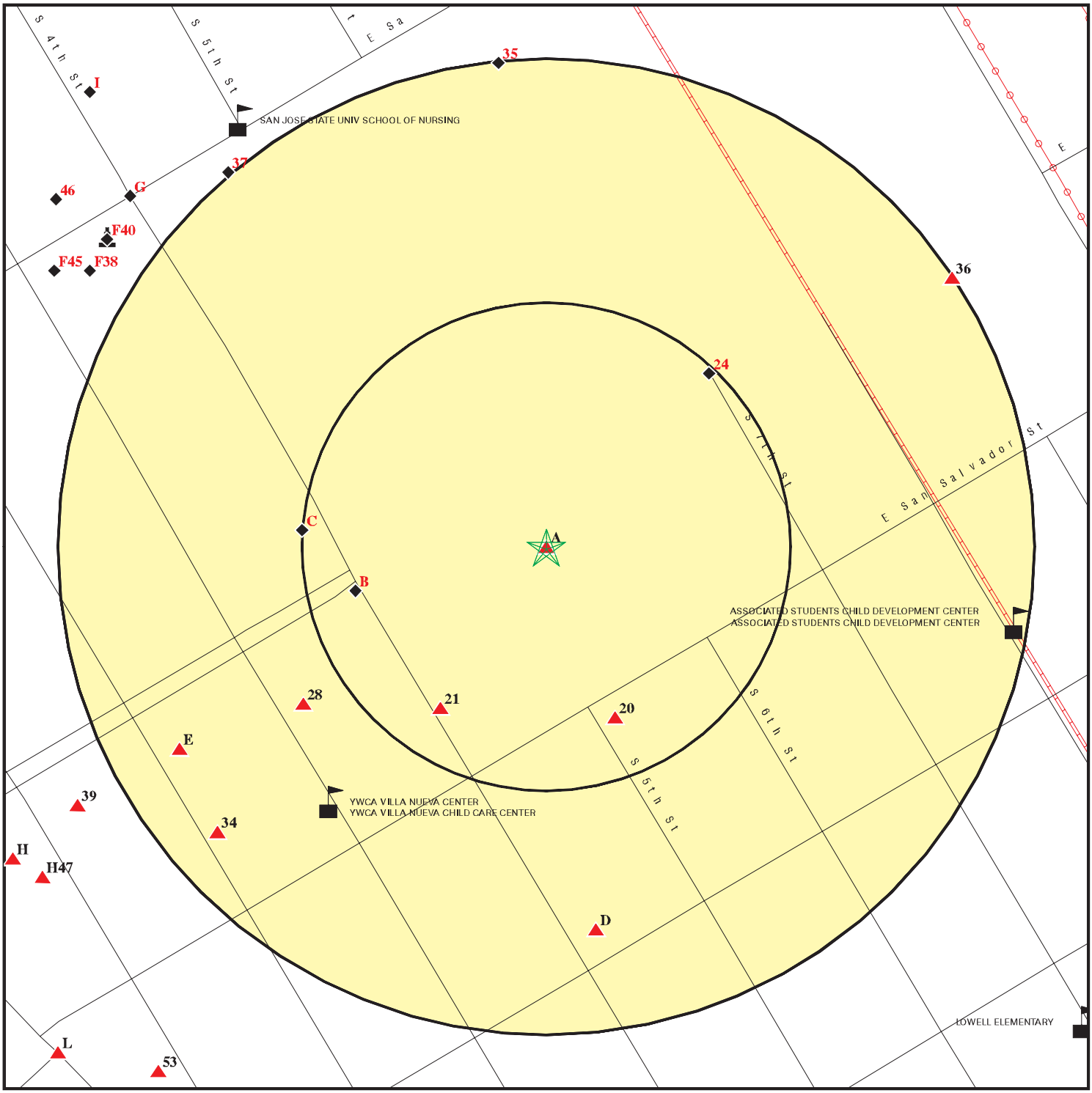


- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: SJSU ISB Building ADDRESS: 1 Washington San Jose CA 95192 LAT/LONG: 37.333219 / 121.882144	CLIENT: Rincon CONTACT: Scott English INQUIRY #: 04701417.2r DATE: August 16, 2016 2:53 pm

DETAIL MAP - 04701417.2R



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: SJSU ISB Building	CLIENT: Rincon
ADDRESS: 1 Washington San Jose CA 95192	CONTACT: Scott English
LAT/LONG: 37.333219 / 121.882144	INQUIRY #: 04701417.2r DATE: August 16, 2016 2:55 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	1	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	1	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250	1	0	0	NR	NR	NR	1
RCRA-SQG	0.250		0	2	NR	NR	NR	2
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
CA RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
CA ENVIROSTOR	1.000		0	0	2	5	NR	7
State and tribal landfill and/or solid waste disposal site lists								
CA SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
CA LUST	0.500	2	1	3	44	NR	NR	50

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CA SLIC	0.500		0	0	13	NR	NR	13
CA HIST LUST	0.500	1	1	1	26	NR	NR	29
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
CA UST	0.250	1	0	0	NR	NR	NR	1
CA AST	0.250	1	0	1	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
CA VCP	0.500		0	0	1	NR	NR	1
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
CA BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	1	NR	1
CA SCH	0.250		0	0	NR	NR	NR	0
CA CDL	TP		NR	NR	NR	NR	NR	0
CA Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA SWEEPS UST	0.250	1	0	1	NR	NR	NR	2
CA HIST UST	0.250		0	1	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
CA LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
CA DEED	0.500		0	0	1	NR	NR	1
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA CHMIRS	TP		NR	NR	NR	NR	NR	0
CA LDS	TP		NR	NR	NR	NR	NR	0
CA MCS	TP		NR	NR	NR	NR	NR	0
CA SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	1	NR	1
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP	1	NR	NR	NR	NR	NR	1
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP	1	NR	NR	NR	NR	NR	1
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	1	NR	1
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	2	NR	NR	NR	NR	NR	2
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
CA Cortese	0.500		0	0	0	NR	NR	0
CA CUPA Listings	0.250	3	0	4	NR	NR	NR	7
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA EMI	TP	1	NR	NR	NR	NR	NR	1
CA ENF	TP	1	NR	NR	NR	NR	NR	1
CA Financial Assurance	TP		NR	NR	NR	NR	NR	0
CA HAZNET	TP	2	NR	NR	NR	NR	NR	2
CA HIST CORTESE	0.500	3	0	1	20	NR	NR	24
CA HWP	1.000		0	0	0	0	NR	0
CA HWT	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NY MANIFEST	0.250	1	0	0	NR	NR	NR	1
CA MINES	TP		NR	NR	NR	NR	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
CA NPDES	TP	1	NR	NR	NR	NR	NR	1
CA PEST LIC	TP	1	NR	NR	NR	NR	NR	1
CA PROC	0.500		0	0	0	NR	NR	0
CA Notify 65	1.000		0	0	0	2	NR	2
CA SAN JOSE HAZMAT	0.250	2	0	5	NR	NR	NR	7
CA UIC	TP		NR	NR	NR	NR	NR	0
CA WASTEWATER PITS	0.500		0	0	0	NR	NR	0
CA WDS	TP		NR	NR	NR	NR	NR	0
CA WIP	0.250		0	0	NR	NR	NR	0
ECHO	TP	2	NR	NR	NR	NR	NR	2
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	1	0	NR	1
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		3	NR	NR	NR	NR	3
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	TP		NR	NR	NR	NR	NR	0
CA RGA LUST	TP	5	NR	NR	NR	NR	NR	5
- Totals --		33	6	20	110	11	0	180

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **SAN JOSE STATE UNIVERSITY** **CA RGA LUST** **S114681580**
Target **1 WASHINGTON SQUARE** **N/A**
Property **SAN JOSE, CA**

Site 1 of 19 in cluster A

Actual:
93 ft.

RGA LUST:

1998	SAN JOSE STATE UNIVERSITY	1 WASHINGTON SQUARE
1997	SAN JOSE STATE UNIVERSITY	1 WASHINGTON SQUARE
1996	SAN JOSE STATE UNIVERSITY	1 WASHINGTON SQUARE
1995	SAN JOSE STATE UNIVERSITY	1 WASHINGTON SQUARE
1994	SAN JOSE STATE UNIVERSITY	1 WASHINGTON SQUARE

A2 **SAN JOSE STATE UNIVERSITY** **CA CUPA Listings** **S113180201**
Target **1 WASHINGTON SQ** **CA HAZNET** **N/A**
Property **SAN JOSE, CA 95192**

Site 2 of 19 in cluster A

Actual:
93 ft.

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	2299
Program Description:	HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude:	37.334331
Longitude:	-121.880542

Region:	SANTA CLARA
PE#:	BP11
Program Description:	HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude:	37.334331
Longitude:	-121.880542

Region:	SANTA CLARA
PE#:	BP11
Program Description:	HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude:	37.334339
Longitude:	-121.880730

Region:	SANTA CLARA
PE#:	2299
Program Description:	HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude:	37.334339
Longitude:	-121.880730

Region:	SANTA CLARA
PE#:	BP11
Program Description:	HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude:	37.334331
Longitude:	-121.880542

HAZNET:

envid:	S113180201
Year:	2014
GEPAID:	CAT080031206
Contact:	CHANDRA GOWDA
Telephone:	4089242152
Mailing Name:	Not reported
Mailing Address:	1 WASHINGTON SQ
Mailing City,St,Zip:	SAN JOSE, CA 951920010

SAN JOSE STATE UNIVERSITY (Continued) **S113180201**

Gen County: Santa Clara
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Laboratory waste chemicals
Disposal Method: Neutralization Only
Tons: 0.081
Cat Decode: Laboratory waste chemicals
Method Decode: Neutralization Only
Facility County: Santa Clara

envid: S113180201
Year: 2014
GEPAID: CAT080031206
Contact: CHANDRA GOWDA
Telephone: 4089242152
Mailing Name: Not reported
Mailing Address: 1 WASHINGTON SQ
Mailing City,St,Zip: SAN JOSE, CA 951920010
Gen County: Santa Clara
TSD EPA ID: TXD982560294
TSD County: 99
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.005
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Santa Clara

envid: S113180201
Year: 2014
GEPAID: CAT080031206
Contact: CHANDRA GOWDA
Telephone: 4089242152
Mailing Name: Not reported
Mailing Address: 1 WASHINGTON SQ
Mailing City,St,Zip: SAN JOSE, CA 951920010
Gen County: Santa Clara
TSD EPA ID: NED981723513
TSD County: 99
Waste Category: Unspecified oil-containing waste
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.27105
Cat Decode: Unspecified oil-containing waste
Method Decode: Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County: Santa Clara

envid: S113180201
Year: 2014
GEPAID: CAT080031206
Contact: CHANDRA GOWDA
Telephone: 4089242152
Mailing Name: Not reported
Mailing Address: 1 WASHINGTON SQ
Mailing City,St,Zip: SAN JOSE, CA 951920010
Gen County: Santa Clara

SAN JOSE STATE UNIVERSITY (Continued) **S113180201**

TSD EPA ID:	NVD980895338
TSD County:	99
Waste Category:	Laboratory waste chemicals
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.825
Cat Decode:	Laboratory waste chemicals
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Santa Clara
envid:	S113180201
Year:	2014
GEPAID:	CAT080031206
Contact:	CHANDRA GOWDA
Telephone:	4089242152
Mailing Name:	Not reported
Mailing Address:	1 WASHINGTON SQ
Mailing City,St,Zip:	SAN JOSE, CA 951920010
Gen County:	Santa Clara
TSD EPA ID:	NVD980895338
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.251
Cat Decode:	Off-specification, aged or surplus organics
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Santa Clara

Click this hyperlink while viewing on your computer to access
454 additional CA_HAZNET: record(s) in the EDR Site Report.

A3 **PARKER WEST INTERNATIONAL LLC** **CA HAZNET** **S112955211**
Target **1 WASHINGTON SQ** **N/A**
Property **SAN JOSE, CA 95112**

Site 3 of 19 in cluster A

Actual:
93 ft.

HAZNET:

envid:	S112955211
Year:	2006
GEPAID:	CAC002606421
Contact:	GARY FRITZ
Telephone:	7075791257
Mailing Name:	Not reported
Mailing Address:	4520 MONTECITO AVE
Mailing City,St,Zip:	SANTA ROSA, CA 954041961
Gen County:	Not reported
TSD EPA ID:	CAT000646117
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Tons:	8.42
Cat Decode:	Other organic solids
Method Decode:	Disposal, Land Fill
Facility County:	Santa Clara

A4 **VERIZON WIRELESS: SAN JOSE STATE UNIVERSITY** **CA CUPA Listings** **S112347111**
Target Property **1 WASHINGTON SQ BLDG 27** **N/A**
SAN JOSE, CA 95112

Site 4 of 19 in cluster A

Actual: 93 ft.

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	BP01
Program Description:	HMBP FACILITY, 1-3 CHEMICALS
Latitude:	37.334331
Longitude:	-121.880542

A5 **SAN JOSE STATE UNIVERSITY** **MLTS** **1008371101**
Target Property **ONE WASHINGTON SQUARE** **N/A**
SAN JOSE, CA 95192

Site 5 of 19 in cluster A

Actual: 93 ft.

MLTS:

License Number:	AS-NMMSS-HQ-6
First License Date:	Not reported
License Date:	Not reported
Lic. Expiration Date:	10/31/22
Contact Name:	NORMAN MCELROY
Contact Phone:	650-725-1413
Institution Code:	34322
Department/Bldg:	Not reported
States Allowing Use:	Not reported
Store Material Use:	Not reported
Redistribution Use:	Not reported
Incinerate Use:	Not reported
Burial Use:	Not reported
Last Inspection Date:	Not reported
Next Inspection Date:	Not reported
Licensee Contact:	Not reported
Inspector Name:	Not reported

A6 **ARTHUR CORDOVA** **CA PEST LIC** **S117646701**
Target Property **ONE WASHINGTON SQUARE** **N/A**
SAN JOSE, CA 95192

Site 6 of 19 in cluster A

Actual: 93 ft.

PEST LIC:

Facility Type:	QAC
Categories:	C
License No:	78312
Issued or Renewed Date:	01/01/2015
Expiration Date:	12/31/2016

A7
Target
Property

SAN JOSE STATE UNIVERSITY
ONE WASHINGTON SQUARE
SAN JOSE, CA 95192

RCRA-LQG **1000121110**
CA SWEEPS UST **CAT080031206**
CA HIST CORTESE
NY MANIFEST

Site 7 of 19 in cluster A

Actual:
93 ft.

RCRA-LQG:

Date form received by agency:	02/21/2008
Facility name:	SAN JOSE STATE UNIVERSITY
Facility address:	ONE WASHINGTON SQUARE SAN JOSE, CA 951920010
EPA ID:	CAT080031206
Mailing address:	SAN JOSE STATE UNIVERSITY ONE WASHINGTON SQUARE SAN JOSE, CA 95192
Contact:	CHANDRA N GOWDA
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(408) 924-2152
Contact email:	CHANDRA.GOWDA@SJSU.EDU
EPA Region:	09
Land type:	State
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	SAN JOSE STATE UNIVERSITY
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1857
Owner/Op end date:	Not reported

Owner/operator name:	CALIFORNIA STATE UNIVERSITY
Owner/operator address:	ONE WASHINGTON SQUARE SAN JOSE, CA 95192
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1857
Owner/Op end date:	Not reported

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: U029
. Waste name: METHANE, BROMO- (OR) METHYL BROMIDE

. Waste code: U125
. Waste name: 2-FURANCARBOXALDEHYDE (I) (OR) FURFURAL (I)

. Waste code: U188
. Waste name: PHENOL

Historical Generators:
Date form received by agency: 02/15/2006
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

. Waste code: D001

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

MIXTURES.

. Waste code: U046
. Waste name: CHLOROMETHYL METHYL ETHER (OR) METHANE, CHLOROMETHOXY-

Date form received by agency: 03/16/2004
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: P106

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

. Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U246
. Waste name: CYANOGEN BROMIDE (CN)BR

Date form received by agency: 02/20/2002
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 03/16/1999
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 02/15/1996
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 03/29/1994
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 02/18/1992
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Date form received by agency: 03/09/1981
Site name: SAN JOSE STATE UNIVERSITY
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 04/11/1995
Date achieved compliance: 05/30/1995
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

Date violation determined: 11/20/1993
Date achieved compliance: 12/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/12/1993
Date achieved compliance: 11/02/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 04/14/1993
Date achieved compliance: 11/12/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/27/1986
Date achieved compliance: 08/04/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/27/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 04/11/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

Area of violation: Generators - General
Date achieved compliance: 05/30/1995
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/20/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 12/30/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/12/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/02/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/14/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/12/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/27/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/04/1987
Evaluation lead agency: State

SWEEPS UST:
Status: Active
Comp Number: 403591
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-403591-000001
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: PETROLEUM
STG: P
Content: Not reported
Number Of Tanks: 3

Status: Active
Comp Number: 403591
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-403591-000002
Tank Status: A
Capacity: 100
Active Date: Not reported

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 403591
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-403591-000003
Tank Status: A
Capacity: 100
Active Date: Not reported
Tank Use: OIL
STG: W
Content: Not reported
Number Of Tanks: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-2111

NY MANIFEST:
Country: USA
EPA ID: CAT080031206
Facility Status: Not reported
Location Address 1: 1 WASHINGTON SQ
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: SAN JOSE
Location State: CA
Location Zip: 95192
Location Zip 4: 0001

NY MANIFEST:
EPAID: CAT080031206
Mailing Name: SAN JOSE STATE UNIVERSITY
Mailing Contact: CHANDRA N GOWDA
Mailing Address 1: 1 WASHINGTON SQ
Mailing Address 2: Not reported
Mailing City: SAN JOSE
Mailing State: CA
Mailing Zip: 95192
Mailing Zip 4: 0001
Mailing Country: USA
Mailing Phone: 4089242150

NY MANIFEST:
Document ID: NYB4967361

SAN JOSE STATE UNIVERSITY (Continued) **1000121110**

Manifest Status:	K
seq:	Not reported
Year:	1995
Trans1 State ID:	11278PNY
Trans2 State ID:	Not reported
Generator Ship Date:	01/26/1995
Trans1 Recv Date:	01/26/1995
Trans2 Recv Date:	/ /
TSD Site Recv Date:	02/13/1995
Part A Recv Date:	02/06/1995
Part B Recv Date:	02/27/1995
Generator EPA ID:	CAT080031206
Trans1 EPA ID:	NYD980769947
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD000632372
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00001
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100

A8 **CALIFORNIA STATE UNIVERSITY, SAN JOSE** **FINDS** **1017365001**
Target **ONE WASHINGTON SQUARE** **ECHO** **N/A**
Property **SAN JOSE, CA 95192**

Site 8 of 19 in cluster A

Actual:
93 ft.

FINDS:

Registry ID: 110060292071

Environmental Interest/Information System
GREENHOUSE GAS REPORTER

ECHO:

CALIFORNIA STATE UNIVERSITY, SAN JOSE (Continued) **1017365001**

Envid: 1017365001
Registry ID: 110060292071
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110060292071

A9 **SPRINT SF59XC001** **CA SAN JOSE HAZMAT** **S109349086**
Target **1 WASHINGTON SQ SUITE CELL** **N/A**
Property **SAN JOSE, CA 95112**

Site 9 of 19 in cluster A

Actual: 93 ft.

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 411892
Class: Misc. Complex firms and labs

A10 **SJSU CENTRAL PLANT** **CA RGA LUST** **S114692047**
Target **1 WASHINGTON SQ** **N/A**
Property **SAN JOSE, CA**

Site 10 of 19 in cluster A

Actual: 93 ft.

RGA LUST:

2002	SJSU CENTRAL PLANT	1 WASHINGTON SQ
2001	SJSU CENTRAL PLANT	1 WASHINGTON SQ
2000	SJSU CENTRAL PLANT	1 WASHINGTON SQ

A11 **CSU, SAN JOSE STATE UNIVERSITY** **ICIS** **1016177103**
Target **1 WASHINGTON SQUARE** **FINDS** **N/A**
Property **SAN JOSE, CA 95192** **ECHO**

Site 11 of 19 in cluster A

Actual: 93 ft.

ICIS:
Enforcement Action ID: 09-2004-0187
FRS ID: 110000786249
Program ID: BR CAT080031206
Action Name: SAN JOSE STATE UNIVERSITY
Full Address: 1 WASHINGTON SQUARE SAN JOSE CA 95192-0001
State: California
Facility Name: SAN JOSE STATE UNIVERSITY
Facility Address: 1 WASHINGTON SQUARE
SAN JOSE, CA 95192-0001
Enforcement Action Type: SDWA 1414G2 AO For Compliance (PWS)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2004-0187
FRS ID: 110000786249
Program ID: EIS 2289211
Action Name: SAN JOSE STATE UNIVERSITY
Full Address: 1 WASHINGTON SQUARE SAN JOSE CA 95192-0001
State: California
Facility Name: SAN JOSE STATE UNIVERSITY
Facility Address: 1 WASHINGTON SQUARE
SAN JOSE, CA 95192-0001

CSU, SAN JOSE STATE UNIVERSITY (Continued) **1016177103**

Enforcement Action Type: SDWA 1414G2 AO For Compliance (PWS)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2004-0187
FRS ID: 110000786249
Program ID: RCRAINFO CAT080031206
Action Name: SAN JOSE STATE UNIVERSITY
Full Address: 1 WASHINGTON SQUARE SAN JOSE CA 95192-0001
State: California
Facility Name: SAN JOSE STATE UNIVERSITY
Facility Address: 1 WASHINGTON SQUARE
SAN JOSE, CA 95192-0001
Enforcement Action Type: SDWA 1414G2 AO For Compliance (PWS)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2004-0187
FRS ID: 110000786249
Program ID: HWTS-DATAMART CAT080031206
Action Name: SAN JOSE STATE UNIVERSITY
Full Address: 1 WASHINGTON SQUARE SAN JOSE CA 95192-0001
State: California
Facility Name: SAN JOSE STATE UNIVERSITY
Facility Address: 1 WASHINGTON SQUARE
SAN JOSE, CA 95192-0001
Enforcement Action Type: SDWA 1414G2 AO For Compliance (PWS)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2004-0187
FRS ID: 110000786249
Program ID: NEI NEI25126
Action Name: SAN JOSE STATE UNIVERSITY
Full Address: 1 WASHINGTON SQUARE SAN JOSE CA 95192-0001
State: California
Facility Name: SAN JOSE STATE UNIVERSITY
Facility Address: 1 WASHINGTON SQUARE
SAN JOSE, CA 95192-0001
Enforcement Action Type: SDWA 1414G2 AO For Compliance (PWS)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2004-0187
FRS ID: 110000786249
Program ID: FRS 110000786249
Action Name: SAN JOSE STATE UNIVERSITY
Full Address: 1 WASHINGTON SQUARE SAN JOSE CA 95192-0001
State: California
Facility Name: SAN JOSE STATE UNIVERSITY
Facility Address: 1 WASHINGTON SQUARE
SAN JOSE, CA 95192-0001
Enforcement Action Type: SDWA 1414G2 AO For Compliance (PWS)
Facility County: SANTA CLARA
EPA Region #: 9

CSU, SAN JOSE STATE UNIVERSITY (Continued) **1016177103**

Program ID: BR CAT080031206
Facility Name: SAN JOSE STATE UNIVERSITY
Address: 1 WASHINGTON SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4941

Program ID: EIS 2289211
Facility Name: SAN JOSE STATE UNIVERSITY
Address: 1 WASHINGTON SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4941

Program ID: FRS 110000786249
Facility Name: SAN JOSE STATE UNIVERSITY
Address: 1 WASHINGTON SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4941

Program ID: HWTS-DATAMART CAT080031206
Facility Name: SAN JOSE STATE UNIVERSITY
Address: 1 WASHINGTON SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4941

Program ID: NEI NEI25126
Facility Name: SAN JOSE STATE UNIVERSITY
Address: 1 WASHINGTON SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4941

Program ID: RCRAINFO CAT080031206
Facility Name: SAN JOSE STATE UNIVERSITY
Address: 1 WASHINGTON SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4941

FINDS:

Registry ID: 110057056732

Environmental Interest/Information System
STATE MASTER

Registry ID: 110064541107

CSU, SAN JOSE STATE UNIVERSITY (Continued) **1016177103**

Environmental Interest/Information System
GREENHOUSE GAS REPORTER

Registry ID: 110000786249

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

HAZARDOUS AIR POLLUTANT MAJOR

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

ECHO:

Envid:	1016177103
Registry ID:	110057056732
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110057056732
Envid:	1016177103
Registry ID:	110000786249
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110000786249
Envid:	1016177103
Registry ID:	110064541107
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110064541107

A12 **SAN JOSE STATE UNIVERSITY** **CA AST** **A100337547**
Target **1 WASHINGTON SQ.** **N/A**
Property **SAN JOSE, CA 95192**

Site 12 of 19 in cluster A

Actual:
93 ft.

AST:
Certified Unified Program Agencies: Santa Clara County
Owner: CALIFORNIA STATE UNIVERSITY SYSTEM
Total Gallons: 6,910

A13 **SAN JOSE STATE UNIVERSITY** **CA EMI** **S105939445**
Target **ONE WASHINGTON SQUARE** **CA NPDES** **N/A**
Property **SAN JOSE, CA 95192**

Site 13 of 19 in cluster A

Actual:
93 ft.

EMI:

Year:	1995
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1997
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1998
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1999
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2000
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	3
SOX - Oxides of Sulphur Tons/Yr:	0

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2002
County Code: 43
Air Basin: SF
Facility ID: 9339
Air District Name: BA
SIC Code: 8221
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 3
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2003
County Code: 43
Air Basin: SF
Facility ID: 9339
Air District Name: BA
SIC Code: 8221
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 5
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2004
County Code: 43
Air Basin: SF
Facility ID: 9339
Air District Name: BA
SIC Code: 8221
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.214
Reactive Organic Gases Tons/Yr: 0.1168788
Carbon Monoxide Emissions Tons/Yr: 0.953
NOX - Oxides of Nitrogen Tons/Yr: 5.257
SOX - Oxides of Sulphur Tons/Yr: 0.059
Particulate Matter Tons/Yr: 0.086
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.085808

Year: 2005
County Code: 43
Air Basin: SF

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.544
Reactive Organic Gases Tons/Yr:	.3822128
Carbon Monoxide Emissions Tons/Yr:	1.44
NOX - Oxides of Nitrogen Tons/Yr:	7.125
SOX - Oxides of Sulphur Tons/Yr:	.159
Particulate Matter Tons/Yr:	.156
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.15444

Year:	2006
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.642
Reactive Organic Gases Tons/Yr:	.4137321
Carbon Monoxide Emissions Tons/Yr:	2.048
NOX - Oxides of Nitrogen Tons/Yr:	9.548
SOX - Oxides of Sulphur Tons/Yr:	.099
Particulate Matter Tons/Yr:	.209
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.20744

Year:	2007
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.642
Reactive Organic Gases Tons/Yr:	.4137321
Carbon Monoxide Emissions Tons/Yr:	2.048
NOX - Oxides of Nitrogen Tons/Yr:	9.548
SOX - Oxides of Sulphur Tons/Yr:	.099
Particulate Matter Tons/Yr:	.209
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.20744

Year:	2008
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

Total Organic Hydrocarbon Gases Tons/Yr:	.312
Reactive Organic Gases Tons/Yr:	.1690474
Carbon Monoxide Emissions Tons/Yr:	1.027
NOX - Oxides of Nitrogen Tons/Yr:	4.453
SOX - Oxides of Sulphur Tons/Yr:	.014
Particulate Matter Tons/Yr:	.119
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.117896

Year:	2009
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7.2999999999999995E-2
Reactive Organic Gases Tons/Yr:	0.0266956
Carbon Monoxide Emissions Tons/Yr:	0.19900000000000001
NOX - Oxides of Nitrogen Tons/Yr:	0.82499999999999996
SOX - Oxides of Sulphur Tons/Yr:	3.0000000000000001E-3
Particulate Matter Tons/Yr:	0.0170245901639344
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.6976000000000002E-2

Year:	2010
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.078
Reactive Organic Gases Tons/Yr:	2.5247499999999999E-2
Carbon Monoxide Emissions Tons/Yr:	0.19700000000000001
NOX - Oxides of Nitrogen Tons/Yr:	0.81000000000000005
SOX - Oxides of Sulphur Tons/Yr:	3.0000000000000001E-3
Particulate Matter Tons/Yr:	1.8073770491803198E-2
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.7999999999999999E-2

Year:	2011
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.171
Reactive Organic Gases Tons/Yr:	0.0946829
Carbon Monoxide Emissions Tons/Yr:	0.408
NOX - Oxides of Nitrogen Tons/Yr:	2.022
SOX - Oxides of Sulphur Tons/Yr:	0.005
Particulate Matter Tons/Yr:	0

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year:	2012
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.171
Reactive Organic Gases Tons/Yr:	0.0946829
Carbon Monoxide Emissions Tons/Yr:	0.408
NOX - Oxides of Nitrogen Tons/Yr:	2.022
SOX - Oxides of Sulphur Tons/Yr:	0.005
Particulate Matter Tons/Yr:	0.043368852459
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.043

Year:	2013
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.15
Reactive Organic Gases Tons/Yr:	0.0689696
Carbon Monoxide Emissions Tons/Yr:	0.622
NOX - Oxides of Nitrogen Tons/Yr:	2.613
SOX - Oxides of Sulphur Tons/Yr:	0.009
Particulate Matter Tons/Yr:	0.055
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.055

Year:	2014
County Code:	43
Air Basin:	SF
Facility ID:	9339
Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.09632232
Reactive Organic Gases Tons/Yr:	0.073925278
Carbon Monoxide Emissions Tons/Yr:	0.394081386
NOX - Oxides of Nitrogen Tons/Yr:	1.679555259
SOX - Oxides of Sulphur Tons/Yr:	0.006294905
Particulate Matter Tons/Yr:	0.03626465
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.036110091

Year:	2015
County Code:	43
Air Basin:	SF
Facility ID:	9339

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

Air District Name:	BA
SIC Code:	8221
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.09632232
Reactive Organic Gases Tons/Yr:	0.073925278
Carbon Monoxide Emissions Tons/Yr:	0.394081386
NOX - Oxides of Nitrogen Tons/Yr:	1.679555259
SOX - Oxides of Sulphur Tons/Yr:	0.006294905
Particulate Matter Tons/Yr:	0.03626465
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.036110091

NPDES:

Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	2
Regulatory Measure Id:	439380
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	2 43M2000104
Program Type:	Phase II Small MS4
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/29/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	San Jose State University
Discharge Address:	One Washington Square
Discharge City:	San Jose
Discharge State:	California
Discharge Zip:	95192
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported

SAN JOSE STATE UNIVERSITY (Continued) **S105939445**

DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

A14 **SJSU CENTRAL PLANT** **CA LUST** **S103473127**
Target **1 WASHINGTON SQUARE** **CA HIST LUST** **N/A**
Property **SAN JOSE, CA 95192** **CA HIST CORTESE**

Site 14 of 19 in cluster A

Actual:
93 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	07S1E08J02f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	2/8/1994
Pollution Characterization Began:	2/8/1994
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

Region:	2
Facility Id:	Not reported

SJSU CENTRAL PLANT (Continued) **S103473127**

Facility Status: Case Closed
Case Number: 07S1E08K04f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08J02
Oversite Agency: SCVWD
Date Listed: 1994-12-02 00:00:00
Closed Date: 2000-03-30 00:00:00

Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08K04
Oversite Agency: SCVWD
Date Listed: 1994-12-02 00:00:00
Closed Date: 1996-04-18 00:00:00

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-2273

A15 **SJSU-SPX EAST (46)** **CA LUST** **S103473126**
Target **1 WASHINGTON SQ** **CA CUPA Listings** **N/A**
Property **SAN JOSE, CA 95112** **CA ENF**
CA HIST CORTESE
Site 15 of 19 in cluster A **CA SAN JOSE HAZMAT**

Actual: 93 ft.

LUST:
Region: STATE
Global Id: T0608502088
Latitude: 37.3346954660772
Longitude: -121.881165504456
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/30/2000
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline

SJSU-SPX EAST (46) (Continued) **S103473126**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608502088
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608502088
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608502088
Status:	Completed - Case Closed
Status Date:	03/30/2000

Global Id:	T0608502088
Status:	Open - Case Begin Date
Status Date:	09/27/1991

Global Id:	T0608502088
Status:	Open - Site Assessment
Status Date:	02/08/1994

Regulatory Activities:

Global Id:	T0608502088
Action Type:	RESPONSE
Date:	05/10/1999
Action:	Other Report / Document

Global Id:	T0608502088
Action Type:	RESPONSE
Date:	06/21/1999
Action:	Other Report / Document

Global Id:	T0608502088
Action Type:	RESPONSE
Date:	02/16/1999
Action:	Other Report / Document

Global Id:	T0608502088
Action Type:	RESPONSE
Date:	10/30/1997
Action:	Soil and Water Investigation Report

SJSU-SPX EAST (46) (Continued) **S103473126**

Global Id: T0608502088
Action Type: REMEDIATION
Date: 09/27/1991
Action: Excavation

Global Id: T0608502088
Action Type: ENFORCEMENT
Date: 03/12/1997
Action: Notice of Responsibility - #39877

Global Id: T0608502088
Action Type: ENFORCEMENT
Date: 12/24/1998
Action: Staff Letter - #26952

Global Id: T0608502088
Action Type: ENFORCEMENT
Date: 05/10/1999
Action: Staff Letter - #26955

Global Id: T0608502088
Action Type: ENFORCEMENT
Date: 07/31/1997
Action: Staff Letter - #26949

Global Id: T0608502088
Action Type: Other
Date: 09/27/1991
Action: Leak Reported

Global Id: T0608502088
Action Type: ENFORCEMENT
Date: 03/30/2000
Action: Closure/No Further Action Letter

Region: STATE
Global Id: T0608501816
Latitude: 37.3361456482962
Longitude: -121.878118515015
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 04/18/1996
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Soil
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608501816
Contact Type: Regional Board Caseworker

SJSU-SPX EAST (46) (Continued) **S103473126**

Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608501816
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501816
Status: Completed - Case Closed
Status Date: 04/18/1996

Global Id: T0608501816
Status: Open - Case Begin Date
Status Date: 01/01/1993

Regulatory Activities:
Global Id: T0608501816
Action Type: ENFORCEMENT
Date: 04/18/1996
Action: Closure/No Further Action Letter

Global Id: T0608501816
Action Type: RESPONSE
Date: 04/18/1996
Action: Other Report / Document

Global Id: T0608501816
Action Type: Other
Date: 01/01/1993
Action: Leak Reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08J02F
Date Closed: 03/30/2000
EDR Link ID: 07S1E08J02F

Region: SANTA CLARA
SCVWD ID: 07S1E08K04F
Date Closed: 04/18/1996
EDR Link ID: 07S1E08K04F

CUPA SANTA CLARA:
Region: SANTA CLARA

SJSU-SPX EAST (46) (Continued) **S103473126**

PE#: 2207
Program Description: GENERATES 25 TO <50 TONS/YR
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP13
Program Description: HAZMAT STORAGE & HMBP FACILITY, 7-9 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: 2011
Program Description: APSA FACILITY-SPCC TEMPLATE (<10,000 GAL CAP)
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334331

SJSU-SPX EAST (46) (Continued) **S103473126**

Longitude: -121.880542

Region: SANTA CLARA
PE#: BP15
Program Description: HAZMAT STORAGE & HMBP FAC, 16-21 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: 2399
Program Description: UNDERGROUND STORAGE TANK PROGRAM RECORD
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP13
Program Description: HAZMAT STORAGE & HMBP FACILITY, 7-9 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP13
Program Description: HAZMAT STORAGE & HMBP FACILITY, 7-9 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP15
Program Description: HAZMAT STORAGE & HMBP FAC, 16-21 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA

SJSU-SPX EAST (46) (Continued) **S103473126**

PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP12
Program Description: HAZMAT STORAGE & HMBP FACILITY, 4-6 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: 2299
Program Description: HW GENERATOR-ADDITIONAL CONTIGUOUS FACILITY
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339
Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334331
Longitude: -121.880542

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334339

SJSU-SPX EAST (46) (Continued) **S103473126**

Longitude: -121.880730

Region: SANTA CLARA
PE#: BP11
Program Description: HAZMAT STORAGE & HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.334744
Longitude: -121.884918

ENF:
Region: 2
Facility Id: 631093
Agency Name: CSU San Jose
Place Type: Utility
Place Subtype: Collection_System
Facility Type: Municipal/Domestic
Agency Type: State Agency
Of Agencies: 1
Place Latitude: Not reported
Place Longitude: Not reported
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Reg Meas
Design Flow: Not reported
Threat To Water Quality: 3
Complexity: C
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported
Facility Waste Type 4: Not reported
Program: SSOMUNISML
Program Category1: SSO
Program Category2: SSO
Of Programs: 1
WDID: 2SSO11174
Reg Measure Id: 301092
Reg Measure Type: Enrollee
Region: 2
Order #: 2006-0003-DWQ
Npdes# CA#: Not reported
Major-Minor: Minor
Npdes Type: Not reported
Reclamation: Not reported
Dredge Fill Fee: Not reported
301H: Not reported
Application Fee Amt Received: 872

SJSU-SPX EAST (46) (Continued) **S103473126**

Status:	Active
Status Date:	11/08/2006
Effective Date:	11/08/2006
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	58 - Non15 Based on (TTWQ)/CPLX)
Direction/Voice:	Passive
Enforcement Id(EID):	388090
Region:	2
Order / Resolution Number:	Not reported
Enforcement Action Type:	Notice of Violation
Effective Date:	04/10/2012
Adoption/Issuance Date:	04/10/2012
Achieve Date:	Not reported
Termination Date:	05/16/2012
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV 10-APR-12 for CSU SAN JOSE
Description:	Failure to complete, approve, and certify any of the required Sewer System Management Plan (SSMP) elements in CIWQS on time.
Program:	SSOMUNISML
Latest Milestone Completion Date:	2012-05-16
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1898

SAN JOSE HAZMAT:

Region:	SAN JOSE
File Num:	600212
Class:	Misc. Complex firms and labs

Region:	SAN JOSE
File Num:	601213
Class:	Misc. Complex firms and labs

A16 **SJSU CENTRAL PLANT** **CA UST** **U004049718**
Target **1 WASHINGTON SQUARE** **N/A**
Property **SAN JOSE, CA 95112**

Site 16 of 19 in cluster A

Actual:
93 ft.

UST:

Facility ID:	43-000-250796
Permitting Agency:	SANTA CLARA COUNTY
Latitude:	37.3364079576781
Longitude:	-121.87811717391

A17 **SJSU ENGINEERING BUILDING** **CA RGA LUST** **S114692053**
Target **1 WASHINGTON SQUARE** **N/A**
Property **SAN JOSE, CA**

Site 17 of 19 in cluster A

Actual:
93 ft.

RGA LUST:

2012	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2011	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2010	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2009	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2008	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2007	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2006	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2005	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE
2003	SJSU ENGINEERING BUILDING	1 WASHINGTON SQUARE

A18 **SJSU ENGINEERING BUILDING** **CA RGA LUST** **S114692052**
Target **1 WASHINGTON SQ** **N/A**
Property **SAN JOSE, CA**

Site 18 of 19 in cluster A

Actual:
93 ft.

RGA LUST:

2002	SJSU ENGINEERING BUILDING	1 WASHINGTON SQ
2001	SJSU ENGINEERING BUILDING	1 WASHINGTON SQ
2000	SJSU ENGINEERING BUILDING	1 WASHINGTON SQ

A19 **SJSU CENTRAL PLANT** **CA RGA LUST** **S114692048**
Target **1 WASHINGTON SQUARE** **N/A**
Property **SAN JOSE, CA**

Site 19 of 19 in cluster A

Actual:
93 ft.

RGA LUST:

2012	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2011	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2010	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2009	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2008	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2007	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2006	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2005	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE
2003	SJSU CENTRAL PLANT	1 WASHINGTON SQUARE

NPL
Region
SE
1/2-1
5053 ft.

LORENTZ BARREL & DRUM CO.
1515 S 10TH ST
SAN JOSE, CA 95112

NPL **1000208886**
SEMS **CAD029295706**
US ENG CONTROLS
US INST CONTROL
CA ENVIROSTOR
CA SLIC
CA HIST Cal-Sites
LIENS 2
CA DEED
RCRA NonGen / NLR
ROD
PRP
ICIS
CONSENT
FINDS
CA Cortese
ECHO

NPL:

EPA ID:	CAD029295706
Cerclis ID:	901287
EPA Region:	9
Federal:	N
Final Date:	1989-10-04 00:00:00
Site Score:	33.939999999999998
Latitude:	37.31861
Longitude:	-121.8644

Category Details:

NPL Status:	Currently on the Final NPL
Category Description:	Depth To Aquifer-> 25 And <= 50 Feet
Category Value:	50

NPL Status:	Currently on the Final NPL
Category Description:	Distance To Nearest Population-0 Miles (On Site)
Category Value:	0

Site Details:

Site Name:	LORENTZ BARREL & DRUM CO.
Site Status:	Final
Site Zip:	95112
Site City:	SAN JOSE
Site State:	CA
Federal Site:	No
Site County:	SANTA CLARA
EPA Region:	09
Date Proposed:	06/24/88
Date Deleted:	Not reported
Date Finalized:	10/04/89

Substance Details:

NPL Status:	Currently on the Final NPL
Substance ID:	Not reported
Substance:	Not reported
CAS #:	Not reported
Pathway:	Not reported
Scoring:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

NPL Status: Currently on the Final NPL
Substance ID: U078
Substance: DICHLOROETHENE, 1,1-
CAS #: 75-35-4
Pathway: GROUND WATER PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: U210
Substance: TETRACHLOROETHENE
CAS #: 127-18-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U226
Substance: TRICHLOROETHANE, 1,1,1-
CAS #: 71-55-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
Substance: TRICHLOROETHYLENE (TCE)
CAS #: 79-01-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal October 15, 1984): Lorent Barrel Drum Co. recycles drums at a plant in San Jose, Santa Clara County, California. The 5-acre site is surrounded by residential, industrial, and business areas. On-site monitoring wells are contaminated with trichloroethane, trichloroethylene, 1,1-dichloroethylene, and tetrachloroethylene, according to analyses conducted by a consultant to Lorent . Contamination is believed to have resulted from overflowing sumps and spills. About 250,000 people obtain drinking water from wells within 3 miles of the site. Lorent is working with the California Regional Water Quality Control Board CRWQCB) to determine the extent of ground water contamination. The board issued a Cleanup and Abatement Order to the company in August 1983. The plant received Interim Status under Subtitle C of the Resource Conservation and Recovery Act RCRA) when the company filed Part A of a permit application. On March 25,1981, EPA removed the facility as a treatment, storage, or disposal facility because it was not engaged in ha ardous waste activities. This is one of 19 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which contaminate a common ground water basin. Although these sites are listed separately, EPA intends to apply an area-wide approach to the problem as well as take specific action as necessary. Status February 1986): In March 1985, EPA and the California Department of Health Services CDHS) discovered over 300 drums containing phenols, methylene chloride, and PCBs stored on the Lorent property. In responseto action by the Santa Clara District Attorney, the company removed the drums. CRWQCB is overseeing the Lorent investigation to determine the extent of ground water contamination. CDHS will oversee the investigation of soil contamination.On February 7, 1986, the Santa Clara County District Attorney filed a complaint against the company for violation of State ha ardous waste

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

laws. The facility has been shut down until procedures for compliance are developed. Status June24, 1988): EPA is proposing to place this previously proposed RCRA site on the final NPL. The company is classified as a non-filer. Hence, it satisfies a component of EPA s NPL/RCRA policy. In July 1987, the owner of the Lorent site was ordered to shut it down permanently, sentenced to 2 years in jail, and fined 2.04 million. Recent sampling by CDHS consultants has shown extensive contamination in soil and ground water, both on- and off-site. In addition to the chlorinated organics identified earlier, pesticides, metals, and PCBs are present. On December 1, 1987, EPA took over as lead agency for a remedial investigation/feasibility study RI/FS) at the site. In February 1988, CDHS completed an expedited response action consisting of excavating soil with high concentrations of PCBs. In March 1988, EPA and CDHS completed removal of 1,000 drums of ha ardous materials. All materials were transported to regulated disposal facilities. The site was then graded and the surface sealed to control drainage. In May 1988, EPA completed an engineering evaluation cost analysis for systems to pump and treat shallow contaminated ground water. Status October 4, 1989): EPA has placed this site on the NPL. EPA completed the RI/FS. Following a period of public comment, a Record of Decision was signed in September 1988 finali ing the remedy as treatment of ground water with an o one ultraviolet light oxidation system. EPA is currently designing an off-site extraction system and an on-site treatment facility. EPA is also investigating the extent of the contamination in soils and on structures and expects to complete an RI/FS for the overall site in early 1990.

Site Status Details:

NPL Status:	Final
Proposed Date:	10/15/1984
Final Date:	10/04/1989
Deleted Date:	Not reported

Narratives Details:

NPL Name:	LORENTZ BARREL & DRUM CO.
City:	SAN JOSE
State:	CA

SEMS:

Site ID:	901287
EPA ID:	CAD029295706
Federal Facility:	N
NPL:	Currently on the Final NPL
Non NPL Status:	Not reported

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0901287
EPA ID:	CAD029295706
Facility County:	SANTA CLARA
Short Name:	LORENTZ BARREL & DRUM CO
Congressional District:	19
IFMS ID:	0989
SMSA Number:	7400
USGC Hydro Unit:	18050003
Federal Facility:	Not a Federal Facility
DMNSN Number:	5.50000
Site Orphan Flag:	N

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	T
EPA Region:	09
Classification:	Industrial Waste Treatment
Site Settings Code:	SU
NPL Status:	Currently on the Final NPL
DMNSN Unit Code:	ACRE
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Not reported
Non NPL Status Date:	/ /
Site Fips Code:	06085
CC Concurrence Date:	09/29/98
CC Concurrence FY:	1998
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	9000171.00000
Contact Name:	Chris Weden
Contact Tel:	(415) 972-3041
Contact Title:	On-Scene Coordinator (OSC)
Contact Email:	Not reported

Contact ID:	13003940.00000
Contact Name:	Daewon Rojas-Mickelson
Contact Tel:	(415) 947-4191
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported

Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Contact ID:	13003858.00000
Contact Name:	Sharon Murray
Contact Tel:	(415) 972-4250
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

Contact ID:	13004003.00000
Contact Name:	Carl Brickner
Contact Tel:	Not reported
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported

CERCLIS Site Alias Name(s):

Alias ID:	101
Alias Name:	L B & D
Alias Address:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

CA
Alias ID: 102
Alias Name: LORENTZ BARREL & DRUM CO
Alias Address: Not reported
Not reported
Alias ID: 103
Alias Name: LORENTZ BARREL & DRUM CO.
Alias Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Alias ID: 101
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977
Site Description: Between 1954 and 1968, the warehouse to the west of the processing facility was reportedly destroyed by fire and other structures were added or modified. The 1971 aerial photograph indicates that the northwest portion of the LB&D property (part of the RFI property) was fenced from the remainder of the LB&D property. This property was used as a junkyard. The 1976 aerial photograph of the current RFI property shows that the area was filled with automobiles (presumably junked), while in a 1980 aerial photo, the majority of the automobiles were gone. The 1982 aerial photograph shows the main RFI facility constructed. The basic structures on the LB&D property remained largely unchanged after 1968. From the photo, it appears that roadway improvements and sidewalk additions on both East Alma Avenue and South Tenth Street, which occurred in the late 1970s or early1980s, may have covered over portions of land impacted by the LB&D facility operations. There are four predominantly granular water-bearing or potentially water-bearing subsurface zones below the LB&D site. These zones have been designated with respect to increasing depth below ground surface (bgs) as Zone A, Zone B, Zone C, and Zone D. The contaminated shallow groundwater currently located in Zone B comprises OU-2. If contaminated groundwater from Zone B also comes to exist in Zone A (e.g., a rise in the water table or resaturation), Zone A groundwater would be addressed under OU-2. The deep aquifer (Zones C and D) and potential conduits between the shallow and deeper aquifers comprise the groundwater portion of OU-1. Unsaturated portions of Zone A lying above the contaminated groundwater in Zone B contain low levels of VOCs. VOC-contaminated soil gas and soil in Zone A are considered part of OU-1. The LB&D site is located in the southeastern corner of the San Jose subarea as defined by the California Department of Water Resources. This subarea is one of the most important natural sources of groundwater in the south San Francisco Bay area (South Bay). The deep aquifer (250 to 400 feet bgs) is a major source of potable groundwater, from which it is estimated that Santa Clara Valley extracts 107,000 acre-feet per year. Three public water supply well fields (owned by SJWC), located at the 12th Street, Cottage Grove, and Needles Stations, are within 1 mile of the LB&D site. An SJSU well is located at the Spartan Stadium. Groundwater in the area is used for drinking and irrigation. The nearby water wells all draw water from screened intervals located at depths greater than 150 feet bgs. The principal groundwater extraction wells for drinking water purposes are located in the Zone D aquifer and are operated by the SJWC. The SJSU Spartan Stadium well is used for both potable and irrigation purposes. The Kelley Park well provides water for the fish pond and is not used as a potable water supply. There are no extraction wells located in the Zone B aquifer other than those used for treatment of the contaminated groundwater. Coyote Creek is located less than 0.5 miles northeast of the LB&D property. Historically, the primary uses of water from this creek have been agricultural and to some extent recreational. Its current principal value is the contribution to the ecology of the South Bay. No other surface waters are located within 2 miles of the LB&D site. Approximately 2.75 acres of the LB&D property have been paved with a tar and gravel mixture (chipped seal) to cover an area once used for drum

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

storage. The paved area overlies soils which are discolored and potentially contaminated. A small portion of this 2.75 acres is covered by an asphaltic-concrete cover installed by LB&D. The other 2.5 acres of the LB&D property are unpaved but are covered by five buildings which housed the drum reconditioning facilities, several sumps, an open storage bin located adjacent to the processing facility, various piles of wood, rusted metal debris, numerous empty drums and numerous nonhazardous drums. All of these structures and materials, with the exception of an intact warehouse and drums of ash, are scheduled to be removed in 1993 and 1994 by a group of potentially responsible parties (PRPs) under an Administrative Order on Consent (AOC) as more fully described below. Some of the facility structures, numerous barrels and limited amounts of soil were removed from the LB&D site during 1987 emergency response actions conducted by the California Department of Health Services' (DHS's) toxic substances control division, (now known as DTSC, a part of Cal-EPA). The RFI property includes both the RFI and PSS parcels. The RFI parcel is completely covered by a concrete slab, and the PSS parcel is entirely covered by asphalt. The Lorentz family started recycling drums at the former LB&D facility in 1947. During the early years, portions of the original LB&D property (10.5 acres) were also rented or leased to other companies. Several facilities were in operation on the LB&D property around 1954, including an auto wrecker, a junkyard, a roofing company, a construction company, and sandblasting services. Drums for recycling were received from both private and public sources throughout California and Nevada. Private sources included over 2000 different companies and individuals, representing chemical, food, health care, electronics, paint, ink, and paper industries. Public sources included military bases, research laboratories, and county agencies. Many drums arrived at the LB&D facility containing residual aqueous wastes, organic solvents, acids, oxidizers, and oils. The LB&D facility operations consisted in part of emptying all residues, cleaning, resealing, repainting, and reselling the drums. Residues were removed from the drums by various methods, including caustic and acid washes, incineration, blasting with steel shot, and steam cleaning. Drums were then resurfaced, resealed, and repainted using various substances, including phenolic epoxy resins and rust inhibitors.

From the 1950s until some time between 1976 and 1978, a drainage ditch from the processing facility was utilized to drain wastes. The drainage ditch discharged to a large sump (approximately 30 by 80 feet) located in the northern corner of the LB&D property bounded by the corner of East Alma Avenue and South 10th Street. Aerial photographs of the LB&D site from that time period reveal the presence of liquids in the sump, drainage ditch, and various ponded areas. The sump discharged to the storm drain system. Between 1968 and 1971, the discharge was diverted to the sanitary sewer. Previous investigations have indicated that discharge to the sanitary sewer ceased in 1983 or 1984. After 1984, liquid wastes were reportedly reduced in volume by evaporation, drummed, and disposed as hazardous waste along with incinerator ash, residual liquids, and sludge. Surface runoff was reportedly collected and recycled in the hot caustic wash cycle of the drum recycling process. As a result of the LB&D facility operations, a large variety of chemical residues from drums delivered to the LB&D site, as well as chemicals used by the LB&D facility in its drum reconditioning processes, have contaminated soil, structures, and shallow groundwater at and beneath the LB&D site. Contaminated groundwater has also migrated about 2,000 feet north of the LB&D property. The LB&D facility ceased operations in 1987. In late 1987 and early 1988, DTSC and the U.S. Environmental Protection Agency (EPA) conducted emergency response actions at the LB&D site that included removal of 3,000 cubic yards of highly contaminated soils at the former main sump area and over 2 6,000 drums, some of which contained residues. At the conclusion of the removal action, the majority of the LB&D property was paved over. In 1992,

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

pursuant to a Consent Decree (CD) with EPA, a group of eleven PRPs, known as the Lorentz Shallow Groundwater Task Force (LSGTF), completed construction of and began operating a shallow groundwater extraction and treatment system. This system addresses the VOC contamination of groundwater beneath the LB&D site, as well as the plume that extends approximately 2,000 feet north from the former main sump. Recently, a separate group of seven PRP companies, known as the Structures Removal Group, has begun a removal of buildings, sumps, drums, and miscellaneous debris pursuant to an AOC with EPA. They are expected to complete the removal in 1994. Since 1981, there have been several environmental sampling studies at the LB&D site aimed at investigating the nature and extent of contamination. Over a period of 6 years DTSC and LB&D have collected soil and groundwater samples from on-site and off-site monitoring wells. Numerous metals, organics, and PCBs were found above Total Threshold Limit Concentrations (TTLC). In 1988, EPA began field activities for the Remedial Investigation (RI). The RI included sampling and analysis of surface and subsurface soil, facility structures, groundwater, sediments, and surface water; a geophysical survey; topographic surveying and mapping; pump tests; borehole geophysics; geotechnical sampling; air sampling; and biota sampling. Additionally, a limited well survey was performed, and potential conduits were investigated. Beginning in 1991, EPA commenced field activities for six RI addenda. For RI Addendum No. 1, EPA installed eight Zone B, one Zone C, and one Zone D monitoring wells to better define the groundwater contaminant plume boundaries and to provide deep aquifer monitoring. RI Addendum No. 2 included sampling of 30 soil borings on the RFI property to assess the impact of the LB&D operations on the RFI property. RI Addendum No. 3 updated the Baseline Health Risk Assessment (BHRA) contained in the RI by evaluating soil risks under a residential use scenario. It also modeled and evaluated potential risk from the vapor-phase migration of groundwater contaminants up to the surface and into confined spaces of buildings located above the plume. In RI Addendum No. 4, EPA assessed the location and status of potential conduits and whether additional conduits existed along the leading edge of the plume. In RI Addendum No. 5, EPA investigated the stockpiled soil excavated from the treatment facility foundation to assess the soil contamination present. The sampling results of the stockpiled soil were compared with previous investigation results to evaluate heterogeneity of LB&D soil. For RI Addendum No. 6, EPA installed one Zone C monitoring well to serve as a warning well for the SJSU Spartan Stadium well and to better define the characteristics of the Zone C aquifer immediately downgradient from the original source area. In addition, various sampling and analysis activities have been performed by the Structures Removal Group as part of the removal of structures, debris, equipment, and drums. Specific sampling activities have been performed on drum contents, sump liquids, and building materials. Since 1968, federal. State, and local authorities have taken many regulatory and enforcement actions at the LB&D site. In summary, the major enforcement actions have included: -1968: City of San Jose industrial waste inspector ordered Lorentz to switch sump discharge from Coyote Creek storm drain to the sanitary sewer. -1980: California Occupational Safety and Health Administration (Cal-OSHA) informed DHS of potential problems with hazardous materials at the Lorentz facility. LB&D site is entered into EPA's CERCLIS database. -1982: DTSC inspected the facility and issued a Notice of Violation to Lorentz for soil and groundwater contamination. -1983: The Regional Water Quality Control Board (RWQCB) began investigating potential threats to the groundwater from sumps and other LB&D facility activities and issued Clean Up & Abatement Order No. 83-007. U.S. Dept. of Fish & Game cited Lorentz for violations involving heavy metals and petroleum products in surface runoff leaving the LB&D facility and entering the storm drain to Coyote Creek. -1984: San Jose/Santa Clara Water Pollution Control District cited Lorentz for violations and issued a cease and desist

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

order for discharge into sanitary sewer. EPA completed a Preliminary Assessment and Site Investigation and proposed the LB&D site for the National Priorities List (NPL). -1985: DTSC cited LB&D with 14 violations of the California Administrative Code and Federal Regulations concerning the handling and storage of hazardous wastes. The Santa Clara County District Attorney obtained a Temporary Restraining Order to close down operations at LB&D. Operations resumed after 3 months. -1986: The Santa Clara County District Attorney filed a criminal complaint against LB&D and Ernest Lorentz which alleged the defendants had committed one felony and 13 misdemeanor violations of the California Hazardous Waste Control Act. The RWQCB issued Corrective Action Order #86-001 requiring LB&D to determine the lateral off-site extent of groundwater pollution. -1987: The LB&D facility ceased operation. EPA assumed the lead agency responsibility for the LB&D site remediation. -1988: EPA and DTSC completed removal of 3,000 cubic yards of highly contaminated soils and over 26,000 drums. EPA paved most of the LB&D property. -1988: EPA issued the OU-2 ROD for expedited cleanup of the shallow groundwater. -1989: EPA sent Special Notice to 43 PRPs to start negotiations on the OU-2 ROD. The LB&D site went from proposed to final on the NPL. -1990: EPA and 11 PRPs (the LSGTF) signed a CD requiring the PRPs to design, construct, and operate a shallow groundwater extraction and treatment system as specified in the OU-2 ROD. -1992: EPA and a group of 7 different PRPs (the Structures Removal Group) signed an AOC that requires the PRPs to remove from the LB&D property and dispose of the remaining barrels, asbestos, site debris, structures (except the concrete pads and the warehouse), and sumps. -1993: EPA proposed a final remedy addressing all remaining contamination at the LB&D site. The main objective of the response action selected as the final remedy for the LB&D site is to protect human health and the environment from all remaining releases or threats of releases of hazardous substances that have not already been addressed by previous or current cleanup actions at the LB&D site. The materials of concern include groundwater in deeper aquifers, vadose zone soil gas near residences situated above the shallow groundwater contaminant plume, vertical and horizontal conduits (e.g., old agricultural wells and sewer lines), structures and debris (e.g., septic tank), residues (e.g., LB&D incinerator ash), soil contaminated with health-risk based COCs, and, the only principal threat remaining unaddressed at the LB&D site, soil contaminated with VOCs that threaten groundwater. A ROD addressing OU-1 of the Lorentz Barrel and Drum site was completed in August, 1993. The Lorentz Barrel and Drum (LB&D) site is located in Santa Clara County, about 13 miles southeast of the southern tip of San Francisco Bay. The LB&D site is defined as all land previously used for LB&D facility operations and all areas where contamination from the LB&D facility operations has come to reside. The LB&D site includes a contaminated shallow groundwater plume area and properties containing contaminated soil, structures, debris, and residues. The original LB&D property consisted of 10.5 acres located at the southern corner of South Tenth Street and East Alma Avenue in the City of San Jose. A 3.78-acre portion of the original property was never significantly involved in the LB&D drum recycling operations and was transferred shortly after the LB&D operations began. This portion includes the 3.39-acre Norton/Phelps property and a 0.39-acre Western Pacific Railroad easement. This portion is located at the southeastern end of the original LB&D property and is not considered part of the LB&D site. The remaining 6.72-acre portion of the original 10.5-acre LB&D property that is contaminated from operations of the former LB&D facility is part of the LB&D site. This portion includes the LB&D property, defined as the 5.25-acre, L-shaped parcel that contained the LB&D facility operations in 1987. The former LB&D facility included all the buildings, equipment, and land that LB&D used in operating the drum recycling business from 1947 onward. Before 1981, facility operations also occurred on neighboring property, currently owned by Recycled

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Fibers, Inc. (RF)I, that once was part of the original 10.5-acre LB&D property. The 1.47-acre RFI property includes the 1.32-acre RFI parcel (388 East Alma Avenue) that is occupied by the RFI paper recycling business operations (formerly known as Arata Western) and the 0.15-acre Pacific Sandblast Services (PSS) parcel (400 East Alma Avenue) that is occupied by the PSS business operations. PSS once leased its parcel from LB&D and now leases its parcel from RFI. In addition to the former LB&D facility property, the LB&D site also includes a limited amount of adjacent City of San Jose property. The adjacent city sidewalk area is defined as soil belonging to the City of San Jose located between the LB&D property fence lines parallel to East Alma Avenue and to South Tenth Street and their respective street pavements. While the former LB&D facility operation did not officially involve the adjacent city sidewalk area, it is likely that contaminated runoff from the LB&D property contaminated soil beneath the sidewalks. Finally, the area above the shallow groundwater plume is also part of the LB&D site, although there is no known surface or shallow soil contamination in this area, except for those portions of the plume that lie under LB&D, RFI, and adjacent city sidewalk area properties. The LB&D and RFI property, and the surrounding area to the south and west are zoned for commercial/industrial use per the City of San Jose Planning Department. The predominant zoning within a 1-mile radius of the LB&D property is commercial/industrial. The residential and recreational district to the north and east of the LB&D property includes Spartan Stadium (San Jose State University [SJSU] football stadium), San Jose Municipal Stadium (City of San Jose), and SJSU recreation fields. The City of San Jose intends to maintain and further develop the recreational uses of land to the north and east of the LB&D site. The closest residence to the LB&D property is the SJSU student housing on South Tenth Street, located approximately 700 feet north. Single family residential houses are located 1,100 feet north of the LB&D property. Less than 3,000 people are estimated to live within a 1-mile radius of the LB&D property. Currently, the groundwater is being extracted from a series of extraction wells located both on and off the Site. The extracted groundwater is pumped to an on-Site treatment facility. At the treatment facility the contaminated groundwater is first treated in an ultra violet/oxidation unit ("UV/Ox"). The UV/Ox unit subjects the groundwater to ultra violet light and oxidizing chemicals (ozone) which converts volatile organic compounds ("VOCs") in the contaminated groundwater into less toxic compounds. However, due to a lack of efficiency of the UV/Ox system in destroying several of the organic contaminants, the contaminated groundwater is then filtered through a series of granular activated carbon ("GAC") filters, and treated to levels below allowable discharge limits. The treated groundwater is then discharged to a local storm sewer. Concentrations of organic contaminants at the Site have generally decreased since commencement of the groundwater treatment system in 1992. Based on the reductions in the concentrations of organic contaminants in the groundwater being extracted at the Site, and the inefficiency of the UV/Ox unit in its ability to reduce these organic contaminants to the discharge limits, the potentially responsible parties ("PRPs") implementing the groundwater remediation program have requested that EPA approve a change to the current treatment system involving the removal of the UV/Ox treatment unit from the approved treatment program. The revised treatment system would consist of subjecting the contaminated groundwater to the GAC filters, exclusively. From 1947 to 1987, an operation existed at the Site wherein drums would be received onsite and rinsed and/or reconditioned. The drums often contained substances such as organic solvents, pesticides, acids, bases, oxidizers, and oils. Many of the substances were discharged to a drainage ditch and on-site sumps, eventually making their way to a nearby creek. Site investigations indicated that on-site operations resulted in organic and inorganic contamination of the local shallow groundwater. These contaminants

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included trichloroethene (TCE), trichloroethane (TCA), tetrachloroethene (PCE), dichloroethene (DCE), dichloroethane (DCA), vinyl chloride, and others. In September 1988, the OU-2 Record of Decision (ROD) was signed by EPA. Subsequently, in 1990, a group of PRPs for the Site agreed to implement the remedy selected in the OU-2 ROD. This agreement was memorialized in a Partial Consent Decree between the United States and the PRPs. The Partial Consent Decree was approved by the Northern District of California on July 6, 1990 (Civil No. C 90 0488 EFL). This ESD addresses differences to the remedy selected under the OU-2 ROD. The OU-2 ROD addressed an Expedited Response Action (ERA)/Operable Unit for treatment of the contaminated shallow groundwater. The remedy selected in the OU-2 ROD addressed the principal near-term threats to groundwater in the Site vicinity. The threat of contamination of the deep drinking water aquifer and nearby surface water bodies was addressed by extracting the contaminated shallow groundwater and treating it to action levels prescribed by the Applicable or Relevant and Appropriate Requirements (ARARs). The major components of the shallow groundwater remedy chosen in the OU-2 ROD included: -construction and operation of a groundwater extraction system to intercept several shallow groundwater plumes; -construction and operation of a groundwater treatment system; and -disposal of treated groundwater to the storm sewer, which flows to Coyote Creek. The selected groundwater treatment system included a commercially available packaged ultra violet light/ozone system to destroy VOCs. If necessary, an ion exchange column would be added to remove nickel. Treatability studies of the UV/Ox unit conducted at the Site in August 1988 determined that a GAC polishing unit was not necessary in order to meet the cleanup standards. However, startup operations of the UV/Ox unit following signing of the OU-2 ROD in September of 1988 indicated that the GAC polishing process was needed in order to meet the cleanup standards, and became part of the groundwater treatment system. The ion exchange column was found not to be necessary. An Explanation of Significant Differences for Operable Unit 02 of the Lorentz Barrel & Drum Company Site was completed in April 1998.

CERCLIS Assessment History:

Action Code:	001
Action:	DISCOVERY
Date Started:	/ /
Date Completed:	08/01/80
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	07/01/84
Priority Level:	Higher priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

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Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: / /
Date Completed: 08/01/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 08/01/84
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 10/15/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: / /
Date Completed: 05/15/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL
Date Started: 08/31/87
Date Completed: 03/29/88
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action Code: 001
Action: REMOVAL
Date Started: 08/31/87
Date Completed: 03/31/88
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 002
Action: COMMUNITY INVOLVEMENT
Date Started: 05/01/88
Date Completed: 06/01/88
Priority Level: Not reported
Operable Unit: SHALLOW GW
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Special Notice Issued
Date Started: / /
Date Completed: 06/17/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 06/24/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 12/14/87
Date Completed: 09/25/88
Priority Level: Not reported
Operable Unit: SHALLOW GW
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action Code: 001
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/25/88
Priority Level: Not reported
Operable Unit: SHALLOW GW
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 06/17/88
Date Completed: 12/19/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Notice Letters Issued
Date Started: / /
Date Completed: 03/23/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Notice Letters Issued
Date Started: / /
Date Completed: 04/03/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: Notice Letters Issued
Date Started: / /
Date Completed: 06/02/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action Anomaly: Not reported

Action Code: 002
Action: Special Notice Issued
Date Started: / /
Date Completed: 06/02/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 02/01/87
Date Completed: 09/30/89
Priority Level: Search Complete, Viable PRPs
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 10/04/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 06/02/89
Date Completed: 01/22/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL DESIGN
Date Started: 12/19/88
Date Completed: 02/20/90
Priority Level: Not reported
Operable Unit: SHALLOW GW

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

Action Code: 003
Action: Notice Letters Issued
Date Started: / /
Date Completed: 05/21/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: CONSENT DECREE
Date Started: 01/22/90
Date Completed: 07/09/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 09/06/90
Date Completed: 09/06/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: ADMINISTRATIVE RECORDS
Date Started: 06/26/91
Date Completed: 06/26/91
Priority Level: Admin Record Compiled for a Removal Event
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 02/20/90
Date Completed: 07/10/91
Priority Level: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Operable Unit: SHALLOW GW
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 003
Action: REMOVAL ASSESSMENT
Date Started: 12/12/91
Date Completed: 12/12/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 10/07/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 07/10/91
Date Completed: 11/25/92
Priority Level: Not reported
Operable Unit: SHALLOW GW
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: / /
Date Completed: 12/30/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ENGINEERING EVALUATION/COST ANALYSIS
Date Started: / /
Date Completed: 07/16/93
Priority Level: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 02/17/88
Date Completed: 08/26/93
Priority Level: Not reported
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 08/26/93
Priority Level: Final Remedy Selected at Site
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 12/09/92
Date Completed: 09/29/94
Priority Level: Partially Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 02/14/94
Date Completed: 09/29/94
Priority Level: Partially Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Non-Time Critical
Action Anomaly: Not reported

Action Code: 002
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Date Completed: 01/04/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 05/31/96
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 09/17/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 04/24/98
Priority Level: Not reported
Operable Unit: SHALLOW GW
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMEDIAL DESIGN
Date Started: 03/25/95
Date Completed: 05/12/98
Priority Level: Not reported
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Explanation Of Significant Differences
Date Started: / /

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Date Completed: 05/29/98
Priority Level: Not reported
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY CLOSE-OUT REPORT PREPARED
Date Started: / /
Date Completed: 09/28/98
Priority Level: Not reported
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: 05/14/99
Date Completed: 01/04/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/27/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PROSPECTIVE PURCHASER AGREEMENT ASSESSMENT
Date Started: 05/17/01
Date Completed: 09/07/01
Priority Level: PPA Signed
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 006
Action: ADMINISTRATIVE ORDER ON CONSENT

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Date Started: / /
Date Completed: 01/22/02
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 07/29/92
Date Completed: 03/21/02
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ALTERNATIVE DISPUTE RESOLUTION
Date Started: 02/12/03
Date Completed: 03/05/03
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Lodged By DOJ
Date Started: / /
Date Completed: 01/29/04
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COST RECOVERY NEGOTIATIONS
Date Started: 07/15/96
Date Completed: 04/01/04
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action:	SECTION 107 LITIGATION
Date Started:	09/26/02
Date Completed:	04/01/04
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	002
Action:	CONSENT DECREE
Date Started:	/ /
Date Completed:	04/01/04
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	002
Action:	Lodged By DOJ
Date Started:	/ /
Date Completed:	05/25/05
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	004
Action:	NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started:	11/26/01
Date Completed:	09/06/05
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	003
Action:	CONSENT DECREE
Date Started:	05/09/05
Date Completed:	09/06/05
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/28/05
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: FIVE-YEAR REVIEW
Date Started: 01/04/10
Date Completed: 09/29/10
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL ACTION
Date Started: 07/04/96
Date Completed: 04/11/12
Priority Level: Not reported
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Long Term Action
Action Anomaly: Other Completion Anomaly

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY LONG-TERM RESPONSE ACTION
Date Started: 11/25/92
Date Completed: / /
Priority Level: Not reported
Operable Unit: SHALLOW GW
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FEASIBILITY STUDY
Date Started: 09/28/11
Date Completed: / /
Priority Level: Not reported
Operable Unit: OVERALL SITE/SVE
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Federal Register Details:
Fed Register Date: 10/04/89
Fed Register Volume: 54
Page Number: 41000

Fed Register Date: 06/24/88
Fed Register Volume: 53
Page Number: 23978

Fed Register Date: 10/15/84
Fed Register Volume: 49
Page Number: 40320

US ENG CONTROLS:
EPA ID: CAD029295706
Site ID: 0901287
Name: LORENTZ BARREL & DRUM CO.
Address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Actual Date: 06/30/1999
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Debris
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Debris
Engineering Control: Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Groundwater

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Engineering Control: Carbon Adsorption
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Extraction
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Treatment, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Disposal
Contact Name: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 05/29/1998
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: Explanation Of Significant Differences
Action Completion date: 04/24/1998
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Non-fundamental change (ESD)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1988
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Discharge
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1988
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Extraction
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1988
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Treatment, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1988
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: UV Oxidation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Buildings/Structures
Engineering Control: Demolition
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Buildings/Structures
Engineering Control: Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Other
Engineering Control: Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Other
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Residuals
Engineering Control: Residuals Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Carbon Adsorption
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Impermeable Barrier
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Operations & Maintenance (O&M)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 08/26/1993
Operable Unit: 01
Contaminated Media : Soil Gas
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

US INST CONTROL:
EPA ID: CAD029295706
Site ID: 0901287
Name: LORENTZ BARREL & DRUM CO.
Action Name: Explanation Of Significant Differences
Address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: 06/30/1999
Complet. Date: 05/29/1998
Operable Unit: 01

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CAD029295706
Site ID: 0901287
Name: LORENTZ BARREL & DRUM CO.
Action Name: Explanation Of Significant Differences
Address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: 06/30/1999
Complet. Date: 05/29/1998
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CAD029295706
Site ID: 0901287
Name: LORENTZ BARREL & DRUM CO.
Action Name: RECORD OF DECISION
Address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Groundwater use/well drilling regulation
Actual Date: 09/30/1993
Complet. Date: 08/26/1993
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CAD029295706
Site ID: 0901287
Name: LORENTZ BARREL & DRUM CO.
Action Name: RECORD OF DECISION
Address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: 09/30/1993
Complet. Date: 08/26/1993
Operable Unit: 01

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

ENVIROSTOR:
Facility ID: 43300026
Status: Active
Status Date: 01/01/1985
Site Code: 200061
Site Type: Federal Superfund
Site Type Detailed: State Response or NPL
Acres: 5.26
NPL: YES
Regulatory Agencies: SMBRP, US EPA
Lead Agency: US EPA
Program Manager: Henry Chui
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 27
Senate: 15
Special Program: Not reported
Restricted Use: YES
Site Mgmt Req: REM, ASP, DAY, HOS, LUC, MON, EX, NOWN, NDAM, EXT, SCH, FOOD, COV, RES, REM, ASP, DAY, HOS, LUC, MON, EX, NOWN, NDAM, EXT, SCH, FOOD, COV, RES
Funding: Responsible Party
Latitude: 37.31864
Longitude: -121.8655
APN: 477-09-034, 477-09-034, 477-09-036, 477-09-036, 477-09-037
Past Use: RECYCLING - DRUM
Potential COC: Arsenic Benzene Chlordane Total Chromium (1:6 ratio Cr VI:Cr III DDD DDE DDT Dioxin (as 2,3,7,8-TCDD TEQ Lead Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE Toxaphene Trichloroethylene (TCE Vinyl chloride Aldrin Bis(2-ethylhexyl)phthalate (DEHP) Butyl benzyl phthalate Chloroform Dibutyl phthalate 1,1-Dichloroethane 1,2-Dichloroethane (EDC 1,1-Dichloroethylene 1,2-Dichloroethylene (cis 1,2-Dichloropropane Dieldrin Endosulfan Nickel Pentachlorophenol Phenol 1,1,2,2-Tetrachloroethane Toluene 1,1,2-Trichloroethane
Confirmed COC: 1,1,2,2-Tetrachloroethane Toluene 1,1,2-Trichloroethane Polychlorinated biphenyls (PCBs Tetrachloroethylene (PCE Toxaphene Trichloroethylene (TCE Vinyl chloride Aldrin Bis(2-ethylhexyl)phthalate (DEHP) Butyl benzyl phthalate Chloroform Dibutyl phthalate 1,1-Dichloroethane 1,2-Dichloroethane (EDC 1,1-Dichloroethylene 1,2-Dichloroethylene (cis 1,2-Dichloropropane Dieldrin Endosulfan Nickel Pentachlorophenol Phenol Arsenic Benzene Chlordane Total Chromium (1:6 ratio Cr VI:Cr III DDD DDE DDT Dioxin (as 2,3,7,8-TCDD TEQ Lead
Potential Description: OTH, SOIL
Alias Name: 10TH STREET LAND MANAGEMENT CORPORATION
Alias Type: Alternate Name
Alias Name: LORENTZ BARREL AND DRUM COMPANY
Alias Type: Alternate Name
Alias Name: 477-09-034
Alias Type: APN
Alias Name: 477-09-034

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Alias Type:	APN
Alias Name:	477-09-036
Alias Type:	APN
Alias Name:	477-09-036
Alias Type:	APN
Alias Name:	477-09-037
Alias Type:	APN
Alias Name:	CAD029295706
Alias Type:	EPA Identification Number
Alias Name:	110002641954
Alias Type:	EPA (FRS #)
Alias Name:	110033608077
Alias Type:	EPA (FRS #)
Alias Name:	P21039
Alias Type:	PCode
Alias Name:	200061
Alias Type:	Project Code (Site Code)
Alias Name:	43300026
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	10th Street Land Management property
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction
Completed Date:	03/06/2002
Comments:	Deed restriction recorded for property owned by 10th Street Land Management. Residences, hospitals, day care facilities, food cultivation, and groundwater extraction are prohibited at the site. Interference with site cap and remediation system are also prohibited. Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Decree
Completed Date:	10/07/1992
Comments:	Seven respondents signed agreement to conduct a limited removal action at the site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Decree
Completed Date:	09/30/1989
Comments:	EPA issued a Consent Decree with 11 PRPs to implement the groundwater remediation recommended by the ROD. In May 1989, EPA conducted an investigation, identifying approximately 200 companies who had delivered drums and barrels to the former drum recycling facility.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date:	06/30/1987
Comments:	Determined noncompliance with the RAO issued in February 1987.

Completed Area Name:	Newark Group property
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction - Site Inspection/Visit
Completed Date:	11/16/2006
Comments:	Site inspection found compliance with land use covenant on Newark

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Group property.

Completed Area Name: Newark Group property
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 06/10/2005
Comments: Deed restriction recorded for property currently owned by the Newark Group. Residences, hospitals, day care facilities, food cultivation, and groundwater extraction are prohibited at the site. Cap interference is also prohibited.

Completed Area Name: Newark Group property
Completed Sub Area Name: Not reported
Completed Document Type: Consent Settlement - Administrative
Completed Date: 04/22/2005
Comments: Consent Order signed. The Newark Group argeed to pay response costs incurred by DTSC and to abide by the terms of the site deed restriction.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision - Amendment
Completed Date: 03/10/1998
Comments: US EPA approved a ROD amendment for groundwater treatment process.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision w/ESD
Completed Date: 05/21/1998
Comments: US-EPA approved an ESD for soil remediation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 09/28/1998
Comments: Preliminary close-out report finalized. Report documents completion of construction activities for OU1 and OU2. Remaining response consists of operation and maintenance of groundwater treatment system, soil vapor extraction system, and cap.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/15/1998
Comments: Cap design completed. Design calls for 229,000 square feet of 3" asphalt concrete pavement with 6" layer of aggregate base.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/15/1998
Comments: Remedial design report approved. Report outlines plans for design, installation, and O&M of SVE system and asphalt cap.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Completed Date:	09/30/1994
Comments:	EPA completed 3 separate removal actions: (1) Removal of 5 buildings and the process equipment and scrap within including 17 sumps, 7 tanks and several debris stockpiled. At the end of this RA, 1033 tons of industrial wastes, 15 tons of liquid hazardous was and 73 tons of solid hazardous waste was shipped off-site for disposal. (2) Removal of 1200 drums, 150 drums containing solvents, 350 drums containing debris, and 23 drums containing ash and liquids. Removal of tanks, vats, sumps, and process equipment. Removal of 1.18 tons of asbestos containing building materials. (3) Paving of previously and newly exposed surface soil resulting from the above removal actions. Paving used a chip seal material. Approximately 4-1/4 acres were sealed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	10/15/1993
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Record of Decision
Completed Date:	08/26/1993
Comments:	EPA issued ROD for soil operable unit. The ROD addresses soil/source remediation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	04/22/1993
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	03/30/1992
Comments:	Shallow groundwater treatment system completed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Design/Implementation Workplan
Completed Date:	06/28/1991
Comments:	Remedial design for groundwater completed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Record of Decision
Completed Date:	09/30/1988
Comments:	EPA issued a ROD for the shallow groundwater operable unit. The remedy includes extraction/treatment of shallow groundwater and discharge of treated water to the storm sewer.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	08/30/1988
Comments:	Completed EE/CA for shallow groundwater expedited response action.

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Groundwater pump-and-treat system was determined to be an effective method for remediating the shallow groundwater.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/30/1988
Comments: Implemented an Expedited Response Action (ERA). The ERA consisted of the following activities: drum inventory; construction of decontamination facilities; removal of polychlorinated biphenyl (PCB) contaminated pits, which were later backfilled with clean soil and capped; removal, recycling, or treatment of thousands of gallons of processed plant liquids; removal of 15 tons of contaminated scrap; and design of a surface water control plan, which was submitted to EPA for implementation. EPA installed a chip seal over approximately two thirds of the five-acre site. Demobilization occurred at the end of March 1988. A total of 21,286 drums, 1,330 tons of scrap metal, and 2,982 cubic yards of contaminated soil were removed from the site.
Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 05/30/1987
Comments: Completed Public Participation Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 02/13/2004
Comments: Public notice announced lodging of proposed consent decree.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/27/2004
Comments: Public notice announced lodging of proposed consent decree.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/15/1998
Comments: SVE system design completed. Design includes submersible pumps, equalization tank, air-water separator, centrifugal transfer pump, positive displacement blower, air-to-air heat exchanger, liquid phase GAC, and vapor phase GAC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 07/27/1990
Comments: Remedial Investigation Report approved. Nature and extent of contamination in surface soils, subsurface soils, groundwater, surface water, air, and structures evaluated. Fate and transport of PCBs, pesticides, VOCs, base/neutral and acid extractable compounds, metals, and dioxins/furans discussed. Current and future exposure pathways included in baseline risk assessment.

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/01/1987
Comments:	Preliminary Site Assessment completed. Report summarizes site characteristics, site history, known soil and groundwater conditions, hydrogeology, surface hydrology, and risks to nearby receptors.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Report
Completed Date:	06/19/1992
Comments:	Six addenda to the Remedial Investigation include: report of monitoring well installations in Zone B, C, and D aquifers; results of shallow soil investigation on Recycled Fibers, Inc. property; update to the risk assessment for soils; results of the investigation of four conduits near the leading edge of the plume; results of soil sampling; results of installation and sampling of a monitoring well in the Zone C aquifer.

Completed Area Name:	Newark Group property
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Plan Amendment
Completed Date:	08/01/2006
Comments:	Soil investigation concluded that pesticides, PCE, TCE, and metals including arsenic were present in soil, however, all contaminants were present at concentrations below human health screening levels (or established background). The proposed design for the repairs includes removal of 1,424 square feet of concrete and asphalt, replacement of the cap in these areas with slab and AC over 12" of aggregate, and sealing of 4,000 linear feet of less severe cracks with joint sealant.

Completed Area Name:	Shallow Groundwater
Completed Sub Area Name:	Not reported
Completed Document Type:	Long Term Monitoring Report
Completed Date:	12/27/2007
Comments:	2007 GW monitoring report reviewed by DTSC and found to be adequate.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	5 Year Review Reports
Completed Date:	09/21/2010
Comments:	DTSC reviewed the 5-year report and did not have any comments and concurs with the USEPA recommendations in the report and the finding that the selected remedy continues to be protective in the short-term. Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Long Term Monitoring Report
Completed Date:	07/30/2010
Comments:	DTSC have reviewed the shallow groundwater treatment monitoring report and has no comments. This is a USEPA and WaterBoard lead site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Completed Document Type: Feasibility Study Workplan
Completed Date: 12/19/2011
Comments: The USEPA has approved the feasibility study workplan for Lorentz Barrel and Drum. The draft Sampling and Analysis Plan and the draft Quality Assurance Project Plan is due January 4th, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 12/20/2011
Comments: Lorentz Barrel and Drum submitted the 2011 Annual Groundwater Monitoring Report No. 43.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 01/31/2012
Comments: Groundwater treatment report for September 2011 - December 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 12/16/2011
Comments: Annual groundwater monitoring report from December 1, 2010 through November 30, 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision w/ESD
Completed Date: 11/22/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 02/23/1987
Comments: DTSC issued RAO for soil and groundwater contamination resulting from drum reconditioning business.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 01/27/2004
Comments: Consent decree signed to recover DTSC response costs from the primary large quantity generators.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 05/23/1995
Comments: Administrative order on consent signed for de minimis settlement. The settlement pertains to 89 parties, each contributing less than 1% of the drums recycled at the facility.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Completed Date:	09/23/1996
Comments:	Administrative consent order signed for the 2nd round of cost recovery de minimus settlement. Settling parties contributed less than 1% of total drums recycled at the site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Decree
Completed Date:	09/16/1997
Comments:	Administrative consent order signed for the 3rd round of the cost recovery de minimus settlement. Settling parties contributed less than 1% of total drums recycled at the site.
Completed Area Name:	10th Street Land Management property
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Order
Completed Date:	01/23/2002
Comments:	DTSC signed Prospective Purchaser Agreement with 10th Street Land Management. Property will be used as a long-term storage yard for commercial and construction vehicles. Settling respondent to maintain site cap and enter into a land use covenant.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction - Site Inspection/Visit
Completed Date:	01/16/2008
Comments:	Not reported
Completed Area Name:	10th Street Land Management property
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction - Site Inspection/Visit
Completed Date:	11/16/2006
Comments:	Site inspection found compliance with land use covenant on 10th Street Land Management property.
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Feasibility Study Report
Future Due Date:	2016
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	01/01/1990
Global Id:	SL0608546934
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	37.31888
Longitude:	-121.864791
Case Type:	Cleanup Program Site
Case Worker:	MJD
Local Agency:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

RB Case Number: 43s1031
File Location: Not reported
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: * Solvents
Site History: No Water Board oversight of cleanup at this site. This case is included in Geotracker because the site is covered by the Water Boards NPDES general permits for discharges from pump and treat systems to surface waters (one each for fuels- and VOC-impacted sites). This can happen for two reasons: (i) the site is overseen by another agency (e.g., USEPA or DTSC) and needs coverage under one of the NPDES general permits or (ii) construction dewatering in an area of groundwater contamination necessitates NPDES general permit coverage. Including this case in Geotracker helps staff to receive and review required NPDES reports.

Click here to access the California GeoTracker records for this facility:

Calsite:
Region: BERKELEY
Facility ID: 43300026
Facility Type: NPRP
Type: NPL SITE, RP-FUNDED
Branch: NC
Branch Name: NORTH COAST
File Name: Not reported
State Senate District: 01011985
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Listed
SIC Code: 30
SIC Name: MANU - RUBBER & MISC PLASTICS PRODUCTS
Access: Controlled
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: TPARK
Supervisor Responsible for Site: Not reported
Region Water Control Board: SF
Region Water Control Board Name: SAN FRANCISCO BAY
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 23
State Senate District Code: 13
Facility ID: 43300026
Activity: PPP
Activity Name: PUBLIC PARTICIPATION PLAN
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 05301987
Est Person-Yrs to complete: 0
Estimated Size: Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	ISE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06301987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	ERA
Activity Name:	EXPEDITED RESPONSE ACTION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03301988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08301988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	B
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09301988
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09301989
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	DES
Activity Name:	DESIGN
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06281991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	GW- B
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03301992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	DESIGN AND CONSTRUCTION OF A SHALLOW GROUNDWATER SYSTEM, COMPOSING OFA TREATMENT BUILDING.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10071992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04221993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08261993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	DRUM
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10151993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	BLDGS
Proposed Budget:	0
AWP Completion Date:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Revised Due Date:	Not reported
Comments Date:	09301994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	1121
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	REMOVAL OF FIVE (5) BUILDINGS AND THE PROCESS EQUIPMENTS AND SCRAPWITHIN INCLUDING 17 SUMPS, 7 TANKS AND SEVERAL DEBRIS STOCKPILED.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	CAP
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09301994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	X
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	APPROXIMATELY 184,000 SQUARE FEET OF EXPOSED SOIL AND SUMP SURFACESWERE SEALED WITH OIL AND CHIP SEAL MATERIAL.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	DRUM
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09301994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Liquids Removed (Gals):	36
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	REMOVAL AND TREATMENT OF 1200 DRUMS. REMOVAL OF LIQUID AND SOLIDHAZARDOUS WASTES.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	SETTL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05231995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	SVE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09281998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	USEPA INSTALLED THE SVE SYSTEM AND WILL BE NEGOTIATING WITH RPSTO TAKE OVER OPERATION OF THE SYSTEM.

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	SETTL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09231996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SVE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05151998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	DES
Activity Name:	DESIGN
AWP Code:	CAP
Proposed Budget:	0

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05151998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	CAP
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09281998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	900
Liquids Treated (Gals):	0
Action Included Capping:	X
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	A ONE ACRE ASPHALT CAP WAS INSTALLED ON THE SITE.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	SETTL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09161997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	ESD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05211998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	AMEND
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03101998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Unknown Type:	0
Facility ID:	43300026
Activity:	DEED
Activity Name:	DEED RESTRICTIONS
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03062002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	PPA
Activity Name:	PROSPECTIVE PURCHASER AGREEMENT
AWP Code:	APPRO
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	01232002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	43300026
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	SOF
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03012002

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	1515 SOUTH 10TH STREET
Alternate City,St,Zip:	SAN JOSE, CA 95112
Background Info:	This facility operated as a drum reconditioning facility from 1946 to 1987. Drums containing solvents, pesticides, and other materials from numerous sources were cleaned, recoated and sold for reuse.
Comments Date:	01232002
Comments:	Approved the Prospective Purchaser Agreement.
Comments Date:	01272004
Comments:	Cost Recovery Settlement wiht the Primary Large Quantity
Comments Date:	01272004
Comments:	Generators. Court approved the settlement this date.
Comments Date:	03101998
Comments:	US EPA approved a ROD amendment for groundwater treatment
Comments Date:	03101998
Comments:	process.
Comments Date:	03301988
Comments:	Implemented an Expedited Response Action (ERA). The ERA
Comments Date:	03301988
Comments:	consisted of the following activities: drum inventory;
Comments Date:	03301988
Comments:	construction of decontamination facilities; removal of
Comments Date:	03301988
Comments:	polychlorinated biphenyl (PCB) contaminated pits, which were
Comments Date:	03301988
Comments:	later backfilled with clean soil and capped; removal, recycling,
Comments Date:	03301988
Comments:	or treatment of thousands of gallons of processed plant liquids;
Comments Date:	03301988
Comments:	removal of 15 tons of contaminated scrap; and designed a surface
Comments Date:	03301988
Comments:	water control plan, which were submitted to EPA for
Comments Date:	03301988
Comments:	implementation. EPA installed a chip seal over approximately
Comments Date:	03301988
Comments:	two thirds of a five-acre site. Demobilization occurred at the
Comments Date:	03301988
Comments:	end of March 1988. A total of 21,286 drums, 1,330 tons of scrap
Comments Date:	03301988
Comments:	metal, and 2,982 cubic yards of contaminated soil were removed
Comments Date:	03301988

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Comments:	from the site.
Comments Date:	03311992
Comments:	RA: Shallow groundwater pump and treatment system.
Comments Date:	04222005
Comments:	Cost Recovery Settlement with the Newark Group signed today.
Comments Date:	05211998
Comments:	US EPA approved an ESD for soil remediation process.
Comments Date:	05231995
Comments:	Effective date of the administrative order consent for de
Comments Date:	05231995
Comments:	minimis settlement on this site. The settlement pertains to 89
Comments Date:	05231995
Comments:	parties. Per the settlement, the parties are required to submit
Comments Date:	05231995
Comments:	payment into an escrow account within 120 days.
Comments Date:	06301987
Comments:	Determined Noncompliance with the RAO issued in February 1987.
Comments Date:	08261993
Comments:	EPA issued ROD for soil operable unit. The ROD covered the
Comments Date:	08261993
Comments:	soils/source remediation.
Comments Date:	08301988
Comments:	Completed FRIFS. Groundwater pump-and-treat system was an
Comments Date:	08301988
Comments:	effective method for remediating the shallow groundwater.
Comments Date:	09161997
Comments:	Effective date of the administrative consent order for the
Comments Date:	09161997
Comments:	3rd round of the cost recovery de minimus settlement.
Comments Date:	09161997
Comments:	Checks are to be submitted within the next 120 days.
Comments Date:	09231996
Comments:	Effective date of the administrative consent order for the
Comments Date:	09231996
Comments:	2nd round of cost recovery de minimus settlement. Checks
Comments Date:	09231996
Comments:	are to be submitted within the next 120 days.
Comments Date:	09281996
Comments:	EPA completed construction of asphalt cap and soil vapor
Comments Date:	09281996
Comments:	extraction system.
Comments Date:	09301988
Comments:	EPA issued ROD for GW operable unit.
Comments Date:	09301989
Comments:	EPA issued a Consent Decree with 11 PRP's to implement
Comments Date:	09301989
Comments:	groundwater remediation recommended by the ROD. In May 1989,
Comments Date:	09301989
Comments:	EPA conducted an investigation, identifying approximately 200
Comments Date:	09301989
Comments:	companies who had delivered drums and barrels to the former Drum
Comments Date:	09301989
Comments:	Recycling Facility.
Comments Date:	09301994
Comments:	EPA completed 3 separate removal actions. RA #1. Removal of 5
Comments Date:	09301994
Comments:	buildings and the process equipment and scrap within including

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Comments Date: 09301994
Comments: 17 sumps, 7 tanks and several debris stockpiled. At the end of
Comments Date: 09301994
Comments: this RA, 1033 tons of industrial wastes, 15 tons of liquid
Comments Date: 09301994
Comments: hazardous was and 73 tons of solid hazardous waste was shipped
Comments Date: 09301994
Comments: off-site for disposal. RA #2. Removal of 1200 drums, 150
Comments Date: 09301994
Comments: drums containing solvents, 350 drums containing debris and 23
Comments Date: 09301994
Comments: drums contain- ing ash and liquids. Removal of tanks, vats,
Comments Date: 09301994
Comments: sumps, and process equipment. Removal of 1.18 tons of asbestos
Comments Date: 09301994
Comments: containing building materials. RA #3. Paving of previously and
Comments Date: 09301994
Comments: newly exposed surface soil resulting from the above removal
Comments Date: 09301994
Comments: actions. Paving used a chip seal material. Approximately 4 and
Comments Date: 09301994
Comments: 1/4 acres were sealed.
Comments Date: 11292001
Comments: Signed Prospective Purchaser Agreement (PPA) with a prospective
Comments Date: 11292001
Comments: buyer.
ID Name: CALSTARS CODE
ID Value: 200061
ID Name: EPA IDENTIFICATION NUMBER
ID Value: CAD029295706
ID Name: BEP DATABASE PCODE
ID Value: P21039
Alternate Name: LORENTZ BARREL AND DRUM COMPANYLORENTZ BARREL & DRUM COMPANY10TH STREET LAND MANAGEMENT CORPORATION
Special Programs Code: MSCA
Special Programs Name: MULTI-SITE COOPERATIVE AGREEMENT

LIENS 2:
Facility name: LORENTZ BARREL & DRUM CO.
Facility address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA ID: CAD029295706
Effective date: Not reported
Lien: LP001
Party name: Not reported
Reg: 09
Release date: Not reported
Start date: 08/30/1989
Complete date: Not reported

DEED:
Envirostor ID: 43300026
Area: NEWARK GROUP PROPERTY
Sub Area: Not reported
Site Type: FEDERAL SUPERFUND
Status: ACTIVE

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 06/10/2005

Envirostor ID: 43300026
Area: 10TH STREET LAND MANAGEMENT PROPERTY
Sub Area: Not reported
Site Type: FEDERAL SUPERFUND
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 03/06/2002

RCRA NonGen / NLR:
Date form received by agency: 01/17/1995
Facility name: LORENTZ BARREL & DRUM CO INC
Facility address: 1515 S 10TH ST
SAN JOSE, CA 95112
EPA ID: CAD029295706
Mailing address: SANSOME ST
SAN FRANCISCO, CA 941113143
Contact: BRUCE KLAFTER
Contact address: 400 SANSOME ST
SAN FRANCISCO, CA 941113143
Contact country: US
Contact telephone: (415) 773-5576
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: LORENTZ ERNEST
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 03/01/1985
Date achieved compliance: 03/08/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 03/01/1985
Date achieved compliance: 03/08/1988
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 06/01/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/27/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/12/1985
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Evaluation date: 03/18/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/11/1985
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/01/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 03/08/1988
Evaluation lead agency: State

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

PRP:

PRP name:
A & B PAINTING, INC.
ADHESIVE CONSULTANTS
ADHESIVE CONSULTANTS CORP.
AERVOE PACIFIC
AERVOE PACIFIC
AJ DAW PRINTING INK CO
AJ RAISCH PAVING CO
ALAMEDA DEFENSE LOGISTICS FAC.
ALBUQUERQUE ENTERPRISES
ALCAL ROOFING
ALLGOOD INDUSTRIES
ALMADEN VINEYARDS, INC.
AMCHEM PRODUCTS, INC.
AMERICAN CAN CO
AMERICAN CONTRACTING
AMERICAN HOME FOODS
AMOCO
AMPEX CORP
AMSCO
ANACOMP
ANDERSON, R.R.
ANGRAY MERCHANDIZING CORP.
APACHE ENTERPRISE
APEX MARBLE, INC.
ARMOUR GROCERY PRODUCTS CO.
ARTESIA DOOR CO.
ARTESIA DOOR CO.
ASHLAND CHEMICAL CO
ASHLAND CHEMICAL COMPANY
ASHLAND CHEMICAL COMPANY
AUTO BODY SUPPLY WAREHOUSE, INC
B & W CHEMICAL, INC.
B & W CHEMICALS, INC.
B.W. NORTON MANUFACTURING CO.
BAY AREA PETROLEUM

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

BAYDAY CHEMICAL
BAYSIDE OIL CO.
BEATRICE FOODS CO.
BEECH NUT
BELL INDUSTRIES
BELVEDERE LABS
BILL MITCHELL DRUM
BOEHRINGER & MANNHEIM DIAGNOSTICS, INC.
BOISE CASCADE CORP
BORDEN, INC.
BRUCE CHURCH CO.
BRYANT CO., INC./ACS HOLDING CO., INC.
BUILDERS CABINET CO.
BURKE INDUSTRIES
BURKE INDUSTRIES CO.
CAL STONE
CALDO OIL CO.
CALIFORNIA CHEESE CO.
CALIFORNIA ROOFING CO., INC.
CALNAP TANNING CO.
CALRESIN CO.
CAPITOL PACKAGING
CASTLE SALES
CENTRAL COATING
CENTRAL SOLVENT-CHEMICAL

Click this hyperlink while viewing on your computer to access
308 additional PRP: record(s) in the EDR Site Report.

ICIS:

Enforcement Action ID:	09-2005-0079
FRS ID:	110002641954
Program ID:	RCRAINFO CAD029295706
Action Name:	LORENTZ BARREL AND DRUM
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST SAN JOSE, CA 95112
Enforcement Action Type:	Civil Judicial Action
Facility County:	SANTA CLARA
EPA Region #:	9

Enforcement Action ID:	09-2005-0079
FRS ID:	110002641954
Program ID:	HWTS-DATAMART CAD029295706
Action Name:	LORENTZ BARREL AND DRUM
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST SAN JOSE, CA 95112
Enforcement Action Type:	Civil Judicial Action
Facility County:	SANTA CLARA
EPA Region #:	9

Enforcement Action ID:	09-2005-0079

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

FRS ID: 110002641954
Program ID: FRS 110002641954
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2005-0079
FRS ID: 110002641954
Program ID: CERCLIS CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2005-0079
FRS ID: 110002641954
Program ID: RE-POWERING CAD029295706-18656
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2003-0005
FRS ID: 110002641954
Program ID: RE-POWERING CAD029295706-18656
Action Name: CALIFORNIA RESIN AND CHEMICAL (BANKRUPTCY)
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Bankruptcy
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2003-0005
FRS ID: 110002641954
Program ID: CERCLIS CAD029295706
Action Name: CALIFORNIA RESIN AND CHEMICAL (BANKRUPTCY)
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Bankruptcy
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2003-0005
FRS ID: 110002641954
Program ID: FRS 110002641954
Action Name: CALIFORNIA RESIN AND CHEMICAL (BANKRUPTCY)
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Bankruptcy
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2003-0005
FRS ID: 110002641954
Program ID: RCRAINFO CAD029295706
Action Name: CALIFORNIA RESIN AND CHEMICAL (BANKRUPTCY)
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Bankruptcy
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2003-0005
FRS ID: 110002641954
Program ID: HWTS-DATAMART CAD029295706
Action Name: CALIFORNIA RESIN AND CHEMICAL (BANKRUPTCY)
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Bankruptcy
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2002-0184
FRS ID: 110002641954
Program ID: CERCLIS CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

EPA Region #: 9

Enforcement Action ID: 09-2002-0184
FRS ID: 110002641954
Program ID: FRS 110002641954
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2002-0184
FRS ID: 110002641954
Program ID: HWTS-DATAMART CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2002-0184
FRS ID: 110002641954
Program ID: RCRAINFO CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2002-0184
FRS ID: 110002641954
Program ID: RE-POWERING CAD029295706-18656
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: Civil Judicial Action
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-2002-0034
FRS ID: 110002641954
Program ID: RE-POWERING CAD029295706-18656

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Action Name:	LORENTZ BARREL AND DRUM - PPA
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST SAN JOSE, CA 95112
Enforcement Action Type:	Prospective Purchaser Agreement
Facility County:	SANTA CLARA
EPA Region #:	9

Enforcement Action ID:	09-2002-0034
FRS ID:	110002641954
Program ID:	RCRAINFO CAD029295706
Action Name:	LORENTZ BARREL AND DRUM - PPA
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST SAN JOSE, CA 95112
Enforcement Action Type:	Prospective Purchaser Agreement
Facility County:	SANTA CLARA
EPA Region #:	9

Enforcement Action ID:	09-2002-0034
FRS ID:	110002641954
Program ID:	HWTS-DATAMART CAD029295706
Action Name:	LORENTZ BARREL AND DRUM - PPA
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST SAN JOSE, CA 95112
Enforcement Action Type:	Prospective Purchaser Agreement
Facility County:	SANTA CLARA
EPA Region #:	9

Enforcement Action ID:	09-2002-0034
FRS ID:	110002641954
Program ID:	CERCLIS CAD029295706
Action Name:	LORENTZ BARREL AND DRUM - PPA
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST SAN JOSE, CA 95112
Enforcement Action Type:	Prospective Purchaser Agreement
Facility County:	SANTA CLARA
EPA Region #:	9

Enforcement Action ID:	09-2002-0034
FRS ID:	110002641954
Program ID:	FRS 110002641954
Action Name:	LORENTZ BARREL AND DRUM - PPA
Full Address:	1515 S 10TH ST SAN JOSE CA 95112
State:	California
Facility Name:	LORENTZ BARREL & DRUM CO INC
Facility Address:	1515 S 10TH ST

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

SAN JOSE, CA 95112
Enforcement Action Type: Prospective Purchaser Agreement
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-1996-0028
FRS ID: 110002641954
Program ID: CERCLIS CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: CERCLA 122G Admin. Deminimis Cost Recov Settlement (Old)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-1996-0028
FRS ID: 110002641954
Program ID: FRS 110002641954
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: CERCLA 122G Admin. Deminimis Cost Recov Settlement (Old)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-1996-0028
FRS ID: 110002641954
Program ID: HWTS-DATAMART CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: CERCLA 122G Admin. Deminimis Cost Recov Settlement (Old)
Facility County: SANTA CLARA
EPA Region #: 9

Enforcement Action ID: 09-1996-0028
FRS ID: 110002641954
Program ID: RCRAINFO CAD029295706
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: CERCLA 122G Admin. Deminimis Cost Recov Settlement (Old)
Facility County: SANTA CLARA
EPA Region #: 9

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Enforcement Action ID: 09-1996-0028
FRS ID: 110002641954
Program ID: RE-POWERING CAD029295706-18656
Action Name: LORENTZ BARREL AND DRUM
Full Address: 1515 S 10TH ST SAN JOSE CA 95112
State: California
Facility Name: LORENTZ BARREL & DRUM CO INC
Facility Address: 1515 S 10TH ST
SAN JOSE, CA 95112
Enforcement Action Type: CERCLA 122G Admin. Deminimis Cost Recov Settlement (Old)
Facility County: SANTA CLARA
EPA Region #: 9

Program ID: CERCLIS CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110002641954
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: HWTS-DATAMART CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RCRAINFO CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING CAD029295706-18656
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: CERCLIS CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110002641954
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: HWTS-DATAMART CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RCRAINFO CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING CAD029295706-18656
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: CERCLIS CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110002641954
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: HWTS-DATAMART CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RCRAINFO CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING CAD029295706-18656
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: CERCLIS CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110002641954
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: HWTS-DATAMART CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RCRAINFO CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING CAD029295706-18656
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

NAIC Code: Not reported
SIC Code: Not reported

Program ID: CERCLIS CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110002641954
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: HWTS-DATAMART CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RCRAINFO CAD029295706
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING CAD029295706-18656
Facility Name: LORENTZ BARREL & DRUM CO INC
Address: 1515 S 10TH ST
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

CONSENT:
EPA ID: CAD029295706
Site ID: Not reported
Case Title: Not reported
Court Num: Not reported
District: Not reported
Entered Date: Not reported
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

FINDS:

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Registry ID: 110002641954

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

CORTESE:

Region:	CORTESE
Envirostor Id:	43300026
Site/Facility Type:	FEDERAL SUPERFUND - LISTED
Cleanup Status:	ACTIVE - LAND USE RESTRICTIONS
Status Date:	01/01/1985
Site Code:	200061
Latitude:	37.318644
Longitude:	-121.86554
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported

LORENTZ BARREL & DRUM CO. (Continued) **1000208886**

Waste Management Uit Name: Not reported

ECHO:
Envid: 1000208886
Registry ID: 110002641954
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002641954

20
SSE
< 1/8
0.094 mi.
497 ft.

SPARTAN CLEANERS **EDR Hist Cleaner** **1009132753**
398 S 5TH ST **N/A**
SAN JOSE, CA

Relative:
Higher

Actual:
95 ft.

EDR Historical Cleaners:
Name: SPARTAN CLEANERS
Year: 1960
Type: CLEANERS AND DYERS

21
SSW
< 1/8
0.099 mi.
521 ft.

ALVA J B **EDR Hist Cleaner** **1009133861**
368 S 4TH ST **N/A**
SAN JOSE, CA

Relative:
Higher

Actual:
94 ft.

EDR Historical Cleaners:
Name: ALVA J B
Year: 1922
Type: CLEANERS AND DYERS

B22
WSW
< 1/8
0.100 mi.
529 ft.

COLLEGE CLEANERS **EDR Hist Cleaner** **1009132701**
288 E SAN CARLOS ST **N/A**
SAN JOSE, CA

Site 1 of 2 in cluster B

Relative:
Lower

Actual:
92 ft.

EDR Historical Cleaners:
Name: COLLEGE CLEANERS
Year: 1940
Type: CLOTHES PRESSERS AND CLEANERS

Name: COLLEGE CLEANERS
Year: 1960
Type: CLEANERS AND DYERS

B23
WSW
< 1/8
0.101 mi.
531 ft.

HAYS P W — **EDR Hist Auto** — **1009001182**
260 E SAN CARLOS ST — **N/A**
SAN JOSE, CA

Site 2 of 2 in cluster B

Relative:
Lower

Actual:
92 ft.

EDR Historical Auto Stations:

Name:	CRONQUIST C F
Year:	1930
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	HAYS P W
Year:	1935
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	DAMICO REED
Year:	1940
Type:	GASOLINE AND OIL SERVICE STATIONS

24
NE
< 1/8
0.122 mi.
643 ft.

SJSU — **CA LUST** — **S102437633**
SAN CARLOS & 7TH — **CA HIST LUST** — **N/A**
SAN JOSE, CA 95192

Relative:
Lower

Actual:
92 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	07S1E08J03f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	7/20/1995
Pollution Characterization Began:	7/20/1995
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

HIST LUST SANTA CLARA:

Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	07S1E08J03
Oversite Agency:	SCVWD
Date Listed:	1995-12-22 00:00:00
Closed Date:	1998-08-27 00:00:00

C25 **AT&T MOBILITY CENTRAL SJ #116606** **CA SAN JOSE HAZMAT** **S115780698**
West **201 S 4TH ST SUITE CELL** **N/A**
1/8-1/4 **SAN JOSE, CA 95112**
0.125 mi.
661 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
91 ft.

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 601889
Class: Not reported

C26 **COLONNADE APARTMENTS, THE** **CA CUPA Listings** **S111076582**
West **201 S 4TH ST** **N/A**
1/8-1/4 **SAN JOSE, CA 95123**
0.125 mi.
661 ft. **Site 2 of 3 in cluster C**

Relative:
Lower

Actual:
91 ft.

CUPA SANTA CLARA:
Region: SANTA CLARA
PE#: BP01
Program Description: HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.333284
Longitude: -121.884499

C27 **THE COLONNADE** **CA SAN JOSE HAZMAT** **S105109161**
West **201 S 4TH ST SUITE HIRISE** **N/A**
1/8-1/4 **SAN JOSE, CA 95112**
0.125 mi.
661 ft. **Site 3 of 3 in cluster C**

Relative:
Lower

Actual:
91 ft.

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 403611
Class: Auto Wrecking/Misc Simple Facility

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28 **MISSION PAINTING** **RCRA-SQG** **1000382488**
WSW **330 S 3RD STREET** **FINDS** **CAD982481996**
1/8-1/4 **SAN JOSE, CA 95112** **ECHO**
0.148 mi.
782 ft.

Relative:
Higher

Actual:
93 ft.

RCRA-SQG:
Date form received by agency: 08/02/1988
Facility name: MISSION PAINTING
Facility address: 330 S 3RD STREET
SAN JOSE, CA 95112
EPA ID: CAD982481996
Mailing address: S THIRD STREET
SAN JOSE, CA 95112
Contact: ENVIRONMENTAL MANAGER
Contact address: 330 S THIRD STREET
SAN JOSE, CA 95112
Contact country: US
Contact telephone: (408) 295-5990
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator

MISSION PAINTING (Continued) **1000382488**

Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	PATRICK WEHNER
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002825738

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MISSION PAINTING (Continued) **1000382488**

ECHO:
Envid: 1000382488
Registry ID: 110002825738
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002825738

D29 **SPARTAN GAS STATION** **CA LUST S104162848**
South **498 4TH** **CA HIST CORTESE N/A**
1/8-1/4 **SAN JOSE, CA 95112**
0.198 mi.
1043 ft. **Site 1 of 2 in cluster D**

Relative:
Higher

Actual:
99 ft.

LUST:
Region: STATE
Global Id: T0608501344
Latitude: 37.3303788756706
Longitude: -121.881680488586
Case Type: LUST Cleanup Site
Status: Open - Site Assessment
Status Date: 12/27/1988
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: GOR
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: 14-049
LOC Case Number: 07S1E17B03f
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern: Benzene, Toluene, Xylene, Diesel, MTBE / TBA / Other Fuel Oxygenates, Gasoline
Site History: The Site is located at the north corner of the South Fourth Street and East William Street intersection within the City of San Jose . A small convenience store occupies the north portion of the Site and a remediation treatment plant occupies the east portion of the Site. Total petroleum hydrocarbons as gasoline (TPHg) and diesel fuel (TPHd) were initially detected in soil and groundwater beneath the Site during investigation activities in 1989. Since 1989, corrective action work including soil and groundwater investigations and remediation work has been performed under the direction of the local oversight agency (currently Santa Clara County Department of Environmental Health) and the Site has been assigned Fuel Leak Case No. 14-049. Investigation and remediation work completed to date include drilling of more than 40 soil borings, installation of 24 groundwater monitoring/extraction wells, and construction and operation of a remediation system. Investigative results indicate that the fuel leak originating from the Site contained a mixture of fuel-related compounds, including TPHg and methyl tertiary butyl ether (MTBE). While this mixture of dissolved TPHg and MTBE has advected down-gradient to the north-northeast, a TPHg plume without MTBE has been detected up- and cross-gradient to the southeast and east. The up- and cross-gradient TPHg contamination was attributed to Fuel Leak Case No. 14-049 and the local oversight agency required several stages of investigation work to characterize its lateral extent. At least six borings and nested wells MW-7A and MW-7B were installed southeast and east of the Site in order to characterize up- and cross-gradient contamination, and groundwater extraction well EW-4 was installed in order to control further migration of these cross-gradient contaminants. Possible Up-Gradient Source of Petroleum Hydrocarbon Contamination In 2004, Allterra hypothesized that the up-

SPARTAN GAS STATION (Continued) **S104162848**

and cross-gradient hydrocarbon contamination did not originate from the Site, but from an unidentified leaking UST located somewhere east to southeast of the Site. To evaluate the hypothesis, Allterra performed a historical survey of the area immediately southeast of the Site, as documented in Allterras March 31, 2005 Corrective Action Plan. A brief description of the rationale for this hypothesis is as follows: Up- and Cross-Gradient Groundwater Data: The fuel oxygenate MTBE is listed as a chemical of concern for Fuel Leak Case No. 14-049. As expected, MTBE has been detected in borings and wells down-gradient of the Site (north to northeast). However, while the TPHg-MTBE plume has migrated down-gradient, analytical data for up- and crossgradient samples indicate high levels of TPHg and non-detect levels of MTBE. A Gas Station Formerly Operated at 502 South Fourth Street: Interviews with residents in the surrounding neighborhood indicated that the apartment complex located at the east corner of the South Fourth Street and East William Street intersection (502 South Fourth Street) had been the former location of gasoline service station up until about 1960. The operation of a gas station at 502 South Fourth Street was verified after a review of (1) Polk Directories from 1940 and 1942 (Bob and Teds Station), (2) an 1954 aerial photograph, and (3) a 1950 Sanborn Map. Comparing the location of the former gas station at 502 South Fourth Street with the available groundwater data suggests that the TPHg contamination east and southeast of the Site originated from the former gas station. However, before proceeding with possible enforcement action, an additional stage of investigation was appropriate. Up-Gradient Source Investigation Activities The following is a discussion of investigation activities up-gradient of the Site, that included a series of five Geoprobe soil borings advanced through the sidewalk area along East William Street. The purpose of the investigation was to further characterize up- and cross-gradient hydrocarbon contamination that is suspected to be migrating from the former gas station located at 502 South Fourth Street. Rationale for Boring Locations Five Geoprobe borings, designated UB-1 through UB-5, were advanced through the sidewalk along the southeastern side of East William Street. The borings were aligned in a transect that began at the east corner of South Fourth and East William Streets and extended northeast toward South Fifth Street. Exact boring locations were determined in the field based on three considerations: 1) locations suspected to be directly down-gradient of the former gas station; 2) locations that would fill-in gaps in historical data; and 3) locations where drilling equipment was not constrained by physical barriers. An encroachment permit (Permit No. 3-16984) was obtained from the City of San Jose for installing borings in the public right-of-way. Soil and groundwater samples were submitted, under chain-of-custody protocol, for chemical analysis to McCampbell Analytical, Inc., of Pacheco, California, a state of California certified laboratory (ELAP #1644).

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501344
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND

SPARTAN GAS STATION (Continued) **S104162848**

Email: Not reported
Phone Number: Not reported

Global Id: T0608501344
Contact Type: Local Agency Caseworker
Contact Name: Gerald O'Regan
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 BERGER DRIVE STE 300
City: SAN JOSE
Email: gerald.o'regan@deh.sccgov.org
Phone Number: Not reported

Status History:
Global Id: T0608501344
Status: Open - Case Begin Date
Status Date: 12/02/1988

Global Id: T0608501344
Status: Open - Site Assessment
Status Date: 12/02/1988

Global Id: T0608501344
Status: Open - Site Assessment
Status Date: 12/27/1988

Regulatory Activities:
Global Id: T0608501344
Action Type: RESPONSE
Date: 03/20/2015
Action: Site Assessment Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/31/2003
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 01/15/1999
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 06/10/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 12/10/2002
Action: Other Report / Document

SPARTAN GAS STATION (Continued) **S104162848**

Global Id:	T0608501344
Action Type:	RESPONSE
Date:	09/17/1998
Action:	Soil and Water Investigation Workplan
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	10/15/1998
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	01/30/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	04/30/2003
Action:	Remedial Progress Report
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	10/19/1995
Action:	Soil and Water Investigation Report
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	10/30/2001
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	11/13/2001
Action:	Soil and Water Investigation Workplan
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	12/20/1995
Action:	Soil and Water Investigation Workplan
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	01/31/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	04/30/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	01/15/2000
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE

SPARTAN GAS STATION (Continued) **S104162848**

Date: 01/30/2003
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608501344
Action Type: RESPONSE
Date: 03/31/2005
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0608501344
Action Type: RESPONSE
Date: 12/15/2000
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 12/30/1999
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 11/10/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 02/08/2001
Action: Soil and Water Investigation Workplan

Global Id: T0608501344
Action Type: RESPONSE
Date: 02/08/2001
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 01/31/2001
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/30/2000
Action: Monitoring Report - Quarterly

SPARTAN GAS STATION (Continued) **S104162848**

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/13/1995
Action: Preliminary Site Assessment Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/15/1999
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 06/26/2015
Action: Clean Up Fund - Case Closure Review Summary Report (RSR)

Global Id: T0608501344
Action Type: RESPONSE
Date: 09/15/2001
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 06/20/2014
Action: Staff Letter

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/31/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 04/06/2011
Action: Staff Letter

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/10/2001
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/10/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 03/22/2002
Action: Soil and Water Investigation Workplan

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE

SPARTAN GAS STATION (Continued) **S104162848**

Date: 03/15/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 01/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 12/15/2005
Action: Staff Letter - #51215

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 08/24/2001
Action: Staff Letter - #25904

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 12/14/2001
Action: Staff Letter - #25916

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 10/01/2002
Action: Staff Letter - #40760

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 11/15/2004
Action: Staff Letter - #45913

Global Id: T0608501344
Action Type: REMEDIATION
Date: 09/08/2003
Action: Soil Vapor Extraction (SVE)

Global Id: T0608501344
Action Type: REMEDIATION
Date: 07/01/1998
Action: Free Product Removal

Global Id: T0608501344
Action Type: REMEDIATION
Date: 07/01/1998
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608501344
Action Type: REMEDIATION
Date: 07/01/1998
Action: Excavation

Global Id: T0608501344
Action Type: REMEDIATION
Date: 10/01/2002
Action: Pump & Treat (P&T) Groundwater

SPARTAN GAS STATION (Continued) **S104162848**

Global Id: T0608501344
Action Type: RESPONSE
Date: 01/15/2001
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 02/26/2002
Action: Soil and Water Investigation Workplan

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/31/2004
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 06/15/2000
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/15/2000
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 01/31/2005
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/31/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/15/2014
Action: Correspondence

Global Id: T0608501344
Action Type: RESPONSE
Date: 03/15/1999
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0608501344
Action Type: RESPONSE
Date: 12/15/1999
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/15/2000
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE

SPARTAN GAS STATION (Continued) **S104162848**

Date:	08/15/2000
Action:	Other Report / Document
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	09/15/2000
Action:	Other Report / Document
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	11/15/2000
Action:	Other Report / Document
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	01/15/2001
Action:	Other Report / Document
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	07/31/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	06/27/2003
Action:	Corrective Action Plan / Remedial Action Plan
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	01/31/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	06/26/2015
Action:	State Water Board Closure Order
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	06/26/2001
Action:	Staff Letter - #25894
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	09/11/2001
Action:	Staff Letter - #25900
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	01/18/2002
Action:	Staff Letter - #25918
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	01/29/2002
Action:	Staff Letter - #25920

SPARTAN GAS STATION (Continued) **S104162848**

Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	04/07/2003
Action:	Staff Letter - #41072
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	05/01/2004
Action:	Staff Letter - #44505
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	12/10/2014
Action:	Staff Letter
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	07/06/2015
Action:	Notification - Public Notice of Case Closure
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	06/26/2015
Action:	State Water Board Closure Order
Global Id:	T0608501344
Action Type:	Other
Date:	12/02/1988
Action:	Leak Discovery
Global Id:	T0608501344
Action Type:	Other
Date:	04/28/1989
Action:	Leak Reported
Global Id:	T0608501344
Action Type:	ENFORCEMENT
Date:	09/17/2009
Action:	Staff Letter - #9002719
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	08/10/2001
Action:	Other Report / Document
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	08/10/2001
Action:	Soil and Water Investigation Workplan
Global Id:	T0608501344
Action Type:	RESPONSE
Date:	11/30/1999
Action:	Soil and Water Investigation Report
Global Id:	T0608501344
Action Type:	RESPONSE

SPARTAN GAS STATION (Continued) **S104162848**

Date: 03/26/2001
Action: Soil and Water Investigation Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 06/15/2001
Action: Soil and Water Investigation Workplan

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 03/24/2016
Action: Staff Letter

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 11/13/2009
Action: Staff Letter

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/25/2014
Action: Request for Closure - Regulator Responded

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 05/25/2011
Action: Staff Letter

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 11/16/2015
Action: State Water Board Closure Order

Global Id: T0608501344
Action Type: RESPONSE
Date: 03/01/2001
Action: Soil and Water Investigation Workplan

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 11/16/2015
Action: State Water Board Closure Order

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 07/13/1995
Action: Staff Letter - #25811

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 07/21/1995
Action: Staff Letter - #25818

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 12/13/1995
Action: Staff Letter - #25814

SPARTAN GAS STATION (Continued) **S104162848**

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 03/01/1996
Action: Staff Letter - #25816

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 07/23/1998
Action: Staff Letter - #25822

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 08/31/1998
Action: Staff Letter - #25824

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 09/16/1998
Action: Staff Letter - #25826

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 01/19/1999
Action: Staff Letter - #25832

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 01/29/1999
Action: Staff Letter - #25830

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 09/01/1999
Action: Staff Letter - #25838

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 10/31/1999
Action: Staff Letter - #25840

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 11/15/1999
Action: Staff Letter - #25842

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 05/01/2000
Action: Staff Letter - #25858

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 05/31/2000
Action: Staff Letter - #25860

Global Id: T0608501344
Action Type: ENFORCEMENT

SPARTAN GAS STATION (Continued) **S104162848**

Date: 07/01/2000
Action: Staff Letter - #25862

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 08/01/2000
Action: Staff Letter - #25864

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 08/31/2000
Action: Staff Letter - #25866

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 10/01/2000
Action: Staff Letter - #25868

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 10/31/2000
Action: Staff Letter - #25870

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 12/01/2000
Action: Staff Letter - #25872

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 12/26/2000
Action: Staff Letter - #25876

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 01/10/2001
Action: Staff Letter - #25852

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 01/15/2001
Action: Staff Letter - #25874

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 02/06/2001
Action: Staff Letter - #25856

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 02/08/2001
Action: Staff Letter - #25854

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 05/01/2001
Action: Staff Letter - #25880

SPARTAN GAS STATION (Continued) **S104162848**

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 05/18/2001
Action: Staff Letter - #25888

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 06/08/2001
Action: * Historical Enforcement - #39824

Global Id: T0608501344
Action Type: ENFORCEMENT
Date: 06/22/2001
Action: Staff Letter - #25892

Global Id: T0608501344
Action Type: RESPONSE
Date: 06/30/2016
Action: Well Destruction Report - Regulator Responded

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/15/2000
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/31/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 09/10/2001
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 08/10/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/15/2000
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 09/10/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE

SPARTAN GAS STATION (Continued) **S104162848**

Date: 07/31/2004
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 12/15/1998
Action: Soil and Water Investigation Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/15/1996
Action: Remedial Progress Report

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/15/1999
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 04/15/1999
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/31/2004
Action: Monitoring Report - Quarterly

Global Id: T0608501344
Action Type: RESPONSE
Date: 07/10/2002
Action: Other Report / Document

Global Id: T0608501344
Action Type: RESPONSE
Date: 10/31/2004
Action: Monitoring Report - Quarterly

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1368

D30
South
1/8-1/4
0.199 mi.
1049 ft.

Relative:
Higher

Actual:
99 ft.

SPARTAN GAS STATION
498 S 4TH ST
SAN JOSE, CA 95112

Site 2 of 2 in cluster D

CA LUST **U001602644**
CA HIST LUST **N/A**
CA SWEEPS UST
CA HIST UST
CA CUPA Listings
CA SAN JOSE HAZMAT

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Pollution Characterization
Case Number: 07S1E17B03f

SPARTAN GAS STATION (Continued) **U001602644**

How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 12/2/1988
Pollution Characterization Began: 12/27/1988
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17B03F
Date Closed: Not reported
EDR Link ID: 07S1E17B03F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17B03
Oversite Agency: SCVWD
Date Listed: 1995-07-17 00:00:00
Closed Date: Not reported

SWEEPS UST:
Status: Active
Comp Number: 400569
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400569-000001
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 5

Status: Active
Comp Number: 400569
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400569-000002
Tank Status: A
Capacity: 10000
Active Date: Not reported

SPARTAN GAS STATION (Continued) **U001602644**

Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 400569
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400569-000003
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 400569
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400569-000004
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 400569
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400569-000005
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

SPARTAN GAS STATION (Continued) **U001602644**

HIST UST:

File Number:	00020921
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00020921.pdf
Region:	STATE
Facility ID:	00000005700
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	JOE HALEY
Telephone:	4082921041
Owner Name:	SPARTAN STATIONS INC
Owner Address:	1790 SO TENTH ST
Owner City,St,Zip:	SAN JOSE, CA 95112
Total Tanks:	0005
Tank Num:	001
Container Num:	15
Year Installed:	1978
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	16
Year Installed:	1978
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	17
Year Installed:	1978
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	18
Year Installed:	1978
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	19
Year Installed:	1978
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4

SPARTAN GAS STATION (Continued) **U001602644**

Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	2202
Program Description:	GENERATES < 100 KG/YR
Latitude:	37.323809
Longitude:	-121.896583

Region:	SANTA CLARA
PE#:	2399
Program Description:	UNDERGROUND STORAGE TANK PROGRAM RECORD
Latitude:	37.323809
Longitude:	-121.896583

Region:	SANTA CLARA
PE#:	BP01
Program Description:	HMBP FACILITY, 1-3 CHEMICALS
Latitude:	37.323809
Longitude:	-121.896583

SAN JOSE HAZMAT:

Region:	SAN JOSE
File Num:	400569
Class:	Gasoline Station

E31 **SAN CARLOS PLAZA / REN RENZEL** **RCRA NonGen / NLR** **1010312901**
WSW **300 SOUTH SECOND ST.** **CAC002589042**
1/8-1/4 **SAN JOSE, CA 95112**
0.214 mi.
1132 ft. **Site 1 of 3 in cluster E**

Relative:
Higher

Actual:
94 ft.

RCRA NonGen / NLR:

Date form received by agency:	02/15/2006
Facility name:	SAN CARLOS PLAZA / REN RENZEL
Facility address:	300 SOUTH SECOND ST. SAN JOSE, CA 95112
EPA ID:	CAC002589042
Mailing address:	PO BOX 366 SAN JOSE, CA 95103
Contact:	REN H RENZEL
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(408) 251-6887
Contact email:	RENZEL3@EARTHLINK.NET
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	REN RENZEL - TENANT IN COMMON
Owner/operator address:	PO BOX 366 SAN JOSE, CA 95103

SAN CARLOS PLAZA / REN RENZEL (Continued) **1010312901**

Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2003
Owner/Op end date: Not reported

Owner/operator name: REN RENZEL
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 06/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

E32 **GENUITY** **CA AST** **A100338883**
WSW **300 S 2ND ST** **N/A**
1/8-1/4 **SAN JOSE, CA**
0.214 mi.
1132 ft. **Site 2 of 3 in cluster E**

Relative:
Higher

Actual:
94 ft.

AST:
Certified Unified Program Agencies: Santa Clara County
Owner: GENUITY
Total Gallons: 10,000

E33 **TECH SHOP SAN JOSE LLC** **CA CUPA Listings** **S104581346**
WSW **300 S 2ND ST** **CA SAN JOSE HAZMAT** **N/A**
1/8-1/4 **SAN JOSE, CA 95113**
0.214 mi.
1132 ft. **Site 3 of 3 in cluster E**

Relative:
Higher

Actual:
94 ft.

CUPA SANTA CLARA:
Region: SANTA CLARA
PE#: 2202
Program Description: GENERATES < 100 KG/YR
Latitude: 37.331820
Longitude: -121.885566

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 601094
Class: Auto Wrecking/Misc Simple Facility

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34 **YWCA OF SILICON VALLEY** **CA CUPA Listings** **S105990148**
SW **350 S 2ND ST** **CA SAN JOSE HAZMAT** **N/A**
1/8-1/4 **SAN JOSE, CA 95112**
0.223 mi.
1177 ft.

Relative:
Higher

Actual:
96 ft.

CUPA SANTA CLARA:
Region: SANTA CLARA
PE#: BP01
Program Description: HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.331465
Longitude: -121.884427

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 401152
Class: Auto Wrecking/Misc Simple Facility

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35 **SJSU** **CA LUST** **S110655410**
North **SAN CARLOS & 7TH** **N/A**
1/8-1/4 **SAN JOSE, CA 95192**
0.249 mi.
1314 ft.

Relative:
Lower

Actual:
89 ft.

LUST:
Region: STATE
Global Id: T0608502106
Latitude: 37.3368112921884
Longitude: -121.882588156412
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/27/1998
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)

SJSU (Continued) **S110655410**

Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608502106
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608502106
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608502106
Status: Completed - Case Closed
Status Date: 08/27/1998

Global Id: T0608502106
Status: Open - Case Begin Date
Status Date: 07/20/1995

Global Id: T0608502106
Status: Open - Site Assessment
Status Date: 07/20/1995

Regulatory Activities:
Global Id: T0608502106
Action Type: RESPONSE
Date: 08/27/1998
Action: Other Report / Document

Global Id: T0608502106
Action Type: ENFORCEMENT
Date: 08/27/1998
Action: Closure/No Further Action Letter

Global Id: T0608502106
Action Type: ENFORCEMENT
Date: 12/22/1995
Action: Notice of Responsibility - #39878

Global Id: T0608502106
Action Type: Other
Date: 12/18/1995
Action: Leak Reported

SJSU (Continued) **S110655410**

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08J03F
Date Closed: 08/27/1998
EDR Link ID: 07S1E08J03F

36
ENE
1/8-1/4
0.249 mi.
1317 ft.

SAN JOSE CO GENERATION **RCRA-SQG** **1000121107**
9TH & SAN CARLOS **CAD982478828**
SAN JOSE, CA 95150

Relative:
Higher

Actual:
93 ft.

RCRA-SQG:
Date form received by agency: 06/21/1988
Facility name: SAN JOSE CO GENERATION
Facility address: 9TH & SAN CARLOS
SAN JOSE, CA 95150
EPA ID: CAD982478828
Mailing address: PO BOX 5338
SAN JOSE, CA 95150
Contact: ENVIRONMENTAL MANAGER
Contact address: 9TH & SAN CARLOS
SAN JOSE, CA 95150
Contact country: US
Contact telephone: (408) 287-1186
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: UNION BANK
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

SAN JOSE CO GENERATION (Continued) **1000121107**

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

37
NW
1/4-1/2
0.252 mi.
1328 ft.

SAN ANTONIO PLAZA **CA LUST** **S106162332**
UNKNOWN SAN FERNANDO & 4TH ST **N/A**
SAN JOSE, CA 95112

Relative:
Lower

Actual:
87 ft.

LUST:

Region:	STATE
Global Id:	T0608501647
Latitude:	37.336
Longitude:	-121.8851
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/17/1992
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Case Worker:	UUU
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	43-1706
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501647
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608501647
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300

SAN ANTONIO PLAZA (Continued) **S106162332**

City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501647
Status: Completed - Case Closed
Status Date: 08/17/1992

Global Id: T0608501647
Status: Open - Case Begin Date
Status Date: 03/20/1992

Regulatory Activities:
Global Id: T0608501647
Action Type: Other
Date: 03/20/1992
Action: Leak Discovery

Global Id: T0608501647
Action Type: Other
Date: 03/20/1992
Action: Leak Reported

Global Id: T0608501647
Action Type: Other
Date: 03/20/1992
Action: Leak Stopped

LUST REG 2:
Region: 2
Facility Id: 43-1706
Facility Status: Case Closed
Case Number: 43-1706
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

F38
WNW
1/4-1/2
0.273 mi.
1442 ft.

PASEO VILLAS
130 E SAN FERNANDO
SAN JOSE, CA 95113

Site 1 of 3 in cluster F

CA LUST **S103981097**
CA HIST LUST **N/A**

Relative:
Lower

Actual:
88 ft.

LUST:

Region:	STATE
Global Id:	T0608502417
Latitude:	37.335072
Longitude:	-121.887536
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/19/2002
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608502417
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608502417
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608502417
Status:	Completed - Case Closed
Status Date:	04/19/2002

Global Id:	T0608502417
Status:	Open - Case Begin Date
Status Date:	09/15/1998

Global Id:	T0608502417
Status:	Open - Site Assessment
Status Date:	09/15/1998

PASEO VILLAS (Continued) **S103981097**

Regulatory Activities:

Global Id:	T0608502417
Action Type:	ENFORCEMENT
Date:	05/05/2000
Action:	Staff Letter - #26798
Global Id:	T0608502417
Action Type:	ENFORCEMENT
Date:	09/14/1999
Action:	Staff Letter - #26976
Global Id:	T0608502417
Action Type:	ENFORCEMENT
Date:	12/04/1999
Action:	Staff Letter - #26978
Global Id:	T0608502417
Action Type:	REMEDIATION
Date:	05/24/1999
Action:	Excavation
Global Id:	T0608502417
Action Type:	Other
Date:	05/24/1999
Action:	Leak Reported
Global Id:	T0608502417
Action Type:	RESPONSE
Date:	06/15/2000
Action:	Soil and Water Investigation Workplan
Global Id:	T0608502417
Action Type:	RESPONSE
Date:	10/29/1999
Action:	Soil and Water Investigation Workplan
Global Id:	T0608502417
Action Type:	RESPONSE
Date:	02/07/2000
Action:	Preliminary Site Assessment Report

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	07S1E08K05f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	9/15/1998
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported

PASEO VILLAS (Continued) **S103981097**

Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08K05F
Date Closed: 04/19/2002
EDR Link ID: 07S1E08K05F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08K05
Oversite Agency: SCVWD
Date Listed: 1999-09-07 00:00:00
Closed Date: 2002-04-19 00:00:00

39
WSW
1/4-1/2
0.274 mi.
1447 ft.

VALLEY TITLE COMPANY
300 SOUTH FIRST STREET
SAN JOSE, CA 95113

CA LUST **S110326493**
CA SLIC **N/A**

Relative:
Higher

Actual:
96 ft.

LUST:

Region:	STATE
Global Id:	T10000002005
Latitude:	37.3315902758801
Longitude:	-121.886556744576
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/03/2011
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	14-806
LOC Case Number:	07S1E08P02f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Underground heating oil tank located within the basement of the building. In 1992, a water main/line ruptured near this building and flooded the basement. The flooding caused the product to come out of the tank. The tank was taken out of service and the tank was left in place. Subsurface investigation conducted in 2010 found soil and groundwater contamination. The UST will be properly closed in place.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000002005
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

VALLEY TITLE COMPANY (Continued) **S110326493**

Status History:

Global Id:	T10000002005
Status:	Completed - Case Closed
Status Date:	05/06/2010
Global Id:	T10000002005
Status:	Completed - Case Closed
Status Date:	06/03/2011
Global Id:	T10000002005
Status:	Open - Case Begin Date
Status Date:	10/01/1992
Global Id:	T10000002005
Status:	Open - Site Assessment
Status Date:	05/06/2010

Regulatory Activities:

Global Id:	T10000002005
Action Type:	RESPONSE
Date:	10/18/2010
Action:	Other Report / Document
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	08/16/2010
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T10000002005
Action Type:	ENFORCEMENT
Date:	05/06/2010
Action:	Notice of Responsibility
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	04/29/2011
Action:	Electronic Reporting Submittal Due
Global Id:	T10000002005
Action Type:	Other
Date:	10/01/1992
Action:	Leak Began
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	07/02/2007
Action:	Preliminary Site Assessment Report
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	03/25/2011
Action:	Correspondence
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	04/04/2011

VALLEY TITLE COMPANY (Continued) **S110326493**

Action:	Soil and Water Investigation Report
Global Id:	T10000002005
Action Type:	ENFORCEMENT
Date:	07/29/2010
Action:	Staff Letter
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	04/15/2011
Action:	Correspondence
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	04/15/2011
Action:	Other Report / Document
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	05/14/2010
Action:	Soil and Water Investigation Report
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	05/14/2010
Action:	Correspondence
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	07/28/2010
Action:	Other Workplan
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	08/18/2010
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T10000002005
Action Type:	ENFORCEMENT
Date:	03/02/2011
Action:	Staff Letter
Global Id:	T10000002005
Action Type:	RESPONSE
Date:	12/31/2010
Action:	Preliminary Site Assessment Report
Global Id:	T10000002005
Action Type:	Other
Date:	03/15/2010
Action:	Leak Discovery
Global Id:	T10000002005
Action Type:	Other
Date:	04/28/2010
Action:	Leak Reported

VALLEY TITLE COMPANY (Continued) **S110326493**

Global Id: T10000002005
Action Type: ENFORCEMENT
Date: 06/03/2011
Action: Closure/No Further Action Letter

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08P02F
Date Closed: 06/03/2011
EDR Link ID: 07S1E08P02F

SLIC:
Region: STATE
Facility Status: Open - Inactive
Status Date: 11/19/2015
Global Id: T10000008025
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.33137
Longitude: -121.88655
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 43S0320
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Soil
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon, Total Petroleum Hydrocarbons (TPH)
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

F40 **SAN JOSE GAS WORKS** **EDR MGP** **1008407765**
NW **E. SAN FERNANDO AND S. 4TH** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.274 mi.
1449 ft. **Site 2 of 3 in cluster F**

Relative:
Lower

Actual:
87 ft.

Manufactured Gas Plants:
Alternate Name:SAN JOSE LIGHT AND POWER CO. No additional information available

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G41 **SAN ANTONIO PLAZA REDEVELOPMT.** **CA LUST** **S103881015**
NW **SAN FERNANDO & 4TH ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95118**
0.278 mi.
1470 ft. **Site 1 of 4 in cluster G**

Relative:
Lower

Actual:
87 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08K01f

SAN ANTONIO PLAZA REDEVELOPMT. (Continued) **S103881015**

How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08K01F
Date Closed: 08/17/1992
EDR Link ID: 07S1E08K01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08K01
Oversite Agency: SCVWD
Date Listed: 1993-01-01 00:00:00
Closed Date: 1992-08-17 00:00:00

G42 **SAN ANTONIO PLAZA BLOCK 4** **CA HIST CORTESE** **S105026308**
NW **W. SAN FERNANDO ST & 4TH** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.279 mi.
1471 ft. **Site 2 of 4 in cluster G**

Relative:
Lower

Actual:
87 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: CALSI
Reg Id: 43490065

G43 **SAN ANTONIO PLAZA BLOCK 4 NORTH** **CA ENVIROSTOR** **S106568336**
NW **WEST SAN FERNANDO ST & 4TH STREET** **CA VCP** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.279 mi.
1471 ft. **Site 3 of 4 in cluster G**

Relative:
Lower

Actual:
87 ft.

ENVIROSTOR:
Facility ID: 43490065
Status: Certified
Status Date: 06/26/1995
Site Code: 200528
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 1.7
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP

SAN ANTONIO PLAZA BLOCK 4 NORTH (Continued) **S106568336**

Program Manager: Not reported
Supervisor: Barbara Cook
Division Branch: Cleanup Berkeley
Assembly: 27
Senate: 15
Special Program: Voluntary Cleanup Program
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.33555
Longitude: -121.8861
APN: NONE SPECIFIED
Past Use: MANUFACTURED GAS PLANT
Potential COC: Polynuclear aromatic hydrocarbons (PAHs
Confirmed COC: Polynuclear aromatic hydrocarbons (PAHs
Potential Description: SOIL
Alias Name: BLOCK FOUR:ANTONIO PLAZA
Alias Type: Alternate Name
Alias Name: 110033609021
Alias Type: EPA (FRS #)
Alias Name: 200528
Alias Type: Project Code (Site Code)
Alias Name: 43490065
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/26/1995
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 06/30/1994
Comments: Completed RIFS.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/20/1992
Comments: Completed Site Screening.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Voluntary Cleanup Agreement Completion
Completed Date: 06/30/1995
Comments: Completed PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/26/1995
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

SAN ANTONIO PLAZA BLOCK 4 NORTH (Continued) **S106568336**

Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/25/1994
Comments: Signed a VCA

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 43490065
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.7
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Barbara Cook
Division Branch: Cleanup Berkeley
Site Code: 200528
Assembly: 27
Senate: 15
Special Programs Code: Voluntary Cleanup Program
Status: Certified
Status Date: 06/26/1995
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.33555 / -121.8861
APN: NONE SPECIFIED
Past Use: MANUFACTURED GAS PLANT
Potential COC: 30019
Confirmed COC: 30019
Potential Description: SOIL
Alias Name: BLOCK FOUR:ANTONIO PLAZA
Alias Type: Alternate Name
Alias Name: 110033609021
Alias Type: EPA (FRS #)
Alias Name: 200528
Alias Type: Project Code (Site Code)
Alias Name: 43490065
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/26/1995
Comments: Not reported

SAN ANTONIO PLAZA BLOCK 4 NORTH (Continued) **S106568336**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	06/30/1994
Comments:	Completed RIFS.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	10/20/1992
Comments:	Completed Site Screening.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	*Voluntary Cleanup Agreement Completion
Completed Date:	06/30/1995
Comments:	Completed PEA.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	06/26/1995
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	10/25/1994
Comments:	Signed a VCA
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

G44 **SAN ANTONIO PLAZA REDEVELOPMT.** **CA LUST** **S110655425**
NW **SAN FERNANDO & 4TH ST** **N/A**
1/4-1/2 **SAN JOSE, CA 95118**
0.279 mi.
1471 ft. **Site 4 of 4 in cluster G**

Relative:
Lower

Actual:
87 ft.

LUST:

Region:	STATE
Global Id:	T0608502303
Latitude:	37.3357873705874
Longitude:	-121.886765956879
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/17/1992
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported

SAN ANTONIO PLAZA REDEVELOPMT. (Continued) **S110655425**

LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Soil
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608502303
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608502303
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608502303
Status: Completed - Case Closed
Status Date: 08/17/1992

Global Id: T0608502303
Status: Open - Case Begin Date
Status Date: 07/18/1992

Regulatory Activities:
Global Id: T0608502303
Action Type: RESPONSE
Date: 12/11/1989
Action: Other Report / Document

Global Id: T0608502303
Action Type: Other
Date: 07/18/1992
Action: Leak Reported

Global Id: T0608502303
Action Type: ENFORCEMENT
Date: 08/17/1992
Action: Closure/No Further Action Letter

F45
WNW
1/4-1/2
0.289 mi.
1525 ft.

REDEVELOPMENT BLOCK 4
UNKNOWN PARCELS 2 & 3
SAN JOSE, CA 95113

Site 3 of 3 in cluster F

CA SLIC **S106162483**
N/A

Relative:
Lower

Actual:
88 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	12/10/2015
Global Id:	T0608591637
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	37.3349252912854
Longitude:	-121.886014846558
Case Type:	Cleanup Program Site
Case Worker:	UUU
Local Agency:	Not reported
RB Case Number:	43S0381
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	* Solvents
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:

Region:	2
Facility ID:	43S0381
Facility Status:	Remedial action (cleanup) Underway
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Tank Closure
Leak Cause:	UNK
Leak Source:	UNK
Date Confirmed:	Not reported
Date Prelim Site Assmnt Workplan Submitted:	Not reported
Date Preliminary Site Assessment Began:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	6/19/1992
Date Post Remedial Action Monitoring Began:	Not reported

46
NW
1/4-1/2
0.308 mi.
1624 ft.

FOREST CITY DEVELOPMENT
101 SAN FERNANDO AVE.
SAN JOSE, CA 95113

CA LUST **S103964733**
CA HIST LUST **N/A**

Relative:
Lower

Actual:
87 ft.

LUST:

Region:	STATE
Global Id:	T0608502387
Latitude:	37.335309
Longitude:	-121.887034
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/10/2014
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	AC

FOREST CITY DEVELOPMENT (Continued) **S103964733**

Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	14-496
LOC Case Number:	07S1E08L06f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	1997 - Groundwater Monitoring and Soil Sampling for Proposed Construction 1998 Groundwater Monitoring and Soil Sampling for Proposed Construction. Abandoned tank discovered. UST Closure Permit Application filed. UST removed and destroyed. 1998-1999 Soil over-excavated beneath UST and across entire site for construction purposes 2009 Summary of available information submitted to DEH in response to additional soil and groundwater information request

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608502387
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608502387
Contact Type:	Local Agency Caseworker
Contact Name:	AARON COSTA
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	aaron.costa@deh.sccgov.org
Phone Number:	4089181954

Status History:

Global Id:	T0608502387
Status:	Completed - Case Closed
Status Date:	12/10/2014

Global Id:	T0608502387
Status:	Open - Case Begin Date
Status Date:	09/28/1998

Global Id:	T0608502387
Status:	Open - Eligible for Closure
Status Date:	07/01/2013

Global Id:	T0608502387
Status:	Open - Site Assessment
Status Date:	09/29/1998

Regulatory Activities:

Global Id:	T0608502387
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Other Report / Document - Regulator Responded

FOREST CITY DEVELOPMENT (Continued) **S103964733**

Global Id: T0608502387
Action Type: ENFORCEMENT
Date: 09/30/2014
Action: Notification - Public Notice of Case Closure

Global Id: T0608502387
Action Type: ENFORCEMENT
Date: 11/09/2007
Action: Staff Letter - #700911

Global Id: T0608502387
Action Type: ENFORCEMENT
Date: 12/10/2014
Action: Closure/No Further Action Letter

Global Id: T0608502387
Action Type: Other
Date: 01/29/1999
Action: Leak Discovery

Global Id: T0608502387
Action Type: Other
Date: 09/28/1998
Action: Leak Reported

Global Id: T0608502387
Action Type: ENFORCEMENT
Date: 07/13/2012
Action: Staff Letter

Global Id: T0608502387
Action Type: Other
Date: 01/29/1999
Action: Leak Stopped

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Preliminary site assessment underway
Case Number: 07S1E08L06f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 9/29/1998
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L06F

FOREST CITY DEVELOPMENT (Continued) **S103964733**

Date Closed: Not reported
EDR Link ID: 07S1E08L06F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08L06
Oversite Agency: SCCDEH
Date Listed: 1999-05-04 00:00:00
Closed Date: Not reported

H47 **FOX CALIFORNIA THEATER** **CA LUST S105193425**
WSW **345 S 1ST ST** **CA HIST LUST N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.308 mi.
1628 ft. **Site 1 of 3 in cluster H**

Relative:
Higher

Actual:
98 ft.

LUST:

Region:	STATE
Global Id:	T0608504232
Latitude:	37.330557
Longitude:	-121.88735
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/07/2002
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608504232
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608504232
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

FOX CALIFORNIA THEATER (Continued) **S105193425**

Global Id: T0608504232
Status: Completed - Case Closed
Status Date: 02/07/2002

Global Id: T0608504232
Status: Open - Case Begin Date
Status Date: 08/23/2001

Global Id: T0608504232
Status: Open - Site Assessment
Status Date: 08/23/2001

Regulatory Activities:
Global Id: T0608504232
Action Type: RESPONSE
Date: 11/09/2001
Action: Verbal Communication

Global Id: T0608504232
Action Type: RESPONSE
Date: 10/08/2007
Action: Well Destruction Report

Global Id: T0608504232
Action Type: RESPONSE
Date: 11/09/2001
Action: Request for Closure

Global Id: T0608504232
Action Type: RESPONSE
Date: 09/04/2001
Action: Unauthorized Release Form

Global Id: T0608504232
Action Type: RESPONSE
Date: 09/26/2001
Action: Tank Removal Report / UST Sampling Report

Global Id: T0608504232
Action Type: RESPONSE
Date: 04/19/1994
Action: Other Report / Document

Global Id: T0608504232
Action Type: RESPONSE
Date: 12/12/2002
Action: Monitoring Report - Quarterly

Global Id: T0608504232
Action Type: REMEDIATION
Date: 08/23/2001
Action: Excavation

Global Id: T0608504232
Action Type: Other
Date: 09/04/2001
Action: Leak Reported

FOX CALIFORNIA THEATER (Continued) **S105193425**

Global Id: T0608504232
Action Type: ENFORCEMENT
Date: 02/15/2002
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08P01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/23/2001
Pollution Characterization Began: 8/23/2001
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08P01F
Date Closed: 02/07/2002
EDR Link ID: 07S1E08P01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08P01
Oversite Agency: SCVWD
Date Listed: 2001-12-19 00:00:00
Closed Date: 2002-02-07 00:00:00

---

48 **HEART OF THE CITY - BLOCK 3** **CA SLIC** **S108937594**
WNW **100 SOUTH SECOND STREET** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.315 mi.
1664 ft.

Relative:
Lower

Actual:
90 ft.

SLIC:
Region: STATE
Facility Status: **Open - Inactive**
Status Date: 09/15/2015
Global Id: SL0608548367
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.33481
Longitude: -121.888049
Case Type: Cleanup Program Site
Case Worker: DIB
Local Agency: Not reported
RB Case Number: 43S1109

HEART OF THE CITY - BLOCK 3 (Continued) **S108937594**

File Location: Regional Board
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: * Petroleum - Automotive gasolines, * Solvents, Stoddard solvent / Mineral Spriits / Distillates
Site History: Development of site is in two phases. Phase I is complete. About one half of the site is included in Phase 1. Phase 1 was excavated to 30-40 feet and dewatered during construction. Contaminated soil and groundwater were handled in accordance with an approved RAP. An nfa letter was issued for the Phase 1 portion of the site. Phase 2 is currently a parking lot. A RAP was being developed for Phase 2 prior to the elimination of the redevelopment agency. Currently the site R.P. for the Phase 2 portion of the site is the Sucessor Agency to the San Jose Redevelopment Agency.

Click here to access the California GeoTracker records for this facility:

H49 **DOHRMAN BUILDING** **CA LUST S103881044**
WSW **325 S 1ST ST** **CA HIST LUST N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.316 mi.
1670 ft. **Site 2 of 3 in cluster H**

Relative:
Higher

Actual:
98 ft.

LUST:
Region: STATE
Global Id: T0608502304
Latitude: 37.330987
Longitude: -121.886857
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/02/1995
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Soil
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608502304
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608502304
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE

DOHRMAN BUILDING (Continued) **S103881044**

Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608502304
Status: Completed - Case Closed
Status Date: 02/02/1995

Global Id: T0608502304
Status: Open - Case Begin Date
Status Date: 01/01/1989

Regulatory Activities:
Global Id: T0608502304
Action Type: Other
Date: 01/01/1989
Action: Leak Reported

Global Id: T0608502304
Action Type: RESPONSE
Date: 01/01/1989
Action: Other Report / Document

Global Id: T0608502304
Action Type: RESPONSE
Date: 01/01/1989
Action: Other Report / Document

Global Id: T0608502304
Action Type: RESPONSE
Date: 01/01/1989
Action: Other Report / Document

Global Id: T0608502304
Action Type: ENFORCEMENT
Date: 02/02/1995
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E17C04f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

DOHRMAN BUILDING (Continued) **S103881044**

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17C04F
Date Closed: 02/02/1995
EDR Link ID: 07S1E17C04F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17C04
Oversite Agency: SCVWD
Date Listed: 1990-11-26 00:00:00
Closed Date: 1995-02-02 00:00:00

H50 **DOHRMANN ASSOCIATES** **CA HIST CORTESE** **S103960913**
WSW **325 1ST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.316 mi.
1670 ft. **Site 3 of 3 in cluster H**

Relative:
Higher

Actual:
98 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0476

I51 **TEXACO** **CA LUST** **S105512917**
NW **78 S 4TH ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.330 mi.
1742 ft. **Site 1 of 2 in cluster I**

Relative:
Lower

Actual:
87 ft.

LUST:
Region: STATE
Global Id: T0608501328
Latitude: 37.336598
Longitude: -121.885409
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/21/1999
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608501328
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board

TEXACO (Continued) **S105512917**

Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608501328
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501328
Status: Completed - Case Closed
Status Date: 10/21/1999

Global Id: T0608501328
Status: Open - Case Begin Date
Status Date: 01/31/1990

Global Id: T0608501328
Status: Open - Remediation
Status Date: 08/31/1993

Global Id: T0608501328
Status: Open - Site Assessment
Status Date: 03/27/1990

Global Id: T0608501328
Status: Open - Site Assessment
Status Date: 01/24/1991

Regulatory Activities:
Global Id: T0608501328
Action Type: RESPONSE
Date: 01/21/1999
Action: Other Report / Document

Global Id: T0608501328
Action Type: RESPONSE
Date: 10/04/1994
Action: Other Report / Document

Global Id: T0608501328
Action Type: ENFORCEMENT
Date: 07/23/1991
Action: Notice of Violation - #39883

Global Id: T0608501328
Action Type: ENFORCEMENT
Date: 01/05/1996
Action: Staff Letter - #26688

TEXACO (Continued) **S105512917**

Global Id: T0608501328
Action Type: ENFORCEMENT
Date: 03/03/1997
Action: Staff Letter - #26694

Global Id: T0608501328
Action Type: REMEDIATION
Date: 08/31/1993
Action: Excavation

Global Id: T0608501328
Action Type: REMEDIATION
Date: 08/31/1993
Action: Excavation

Global Id: T0608501328
Action Type: Other
Date: 01/31/1990
Action: Leak Reported

Global Id: T0608501328
Action Type: RESPONSE
Date: 03/25/1997
Action: Soil and Water Investigation Report

Global Id: T0608501328
Action Type: RESPONSE
Date: 09/06/1996
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0608501328
Action Type: ENFORCEMENT
Date: 10/21/1999
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08L03f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/27/1990
Pollution Characterization Began: 1/24/1991
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 8/31/1993
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2

TEXACO (Continued) **S105512917**

SCVWD ID: 07S1E08L03
Oversite Agency: SCVWD
Date Listed: 1991-01-01 00:00:00
Closed Date: 1999-10-21 00:00:00

I52 **TEXACO** **CA LUST** **U001602686**
NW **78 S 4TH ST** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.330 mi.
1742 ft. **Site 2 of 2 in cluster I**

Relative:
Lower

Actual:
87 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L03F
Date Closed: 10/21/1999
EDR Link ID: 07S1E08L03F

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53 **MARKET PLACE** **CA HIST CORTESE** **S105026312**
SW **439 1ST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.334 mi.
1763 ft.

Relative:
Higher

Actual:
99 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 2930

J54 **PETE'S STOP INC.** **CA LUST** **S109285938**
East **447 EAST WILLIAM STREET** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.348 mi.
1839 ft. **Site 1 of 3 in cluster J**

Relative:
Higher

Actual:
97 ft.

LUST:
Region: STATE
Global Id: T0608501689
Latitude: 37.3331258255365
Longitude: -121.875650882721
Case Type: LUST Cleanup Site
Status: Open - Remediation
Status Date: 07/28/2014
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: AC
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: 14-662
LOC Case Number: 07S1E09N01f
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Aquifer used for drinking water supply, Soil
Potential Contaminants of Concern: Benzene, Toluene, Xylene, MTBE / TBA / Other Fuel Oxygenates, Gasoline
Site History: Investigation at this site began in April 1986, when gasoline-contaminated soil and groundwater were sampled by Soil Tech Engineering (STE) while installing three monitoring wells in the vicinity of the former fuel tank area. Four underground tanks were

PETE'S STOP INC. (Continued) **S109285938**

removed from the site in January 1992, and soil samples from beneath the tanks confirmed that they were the source of the gasoline contamination. A soil gas survey in June of that year provided further evidence of underground contamination. The next phase of investigation took place in March 1993. STE drilled eleven soil borings and detected gasoline in five of eleven samples collected at a depth of 15 feet. STE later excavated and disposed of 100 yards of this contaminated soil. Four additional monitoring wells were drilled in December 1996 and January 1997. STE prepared a Corrective Action Plan in August 2003. Data collected during January and February 2002 were used to examine the feasibility of using soil vapor extraction, groundwater extraction, and other potential technologies to mitigate the contamination. However, because the extent of the contamination problem was not fully defined, no corrective action has been implemented. Enviro Soil Tech Consultants (ESTC) extended the investigation beyond the property boundaries beginning in October 2002, when thirty-two (32) additional borings were drilled. The borings confirmed that very elevated concentrations of gasoline were present in groundwater north of the site along the east side of 10th Street, and wells were installed in August 2006 to monitor this contamination and better define its extent. In the third quarter of 2006, ESTC recommended moving forward with site remediation, and suggested that air sparging be tested to determine its potential in cleaning up the groundwater. The regulatory agency approved that recommendation in early 2008.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501689
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608501689
Contact Type:	Local Agency Caseworker
Contact Name:	AARON COSTA
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	aaron.costa@deh.sccgov.org
Phone Number:	4089181954

Status History:

Global Id:	T0608501689
Status:	Open - Case Begin Date
Status Date:	01/08/1992

Global Id:	T0608501689
Status:	Open - Remediation
Status Date:	07/28/2014

Global Id:	T0608501689

PETE'S STOP INC. (Continued) **S109285938**

Status: Open - Site Assessment
Status Date: 01/08/1992

Regulatory Activities:
Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 02/28/2006
Action: Staff Letter - #60228

Global Id: T0608501689
Action Type: RESPONSE
Date: 02/20/2013
Action: Correspondence

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/05/1997
Action: Staff Letter - #26776

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 04/04/2001
Action: Staff Letter - #26786

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 12/06/2001
Action: Warning Letter - #26788

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 12/30/2003
Action: Staff Letter - #44054

Global Id: T0608501689
Action Type: RESPONSE
Date: 03/06/2015
Action: Other Report / Document

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/30/2017
Action: Monitoring Report - Semi-Annually

Global Id: T0608501689
Action Type: RESPONSE
Date: 04/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/30/2003

PETE'S STOP INC. (Continued) **S109285938**

Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 10/25/2013
Action: Remedial Progress Report

Global Id: T0608501689
Action Type: RESPONSE
Date: 10/04/2013
Action: Site Assessment Report

Global Id: T0608501689
Action Type: RESPONSE
Date: 10/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 11/26/2013
Action: Staff Letter

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 05/29/2015
Action: Staff Letter

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/03/2015
Action: Staff Letter

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/12/2010
Action: Site Assessment Report

Global Id: T0608501689
Action Type: RESPONSE
Date: 06/10/2009
Action: Preliminary Site Assessment Workplan - Addendum - Regulator Responded

Global Id: T0608501689
Action Type: RESPONSE
Date: 10/31/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 03/14/2002
Action: Other Report / Document

PETE'S STOP INC. (Continued) **S109285938**

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 10/21/1992
Action: Notice of Responsibility - #39890

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/02/2000
Action: Staff Letter - #26781

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 03/06/2001
Action: Staff Letter - #26784

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 12/06/2001
Action: Staff Letter - #26796

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 01/28/2002
Action: Staff Letter - #26609

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 03/05/2002
Action: Warning Letter - #26789

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/02/2004
Action: Warning Letter - #44061

Global Id: T0608501689
Action Type: REMEDIATION
Date: 01/08/1992
Action: Excavation

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 07/30/2014
Action: Staff Letter

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/31/2004
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 04/30/2001
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE

PETE'S STOP INC. (Continued) **S109285938**

Date: 07/31/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 04/16/2014
Action: Notice of Violation

Global Id: T0608501689
Action Type: RESPONSE
Date: 05/27/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/20/1997
Action: Other Report / Document

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/31/2004
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 04/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/14/2002
Action: Other Report / Document

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/30/2004
Action: Other Report / Document

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/30/2004
Action: Soil and Water Investigation Workplan

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 05/07/2014
Action: Staff Letter

Global Id: T0608501689
Action Type: RESPONSE
Date: 05/09/2014
Action: Correspondence

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/30/2001
Action: Monitoring Report - Quarterly

PETE'S STOP INC. (Continued) **S109285938**

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 12/10/2014
Action: Staff Letter

Global Id: T0608501689
Action Type: RESPONSE
Date: 09/28/2012
Action: Soil and Water Investigation Report

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/13/2012
Action: Other Report / Document

Global Id: T0608501689
Action Type: Other
Date: 01/08/1992
Action: Leak Discovery

Global Id: T0608501689
Action Type: Other
Date: 01/13/1992
Action: Leak Reported

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 10/25/2005
Action: Staff Letter - #51025

Global Id: T0608501689
Action Type: RESPONSE
Date: 03/12/2013
Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 12/04/2008
Action: Staff Letter - #80024021

Global Id: T0608501689
Action Type: RESPONSE
Date: 01/30/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 10/27/2009
Action: Staff Letter - #90027201

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/05/2013
Action: Staff Letter

Global Id: T0608501689
Action Type: RESPONSE

PETE'S STOP INC. (Continued) **S109285938**

Date: 07/18/2014
Action: Remedial Progress Report

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/30/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0608501689
Action Type: RESPONSE
Date: 09/09/2016
Action: CAP/RAP - Other Report

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/26/2012
Action: Staff Letter

Global Id: T0608501689
Action Type: ENFORCEMENT
Date: 06/09/2016
Action: Staff Letter

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/10/2015
Action: Site Assessment Report

Global Id: T0608501689
Action Type: RESPONSE
Date: 09/04/2015
Action: Other Workplan

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/31/2000
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 04/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 10/30/2001
Action: Monitoring Report - Quarterly

Global Id: T0608501689
Action Type: RESPONSE
Date: 07/06/2001
Action: Soil and Water Investigation Report

J55 **PETE'S STOP INC.** **CA LUST** **S103881022**
East **447 E WILLIAM ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.348 mi.
1839 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
97 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Pollution Characterization
Case Number:	07S1E09N01f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	1/8/1992
Pollution Characterization Began:	1/8/1992
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

HIST LUST SANTA CLARA:

Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	07S1E09N01
Oversite Agency:	SCCDEH
Date Listed:	1992-10-08 00:00:00
Closed Date:	Not reported

J56 **PETE'S STOP INC** **CA LUST** **U001602619**
East **447 WILLIAM** **CA HIST CORTESE** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.348 mi.
1839 ft. **Site 3 of 3 in cluster J**

Relative:
Higher

Actual:
97 ft.

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	07S1E09N01F
Date Closed:	Not reported
EDR Link ID:	07S1E09N01F

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1755

K57 **SJSU CORPORATE YARD** **CA HIST CORTESE** **S102437635**
North **404 SAN FERNANDO** **N/A**
1/4-1/2 **SAN JOSE, CA 95192**
0.350 mi.
1847 ft. **Site 1 of 2 in cluster K**

Relative:
Lower

Actual:
89 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-2256

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1994

K58 **SJSU-INDUSTRIAL STUDIES** **CA LUST** **S103881016**
North **404 E SAN FERNANDO ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95192**
0.350 mi.
1847 ft. **Site 2 of 2 in cluster K**

Relative:
Lower

Actual:
89 ft.

LUST:

Region:	STATE
Global Id:	T0608501837
Latitude:	37.338505
Longitude:	-121.879644
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/30/2000
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501837
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608501837
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported

SJSU-INDUSTRIAL STUDIES (Continued) **S103881016**

Phone Number: 4089183400

Status History:
Global Id: T0608501837
Status: Completed - Case Closed
Status Date: 03/30/2000

Global Id: T0608501837
Status: Open - Case Begin Date
Status Date: 01/01/1993

Global Id: T0608501837
Status: Open - Site Assessment
Status Date: 02/01/1994

Global Id: T0608501837
Status: Open - Site Assessment
Status Date: 02/08/1994

Global Id: T0608501837
Status: Open - Verification Monitoring
Status Date: 05/12/1999

Regulatory Activities:
Global Id: T0608501837
Action Type: RESPONSE
Date: 06/21/1999
Action: Other Report / Document

Global Id: T0608501837
Action Type: REMEDIATION
Date: 02/08/1994
Action: Excavation

Global Id: T0608501837
Action Type: ENFORCEMENT
Date: 02/28/1997
Action: Notice of Responsibility - #39879

Global Id: T0608501837
Action Type: ENFORCEMENT
Date: 05/10/1999
Action: Staff Letter - #26964

Global Id: T0608501837
Action Type: ENFORCEMENT
Date: 06/11/1997
Action: Staff Letter - #26959

Global Id: T0608501837
Action Type: Other
Date: 01/01/1993
Action: Leak Reported

Global Id: T0608501837
Action Type: RESPONSE

SJSU-INDUSTRIAL STUDIES (Continued) **S103881016**

Date: 08/20/1997
Action: Soil and Water Investigation Workplan

Global Id: T0608501837
Action Type: ENFORCEMENT
Date: 03/30/2000
Action: Closure/No Further Action Letter

Global Id: T0608501837
Action Type: RESPONSE
Date: 05/10/1999
Action: Other Report / Document

Region: STATE
Global Id: T0608502071
Latitude: 37.3383706
Longitude: -121.8806637
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 04/10/2000
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608502071
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608502071
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608502071
Status: Completed - Case Closed
Status Date: 04/10/2000

SJSU-INDUSTRIAL STUDIES (Continued) **S103881016**

Global Id: T0608502071
Status: Open - Case Begin Date
Status Date: 01/01/1993

Global Id: T0608502071
Status: Open - Site Assessment
Status Date: 02/08/1994

Regulatory Activities:
Global Id: T0608502071
Action Type: ENFORCEMENT
Date: 05/10/1999
Action: Staff Letter - #26973

Global Id: T0608502071
Action Type: ENFORCEMENT
Date: 12/23/1998
Action: Staff Letter - #26970

Global Id: T0608502071
Action Type: ENFORCEMENT
Date: 08/04/1997
Action: Staff Letter - #26967

Global Id: T0608502071
Action Type: RESPONSE
Date: 05/10/1999
Action: Other Report / Document

Global Id: T0608502071
Action Type: REMEDIATION
Date: 02/08/1994
Action: Excavation

Global Id: T0608502071
Action Type: ENFORCEMENT
Date: 02/28/1997
Action: Notice of Responsibility - #39880

Global Id: T0608502071
Action Type: Other
Date: 01/01/1993
Action: Leak Reported

Global Id: T0608502071
Action Type: RESPONSE
Date: 06/21/1999
Action: Other Report / Document

Global Id: T0608502071
Action Type: RESPONSE
Date: 02/01/1999
Action: Other Report / Document

Global Id: T0608502071
Action Type: RESPONSE
Date: 10/31/1997

SJSU-INDUSTRIAL STUDIES (Continued) **S103881016**

Action: Soil and Water Investigation Report

Global Id: T0608502071
Action Type: ENFORCEMENT
Date: 04/10/2000
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08K02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 2/1/1994
Pollution Characterization Began: 2/8/1994
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 5/12/1999

Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08K03f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 2/8/1994
Pollution Characterization Began: 2/8/1994
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08K02F
Date Closed: 03/30/2000
EDR Link ID: 07S1E08K02F

Region: SANTA CLARA
SCVWD ID: 07S1E08K03F
Date Closed: 04/10/2000
EDR Link ID: 07S1E08K03F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08K02

SJSU-INDUSTRIAL STUDIES (Continued) **S103881016**

Oversite Agency: SCVWD
Date Listed: 1994-06-02 00:00:00
Closed Date: 2000-03-30 00:00:00

Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08K03
Oversite Agency: SCVWD
Date Listed: 1994-06-02 00:00:00
Closed Date: 2000-04-10 00:00:00

59
WNW
1/4-1/2
0.355 mi.
1872 ft.

PF CHANGS CHINA BISTRO **CA LUST S106567269**
98 S. 2ND STREET **CA HIST LUST N/A**
SAN JOSE, CA 95113

Relative:
Lower

Actual:
90 ft.

LUST:

Region:	STATE
Global Id:	T0608503601
Latitude:	37.335173
Longitude:	-121.887988
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/09/2006
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
LOC Case Number:	07S1E08L08f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608503601
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Status History:

Global Id:	T0608503601
Status:	Completed - Case Closed
Status Date:	08/09/2006
Global Id:	T0608503601
Status:	Open - Case Begin Date
Status Date:	01/06/2004
Global Id:	T0608503601
Status:	Open - Site Assessment

PF CHANGS CHINA BISTRO (Continued) **S106567269**

Status Date: 09/07/2004

Regulatory Activities:

Global Id: T0608503601
Action Type: ENFORCEMENT
Date: 09/07/2004
Action: Staff Letter - #44931

Global Id: T0608503601
Action Type: RESPONSE
Date: 04/04/2005
Action: Soil and Water Investigation Report

Global Id: T0608503601
Action Type: ENFORCEMENT
Date: 09/07/2004
Action: Notice of Responsibility - #407090

Global Id: T0608503601
Action Type: RESPONSE
Date: 08/09/2006
Action: Other Report / Document

Global Id: T0608503601
Action Type: REMEDIATION
Date: 12/09/2003
Action: Excavation

Global Id: T0608503601
Action Type: RESPONSE
Date: 10/07/2004
Action: Soil and Water Investigation Workplan

Global Id: T0608503601
Action Type: ENFORCEMENT
Date: 01/04/2005
Action: Staff Letter - #46295

Global Id: T0608503601
Action Type: ENFORCEMENT
Date: 12/19/2005
Action: Staff Letter

Global Id: T0608503601
Action Type: ENFORCEMENT
Date: 08/09/2006
Action: Closure/No Further Action Letter - #600298

Global Id: T0608503601
Action Type: Other
Date: 01/06/2004
Action: Leak Reported

Global Id: T0608503601
Action Type: RESPONSE
Date: 04/21/2006
Action: Soil and Water Investigation Report

PF CHANGS CHINA BISTRO (Continued) **S106567269**

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Not reported
Case Number: 07S1E08L08f
How Discovered: Not reported
Leak Cause: Unknown
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L08F
Date Closed: 08/09/2006
EDR Link ID: 07S1E08L08F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08L08
Oversite Agency: SCCDEH
Date Listed: 2004-09-02 00:00:00
Closed Date: Not reported

L60 **SJRA-CONVENTION CENTER** **CA LUST** **S110655401**
SW **S MARKET ST @ VIOLA AVE** **N/A**
1/4-1/2 **SAN JOSE, CA 95110**
0.360 mi.
1900 ft. **Site 1 of 2 in cluster L**

Relative:
Higher

Actual:
98 ft.

LUST:
Region: STATE
Global Id: T0608502011
Latitude: 37.3293383857639
Longitude: -121.887752498198
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/16/1997
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

SJRA-CONVENTION CENTER (Continued) **S110655401**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608502011
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608502011
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608502011
Status:	Completed - Case Closed
Status Date:	09/16/1997

Global Id:	T0608502011
Status:	Open - Case Begin Date
Status Date:	03/08/1985

Global Id:	T0608502011
Status:	Open - Site Assessment
Status Date:	03/08/1985

Regulatory Activities:

Global Id:	T0608502011
Action Type:	RESPONSE
Date:	02/03/2003
Action:	Other Report / Document

Global Id:	T0608502011
Action Type:	REMEDIATION
Date:	03/27/1985
Action:	Excavation

Global Id:	T0608502011
Action Type:	RESPONSE
Date:	05/16/1997
Action:	Soil and Water Investigation Workplan

Global Id:	T0608502011
Action Type:	ENFORCEMENT
Date:	10/01/1988
Action:	Notice of Responsibility - #39826

Global Id:	T0608502011

SJRA-CONVENTION CENTER (Continued) **S110655401**

Action Type: ENFORCEMENT
Date: 04/03/1997
Action: Staff Letter - #25935

Global Id: T0608502011
Action Type: ENFORCEMENT
Date: 09/16/1997
Action: Closure/No Further Action Letter

Global Id: T0608502011
Action Type: Other
Date: 03/27/1985
Action: Leak Reported

Global Id: T0608502011
Action Type: RESPONSE
Date: 09/16/1997
Action: Other Report / Document

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17C03F
Date Closed: 09/16/1997
EDR Link ID: 07S1E17C03F

L61 **SJRA-CONVENTION CENTER** **CA LUST** **S103881043**
SW **S MARKET ST @ VIOLA AVE** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95110**
0.360 mi.
1900 ft. **Site 2 of 2 in cluster L**

Relative:
Higher

Actual:
98 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E17C03f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/8/1985
Pollution Characterization Began: 3/8/1985
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17C03
Oversite Agency: SCVWD
Date Listed: 1986-01-01 00:00:00
Closed Date: 1997-09-16 00:00:00

62
SSW
1/4-1/2
0.363 mi.
1914 ft.

JONES/SCHAEZLEIN PROPERTY
520 S. 1ST STREET
SAN JOSE, CA 95113

CA LUST **S105481889**
CA HIST LUST **N/A**

Relative:
Higher

Actual:
100 ft.

LUST:

Region:	STATE
Global Id:	T0608560815
Latitude:	37.328304
Longitude:	-121.88468
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/18/2005
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
LOC Case Number:	07S1E17B04f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608560815
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Status History:

Global Id:	T0608560815
Status:	Completed - Case Closed
Status Date:	08/18/2005
Global Id:	T0608560815
Status:	Open - Case Begin Date
Status Date:	03/25/2002

Regulatory Activities:

Global Id:	T0608560815
Action Type:	RESPONSE
Date:	12/24/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	06/20/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	12/24/2003

JONES/SCHAEZLEIN PROPERTY (Continued) **S105481889**

Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: RESPONSE
Date: 01/07/2004
Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: RESPONSE
Date: 04/23/2004
Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: RESPONSE
Date: 03/15/2002
Action: Other Report / Document

Global Id: T0608560815
Action Type: RESPONSE
Date: 09/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: RESPONSE
Date: 09/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: RESPONSE
Date: 03/05/2003
Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: ENFORCEMENT
Date: 08/18/2005
Action: Closure/No Further Action Letter

Global Id: T0608560815
Action Type: REMEDIATION
Date: 12/17/2002
Action: Excavation

Global Id: T0608560815
Action Type: RESPONSE
Date: 05/17/2002
Action: Correspondence

Global Id: T0608560815
Action Type: RESPONSE
Date: 04/01/1999
Action: Other Report / Document

Global Id: T0608560815
Action Type: RESPONSE
Date: 01/07/2004
Action: Monitoring Report - Quarterly

JONES/SCHAEZLEIN PROPERTY (Continued) **S105481889**

Global Id:	T0608560815
Action Type:	RESPONSE
Date:	10/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	12/02/2002
Action:	Other Report / Document
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	07/30/2002
Action:	Soil and Water Investigation Report
Global Id:	T0608560815
Action Type:	Other
Date:	03/25/2002
Action:	Leak Reported
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	03/25/2002
Action:	Preliminary Site Assessment Report
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	11/15/2002
Action:	Other Report / Document
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	03/15/2002
Action:	Preliminary Site Assessment Report
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	08/18/2005
Action:	Well Destruction Report
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	04/19/2002
Action:	Soil and Water Investigation Workplan
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	06/19/2003
Action:	CAP/RAP - Other Report
Global Id:	T0608560815
Action Type:	RESPONSE
Date:	09/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0608560815
Action Type:	RESPONSE

JONES/SCHAEZLEIN PROPERTY (Continued) **S105481889**

Date: 12/24/2003
Action: Monitoring Report - Quarterly

Global Id: T0608560815
Action Type: RESPONSE
Date: 01/11/2006
Action: Well Destruction Report

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Remedial action (cleanup) Underway
Case Number: 07S1E17B04f
How Discovered: SA
Leak Cause: Unknown
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/25/2002
Pollution Characterization Began: 8/8/2002
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 12/2/2002
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17B04F
Date Closed: 08/18/2005
EDR Link ID: 07S1E17B04F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17B04
Oversite Agency: SCVWD
Date Listed: 2002-04-26 00:00:00
Closed Date: Not reported

63
WNW
1/4-1/2
0.368 mi.
1944 ft.

BLOCK 2 CITY OF SAN JOSE PARKING LOT **CA SLIC** **S108937591**
8 EAST SAN FERNANADO STREET **CA BROWNFIELDS** **N/A**
SAN JOSE, CA 95113

Relative:
Lower

Actual:
91 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 12/10/2007
Global Id: SL0608508545
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.334262
Longitude: -121.888452
Case Type: Cleanup Program Site

BLOCK 2 CITY OF SAN JOSE PARKING LOT (Continued) **S108937591**

Case Worker:	AVC
Local Agency:	SAN JOSE, CITY OF
RB Case Number:	43S1110
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating, * Metals
Site History:	The "Block 2 - City of San Jose Parking Lot Site" is located at 8 East San Fernando Street, between South First Street and South Second Street, in downtown San Jose. This 1-acre parcel has been used as a paved parking lot since at least 1980. Prior to 1980, the Site was occupied by several small stores and the OB Hale and Company Department Store. Prior to 1900, the Site operation included a paint shop. Block 3, an adjacent lot, has similar land use histories and has detected VOCs and TPHs in soil and groundwater. A former coal gasification plant was formerly located about 300 feet away. The Redevelopment Agency of the City of San Jose (the Agency) is currently planning to construct a new mixed-use building complex and underground parking structure. Specifically, the planned development includes excavation of the entire site to a depth of about 40 feet below the current surface to accommodate a three-level, underground parking structure. The space above the parking structure at ground level is planned for commercial use. The space above the commercial area is planned for hotel and residential use. To date, three rounds of site investigation have been conducted to study Site soil, groundwater, and soil gas. Investigation results were used in a Human Health Risk Evaluation and compared to screening levels such as CHHSL, ESLs and PRGs for the proposed exposure scenarios. Overall, the Site data compare favorably to these screening levels. Exceedances of those screening levels were found in only one soil sample for mercury (21 mg/kg vs. 18 mg/kg) and in soil gas samples for 1,3-butadiene (16.0 vs. 4.85 ug/cubic meter). However, the targeted exposure pathway may not even be complete when considering the proposed land use scenario (i.e., with the underground parking) and construction method.

Click here to access the California GeoTracker records for this facility:

BROWNFIELDS:
Global ID: SL0608508545

64
WSW
1/4-1/2
0.370 mi.
1955 ft.

Relative:
Higher

Actual:
97 ft.

SAN JOSE CONVENTION CENTER **CA SLIC** **S108992048**
SOUTH MARKET STREET **N/A**
SAN JOSE, CA

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	02/15/2005
Global Id:	SL0608531982
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	37.331019
Longitude:	-121.888279
Case Type:	Cleanup Program Site
Case Worker:	DIB

SAN JOSE CONVENTION CENTER (Continued) **S108992048**

Local Agency: Not reported
RB Case Number: 43S1099
File Location: Regional Board
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: * Solvents, Lead, Gasoline
Site History: This site is a city block which consisted of multiple parcels and that has been redeveloped into an annex of the San Jose Convention Center. The site contains a permanent tent structure. There is groundwater polluted with gasoline and diesel beneath a portion of the site.

Click here to access the California GeoTracker records for this facility:

65
NW
1/4-1/2
0.372 mi.
1963 ft.

Relative:
Lower

Actual:
86 ft.

SAN JOSE NEW CITY HALL **CA SLIC** **S112924240**
200 E SANTA CLARA ST **CA EMI** **N/A**
SAN JOSE, CA 95113 **CA HAZNET**

SLIC:
Region: STATE
Facility Status: **Open - Remediation**
Status Date: 06/01/2002
Global Id: SL0608520959
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.369828
Longitude: -121.910244
Case Type: Cleanup Program Site
Case Worker: DIB
Local Agency: SAN JOSE, CITY OF
RB Case Number: 43S0300
File Location: Regional Board
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Other Petroleum, Stoddard solvent / Mineral Spriits / Distillates
Site History: See also file for Deluxe Cleaners. Civic Plaza incorporates the former Deluxe Cleaners parcel. The Deluxe Cleaners site had a release of stoddard solvent to soil and groundwater. The whole site was excavated as part of redevelopment into the Civic Plaza Parking Garage.

Click here to access the California GeoTracker records for this facility:

EMI:
Year: 2013
County Code: 43
Air Basin: SF
Facility ID: 15267
Air District Name: BA
SIC Code: 8641
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.011
Reactive Organic Gases Tons/Yr: 0.0092037
Carbon Monoxide Emissions Tons/Yr: 0.007
NOX - Oxides of Nitrogen Tons/Yr: 0.086

SAN JOSE NEW CITY HALL (Continued) **S112924240**

SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.001
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.001

Year: 2014
County Code: 43
Air Basin: SF
Facility ID: 15267
Air District Name: BA
SIC Code: 8641
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.010859361
Reactive Organic Gases Tons/Yr: 0.010572561
Carbon Monoxide Emissions Tons/Yr: 0.006532881
NOX - Oxides of Nitrogen Tons/Yr: 0.085544226
SOX - Oxides of Sulphur Tons/Yr: 6.9926e-005
Particulate Matter Tons/Yr: 0.001055086
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.001012883

Year: 2015
County Code: 43
Air Basin: SF
Facility ID: 15267
Air District Name: BA
SIC Code: 8641
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.010859361
Reactive Organic Gases Tons/Yr: 0.010572561
Carbon Monoxide Emissions Tons/Yr: 0.006532881
NOX - Oxides of Nitrogen Tons/Yr: 0.085544226
SOX - Oxides of Sulphur Tons/Yr: 6.9926e-005
Particulate Matter Tons/Yr: 0.001055086
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.001012883

HAZNET:
envid: S112924240
Year: 2002
GEPAID: CAC002555521
Contact: RAJ VERMA
Telephone: 4087946210
Mailing Name: Not reported
Mailing Address: 4 N 2ND ST STE 900
Mailing City,St,Zip: SAN JOSE, CA 95113
Gen County: Not reported
TSD EPA ID: CAD009466392
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Tons: 0.22
Cat Decode: Other empty containers 30 gallons or more
Method Decode: Recycler
Facility County: Santa Clara

SAN JOSE NEW CITY HALL (Continued) **S112924240**

envid: S112924240
Year: 2002
GEPAID: CAC002555521
Contact: RAJ VERMA
Telephone: 4087946210
Mailing Name: Not reported
Mailing Address: 4 N 2ND ST STE 900
Mailing City,St,Zip: SAN JOSE, CA 95113
Gen County: Not reported
TSD EPA ID: CAT000646117
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Disposal, Land Fill
Tons: 6280.54
Cat Decode: Contaminated soil from site clean-up
Method Decode: Disposal, Land Fill
Facility County: Santa Clara

envid: S112924240
Year: 2002
GEPAID: CAC002555521
Contact: RAJ VERMA
Telephone: 4087946210
Mailing Name: Not reported
Mailing Address: 4 N 2ND ST STE 900
Mailing City,St,Zip: SAN JOSE, CA 95113
Gen County: Not reported
TSD EPA ID: CAT000646117
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Not reported
Tons: 91.02
Cat Decode: Contaminated soil from site clean-up
Method Decode: Not reported
Facility County: Santa Clara

M66 **CENTURY CENTER** **CA LUST S105911315**
WNW **53 S 3RD ST** **CA HIST LUST N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.377 mi.
1992 ft. **Site 1 of 3 in cluster M**

Relative:
Lower

Actual:
89 ft.

LUST:
Region: STATE
Global Id: T0608561183
Latitude: 37.335416
Longitude: -121.888174
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/01/2002
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel

CENTURY CENTER (Continued) **S105911315**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608561183
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608561183
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608561183
Status:	Completed - Case Closed
Status Date:	11/01/2002

Global Id:	T0608561183
Status:	Open - Case Begin Date
Status Date:	12/08/2000

Regulatory Activities:

Global Id:	T0608561183
Action Type:	RESPONSE
Date:	05/11/2005
Action:	Correspondence

Global Id:	T0608561183
Action Type:	RESPONSE
Date:	11/01/2001
Action:	Unauthorized Release Form

Global Id:	T0608561183
Action Type:	RESPONSE
Date:	12/08/2000
Action:	Tank Removal Report / UST Sampling Report

Global Id:	T0608561183
Action Type:	RESPONSE
Date:	11/01/2001
Action:	Unauthorized Release Form

Global Id:	T0608561183
Action Type:	Other
Date:	12/08/2000
Action:	Leak Reported

CENTURY CENTER (Continued) **S105911315**

Global Id: T0608561183
Action Type: RESPONSE
Date: 11/20/2001
Action: Soil and Water Investigation Report

Global Id: T0608561183
Action Type: RESPONSE
Date: 06/24/1998
Action: Monitoring Report - Quarterly

Global Id: T0608561183
Action Type: ENFORCEMENT
Date: 11/01/2002
Action: Closure/No Further Action Letter

Global Id: T0608561183
Action Type: RESPONSE
Date: 01/31/1997
Action: Preliminary Site Assessment Report

Global Id: T0608561183
Action Type: RESPONSE
Date: 02/13/1998
Action: Other Report / Document

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08L07f
How Discovered: Not reported
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L07F
Date Closed: 11/01/2002
EDR Link ID: 07S1E08L07F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08L07
Oversite Agency: SCVWD
Date Listed: 2002-11-01 00:00:00
Closed Date: 2002-11-01 00:00:00

M67 **CENTURY CENTER** **CA LUST** **S106085713**
WNW **62 S 2ND ST.** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.382 mi.
2018 ft. **Site 2 of 3 in cluster M**

Relative:
Lower

Actual:
89 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L10F
Date Closed: 07/13/2005
EDR Link ID: 07S1E08L10F

N68 **SAN JOSE STATE UNIV CHEM DEPT** **SEMS-ARCHIVE** **1003878343**
West **125 S 7TH** **CAD050520840**
1/4-1/2 **SAN JOSE, CA 95112**
0.389 mi.
2053 ft. **Site 1 of 2 in cluster N**

Relative:
Lower

Actual:
92 ft.

SEMS-ARCHIVE:
Site ID: 901409
EPA ID: CAD050520840
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0901409
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13288766.00000
Person ID: 13003854.00000

Contact Sequence ID: 13294361.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300219.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: / /
Date Completed: 04/01/80
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 08/01/88
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 08/01/88
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: PRELIMINARY ASSESSMENT
Date Started: 09/01/85

SAN JOSE STATE UNIV CHEM DEPT (Continued) **1003878343**

Date Completed: 02/01/86
Priority Level: Low priority for further assessment

N69 **SAN JOSE STATE UNIVERSITY CHEMICAL DEPT** **CA ENVIROSTOR** **1000121113**
West **125 S 7TH ST** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.389 mi.
2053 ft. **Site 2 of 2 in cluster N**

Relative:
Lower

Actual:
92 ft.

ENVIROSTOR:
Facility ID: 43820001
Status: No Further Action
Status Date: 10/08/2001
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0.02
NPL: NO
Regulatory Agencies: SANTA CLARA COUNTY
Lead Agency: SANTA CLARA COUNTY
Program Manager: Not reported
Supervisor: Karen Toth
Division Branch: Cleanup Berkeley
Assembly: 27
Senate: 15
Special Program: * Site Char & Assess Grant (CERCLA 104)
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.34106
Longitude: -121.8885
APN: NONE SPECIFIED
Past Use: SCHOOL - COLLEGE
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: NMA
Alias Name: CAD050520840
Alias Type: EPA Identification Number
Alias Name: 43820001
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/21/1987
Comments: There are no documents that match this date or activity in the current files.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/08/2001
Comments: This site is regulated as a hazardous materials storage area by the Santa Clara County Health Services as the local Certified Unified Program Agency. There are no records of releases.

Completed Area Name: PROJECT WIDE

SAN JOSE STATE UNIVERSITY CHEMICAL DEPT (Continued) **1000121113**

Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 10/12/1983
Comments: DISC - FACILITY IDENTIFIED ID FROM ERRIS

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

O70 **TATE FAMILY COMPLETE AUTO** **CA LUST S103881042**
SW **477 S MARKET ST** **CA HIST LUST N/A**
1/4-1/2 **SAN JOSE, CA 95113** **CA SWEEPS UST**
0.392 mi. **CA CUPA Listings**
2068 ft. **Site 1 of 2 in cluster O** **CA SAN JOSE HAZMAT**

Relative:
Higher

Actual:
99 ft.

LUST:
Region: STATE
Global Id: T0608501121
Latitude: 37.3286214575452
Longitude: -121.886100769043
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 04/25/2002
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608501121
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608501121
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported

TATE FAMILY COMPLETE AUTO (Continued) **S103881042**

Phone Number: 4089183400

Status History:
Global Id: T0608501121
Status: Completed - Case Closed
Status Date: 04/25/2002

Global Id: T0608501121
Status: Open - Case Begin Date
Status Date: 08/07/1984

Global Id: T0608501121
Status: Open - Site Assessment
Status Date: 07/26/1990

Global Id: T0608501121
Status: Open - Site Assessment
Status Date: 12/06/2001

Regulatory Activities:
Global Id: T0608501121
Action Type: RESPONSE
Date: 08/07/1984
Action: Unauthorized Release Form

Global Id: T0608501121
Action Type: RESPONSE
Date: 03/20/2002
Action: Verbal Communication

Global Id: T0608501121
Action Type: RESPONSE
Date: 04/19/1999
Action: Soil and Water Investigation Workplan

Global Id: T0608501121
Action Type: RESPONSE
Date: 03/20/2002
Action: Other Report / Document

Global Id: T0608501121
Action Type: RESPONSE
Date: 10/02/1997
Action: Tank Removal Report / UST Sampling Report

Global Id: T0608501121
Action Type: RESPONSE
Date: 01/26/1990
Action: Soil and Water Investigation Workplan

Global Id: T0608501121
Action Type: RESPONSE
Date: 08/19/2000
Action: Soil and Water Investigation Report

Global Id: T0608501121

TATE FAMILY COMPLETE AUTO (Continued) **S103881042**

Action Type: ENFORCEMENT
Date: 02/13/1997
Action: Notice of Responsibility - #39825

Global Id: T0608501121
Action Type: ENFORCEMENT
Date: 11/27/1989
Action: Staff Letter - #25925

Global Id: T0608501121
Action Type: ENFORCEMENT
Date: 03/05/1999
Action: Staff Letter - #25929

Global Id: T0608501121
Action Type: ENFORCEMENT
Date: 05/21/2000
Action: Staff Letter - #25932

Global Id: T0608501121
Action Type: ENFORCEMENT
Date: 05/12/2000
Action: Warning Letter - #25931

Global Id: T0608501121
Action Type: RESPONSE
Date: 01/21/1999
Action: Correspondence

Global Id: T0608501121
Action Type: RESPONSE
Date: 11/30/2001
Action: Preliminary Site Assessment Report

Global Id: T0608501121
Action Type: RESPONSE
Date: 12/07/1990
Action: Other Report / Document

Global Id: T0608501121
Action Type: RESPONSE
Date: 10/10/1991
Action: Other Report / Document

Global Id: T0608501121
Action Type: Other
Date: 08/07/1984
Action: Leak Reported

Global Id: T0608501121
Action Type: RESPONSE
Date: 03/14/1997
Action: Tank Removal Report / UST Sampling Report

Global Id: T0608501121
Action Type: ENFORCEMENT
Date: 04/25/2002

TATE FAMILY COMPLETE AUTO (Continued) **S103881042**

Action: Closure/No Further Action Letter

Global Id: T0608501121
Action Type: RESPONSE
Date: 03/07/2002
Action: Correspondence

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E17C02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 7/26/1990
Pollution Characterization Began: 12/6/2001
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17C02F
Date Closed: 04/25/2002
EDR Link ID: 07S1E17C02F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17C02
Oversite Agency: SCVWD
Date Listed: 1988-06-01 00:00:00
Closed Date: 2002-04-25 00:00:00

SWEEPS UST:
Status: Not reported
Comp Number: 400124
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400124-000001
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: Not reported

TATE FAMILY COMPLETE AUTO (Continued) **S103881042**

Number Of Tanks: 2

Status: Not reported
Comp Number: 400124
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-400124-000002
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

CUPA SANTA CLARA:
Region: SANTA CLARA
PE#: 2205
Program Description: GENERATES 100 KG YR TO <5 TONS/YR
Latitude: 37.328553
Longitude: -121.886047

Region: SANTA CLARA
PE#: BP02
Program Description: HMBP FACILITY, 4-6 CHEMICALS
Latitude: 37.328553
Longitude: -121.886047

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 400124
Class: Auto Repair

O71 **ROSE MURTY TIRE COMPANY** **CA HIST CORTESE** **S102416054**
SW **477 MARKET** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.392 mi.
2068 ft. **Site 2 of 2 in cluster O**

Relative:
Higher

Actual:
99 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1130

M72
WNW
1/4-1/2
0.393 mi.
2074 ft.

PRIVATE RESIDENCE
PRIVATE RESIDENCE
SAN JOSE, CA 95113

Site 3 of 3 in cluster M

CA LUST **S110655440**
N/A

Relative:
Lower

Actual:
89 ft.

LUST:

Region:	STATE
Global Id:	T0608516469
Latitude:	37.33559
Longitude:	-121.888632
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/29/2005
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608516469
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608516469
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608516469
Status:	Completed - Case Closed
Status Date:	06/29/2005

Global Id:	T0608516469
Status:	Open - Case Begin Date
Status Date:	08/20/2002

Global Id:	T0608516469
Status:	Open - Site Assessment
Status Date:	06/28/2005

PRIVATE RESIDENCE (Continued) **S110655440**

Regulatory Activities:

Global Id:	T0608516469
Action Type:	RESPONSE
Date:	10/08/2002
Action:	Unauthorized Release Form
Global Id:	T0608516469
Action Type:	ENFORCEMENT
Date:	07/13/2005
Action:	Closure/No Further Action Letter
Global Id:	T0608516469
Action Type:	Other
Date:	08/20/2002
Action:	Leak Discovery
Global Id:	T0608516469
Action Type:	Other
Date:	10/08/2002
Action:	Leak Reported
Global Id:	T0608516469
Action Type:	REMEDIATION
Date:	08/20/2002
Action:	Not reported

P73 **SJRA HOTEL EAST** **CA LUST** **S102628228**
WSW **301 MARKET** **CA HIST CORTESE** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.399 mi.
2106 ft. **Site 1 of 3 in cluster P**

Relative:
Higher

Actual:
97 ft.

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	07S1E17C05F
Date Closed:	10/18/2001
EDR Link ID:	07S1E17C05F

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1199

P74 **SJRA-HOTEL EAST** **CA LUST** **S105512904**
WSW **301 S MARKET ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113** **CA SAN JOSE HAZMAT**
0.399 mi.
2106 ft. **Site 2 of 3 in cluster P**

Relative:
Higher

Actual:
97 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed

SJRA-HOTEL EAST (Continued) **S105512904**

Case Number: 07S1E17C05f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 10/10/1988
Pollution Characterization Began: 8/7/1990
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 3/27/1985
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17C05
Oversite Agency: SCVWD
Date Listed: 1991-09-05 00:00:00
Closed Date: 2001-10-18 00:00:00

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 409620
Class: Misc. Complex firms and labs

P75 **SAN JOSE MARRIOTT** **CA LUST** **S108219554**
WSW **301 S MARKET ST** **CA CUPA Listings** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.399 mi.
2106 ft. **Site 3 of 3 in cluster P**

Relative:
Higher

Actual:
97 ft.

LUST:
Region: STATE
Global Id: T0608501186
Latitude: 37.330481
Longitude: -121.886783
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/18/2001
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608501186
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)

SAN JOSE MARRIOTT (Continued) **S108219554**

Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608501186
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501186
Status: Completed - Case Closed
Status Date: 10/18/2001

Global Id: T0608501186
Status: Open - Case Begin Date
Status Date: 10/31/1984

Global Id: T0608501186
Status: Open - Remediation
Status Date: 03/27/1985

Global Id: T0608501186
Status: Open - Site Assessment
Status Date: 10/10/1988

Global Id: T0608501186
Status: Open - Site Assessment
Status Date: 08/07/1990

Regulatory Activities:
Global Id: T0608501186
Action Type: REMEDIATION
Date: 03/27/1985
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608501186
Action Type: RESPONSE
Date: 02/15/1997
Action: Other Report / Document

Global Id: T0608501186
Action Type: RESPONSE
Date: 02/25/1999
Action: Other Report / Document

Global Id: T0608501186
Action Type: ENFORCEMENT
Date: 09/06/1991
Action: Notice of Responsibility - #39827

SAN JOSE MARRIOTT (Continued) **S108219554**

Global Id: T0608501186
Action Type: ENFORCEMENT
Date: 12/18/1998
Action: Staff Letter - #25941

Global Id: T0608501186
Action Type: ENFORCEMENT
Date: 01/06/1997
Action: Staff Letter - #25939

Global Id: T0608501186
Action Type: Other
Date: 10/31/1984
Action: Leak Reported

CUPA SANTA CLARA:
Region: SANTA CLARA
PE#: 2202
Program Description: GENERATES < 100 KG/YR
Latitude: 37.330376
Longitude: -121.887990

Region: SANTA CLARA
PE#: 2399
Program Description: UNDERGROUND STORAGE TANK PROGRAM RECORD
Latitude: 37.330376
Longitude: -121.887990

Region: SANTA CLARA
PE#: BP01
Program Description: HMBP FACILITY, 1-3 CHEMICALS
Latitude: 37.330376
Longitude: -121.887990

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76 **MERCADOS SUVIANDA** **CA LUST** **S109229642**
NNW **272 E. SANTA CLARA ST.** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.403 mi.
2126 ft.

Relative:
Lower

Actual:
86 ft.

LUST:
Region: STATE
Global Id: T0608558142
Latitude: 37.3387559057364
Longitude: -121.884577274323
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/24/2013
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: AC
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: 14-790
LOC Case Number: 07S1E08G02f
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern: Diesel, Gasoline

MERCADOS SUVIANDA (Continued) **S109229642**

Site History: Phase II Assessment was conducted June 2008. Former gasoline service station believed to have been in operation from 1915 through 1965. Soil borings resulted in finding soil and groundwater contamination as follow:In soil 1,200 ppm TPHd, 297 ppm TPHg, 0.22 ppm n-Propylbenzene at 17.5 ft bgs and in groundwater 12,200 ppb TPHd, 2,300 ppb TPHg, 69.2 ppb n-Propylbenzene. Additional soil and groundwater investigation took place August 2008 and showed high levels of TPHg and TPHd. Work Plan was requested to be submitted in July 2009 for additional site assessment report to inlcude determination of groundwater flow direction and the gradient and efforts to locate the UST. Extension to submit the work plan was given to April 2010.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608558142
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608558142
Contact Type:	Local Agency Caseworker
Contact Name:	AARON COSTA
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	aaron.costa@deh.sccgov.org
Phone Number:	4089181954

Status History:

Global Id:	T0608558142
Status:	Completed - Case Closed
Status Date:	12/24/2013

Global Id:	T0608558142
Status:	Open - Case Begin Date
Status Date:	06/10/2008

Global Id:	T0608558142
Status:	Open - Eligible for Closure
Status Date:	08/23/2013

Global Id:	T0608558142
Status:	Open - Site Assessment
Status Date:	07/03/2008

Regulatory Activities:

Global Id:	T0608558142
Action Type:	RESPONSE
Date:	01/21/2011
Action:	Correspondence

MERCADOS SUVIANDA (Continued) **S109229642**

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 07/30/2008
Action: Staff Letter

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 08/26/2013
Action: Staff Letter

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 06/03/2013
Action: Staff Letter

Global Id: T0608558142
Action Type: Other
Date: 06/10/2008
Action: Leak Began

Global Id: T0608558142
Action Type: RESPONSE
Date: 03/09/2009
Action: Soil and Water Investigation Report

Global Id: T0608558142
Action Type: RESPONSE
Date: 08/12/2009
Action: Soil and Water Investigation Workplan

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 02/13/2012
Action: Notice of Responsibility

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 02/02/2012
Action: Staff Letter

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 12/24/2013
Action: Closure/No Further Action Letter

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 09/05/2013
Action: Email Correspondence

Global Id: T0608558142
Action Type: RESPONSE
Date: 09/15/2008
Action: Preliminary Site Assessment Report

Global Id: T0608558142
Action Type: RESPONSE

MERCADOS SUVIANDA (Continued) **S109229642**

Date: 07/05/2007
Action: Other Report / Document

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 05/22/2009
Action: Staff Letter

Global Id: T0608558142
Action Type: RESPONSE
Date: 07/19/2013
Action: Soil and Water Investigation Report

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 04/17/2013
Action: Notice of Responsibility

Global Id: T0608558142
Action Type: RESPONSE
Date: 08/14/2009
Action: Soil and Water Investigation Workplan

Global Id: T0608558142
Action Type: RESPONSE
Date: 04/20/2012
Action: Site Assessment Report

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 10/09/2009
Action: Staff Letter - #9002901

Global Id: T0608558142
Action Type: RESPONSE
Date: 05/13/2013
Action: Other Workplan

Global Id: T0608558142
Action Type: RESPONSE
Date: 07/01/2008
Action: Unauthorized Release Form

Global Id: T0608558142
Action Type: RESPONSE
Date: 10/04/2013
Action: Site Assessment Report - Regulator Responded

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 12/03/2010
Action: Staff Letter - #0102321

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 10/15/2013
Action: Letter - Notice

MERCADOS SUVIANDA (Continued) **S109229642**

Global Id: T0608558142
Action Type: Other
Date: 06/10/2008
Action: Leak Discovery

Global Id: T0608558142
Action Type: Other
Date: 07/01/2008
Action: Leak Reported

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 07/30/2008
Action: Staff Letter

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 07/02/2008
Action: Notice of Responsibility

Global Id: T0608558142
Action Type: RESPONSE
Date: 05/31/2013
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 06/13/2013
Action: Notice of Responsibility

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 04/18/2013
Action: Staff Letter

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Notice of Responsibility - #80370

Global Id: T0608558142
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Notice of Responsibility

Global Id: T0608558142
Action Type: Other
Date: 06/10/2008
Action: Leak Stopped

Global Id: T0608558142
Action Type: RESPONSE
Date: 04/30/2010
Action: Site Assessment Report

MERCADOS SUVIANDA (Continued) **S109229642**

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08G02F
Date Closed: 12/24/2013
EDR Link ID: 07S1E08G02F

Q77 **598 S. 1ST. ST. (SS#21-1286)** **CA LUST S106203321**
SSW **598 S FIRST ST.** **CA WDS N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.405 mi.
2137 ft. **Site 1 of 3 in cluster Q**

Relative:
Higher

Actual:
101 ft.

LUST:

Region:	STATE
Global Id:	T0608501801
Latitude:	37.3273333333333
Longitude:	-121.8837
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	02/21/2011
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	GOR
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	14-225
LOC Case Number:	07S1E17G02f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	MTBE / TBA / Other Fuel Oxygenates, Gasoline
Site History:	The first soil borings were drilled onsite in may 1993. 5 soil borings (B1 through B5) were drilled near the former dispenser islands, gasoline USTs and the "unknown featur" at the reas of the building. Petroleum hydrocarbons were detected in both soil and groundwter samples from the soil borings. In August 1994, 7 additional soil borings (SB1 through SB7) were advanced onsite. 4 were completed as groundwater monitoring wells (MW1 through MW4). TPHg was reported in groundwater from well MW1 at 50,000 ppb. In July 1999, 9 geoprobe borings (GP1 through GP9) were advanced for the collection of soil and groundwater samples. In December 2000, 4 wells (MW5 through MW8) were installed on and offsite. In October 2004, a two-phase extraction system (TPET) was installed at the site. In the fourth quarter 2008, the TPET system was replaced with a new dual-phase extraction and treatment (DPET) system. Remediation and monitoring are ongoing.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501801
Contact Type:	Local Agency Caseworker
Contact Name:	Gerald O'Regan
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 BERGER DRIVE STE 300
City:	SAN JOSE
Email:	gerald.o'regan@deh.sccgov.org
Phone Number:	Not reported

Status History:

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Global Id: T0608501801
Status: Open - Case Begin Date
Status Date: 05/11/1993

Global Id: T0608501801
Status: Open - Remediation
Status Date: 01/14/2005

Global Id: T0608501801
Status: Open - Site Assessment
Status Date: 05/11/1993

Global Id: T0608501801
Status: Open - Site Assessment
Status Date: 02/21/2011

Regulatory Activities:
Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 11/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 01/30/2011
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2011
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/30/2011
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2011
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/11/2014
Action: Correspondence

Global Id: T0608501801
Action Type: RESPONSE
Date: 06/03/2016
Action: CAP/RAP - Final Remediation / Design Plan - Regulator Responded

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 12/30/2011
Action: Staff Letter

Global Id: T0608501801
Action Type: RESPONSE
Date: 11/21/1997
Action: Monitoring Report - Quarterly

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 01/28/2013
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 06/04/2015
Action: Staff Letter

Global Id: T0608501801
Action Type: RESPONSE
Date: 11/30/2011
Action: Soil and Water Investigation Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 06/03/2013
Action: Other Report / Document

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/25/2014
Action: Site Assessment Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2009
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 11/30/2015
Action: Pilot Study/ Treatability Report

Global Id: T0608501801
Action Type: RESPONSE

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Date: 04/30/2010
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 01/30/2010
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/30/2010
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2017
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 08/31/2016
Action: Risk Assessment Report

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 02/03/2014
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 01/29/2014
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 03/24/2015
Action: Notice of Responsibility

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 06/25/1996
Action: Notice of Responsibility - #39834

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 11/18/1997
Action: Staff Letter - #25624

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 05/18/2000
Action: Staff Letter - #25632

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 03/27/2002
Action: Staff Letter - #20723

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 06/01/2015
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/30/2009
Action: Remedial Progress Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/23/2015
Action: Email Correspondence

Global Id: T0608501801
Action Type: RESPONSE
Date: 07/15/2015
Action: Correspondence

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 05/07/2009
Action: Staff Letter

Global Id: T0608501801
Action Type: RESPONSE
Date: 01/31/2011
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 06/19/2013
Action: Staff Letter

Global Id: T0608501801
Action Type: REMEDIATION
Date: 01/14/2005
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0608501801
Action Type: ENFORCEMENT

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Date: 02/19/2015
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 07/28/2015
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 05/09/2014
Action: Staff Letter

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 05/18/2012
Action: Soil and Water Investigation Report

Global Id: T0608501801
Action Type: RESPONSE
Date: 03/31/2014
Action: Correspondence

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: RESPONSE
Date: 01/25/2013
Action: Other Workplan - Regulator Responded

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 07/07/2011
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 06/08/2012
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 11/12/2014
Action: Staff Letter

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Global Id:	T0608501801
Action Type:	RESPONSE
Date:	04/30/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	03/09/2015
Action:	Email Correspondence
Global Id:	T0608501801
Action Type:	ENFORCEMENT
Date:	02/11/2011
Action:	Staff Letter
Global Id:	T0608501801
Action Type:	ENFORCEMENT
Date:	05/31/2012
Action:	Staff Letter
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	12/07/2012
Action:	Soil Vapor Intrusion Investigation Report
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	01/30/2013
Action:	Monitoring Report - Quarterly
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	04/30/2013
Action:	Monitoring Report - Quarterly
Global Id:	T0608501801
Action Type:	Other
Date:	05/11/1993
Action:	Leak Discovery
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	10/30/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	06/30/2015
Action:	Email Correspondence
Global Id:	T0608501801
Action Type:	Other
Date:	05/25/1993
Action:	Leak Reported
Global Id:	T0608501801
Action Type:	RESPONSE

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Date: 10/30/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 06/17/2009
Action: Staff Letter

Global Id: T0608501801
Action Type: RESPONSE
Date: 08/05/2013
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0608501801
Action Type: RESPONSE
Date: 04/30/2013
Action: Remedial Investigation Workplan - Regulator Responded

Global Id: T0608501801
Action Type: RESPONSE
Date: 01/30/2015
Action: CAP/RAP - Other Report - Regulator Responded

Global Id: T0608501801
Action Type: RESPONSE
Date: 11/02/2012
Action: Other Report / Document

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 11/08/2010
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 12/16/2010
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 12/05/2012
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 10/01/2013
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 05/01/2013
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 06/07/2016
Action: Staff Letter

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 04/14/2008
Action: Staff Letter - #804140

Global Id: T0608501801
Action Type: RESPONSE
Date: 10/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 08/03/2012
Action: Staff Letter

Global Id: T0608501801
Action Type: REMEDIATION
Date: 03/12/2010
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 05/14/2012
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 08/13/2013
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 03/29/2016
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 03/30/2016
Action: Staff Letter

Global Id: T0608501801
Action Type: ENFORCEMENT
Date: 03/02/2006
Action: Staff Letter - #602030

Global Id: T0608501801
Action Type: RESPONSE
Date: 05/30/2013
Action: Site Assessment Report

Global Id: T0608501801
Action Type: RESPONSE

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

Date:	07/30/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	01/30/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0608501801
Action Type:	ENFORCEMENT
Date:	09/24/2013
Action:	Staff Letter
Global Id:	T0608501801
Action Type:	RESPONSE
Date:	05/22/2000
Action:	Monitoring Report - Quarterly

WDS:

Facility ID:	San Francisco Bay 438620001
Facility Type:	Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAG912002 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	9169793862
Facility Contact:	Garrett Turner (SAIC)
Agency Name:	CHEVRONTEXACO
Agency Address:	P.O. Box 6012
Agency City,St,Zip:	San Ramon 94583
Agency Contact:	Mark Lafferty Project Manager
Agency Telephone:	9258428953
Agency Type:	Private
SIC Code:	5541
SIC Code 2:	Not reported
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Primary Waste:	CNWTRS
Waste Type2:	Not reported
Waste2:	Contaminated Ground Water
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a

598 S. 1ST. ST. (SS#21-1286) (Continued) **S106203321**

significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.

Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

Q78 **TEXACO** **CA HIST CORTESE** **S102438608**
SSW **598 1ST** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.405 mi.
2137 ft. **Site 2 of 3 in cluster Q**

Relative:
Higher

Actual:
101 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1881

Q79 **FORMER TEXACO STATION** **CA LUST** **S103881051**
SSW **598 S 1ST ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.405 mi.
2137 ft. **Site 3 of 3 in cluster Q**

Relative:
Higher

Actual:
101 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Remedial action (cleanup) Underway
Case Number: 07S1E17G02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 5/11/1993
Pollution Characterization Began: 5/11/1993
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 3/27/2002
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17G02F
Date Closed: Not reported
EDR Link ID: 07S1E17G02F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17G02
Oversite Agency: SCCDEH

FORMER TEXACO STATION (Continued) **S103881051**

Date Listed: 1994-03-04 00:00:00
Closed Date: Not reported

80
NE
1/4-1/2
0.406 mi.
2142 ft.

APTON PROPERTY **CA LUST** **S102424049**
505 E SAN CARLOS ST **CA HIST LUST** **N/A**
SAN JOSE, CA 95112 **CA HIST CORTESE**

Relative:
Higher

Actual:
93 ft.

LUST:

Region:	STATE
Global Id:	T0608500973
Latitude:	37.336787
Longitude:	-121.875268
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/05/1994
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608500973
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608500973
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608500973
Status:	Completed - Case Closed
Status Date:	10/05/1994

Global Id:	T0608500973
Status:	Open - Case Begin Date
Status Date:	03/06/1989

Global Id:	T0608500973

APTON PROPERTY (Continued) **S102424049**

Status: Open - Site Assessment
Status Date: 03/06/1989

Regulatory Activities:
Global Id: T0608500973
Action Type: ENFORCEMENT
Date: 04/06/1993
Action: Notice of Responsibility - #39876

Global Id: T0608500973
Action Type: RESPONSE
Date: 08/10/1993
Action: Other Report / Document

Global Id: T0608500973
Action Type: Other
Date: 10/29/1992
Action: Leak Reported

Global Id: T0608500973
Action Type: ENFORCEMENT
Date: 10/05/1994
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08J01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/6/1989
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08J01F
Date Closed: 10/05/1994
EDR Link ID: 07S1E08J01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08J01
Oversite Agency: SCVWD
Date Listed: 1993-03-09 00:00:00
Closed Date: 1994-10-05 00:00:00

APTON PROPERTY (Continued) **S102424049**

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0973

R81 **MERRY OLDSMOBILE** **CA HIST CORTESE** **S103957331**
SSW **525 MARKET** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.407 mi.
2147 ft. **Site 1 of 2 in cluster R**

Relative:
Higher

Actual:
100 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0885

R82 **MERRY OLDSMOBILE** **CA LUST** **U001602684**
SSW **525 S MARKET ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.407 mi.
2147 ft. **Site 2 of 2 in cluster R**

Relative:
Higher

Actual:
100 ft.

LUST:
Region: STATE
Global Id: T0608500894
Latitude: 37.3276318253637
Longitude: -121.885049343109
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/02/1997
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608500894
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608500894
Contact Type: Local Agency Caseworker

MERRY OLDSMOBILE (Continued) **U001602684**

Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608500894
Status: Completed - Case Closed
Status Date: 06/02/1997

Global Id: T0608500894
Status: Open - Case Begin Date
Status Date: 01/03/1989

Global Id: T0608500894
Status: Open - Site Assessment
Status Date: 01/03/1989

Global Id: T0608500894
Status: Open - Site Assessment
Status Date: 10/15/1990

Regulatory Activities:
Global Id: T0608500894
Action Type: ENFORCEMENT
Date: 10/02/1996
Action: Notice of Responsibility - #39823

Global Id: T0608500894
Action Type: ENFORCEMENT
Date: 06/02/1997
Action: Closure/No Further Action Letter

Global Id: T0608500894
Action Type: Other
Date: 09/12/1990
Action: Leak Reported

Global Id: T0608500894
Action Type: RESPONSE
Date: 06/02/1997
Action: Other Report / Document

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E17B01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST

MERRY OLDSMOBILE (Continued) **U001602684**

Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 1/3/1989
Pollution Characterization Began: 10/15/1990
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17B01F
Date Closed: 06/02/1997
EDR Link ID: 07S1E17B01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17B01
Oversite Agency: SCVWD
Date Listed: 1991-01-01 00:00:00
Closed Date: 1997-06-02 00:00:00

S83 **DE LUXE CLEANERS** **CA SLIC** **S106829829**
NNW **224 E SANTA CLARA ST** **CA SWEEPS UST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113** **CA EMI**
0.408 mi.
2153 ft. **Site 1 of 2 in cluster S**

Relative:
Lower

Actual:
86 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 04/09/1997
Global Id: T10000007690
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.33845
Longitude: -121.88578
Case Type: Cleanup Program Site
Case Worker: UUU
Local Agency: Not reported
RB Case Number: 43-1907
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SWEEPS UST:
Status: Not reported
Comp Number: 405572
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported

DE LUXE CLEANERS (Continued) **S106829829**

SWRCB Tank Id:	43-060-405572-000001
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	PETROLEUM
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	2
Status:	Not reported
Comp Number:	405572
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-405572-000002
Tank Status:	Not reported
Capacity:	1000
Active Date:	Not reported
Tank Use:	PETROLEUM
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

EMI:

Year:	1990
County Code:	43
Air Basin:	SF
Facility ID:	1993
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

S84 **DELUXE CLEANERS** **CA SLIC** **S104397019**
NNW **224 SANTA CLARA E** **CA HIST CORTESE** **N/A**
1/4-1/2 **SAN JOSE, CA 95116**
0.412 mi.
2178 ft. **Site 2 of 2 in cluster S**

Relative:
Lower

Actual:
86 ft.

SLIC REG 2:

Region:	2
Facility ID:	SLT2O286177
Facility Status:	Leak being confirmed
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Not reported

DELUXE CLEANERS (Continued) **S104397019**

Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1907

T85 **DELUXE CLEANERS** **CA SLIC** **S105194807**
NNW **250 SANTA CLARA ST E** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.413 mi.
2183 ft. **Site 1 of 2 in cluster T**

Relative:
Lower

Actual:
86 ft.

SLIC REG 2:
Region: 2
Facility ID: 43-1918
Facility Status: Preliminary site assessment workplan submitted
Date Closed: Not reported
Local Case #: 43-1918
How Discovered: Tank Closure
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: 8/2/1995
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

U86 **DOWNTOWN AUTO EXPRESS** **CA LUST** **U001602683**
NW **154 E SANTA CLARA ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113** **CA SWEEPS UST**
0.418 mi.
2205 ft. **Site 1 of 4 in cluster U**

Relative:
Lower

Actual:
86 ft.

LUST:
Region: STATE
Global Id: T0608500529
Latitude: 37.337786
Longitude: -121.886146
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 01/12/1998
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP

DOWNTOWN AUTO EXPRESS (Continued) **U001602683**

RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608500529
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608500529
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608500529
Status: Completed - Case Closed
Status Date: 01/12/1998

Global Id: T0608500529
Status: Open - Case Begin Date
Status Date: 02/12/1987

Global Id: T0608500529
Status: Open - Site Assessment
Status Date: 02/12/1987

Global Id: T0608500529
Status: Open - Site Assessment
Status Date: 03/23/1987

Regulatory Activities:
Global Id: T0608500529
Action Type: RESPONSE
Date: 01/12/1998
Action: Other Report / Document

Global Id: T0608500529
Action Type: ENFORCEMENT
Date: 01/12/1998
Action: Closure/No Further Action Letter

Global Id: T0608500529

DOWNTOWN AUTO EXPRESS (Continued) **U001602683**

Action Type: ENFORCEMENT
Date: 03/18/1997
Action: Notice of Responsibility - #39882

Global Id: T0608500529
Action Type: ENFORCEMENT
Date: 06/27/1997
Action: Staff Letter - #26681

Global Id: T0608500529
Action Type: Other
Date: 04/08/1987
Action: Leak Reported

Global Id: T0608500529
Action Type: RESPONSE
Date: 09/01/1997
Action: Soil and Water Investigation Workplan

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08L02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 2/12/1987
Pollution Characterization Began: 3/23/1987
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L02F
Date Closed: 01/12/1998
EDR Link ID: 07S1E08L02F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08L02
Oversite Agency: SCVWD
Date Listed: 1988-01-01 00:00:00
Closed Date: 1998-01-12 00:00:00

SWEEPS UST:
Status: Not reported
Comp Number: 401599
Number: Not reported

DOWNTOWN AUTO EXPRESS (Continued) **U001602683**

Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-401599-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: 6

Status: Not reported
Comp Number: 401599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-401599-000002
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 401599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-401599-000003
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 401599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-401599-000004

DOWNTOWN AUTO EXPRESS (Continued) **U001602683**

Tank Status:	Not reported
Capacity:	1000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401599
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401599-000005
Tank Status:	Not reported
Capacity:	1000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401599
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401599-000006
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	Not reported
Number Of Tanks:	Not reported

87
NW
1/4-1/2
0.419 mi.
2210 ft.

CENTURY CITY PARKING LOT **CA SLIC** **S106235237**
15 SOUTH THIRD STREET **N/A**
SAN JOSE, CA 95113

Relative:
Lower

Actual:
87 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	01/30/2007
Global Id:	SL20295912
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	37.3368110166503
Longitude:	-121.887989044189
Case Type:	Cleanup Program Site

CENTURY CITY PARKING LOT (Continued) **S106235237**

Case Worker: DIB
Local Agency: Not reported
RB Case Number: SL20295912
File Location: Regional Board
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:
Region: 2
Facility ID: SL20295912
Facility Status: Post remedial action monitoring
Date Closed: Not reported
Local Case #: Not reported
How Discovered: RPR
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

88
NW
1/4-1/2
0.425 mi.
2245 ft.

BANK OF TRADE BUILDING
100 E SANTA CLARA ST
SAN JOSE, CA 95118

CA LUST **S101309282**
CA HIST LUST **N/A**
CA HIST CORTESE

Relative:
Lower

Actual:
87 ft.

LUST:
Region: STATE
Global Id: T0608500212
Latitude: 37.337286
Longitude: -121.887206
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/22/2000
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: UST
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0608500212
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)

BANK OF TRADE BUILDING (Continued) **S101309282**

Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608500212
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608500212
Status: Completed - Case Closed
Status Date: 11/22/2000

Global Id: T0608500212
Status: Open - Case Begin Date
Status Date: 02/13/1989

Global Id: T0608500212
Status: Open - Site Assessment
Status Date: 02/13/1989

Global Id: T0608500212
Status: Open - Site Assessment
Status Date: 01/11/1993

Regulatory Activities:
Global Id: T0608500212
Action Type: ENFORCEMENT
Date: 11/22/2000
Action: Closure/No Further Action Letter

Global Id: T0608500212
Action Type: RESPONSE
Date: 06/30/1994
Action: Well Destruction Report

Global Id: T0608500212
Action Type: ENFORCEMENT
Date: 04/03/1992
Action: Notice of Violation - #39884

Global Id: T0608500212
Action Type: ENFORCEMENT
Date: 12/17/1993
Action: Staff Letter - #26702

Global Id: T0608500212
Action Type: RESPONSE
Date: 11/22/2000
Action: Other Report / Document

BANK OF TRADE BUILDING (Continued) **S101309282**

Global Id: T0608500212
Action Type: RESPONSE
Date: 12/28/1999
Action: Other Report / Document

Global Id: T0608500212
Action Type: RESPONSE
Date: 10/28/1992
Action: Other Report / Document

Global Id: T0608500212
Action Type: RESPONSE
Date: 07/16/1991
Action: Other Report / Document

Global Id: T0608500212
Action Type: Other
Date: 03/10/1989
Action: Leak Reported

Global Id: T0608500212
Action Type: RESPONSE
Date: 01/31/1994
Action: Remedial Progress Report

Global Id: T0608500212
Action Type: RESPONSE
Date: 06/30/1993
Action: Correspondence

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08L04f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 2/13/1989
Pollution Characterization Began: 1/11/1993
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L04F
Date Closed: 11/22/2000
EDR Link ID: 07S1E08L04F

HIST LUST SANTA CLARA:
Region: SANTA CLARA

BANK OF TRADE BUILDING (Continued) **S101309282**

Region Code: 2
SCVWD ID: 07S1E08L04
Oversite Agency: SCVWD
Date Listed: 1991-05-29 00:00:00
Closed Date: 2000-11-22 00:00:00

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0146

U89 **DOWNTOWN AUTO EXPRESS SJ** **CA HIST CORTESE** **S104162857**
NW **154 SANTA CLARA** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.426 mi.
2248 ft. **Site 2 of 4 in cluster U**

Relative:
Lower

Actual:
86 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0483

U90 **94259** **CA LUST** **U001602681**
NW **147 E SANTA CLARA** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113** **CA SWEEPS UST**
0.427 mi. **CA HIST UST**
2255 ft. **Site 3 of 4 in cluster U** **CA CUPA Listings**
CA SAN JOSE HAZMAT

Relative:
Lower

Actual:
86 ft.

LUST:
Region: STATE
Global Id: T0608500345
Latitude: 37.337799
Longitude: -121.887740666667
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/21/2010
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 01-038
LOC Case Number: 07S1E08L01f
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: MTBE / TBA / Other Fuel Oxygenates, Gasoline
Site History: 12/83, a leak in the gasoline product line was discovered near the southwestern edge of the fuel dispenser island and a corroded section of pipe was replaced to stop the leak. 1/84, 6 groundwater monitoring wells were installed and commenced weekly monitoring for free product (FP). 2/84, one inch of FP measured in well MW-5 and also present in monitoring wells located near the USTs. 6/84, a pinhole sized leak was detected and repaired in the dispenser filter located at the southeastern edge of the fuel dispenser island. 2 additional monitoring wells were installed 10/84. 11/84 a hole was discovered

94259 (Continued) **U001602681**

near the northwest corner of a UST containing regular gasoline. The gasoline was pumped out of the UST, and the UST was removed from service until it was replaced in 1985. 5/85, USTs and piping were replaced. Product conveyance piping was also replaced with cathodic-protected conveyance piping. 11/89, advanced 6 soil borings, installed 2 wells, and determining the hydraulic conductivity and transmissivity after performing slug tests. Three areas containing soil and/or groundwater contamination were identified in the investigation: UST complex; waste oil UST and steam-cleaning area; and dispsenser islands in the southeast portion of the Site. 3/90, wells MW-6 and MW-8 located near the waste oil UST and steam-cleaning area were destroyed. Both wells had contained measurable amounts of FP and it was suspected that oily residue from the steam cleaning process was collecting in them and providing an additional source of groundwater contamination. Well MW-11 was installed as a replacement. Jan-Aug 1990, 5 soil borings advanced onsite; 19 borings and 1 monitoring well were advanced off-site. 4 extraction wells were also installed onsite along the northern border of the property. 4/90, conducted hydraulic testing and a soil vapor extraction (SVE) pilot study. The results of the SVE pilot study indicated that a full-scale SVE system could be used to remediate hydrocarbons in the unsaturated soils beneath the Site. 12/91, 4 off-site monitoring wells were installed. Groundwater extraction and treatment (GWET) system operated 2/92-6/96 and removed approximately 1,765,354 gal. of water and removed approximately 17 pounds of petroleum hydrocarbons. 5/00, 11 soil borings and 2 piezometers were advanced. 2002, a risk-based corrective action (RBCA) assessment was conducted to determine if the petroleum hydrocarbons in the soil and groundwater on and off-site presented a risk to human health. The RBCA indicated that all soil concentrations were below risk-based screening levels (RBSLs) assigned by the Regional Water Quality Control Board for the specified receptors (commercial workers, construction workers on and residents). Residents were included as on-site receptors based on the proximity of the Site to the senior apartment complex and the potential for the dissolved hydrocarbon plume to migrate beneath the building. The only exposure pathway of concern identified in the RBCA assessment was inhalation of benzene vapors in indoor air. The theoretical excess cancer risks and hazard quotients (for non carcinogens) were less than the respective Cal-EPA limits of one in a million. 1/04 a 2-phase extraction and treatment (TPET) system began operating and ran through 11/06. 9/08, 9 soil borings were advanced to collect confirmation soil samples.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608500345
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Status History:

Global Id:	T0608500345

94259 (Continued) **U001602681**

Status: Completed - Case Closed
Status Date: 05/21/2010

Global Id: T0608500345
Status: Open - Case Begin Date
Status Date: 07/01/1983

Global Id: T0608500345
Status: Open - Remediation
Status Date: 01/26/2004

Global Id: T0608500345
Status: Open - Site Assessment
Status Date: 07/01/1983

Global Id: T0608500345
Status: Open - Site Assessment
Status Date: 03/01/1999

Global Id: T0608500345
Status: Open - Verification Monitoring
Status Date: 11/08/2006

Regulatory Activities:
Global Id: T0608500345
Action Type: RESPONSE
Date: 04/03/1990
Action: Other Workplan

Global Id: T0608500345
Action Type: RESPONSE
Date: 02/04/2002
Action: Risk Assessment Report

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 05/21/2010
Action: Closure/No Further Action Letter

Global Id: T0608500345
Action Type: RESPONSE
Date: 04/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/31/1999
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 08/29/1990

94259 (Continued) **U001602681**

Action: Soil and Water Investigation Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 09/12/1997
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 08/05/2000
Action: Soil and Water Investigation Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 04/30/2001
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 03/05/1997
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/30/2008
Action: Soil and Water Investigation Workplan

Global Id: T0608500345
Action Type: RESPONSE
Date: 09/10/1999
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/15/2000
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/30/2001
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 11/01/1999
Action: Soil and Water Investigation Workplan

Global Id: T0608500345
Action Type: RESPONSE
Date: 08/10/1995
Action: Other Report / Document

94259 (Continued) **U001602681**

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 06/05/2009
Action: Staff Letter

Global Id: T0608500345
Action Type: RESPONSE
Date: 12/13/1994
Action: Unauthorized Release Form

Global Id: T0608500345
Action Type: RESPONSE
Date: 06/09/2000
Action: Other Report / Document

Global Id: T0608500345
Action Type: RESPONSE
Date: 03/08/2001
Action: Verbal Communication

Global Id: T0608500345
Action Type: RESPONSE
Date: 03/01/1999
Action: Other Workplan

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/15/1999
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/11/1990
Action: Preliminary Site Assessment Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/30/1998
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/07/1997
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/31/2002
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE

94259 (Continued) **U001602681**

Date: 10/15/1999
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 04/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 01/09/1990
Action: Staff Letter - #26801

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 03/11/1988
Action: Notice of Responsibility - #39881

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 08/27/1990
Action: Staff Letter - #26805

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 12/14/1994
Action: Staff Letter - #26807

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 11/08/1996
Action: Staff Letter - #26811

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 03/01/1997
Action: Staff Letter - #26635

Global Id: T0608500345
Action Type: RESPONSE
Date: 12/09/2009
Action: Correspondence

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/31/2000
Action: Well Installation Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/01/1990
Action: NPDES / WDR Reports

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/23/2008
Action: Soil and Water Investigation Workplan

94259 (Continued) **U001602681**

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 04/03/2009
Action: Staff Letter

Global Id: T0608500345
Action Type: RESPONSE
Date: 03/14/1991
Action: Other Report / Document

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/27/2007
Action: Other Report / Document

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/31/2004
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/31/2003
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 08/21/2008
Action: Staff Letter - #80128

Global Id: T0608500345
Action Type: RESPONSE
Date: 09/04/2009
Action: Other Report / Document

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/06/2008
Action: Soil and Water Investigation Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/15/2000
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 09/09/1997
Action: Staff Letter - #26638

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 08/25/1998
Action: Staff Letter - #26644

Global Id: T0608500345
Action Type: ENFORCEMENT

94259 (Continued) **U001602681**

Date: 03/08/1999
Action: Staff Letter - #26652

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 04/16/1999
Action: Staff Letter - #26647

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 06/14/1999
Action: Staff Letter - #26654

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 09/02/1999
Action: Staff Letter - #26656

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 10/28/1999
Action: Staff Letter - #26650

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 05/07/2000
Action: Staff Letter - #26664

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 05/31/2000
Action: Staff Letter - #26662

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 08/31/2000
Action: Staff Letter - #26666

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 02/15/2001
Action: Staff Letter - #26668

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 07/03/2001
Action: Staff Letter - #26673

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 12/01/2001
Action: Staff Letter - #37611

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 05/31/2002
Action: Staff Letter - #38421

94259 (Continued) **U001602681**

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 08/26/2002
Action: Staff Letter - #38548

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 02/01/2003
Action: Staff Letter - #41375

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 05/01/2004
Action: Staff Letter - #44517

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 02/09/2005
Action: Staff Letter - #509020

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/18/2001
Action: CAP/RAP - Other Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 12/14/1994
Action: Other Report / Document

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 09/09/2009
Action: Notification - Public Notice of Case Closure

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 08/05/2009
Action: Staff Letter

Global Id: T0608500345
Action Type: RESPONSE
Date: 02/23/2009
Action: Correspondence

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/30/2008
Action: Remedial Progress Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 02/27/2004
Action: Other Report / Document

Global Id: T0608500345
Action Type: REMEDIATION

94259 (Continued) **U001602681**

Date: 02/01/1992
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608500345
Action Type: REMEDIATION
Date: 01/16/2004
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0608500345
Action Type: Other
Date: 12/21/1983
Action: Leak Discovery

Global Id: T0608500345
Action Type: Other
Date: 03/12/1984
Action: Leak Reported

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 10/28/2009
Action: Staff Letter

Global Id: T0608500345
Action Type: RESPONSE
Date: 11/11/1989
Action: Preliminary Site Assessment Workplan

Global Id: T0608500345
Action Type: RESPONSE
Date: 08/17/2001
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 06/02/2008
Action: Staff Letter - #802060

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 04/11/2008
Action: Staff Letter - #80114

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/31/2002
Action: CAP/RAP - Feasibility Study Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 03/08/1984
Action: Other Report / Document

Global Id: T0608500345
Action Type: RESPONSE
Date: 03/31/2009
Action: Other Report / Document

94259 (Continued) **U001602681**

Global Id: T0608500345
Action Type: ENFORCEMENT
Date: 12/09/2009
Action: Staff Letter

Global Id: T0608500345
Action Type: RESPONSE
Date: 12/07/2001
Action: Correspondence

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/18/2010
Action: Well Destruction Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: Other
Date: 12/21/1983
Action: Leak Stopped

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/06/2008
Action: Soil and Water Investigation Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/30/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/12/2007
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/29/2002
Action: Other Workplan

Global Id: T0608500345
Action Type: RESPONSE

94259 (Continued) **U001602681**

Date: 07/31/2004
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/31/2003
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 04/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 08/02/2002
Action: Other Report / Document

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/31/2004
Action: Remedial Progress Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/31/2004
Action: Remedial Progress Report

Global Id: T0608500345
Action Type: RESPONSE
Date: 07/30/2001
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/30/2001
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 05/31/1999
Action: Soil and Water Investigation Workplan

Global Id: T0608500345
Action Type: RESPONSE
Date: 10/30/1998
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/31/2004
Action: Monitoring Report - Quarterly

Global Id: T0608500345
Action Type: RESPONSE
Date: 01/15/2000
Action: Monitoring Report - Quarterly

94259 (Continued) **U001602681**

Global Id: T0608500345
Action Type: RESPONSE
Date: 04/15/2000
Action: Monitoring Report - Quarterly

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Remedial action (cleanup) Underway
Case Number: 07S1E08L01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 7/1/1983
Pollution Characterization Began: 11/6/1989
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 1/26/2004
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08L01F
Date Closed: 05/21/2010
EDR Link ID: 07S1E08L01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08L01
Oversite Agency: SCCDEH
Date Listed: 1985-01-01 00:00:00
Closed Date: Not reported

SWEEPS UST:
Status: Active
Comp Number: 401244
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-08-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 43-060-401244-000001
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: OIL
STG: W
Content: Not reported
Number Of Tanks: 4

94259 (Continued) **U001602681**

Status:	Active
Comp Number:	401244
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-08-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000002
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	401244
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-08-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000003
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	401244
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-08-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000004
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401244
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported

94259 (Continued) **U001602681**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000005
Tank Status:	Not reported
Capacity:	1000
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	Not reported
Number Of Tanks:	4

Status:	Not reported
Comp Number:	401244
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000006
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401244
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000007
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401244
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-401244-000008
Tank Status:	Not reported
Capacity:	5000
Active Date:	Not reported

94259 (Continued) **U001602681**

Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

HIST UST:
File Number: 0002D03E
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002D03E.pdf
Region: STATE
Facility ID: 00000062591
Facility Type: Gas Station
Other Type: Not reported
Contact Name: SAUNDERS, GEORGE F
Telephone: 4082953964
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00011000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

94259 (Continued) **U001602681**

Click here for Geo Tracker PDF:

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	2399
Program Description:	UNDERGROUND STORAGE TANK PROGRAM RECORD
Latitude:	37.337697
Longitude:	-121.887636

Region:	SANTA CLARA
PE#:	2202
Program Description:	GENERATES < 100 KG/YR
Latitude:	37.337697
Longitude:	-121.887636

Region:	SANTA CLARA
PE#:	BP01
Program Description:	HMBP FACILITY, 1-3 CHEMICALS
Latitude:	37.337697
Longitude:	-121.887636

SAN JOSE HAZMAT:

Region:	SAN JOSE
File Num:	401244
Class:	Gasoline Station

U91 **CHEVRON** **CA HIST CORTESE** **S110060457**
NW **147 SANTA CLARA** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.427 mi.
2255 ft. **Site 4 of 4 in cluster U**

Relative:
Lower

Actual:
86 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-0288

T92 **VINTAGE TOWERS** **CA LUST** **S112893570**
NNW **235 E. SANTA CLARA STREET** **CA HAZNET** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.429 mi.
2267 ft. **Site 2 of 2 in cluster T**

Relative:
Lower

Actual:
85 ft.

LUST:

Region:	STATE
Global Id:	T10000007007
Latitude:	37.33874
Longitude:	-121.88565
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/01/2016
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	AC
Local Agency:	SANTA CLARA COUNTY LOP

VINTAGE TOWERS (Continued) **S112893570**

RB Case Number:	14-838
LOC Case Number:	07S1E08G03f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	UST found in basement of apartment building. It is believed that it was installed after 1926 to store bunker fuel for boilers located in the basement. The boilers were reportedly used until the mid to late 1950s. In January 2015, the UST was found and it contained dark black viscous material. Approximately 1,950 gallons of mostly water and bunker fuel was pumped from the tank. Due to location, UST will be closed in place. Background: In January 2015 the property owner initiated the process of closing the UST in place by removing any residual contents and filling it with a cement slurry. Part of this closure in place included soil and groundwater sampling from areas around the UST. Petroleum hydrocarbons were detected on soil and groundwater samples around the UST. Contaminants detected in soil and groundwater include Total Petroleum Hydrocarbons as gasoline (TPHg), Total Petroleum Hydrocarbons and diesel (TPHd), and Oil and Grease range hydrocarbons. No wells were installed and only grab groundwater samples collected. Two phases of investigation have adequately defined the nature and extent of contamination which is limited in extent.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000007007
Contact Type:	Local Agency Caseworker
Contact Name:	AARON COSTA
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	aaron.costa@deh.sccgov.org
Phone Number:	4089181954

Status History:

Global Id:	T10000007007
Status:	Completed - Case Closed
Status Date:	03/01/2016
Global Id:	T10000007007
Status:	Open - Case Begin Date
Status Date:	01/07/2015
Global Id:	T10000007007
Status:	Open - Eligible for Closure
Status Date:	06/11/2015
Global Id:	T10000007007
Status:	Open - Eligible for Closure
Status Date:	02/19/2016
Global Id:	T10000007007
Status:	Open - Site Assessment
Status Date:	06/02/2015

VINTAGE TOWERS (Continued) **S112893570**

Global Id: T10000007007
Status: Open - Verification Monitoring
Status Date: 07/15/2015

Regulatory Activities:
Global Id: T10000007007
Action Type: ENFORCEMENT
Date: 03/01/2016
Action: Closure/No Further Action Letter

Global Id: T10000007007
Action Type: ENFORCEMENT
Date: 12/18/2015
Action: Notification - Public Notice of Case Closure

Global Id: T10000007007
Action Type: Other
Date: 01/07/2015
Action: Leak Stopped

Global Id: T10000007007
Action Type: RESPONSE
Date: 04/21/2015
Action: Other Report / Document

Global Id: T10000007007
Action Type: RESPONSE
Date: 03/17/2015
Action: Email Correspondence

Global Id: T10000007007
Action Type: RESPONSE
Date: 05/22/2015
Action: Soil and Water Investigation Report

Global Id: T10000007007
Action Type: RESPONSE
Date: 12/22/2015
Action: Correspondence

Global Id: T10000007007
Action Type: RESPONSE
Date: 12/22/2015
Action: Correspondence

Global Id: T10000007007
Action Type: RESPONSE
Date: 07/01/2015
Action: Correspondence

Global Id: T10000007007
Action Type: ENFORCEMENT
Date: 06/04/2015
Action: Notice of Responsibility

Global Id: T10000007007
Action Type: RESPONSE

VINTAGE TOWERS (Continued) **S112893570**

Date: 03/13/2015
Action: Unauthorized Release Form

Global Id: T10000007007
Action Type: Other
Date: 03/06/2015
Action: Leak Discovery

Global Id: T10000007007
Action Type: Other
Date: 03/13/2015
Action: Leak Reported

Global Id: T10000007007
Action Type: RESPONSE
Date: 09/02/2015
Action: Tank Removal Report / UST Sampling Report

HAZNET:
envid: S112893570
Year: 1999
GEPAID: CAC001470008
Contact: REDEVELOPEMENT AGENCY CITY OF
Telephone: 4082322839
Mailing Name: Not reported
Mailing Address: 50 SAN FERNANDO ST STE 1500
Mailing City,St,Zip: SAN JOSE, CA 951132428
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Land Fill
Tons: .1000
Cat Decode: Other inorganic solid waste
Method Decode: Disposal, Land Fill
Facility County: Santa Clara

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93 **PIERCE DEVELOPMENT** **CA SLIC S116381371**
SSW **561-599 S. MARKET STREET AND 60 REED STREET** **CA DEED N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.432 mi.
2283 ft.

Relative:
Higher

Actual:
100 ft.

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 07/24/2015
Global Id: T10000005812
Lead Agency: SANTA CLARA COUNTY LOP
Lead Agency Case Number: 07S1E17G06s
Latitude: 37.326903162851
Longitude: -121.884518639051
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported

PIERCE DEVELOPMENT (Continued) **S116381371**

File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Soil
Potential Contaminants of Concern: Lead, Polynuclear aromatic hydrocarbons (PAHs), Total Petroleum Hydrocarbons (TPH)
Site History: 4 parcels located at 561, 577 and 599 S. Market Street and 60 Reed Street Closed LUFT case at 599 S. Market and USTs closed in place at 561 S. Market St. The Market Street parcels are developed commercially and the 60 Reed Street parcel is residential. All parcels are to be re-developed with commercial below with apartments above. Sampling reported the presence of elevated PAHs and Lead in soil.

Click here to access the California GeoTracker records for this facility:

DEED:
Envirostor ID: T10000005812
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 05/27/2015

94
NNW
1/4-1/2
0.433 mi.
2285 ft.

N 5TH SIDEWALK **CA LUST** **S108219544**
24 N 5TH ST **N/A**
SAN JOSE, CA

Relative:
Lower

Actual:
85 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08F04F
Date Closed: 12/28/2006
EDR Link ID: 07S1E08F04F

V95
SSW
1/4-1/2
0.433 mi.
2286 ft.

FIRESTONE BUILDING **CA HIST CORTESE** **S101309369**
599 1ST **N/A**
SAN JOSE, CA

Site 1 of 2 in cluster V

Relative:
Higher

Actual:
101 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0582

V96 **FIRESTONE BUILDING** **CA LUST** **U001602902**
SSW **599 S 1ST ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.446 mi.
2353 ft. **Site 2 of 2 in cluster V**

Relative:
Higher

Actual:
101 ft.

LUST:

Region:	STATE
Global Id:	T0608500619
Latitude:	37.3268703902053
Longitude:	-121.884060266641
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/26/1996
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608500619
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608500619
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608500619
Status:	Completed - Case Closed
Status Date:	09/26/1996

Global Id:	T0608500619
Status:	Open - Case Begin Date
Status Date:	03/30/1989

Global Id:	T0608500619
Status:	Open - Site Assessment
Status Date:	03/30/1989

Global Id:	T0608500619

FIRESTONE BUILDING (Continued) **U001602902**

Status: Open - Site Assessment
Status Date: 05/25/1989

Regulatory Activities:
Global Id: T0608500619
Action Type: ENFORCEMENT
Date: 03/30/1993
Action: Notice of Responsibility - #39833

Global Id: T0608500619
Action Type: ENFORCEMENT
Date: 09/26/1996
Action: Closure/No Further Action Letter

Global Id: T0608500619
Action Type: Other
Date: 05/08/1991
Action: Leak Reported

Global Id: T0608500619
Action Type: RESPONSE
Date: 09/26/1996
Action: Other Report / Document

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E17G01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/30/1989
Pollution Characterization Began: 5/25/1989
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17G01F
Date Closed: 09/26/1996
EDR Link ID: 07S1E17G01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17G01
Oversite Agency: SCVWD
Date Listed: 1992-01-01 00:00:00
Closed Date: 1996-09-26 00:00:00

97
NNE
1/4-1/2
0.450 mi.
2374 ft.

KAPPA SIGMA
148 11TH
SAN JOSE, CA 95112

CA LUST **S101304173**
CA HIST LUST **N/A**
CA HIST CORTESE

Relative:
Lower

Actual:
90 ft.

LUST:

Region:	STATE
Global Id:	T0608597933
Latitude:	37.3397453913805
Longitude:	-121.878612041473
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/16/1994
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608597933
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608597933
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608597933
Status:	Completed - Case Closed
Status Date:	08/16/1994

Global Id:	T0608597933
Status:	Open - Case Begin Date
Status Date:	01/01/1993

Regulatory Activities:

Global Id:	T0608597933
Action Type:	ENFORCEMENT
Date:	08/16/1994
Action:	Closure/No Further Action Letter

KAPPA SIGMA (Continued) **S101304173**

Global Id: T0608597933
Action Type: Other
Date: 01/01/1993
Action: Leak Reported

Global Id: T0608597933
Action Type: RESPONSE
Date: 07/19/1994
Action: Other Report / Document

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08H03f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08H03F
Date Closed: 08/16/1994
EDR Link ID: 07S1E08H03F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08H03
Oversite Agency: SCVWD
Date Listed: 1994-08-16 00:00:00
Closed Date: 1994-08-16 00:00:00

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0775

98
NNW
1/4-1/2
0.456 mi.
2410 ft.

N 5TH SIDEWALK
24 5TH
SAN JOSE, CA 95112

CA LUST **S107472972**
N/A

Relative:
Lower

Actual:
85 ft.

LUST:

Region:	STATE
Global Id:	T0608576161
Latitude:	37.338761
Longitude:	-121.886295
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/28/2006
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	14-745
LOC Case Number:	07S1E08F04f
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608576161
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Status History:

Global Id:	T0608576161
Status:	Completed - Case Closed
Status Date:	12/28/2006
Global Id:	T0608576161
Status:	Open - Case Begin Date
Status Date:	04/01/2005
Global Id:	T0608576161
Status:	Open - Site Assessment
Status Date:	04/01/2005
Global Id:	T0608576161
Status:	Open - Site Assessment
Status Date:	10/14/2005

Regulatory Activities:

Global Id:	T0608576161
Action Type:	RESPONSE
Date:	08/01/2002
Action:	Other Report / Document

N 5TH SIDEWALK (Continued) **S107472972**

Global Id: T0608576161
Action Type: RESPONSE
Date: 12/12/2005
Action: Correspondence

Global Id: T0608576161
Action Type: RESPONSE
Date: 12/04/2006
Action: Well Destruction Report

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 07/13/2006
Action: Closure/No Further Action Letter

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 04/12/2006
Action: Staff Letter - #6002214

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 05/03/2006
Action: Notice to Comply - #600235

Global Id: T0608576161
Action Type: RESPONSE
Date: 03/27/2006
Action: Soil and Water Investigation Workplan

Global Id: T0608576161
Action Type: RESPONSE
Date: 10/03/2006
Action: Correspondence

Global Id: T0608576161
Action Type: RESPONSE
Date: 10/03/2005
Action: Tank Removal Workplan

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 11/15/2005
Action: Notice of Responsibility - #50025111

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 01/06/2006
Action: Staff Letter - #600261

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 12/06/2005
Action: Notice of Responsibility - #5002621

Global Id: T0608576161
Action Type: RESPONSE

N 5TH SIDEWALK (Continued) **S107472972**

Date: 07/13/2006
Action: Monitoring Report - Quarterly

Global Id: T0608576161
Action Type: RESPONSE
Date: 10/14/2005
Action: Unauthorized Release Form

Global Id: T0608576161
Action Type: RESPONSE
Date: 07/12/2006
Action: Soil and Water Investigation Report

Global Id: T0608576161
Action Type: Other
Date: 08/24/2005
Action: Leak Discovery

Global Id: T0608576161
Action Type: Other
Date: 10/14/2005
Action: Leak Reported

Global Id: T0608576161
Action Type: ENFORCEMENT
Date: 12/28/2006
Action: Closure/No Further Action Letter - #608221

Global Id: T0608576161
Action Type: RESPONSE
Date: 07/03/2006
Action: Soil and Water Investigation Workplan

Global Id: T0608576161
Action Type: RESPONSE
Date: 12/18/2005
Action: Unknown

Global Id: T0608576161
Action Type: RESPONSE
Date: 01/23/2006
Action: Soil and Water Investigation Workplan

99
South
1/4-1/2
0.458 mi.
2418 ft.

CET DEVELOPMENT **CA LUST** **S104234154**
630 1ST **CA HIST LUST** **N/A**
SAN JOSE, CA 95112 **CA HIST CORTESE**

Relative:
Higher

Actual:
101 ft.

LUST:
Region: STATE
Global Id: T0608560823
Latitude: 37.326686
Longitude: -121.883129
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/15/1999

CET DEVELOPMENT (Continued) **S104234154**

Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608560823
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608560823
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608560823
Status:	Completed - Case Closed
Status Date:	10/15/1999

Global Id:	T0608560823
Status:	Open - Case Begin Date
Status Date:	08/19/1999

Global Id:	T0608560823
Status:	Open - Site Assessment
Status Date:	08/19/1999

Regulatory Activities:

Global Id:	T0608560823
Action Type:	RESPONSE
Date:	09/24/1999
Action:	Tank Removal Report / UST Sampling Report

Global Id:	T0608560823
Action Type:	RESPONSE
Date:	08/03/1999
Action:	Tank Removal Report / UST Sampling Report

Global Id:	T0608560823
Action Type:	RESPONSE

CET DEVELOPMENT (Continued) **S104234154**

Date: 09/16/1999
Action: Other Report / Document

Global Id: T0608560823
Action Type: RESPONSE
Date: 03/14/2000
Action: Unauthorized Release Form

Global Id: T0608560823
Action Type: RESPONSE
Date: 10/15/1999
Action: Other Report / Document

Global Id: T0608560823
Action Type: Other
Date: 09/16/1999
Action: Leak Reported

Global Id: T0608560823
Action Type: ENFORCEMENT
Date: 10/15/1999
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E17G04f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/19/1999
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E17G04F
Date Closed: 10/15/1999
EDR Link ID: 07S1E17G04F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E17G04
Oversite Agency: SCVWD
Date Listed: 1999-10-15 00:00:00
Closed Date: 1999-10-15 00:00:00

CET DEVELOPMENT (Continued) **S104234154**

HIST CORTESE:
- Region: CORTESE
- Facility County Code: 43
- Reg By: LTNKA
- Reg Id: 43-2342

---

100 West 1/4-1/2 0.471 mi. 2488 ft.

DIOCESE OF SAN JOSE
80 S MARKET ST
SAN JOSE, CA 95113

CA LUST S101309208
CA HIST LUST N/A
CA HIST CORTESE

Relative: Higher

Actual: 93 ft.

LUST:
- Region: STATE
- Global Id: T0608500516
- Latitude: 37.334196
- Longitude: -121.889972
- Case Type: LUST Cleanup Site
- Status: Completed - Case Closed
- Status Date: 05/22/2001
- Lead Agency: SANTA CLARA COUNTY LOP
- Case Worker: UST
- Local Agency: SANTA CLARA COUNTY LOP
- RB Case Number: Not reported
- LOC Case Number: Not reported
- File Location: All Files are on GeoTracker or in the Local Agency Database
- Potential Media Affect: Other Groundwater (uses other than drinking water)
- Potential Contaminants of Concern: Heating Oil / Fuel Oil
- Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
- Global Id: T0608500516
- Contact Type: Regional Board Caseworker
- Contact Name: Regional Water Board
- Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
- Address: 1515 CLAY ST SUITE 1400
- City: OAKLAND
- Email: Not reported
- Phone Number: Not reported

- Global Id: T0608500516
- Contact Type: Local Agency Caseworker
- Contact Name: UST CASE WORKER
- Organization Name: SANTA CLARA COUNTY LOP
- Address: 1555 Berger Drive, Suite 300
- City: SAN JOSE
- Email: Not reported
- Phone Number: 4089183400

Status History:
- Global Id: T0608500516
- Status: Completed - Case Closed
- Status Date: 05/22/2001

- Global Id: T0608500516

DIOCESE OF SAN JOSE (Continued) **S101309208**

Status: Open - Case Begin Date
Status Date: 02/28/1989

Global Id: T0608500516
Status: Open - Site Assessment
Status Date: 02/28/1989

Global Id: T0608500516
Status: Open - Site Assessment
Status Date: 03/30/1989

Regulatory Activities:
Global Id: T0608500516
Action Type: RESPONSE
Date: 10/02/1989
Action: Soil and Water Investigation Workplan

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 01/23/1996
Action: Notice of Responsibility - #39886

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 06/11/1998
Action: Staff Letter - #26710

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 10/23/1990
Action: Staff Letter - #26715

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 05/06/1996
Action: Staff Letter - #26719

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 09/06/2000
Action: Staff Letter - #26723

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 06/17/2000
Action: Staff Letter - #26721

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 10/01/1990
Action: Warning Letter - #26714

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 03/23/1991
Action: Staff Letter - #26717

DIOCESE OF SAN JOSE (Continued) **S101309208**

Global Id: T0608500516
Action Type: ENFORCEMENT
Date: 08/18/1989
Action: Staff Letter - #26712

Global Id: T0608500516
Action Type: Other
Date: 06/11/1998
Action: Leak Reported

Global Id: T0608500516
Action Type: RESPONSE
Date: 06/11/1998
Action: Other Report / Document

Global Id: T0608500516
Action Type: RESPONSE
Date: 01/21/1991
Action: Soil and Water Investigation Report

Global Id: T0608500516
Action Type: RESPONSE
Date: 06/20/1996
Action: Soil and Water Investigation Workplan

Global Id: T0608500516
Action Type: RESPONSE
Date: 12/05/2000
Action: Preliminary Site Assessment Report

Global Id: T0608500516
Action Type: RESPONSE
Date: 08/01/2000
Action: Soil and Water Investigation Workplan

Global Id: T0608500516
Action Type: RESPONSE
Date: 06/21/1991
Action: Soil and Water Investigation Report

Global Id: T0608500516
Action Type: REMEDIATION
Date: 04/04/1989
Action: Excavation

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08N01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported

DIOCESE OF SAN JOSE (Continued) **S101309208**

Preliminary Site Assesment Began: 2/28/1989
Pollution Characterization Began: 3/30/1989
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08N01F
Date Closed: 05/22/2001
EDR Link ID: 07S1E08N01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08N01
Oversite Agency: SCVWD
Date Listed: 1999-01-01 00:00:00
Closed Date: 2001-05-22 00:00:00

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0470

101
WSW
1/4-1/2
0.472 mi.
2494 ft.

SAN JOSE CONVENTION CENTE **CA HIST CORTESE** **S101309273**
150 SAN CARLOS **N/A**
SAN JOSE, CA

Relative:
Higher

Actual:
95 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1177

102
NNE
1/4-1/2
0.473 mi.
2497 ft.

BUTCHER ELECTRIC **CA HIST CORTESE** **S102425936**
510 SAN FERNANDO **N/A**
SAN JOSE, CA 95110

Relative:
Lower

Actual:
89 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0218

W103 **ART'S CLEANERS** **CA LUST** **S111760620**
North **400 E SANTA CLARA ST** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.474 mi.
2505 ft. **Site 1 of 3 in cluster W**

Relative:
Lower

Actual:
86 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08H05F
Date Closed: Not reported
EDR Link ID: 07S1E08H05F

W104 **ART'S CLEANERS** **CA LUST** **S103950993**
North **400 E SANTA CLARA ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.474 mi.
2505 ft. **Site 2 of 3 in cluster W**

Relative:
Lower

Actual:
86 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Preliminary site assessment underway
Case Number: 07S1E08H05f
How Discovered: Not reported
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 9/23/2002
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08H05
Oversite Agency: SCVWD
Date Listed: 2002-10-29 00:00:00
Closed Date: Not reported

W105 **ART CLEANERS - SAN JOSE** **CA SLIC** **S109850893**
North **400 EAST SANTA CLARA STREET** **CA ENF** **N/A**
1/4-1/2 **SAN JOSE, CA 95112**
0.474 mi.
2505 ft. **Site 3 of 3 in cluster W**

Relative:
Lower

Actual:
86 ft.

SLIC:
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 11/19/2015
Global Id: T0608578883
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.3401325736545
Longitude: -121.881769143517

ART CLEANERS - SAN JOSE (Continued) **S109850893**

Case Type:	Cleanup Program Site
Case Worker:	REG
Local Agency:	Not reported
RB Case Number:	43S1102
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected:	Aquifer used for drinking water supply, Indoor Air, Other Groundwater (uses other than drinking water), Soil, Soil Vapor, Under Investigation
Potential Contaminants of Concern:	Tetrachloroethylene (PCE), Gasoline
Site History:	The site is an inactive dry cleaner. Previous site investigations indicated that the dry cleaning chemical tetrachoroethene had contaminated soil and groundwater beneath the site. The Regional Water Board has required the responsible parties to define the extent of contamination originating from the site. Investigation is still ongoing with the remedial actions to be evaluated by June 2016.

Click here to access the California GeoTracker records for this facility:

ENF:

Region:	2
Facility Id:	738457
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported

ART CLEANERS - SAN JOSE (Continued) **S109850893**

Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	372744
Region:	2
Order / Resolution Number:	R2-2010-0003
Enforcement Action Type:	Admin Civil Liability
Effective Date:	01/20/2010
Adoption/Issuance Date:	01/20/2010
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	01/20/2010
EPL Issuance Date:	Not reported
Status:	Active
Title:	ACL R2-2010-0003 for Mr Hyung Keun Sun & Mrs Yeo Nam Sun
Description:	Enclosed please find Administrative Liability Order No. R2-2010-0003. This Order requires payment of the $25,646 liability in full to the Water Board by February 17, 2010.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$25,646.00
Initial Assessed Amount:	$25,646.00
Liability $ Amount:	$25,646.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

X106 **HORACE MANN ELEMENTARY** **CA LUST** **S105512883**
NNW **55 N 7TH ST** **CA HIST LUST** **N/A**
1/4-1/2 **SAN JOSE, CA 95116**
0.490 mi.
2587 ft. **Site 1 of 2 in cluster X**

Relative:
Lower

Actual:
84 ft.

LUST:

Region:	STATE
Global Id:	T0608541457
Latitude:	37.340003
Longitude:	-121.884774
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/17/2001
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608541457
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608541457
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608541457
Status:	Completed - Case Closed
Status Date:	10/17/2001

Global Id:	T0608541457
Status:	Open - Case Begin Date
Status Date:	08/05/2001

Global Id:	T0608541457
Status:	Open - Site Assessment
Status Date:	08/31/2001

HORACE MANN ELEMENTARY (Continued) **S105512883**

Regulatory Activities:

Global Id:	T0608541457
Action Type:	RESPONSE
Date:	08/16/2001
Action:	Verbal Communication
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	08/27/2001
Action:	Other Report / Document
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	07/23/2001
Action:	Unauthorized Release Form
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	08/02/2001
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	09/14/2001
Action:	Preliminary Site Assessment Report
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	10/22/2001
Action:	Preliminary Site Assessment Report
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	01/17/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	08/31/2001
Action:	Correspondence
Global Id:	T0608541457
Action Type:	RESPONSE
Date:	02/11/1976
Action:	Other Report / Document
Global Id:	T0608541457
Action Type:	ENFORCEMENT
Date:	08/31/2001
Action:	Staff Letter - #26909
Global Id:	T0608541457
Action Type:	Other
Date:	08/05/2001
Action:	Leak Reported
Global Id:	T0608541457

HORACE MANN ELEMENTARY (Continued) **S105512883**

Action Type: ENFORCEMENT
Date: 10/17/2001
Action: Closure/No Further Action Letter

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S1E08G01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/31/2001
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S1E08G01
Oversite Agency: SCVWD
Date Listed: 2001-08-07 00:00:00
Closed Date: 2001-10-17 00:00:00

X107 **HORACE MANN ELEMENTARY** **CA LUST** **S107996065**
NNW **55 NORTH 7TH ST** **N/A**
1/4-1/2 **SAN JOSE, CA**
0.490 mi.
2587 ft. **Site 2 of 2 in cluster X**

Relative:
Lower

Actual:
84 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E08G01F
Date Closed: 10/17/2001
EDR Link ID: 07S1E08G01F

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108 **DR. EU BUILDING** **CA SLIC** **S103881542**
WNW **35 & 43 SANTA CLARA ST E** **N/A**
1/4-1/2 **SAN JOSE, CA 95113**
0.492 mi.
2597 ft.

Relative:
Lower

Actual:
88 ft.

SLIC:
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 03/08/2001
Global Id: SLT2O287178
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported

DR. EU BUILDING (Continued) **S103881542**

Latitude:	37.3367598346785
Longitude:	-121.889898777008
Case Type:	Cleanup Program Site
Case Worker:	DIB
Local Agency:	Not reported
RB Case Number:	43S0564
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	* Chlorinated Solvents - PCE
Site History:	This site is an historical building in downtown San Jose. It was formerly a hotel that had a dry cleaning facility in the basement. There has been a release of tetrachloroethene (PCE), a solvent used in dry cleaning, to soil and groundwater. Soil and groundwater investigation is underway and a remedial action plan is required.

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:

Region:	2
Facility ID:	SLT2O287178
Facility Status:	Leak being confirmed
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Confirmed:	Not reported
Date Prelim Site Assmnt Workplan Submitted:	Not reported
Date Preliminary Site Assessment Began:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

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109 North 1/2-1 0.513 mi. 2708 ft.

7-ELEVEN STORE #17496
452 EAST SANTA CLARA
SAN JOSE, CA 93212

CA SWEEPS UST **1000282134**
CA EMI **N/A**
CA HIST CORTESE
CA Notify 65

Relative: Lower

Actual: 86 ft.

SWEEPS UST:

Status:	Active
Comp Number:	403207
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-08-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-403207-000001
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	2

7-ELEVEN STORE #17496 (Continued) **1000282134**

Status:	Active
Comp Number:	403207
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-08-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-060-403207-000002
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

EMI:

Year:	1995
County Code:	43
Air Basin:	SF
Facility ID:	8349
Air District Name:	BA
SIC Code:	4953
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-0005

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

110 WSW 1/2-1 0.698 mi. 3688 ft. | **RIVER PARK DEVELOPMENT, LINCOLN PROPERTY**
333 WEST SAN CARLOS STREET
SAN JOSE, CA 95110

CA ENVIROSTOR S101542345
CA SLIC N/A
CA CHMIRS

Relative: Lower

Actual: 84 ft.

ENVIROSTOR:

Facility ID:	43150003
Status:	Refer: RWQCB
Status Date:	07/15/1998
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.5
NPL:	NO
Regulatory Agencies:	RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	27
Senate:	15
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.32870
Longitude:	-121.8941
APN:	259-43-072
Past Use:	ENGINE TESTING/REPAIR, LAUNDRY SERVICES, RESIDENTIAL AREA
Potential COC:	Tetrachloroethylene (PCE
Confirmed COC:	Tetrachloroethylene (PCE
Potential Description:	OTH, SOIL
Alias Name:	RED STAR LAUNDRY
Alias Type:	Alternate Name
Alias Name:	259-43-072
Alias Type:	APN
Alias Name:	CAD981676430
Alias Type:	EPA Identification Number
Alias Name:	43150003
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	08/09/1989
Comments:	Facility Identified: EPA Federal Investigation Team (FIT) Screening Site Inspection (SSI). EPA completed SSI and recommend Listing Site Inspection (LSI).
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

RIVER PARK DEVELOPMENT, LINCOLN PROPERTY (Continued) **S101542345**

SLIC REG 2:

Region:	2
Facility ID:	43S0161
Facility Status:	Preliminary site assessment workplan submitted
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	Tank Closure
Leak Cause:	UNK
Leak Source:	UNK
Date Confirmed:	Not reported
Date Prelim Site Assmnt Workplan Submitted:	5/22/1995
Date Preliminary Site Assessment Began:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

CHMIRS:

OES Incident Number:	4-3798
OES notification:	07/05/2014
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Guadalupe River
Spill Site:	Merchant/Business
Cleanup By:	No
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported

RIVER PARK DEVELOPMENT, LINCOLN PROPERTY (Continued) **S101542345**

Type:	SEWAGE
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1444
Year:	2014
Agency:	City of San Jose
Incident Date:	7/5/2014
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Yes
Site Type:	Guadalupe River
E Date:	Not reported
Substance:	Sewage
Quantity Released:	600
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	Blockage
Fatals:	No
Comments:	Not reported
Description:	RP states blockage in the city main caused a release out a manhole. Cleanup is in progress. RP states that approximately 5 gallons entered the Guadalupe River.

111
NW
1/2-1
0.795 mi.
4195 ft.

MISSION VILLAS
44 EAST JULIAN STREET
SAN JOSE, CA 95113

CA ENVIROSTOR **S109422407**
N/A

Relative:
Lower

Actual:
83 ft.

ENVIROSTOR:

Facility ID:	60001042
Status:	Refer: 1248 Local Agency
Status Date:	01/22/2001
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	27
Senate:	15
Special Program:	Not reported

MISSION VILLAS (Continued) **S109422407**

Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 37.34099
Longitude: -121.8928
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 60001042
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/22/2001
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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112 SSE 1/2-1 0.809 mi. 4271 ft.

3RD STREET DEVELOPMENT
1010 SOUTH 3RD STREET
SAN JOSE, CA 95112

CA ENVIROSTOR **S110121724**
CA VCP **N/A**
CA NPDES

Relative: Higher

Actual: 107 ft.

ENVIROSTOR:
Facility ID: 60001210
Status: Certified
Status Date: 05/07/2014
Site Code: 201865
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 0.71
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Henry Chui
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 27
Senate: 15
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.32266
Longitude: -121.8766

3RD STREET DEVELOPMENT (Continued) **S110121724**

APN: 47215027
Past Use: DRY CLEANING, MANUFACTURING - OTHER, PAINT/DEPAINT FACILITY, RETAIL - SERVICE STATION, RETAIL - VEHICLES
Potential COC: Asbestos Containing Materials (ACM Lead Barium and compounds Vanadium and compounds
Confirmed COC: Barium and compounds Vanadium and compounds 40001-NO 30013-NO
Potential Description: SOIL
Alias Name: 47215027
Alias Type: APN
Alias Name: 201865
Alias Type: Project Code (Site Code)
Alias Name: 60001210
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/17/2011
Comments: Letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/10/2010
Comments: Global Premier Development, Incorporated signed a voluntary cleanup agreement. It requires the submittal of sampling and analysis workplan to complete the characterization of the site, a site characterization report with a risk evaluation to determine if further characterization or any required remediation is needed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 04/28/2011
Comments: Letter #2

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/24/2011
Comments: Letter #3

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 03/29/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/21/2014
Comments: DTSC certified that the removal actions have been completed in accordance with the approved Final Removal Action Workplan. The cleanup goals have been achieved for unrestricted use of the Site.

Completed Area Name: PROJECT WIDE

3RD STREET DEVELOPMENT (Continued) **S110121724**

Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/25/2012
Comments: Demand letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 02/17/2012
Comments: Demand letter #2.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 01/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/04/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 01/31/2012
Comments: DTSC has approved the Supplemental Subsurface Investigation Report for the 3rd Street Development site. TPH and metals were detected in soil above unrestircted use and that would require a removal action workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 03/29/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE

3RD STREET DEVELOPMENT (Continued) **S110121724**

Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 03/06/2012
Comments: DTSC has prepared the Community Profile which describes the community surrounding the site. The report includes the summary of the community survey, the demographics, repository location, and a brief history of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/17/2014
Comments: The Final Report of Soil Excavation and Removal documents the removal activities that were performed at the Site to removed petroleum-hydrocarbon contaminated soil and groundwater for disposal and off-site treatment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 02/21/2012
Comments: DTSC mailed out the fact sheet to announce the start of the public comment period for the Draft Removal Action Plan. The public comment period is scheduled from February 24 through March 26, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 02/21/2012
Comments: DTSC placed a public notice in the newspaper to announce the start of the public comment period for the Draft Removal Action Plan. The public comment period is scheduled from February 24 through March 26, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 10/21/2013
Comments: The removal activities has been completed and were successful in meeting the cleanup goals established pusuant to the approved RAW.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 07/11/2013
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

3RD STREET DEVELOPMENT (Continued) **S110121724**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 60001210
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0.71
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Henry Chui
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 201865
Assembly: 27
Senate: 15
Special Programs Code: Not reported
Status: Certified
Status Date: 05/07/2014
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.32266 / -121.8766
APN: 47215027
Past Use: DRY CLEANING, MANUFACTURING - OTHER, PAINT/DEPAINT FACILITY, RETAIL - SERVICE STATION, RETAIL - VEHICLES
Potential COC: 40001, 30013, 30067, 30587
Confirmed COC: 30067,30587,40001-NO,30013-NO
Potential Description: SOIL
Alias Name: 47215027
Alias Type: APN
Alias Name: 201865
Alias Type: Project Code (Site Code)
Alias Name: 60001210
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/17/2011
Comments: Letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/10/2010
Comments: Global Premier Development, Incorporated signed a voluntary cleanup agreement. It requires the submittal of sampling and analysis workplan to complete the characterization of the site, a site characterization report with a risk evaluation to determine if further characterization or any required remediation is needed.

3RD STREET DEVELOPMENT (Continued) **S110121724**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 04/28/2011
Comments: Letter #2

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/24/2011
Comments: Letter #3

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 03/29/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/21/2014
Comments: DTSC certified that the removal actions have been completed in accordance with the approved Final Removal Action Workplan. The cleanup goals have been achieved for unrestricted use of the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/25/2012
Comments: Demand letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 02/17/2012
Comments: Demand letter #2.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 01/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE

3RD STREET DEVELOPMENT (Continued) **S110121724**

Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/04/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 01/31/2012
Comments: DTSC has approved the Supplemental Subsurface Investigation Report for the 3rd Street Development site. TPH and metals were detected in soil above unrestircted use and that would require a removal action workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 03/29/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 03/06/2012
Comments: DTSC has prepared the Community Profile which describes the community surrounding the site. The report includes the summary of the community survey, the demographics, repository location, and a brief history of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/17/2014
Comments: The Final Report of Soil Excavation and Removal documents the removal activities that were performed at the Site to removed petroleum-hydrocarbon contaminated soil and groundwater for disposal and off-site treatment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 02/21/2012
Comments: DTSC mailed out the fact sheet to announce the start of the public comment period for the Draft Removal Action Plan. The public comment period is scheduled from February 24 through March 26, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 02/21/2012
Comments: DTSC placed a public notice in the newspaper to announce the start of

3RD STREET DEVELOPMENT (Continued) **S110121724**

the public comment period for the Draft Removal Action Plan. The public comment period is scheduled from February 24 through March 26, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 10/21/2013
Comments: The removal activities has been completed and were successful in meeting the cleanup goals established pusuant to the approved RAW.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 07/11/2013
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

NPDES:
Npdes Number: CAS000002
Facility Status: Active
Agency Id: 0
Region: 2
Regulatory Measure Id: 440857
Order No: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 2 43C367583
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 09/03/2013
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Pacific West Communities Inc
Discharge Address: 430 E State St Ste 100
Discharge City: Eagle
Discharge State: Idaho
Discharge Zip: 83616
RECEIVED DATE: Not reported
PROCESSED DATE: Not reported
STATUS CODE NAME: Not reported
STATUS DATE: Not reported

3RD STREET DEVELOPMENT (Continued) **S110121724**

PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

113
West
1/2-1
0.855 mi.
4517 ft.

UNKNOWN
35 NORTH RIVER STREET
SAN JOSE, CA 93212

CA Notify 65

S100178940
N/A

Relative:
Lower

Actual:
80 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

114
WSW
1/2-1
0.946 mi.
4995 ft.

STATE RADIATOR SJ REDEVEL
331 GIFFORD AVE
SAN JOSE, CA 95126

CA ENVIROSTOR
CA LUST
CA HIST CORTESE
CA SAN JOSE HAZMAT

S103653353
N/A

Relative:
Higher

Actual:
97 ft.

ENVIROSTOR:

Facility ID:	43750007
Status:	Refer: RWQCB
Status Date:	06/27/1995
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO
Regulatory Agencies:	SMBRP, RWQCB 2 - San Francisco Bay
Lead Agency:	RWQCB 2 - San Francisco Bay
Program Manager:	Claude Jemison
Supervisor:	Karen Toth
Division Branch:	Cleanup Berkeley
Assembly:	27
Senate:	15
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.32574
Longitude:	-121.8967
APN:	264-20-089
Past Use:	NONE SPECIFIED
Potential COC:	* CONTAMINATED SOIL * UNSPECIFIED OIL CONTAINING WASTE * WASTE OIL & MIXED OIL Lead
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	331 GIFFORD AVE.
Alias Type:	Alternate Name
Alias Name:	SANTA CLARA AUTO BODY
Alias Type:	Alternate Name
Alias Name:	YAK GRAPHIC
Alias Type:	Alternate Name
Alias Name:	264-20-089
Alias Type:	APN
Alias Name:	43750007
Alias Type:	Envirostor ID Number

STATE RADIATOR SJ REDEVEL (Continued) **S103653353**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	12/27/1991
Comments:	Completed Site Screening. In January 1989, additional sampling was conducted at the site. Soil boring results detected total oil and grease (TOG) and total petroleum hydrocarbons as diesel (TPHd) in excess of 1000 ppm. Lead was detected at 938 ppm. In May 1989, two groundwater monitoring wells (MW-1 and MW-2) were installed at the property. Lead was detected in groundwater at a concentration of 0.181 ppm. In May 1989, contaminated soil was removed from the previous sampled area. Final soil sample results indicated only one sample contained TOG at 780 ppm and lead at 191 ppm. The sample that contained the TOG and lead was collected beneath the foundation of the building. The excavations were backfilled with clean, imported fill.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	12/18/2001
Comments:	Site cleaned up under RWQCB Oversight

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

LUST:

Region:	STATE
Global Id:	T0608501373
Latitude:	37.326128
Longitude:	-121.895805
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/27/1995
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Case Worker:	UUU
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	43-1398
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501373
Contact Type:	Regional Board Caseworker

STATE RADIATOR SJ REDEVEL (Continued) **S103653353**

Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608501373
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501373
Status: Completed - Case Closed
Status Date: 06/27/1995

Global Id: T0608501373
Status: Open - Case Begin Date
Status Date: 08/24/1989

Global Id: T0608501373
Status: Open - Site Assessment
Status Date: 08/24/1989

Regulatory Activities:
Global Id: T0608501373
Action Type: ENFORCEMENT
Date: 06/27/1995
Action: Closure/No Further Action Letter

Global Id: T0608501373
Action Type: Other
Date: 04/18/1990
Action: Leak Discovery

Global Id: T0608501373
Action Type: Other
Date: 04/18/1990
Action: Leak Reported

Global Id: T0608501373
Action Type: RESPONSE
Date: 07/19/1990
Action: Other Report / Document

Global Id: T0608501373
Action Type: Other
Date: 04/18/1990
Action: Leak Stopped

STATE RADIATOR SJ REDEVEL (Continued) **S103653353**

LUST REG 2:
Region: 2
Facility Id: 43-1398
Facility Status: Case Closed
Case Number: 07S1E18H01
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/24/1989
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S1E18H01F
Date Closed: 06/27/1995
EDR Link ID: 07S1E18H01F

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1398

Region: CORTESE
Facility County Code: 43
Reg By: CALSI
Reg Id: 43750007

SAN JOSE HAZMAT:
Date of Data: AS OF 02/07/2014
Region: SAN JOSE
File Num: 405558
Class: Auto Wrecking/Misc Simple Facility

Count: 7 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN JOSE	S118672160	PACIFIC WEST COMMUNITIES	955-987 1ST STREET	95112	CA SLIC
SAN JOSE	S105194854	UNION PACIFIC RAILROAD	COLLEGE PARK YARD	95113	CA SLIC
SAN JOSE	1003878931	PG&E GAS PLANT SAN JOSE 408 5A	4TH/SAN FERNANDO/SE PARCEL	95113	SEMS-ARCHIVE
SAN JOSE	1003878439	STAUFFER CHEM CO RAISCH QUARRY	S OF 1ST ST	95112	SEMS-ARCHIVE
SAN JOSE	S105512888	MCDONALDS PROPERTY	E SANTA CLARA &27TH ST ST	95116	CA LUST, CA HIST LUST
SAN JOSE	S118504715	PROPOSED MCDONALD'S RESTAURANT	E SANTA CLARA X 27TH	95116	CA SLIC
SAN JOSE	S110655390	MCDONALDS PROPERTY	E SANTA CLARA &27TH ST ST	95116	CA LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/13/2015
Date Data Arrived at EDR: 01/06/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 135

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/06/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/22/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/22/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/12/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 34

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/29/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/26/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Semi-Annually

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 55
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/29/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/26/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/01/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/21/2016
Date Data Arrived at EDR: 03/22/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 113
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 06/16/2016
Date Data Arrived at EDR: 06/16/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 54

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/05/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/20/2016
Next Scheduled EDR Contact: 10/07/2016
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/04/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 40

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/04/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/04/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 40

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/07/2016
Date Data Arrived at EDR: 06/09/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 14

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/29/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/06/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 43

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/11/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 51

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/26/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/15/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/12/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/12/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 28

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/05/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/09/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/29/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42
Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/11/2016
Date Data Arrived at EDR: 03/15/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 80

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/26/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/08/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/09/2016
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 03/01/2016
Date Data Arrived at EDR: 03/03/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 06/20/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 40

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 02/08/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 06/22/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 48

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/27/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 54

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 10/07/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/20/2016
Next Scheduled EDR Contact: 10/07/2016
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 49

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/23/2016
Date Data Arrived at EDR: 05/25/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 56
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/11/2016
Date Data Arrived at EDR: 04/12/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 50
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 43
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 36
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/06/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 43
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 56
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 02/12/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 89
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/16/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/25/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 49

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/12/2016
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 48

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 06/06/2016
Date Data Arrived at EDR: 06/09/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 12

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 18

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 04/29/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 45

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/27/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 22

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 55

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/01/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 04/08/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 50

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 75

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/19/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/16/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 04/26/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 50

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/20/2016
Next Scheduled EDR Contact: 10/07/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/20/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 80

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/27/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 26

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 04/26/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 51

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/30/2016
Date Data Arrived at EDR: 04/01/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 38

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/18/2016
Date Data Arrived at EDR: 04/20/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 42

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/19/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/18/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/13/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/23/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 67

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 02/26/2016
Date Data Arrived at EDR: 03/01/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 64

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 21

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 04/18/2016
Date Data Arrived at EDR: 05/06/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 42
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/17/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 35
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/17/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 35
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/11/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 21
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/09/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/16/2016
Date Data Arrived at EDR: 06/20/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 50
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/13/2016
Date Data Arrived at EDR: 04/15/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 24
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/20/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 21
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/20/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 56
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/06/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 56
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/05/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/10/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 40

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/20/2016
Next Scheduled EDR Contact: 10/07/2016
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/16/2016
Date Data Arrived at EDR: 06/20/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 49

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/15/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/23/2016
Date Data Arrived at EDR: 05/24/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 28

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 05/25/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/26/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 07/20/2016
Number of Days to Update: 49

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/31/2016
Date Data Arrived at EDR: 06/02/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 19

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/14/2016
Date Data Arrived at EDR: 06/16/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 54

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/14/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 55

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 07/10/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 34

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 16

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/03/2016
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 10/07/2016
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 49

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 54

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2016
Date Data Arrived at EDR: 06/16/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 54

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/16/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/05/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 35

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/29/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 45

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/11/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/06/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 42

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/18/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/01/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/13/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

Appendix E

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). The mitigation monitoring and reporting program is designed to ensure compliance with adopted mitigation measures during project implementation. For each mitigation measure recommended in the Initial Study-Mitigated Negative Declaration (IS-MND), specifications are made herein that identify the action required and the monitoring that must occur. In addition, a responsible agency is identified for verifying compliance with individual conditions of approval contained in the Mitigation Monitoring and Reporting Program (MMRP).

In order to implement this MMRP, the Board of Trustees of the California State University will designate a campus representative (or designee). The campus representative will be responsible for ensuring that the mitigation measures incorporated into the project are complied with during project implementation. The campus representative will also distribute copies of the MMRP to the responsible agency identified in the MMRP, which has partial or full responsibility for implementing the mitigation measure. Failure of a responsible agency to implement a mitigation measure will not in any way prevent the lead agency from implementing the proposed project.

The following table will be used as the campus representative's checklist to determine compliance with each required mitigation measure.

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIOLOGICAL RESOURCES							
BIO-1 Native/Breeding Native Bird Protection. To avoid impacts to nesting birds, including birds protected under the Migratory Bird Treaty Act, all initial ground disturbing activities including tree removal should be limited to the time period between August 16 and January 31 (i.e., outside the nesting season) if feasible. If initial site disturbance, grading, and vegetation removal cannot be conducted during this time period, a pre-construction survey for active nests within the project site shall be conducted by a qualified biologist at the site no more than two weeks prior to any construction activities. If an active bird nest is located, the nest site shall be fenced at a distance commensurate with the particular species and in consultation with the California Department of Fish and Wildlife (CDFW) until juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The project proponent shall record the results of the recommended protective measures described above to document compliance with applicable state and federal laws pertaining to protection of native birds.	If construction occurs during nesting bird season, confirm completion of pre-construction bird nest survey by a qualified biologist. If required, buffers shall be observed during construction.	No more than two weeks prior to construction	Once	SJSU Facilities Development and Operations			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIO-2 Tree Protection. Existing trees on and adjacent to the project site shall be avoided through setbacks and installation of protective fencing to the extent feasible during demolition and construction. All fencing must be installed prior to the beginning of construction activities.	Protect existing trees to extent feasible.	During all demolition and construction	As needed during construction	SJSU Facilities Development and Operations			
CULTURAL RESOURCES							
CUL-1 Scheller (Associated Students) House Receiver Site Selection. If a receiver site other than the potential site across from the Student Union building is chosen, whether on-campus or off, SJSU shall retain a qualified architectural historian to prepare an analysis to determine whether the new site would result in an adverse impact to the Scheller (Associated Students) House or other historical resources. The analysis shall consider whether the chosen site would affect the building's integrity of design, materials, workmanship, feeling, and association, which continue to convey its significance as a property directly associated with Victor Scheller and as a good example of California Colonial Revival style architecture designed by notable local architect Theodore Lenzen. The analysis shall also determine whether relocation of the building to the chosen receiver site would result in any direct or indirect impacts to adjacent historical resources, such as the potential historic district in the northwest quadrant of the SJSU campus. To support a finding of no adverse effect, the receiver site shall be comparable to the existing site of the residence in terms of the scale, massing, and setback of adjacent buildings, and ensure that the residence and its identified character-defining features are not obstructed and are visible to the public in a manner that is consistent with its current and historic location and setting. The analysis shall be presented in a memorandum and reviewed and approved by SJSU.	Review and approve receiver site analysis memorandum. Reject receiver site if analysis shows that the selected receiver site may result in an adverse impact. If no adverse effect, confirm relocation is undertaken in accordance with mitigation measures CR-2 through CR-4.	Prior to relocation of Scheller House Prior to relocation of the Scheller House Prior to relocation of the Scheller House	Once Once Once	SJSU Facilities Development and Operations			

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If the analysis determines that the selected receiver site may result in an adverse impact to the Scheller (Associated Students) House or other historical resources, the site shall be rejected and a new site selected for consideration. If the analysis determines that the selected receiver site would result in no adverse impact, mitigation measures CUL-2 through CUL-4 shall apply to the relocation.							
CUL-2 Scheller (Associated Students) House Relocation Implementation Plan. SJSU shall develop a relocation implementation plan in accordance with the recommendations of San Jose State University Associated Students House Relocation, San Jose, California: Feasibility Study and Appendices (included in Appendix B.2), as updated to consider an alternate on-campus or off-campus receiver site as analyzed in mitigation measure CUL-1. This will be accomplished through coordination with a qualified Historic Preservation Architectural Consultant Team, which will finalize the relocation strategy based on the recommendations of the 2017 feasibility study, coordinate the relocation and provide for subsequent restoration work as required to minimize displacement of the Associated Students staff during the relocation. The Consultant Team shall include architectural historians, preservation architects, structural engineers, the building mover, and other consultants, such as Landscape, Civil and Mechanical, Electrical, and Plumbing Engineering. If necessary, a geotechnical report and civil survey of the Receiver Site shall be completed prior to beginning the relocation work. Should the historic structure be damaged during the relocation the Consultant Team shall ensure that any repairs are consistent with the Secretary's Standards for Rehabilitation.	Review and confirm completion of assessment and relocation plan. Confirm relocation is undertaken in accordance with relocation plan.	Prior to relocation of Scheller House Prior to project occupancy	Once Once	SJSU Facilities Development and Operations			

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CUL-3 Historic Building Documentation. Impacts resulting from the relocation of the Scheller (Associated Students) House shall be minimized through archival documentation of as-built and as-found condition. Prior to the building's relocation, SJSU shall ensure that documentation of the residence is completed in accordance with the general guidelines of Historic American Building Survey (HABS) documentation. The documentation shall include high-resolution, digital photographic recordation, a historic narrative report and a compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be offered as donated material to repositories that will make it available for current and future generations. Archival copies of the documentation also shall be submitted to the History|San Jose Library and Archives and the SJSU Special Collection and Archives at the Dr. Martin Luther King Library where it would be available to local researchers.	Review and confirm completion and distribution of historic building documentation.	Prior to relocation of Scheller House	Once	SJSU Facilities Development and Operations			
CUL-4 Interpretive Display. A historic preservation professional qualified in accordance with the Secretary of the Interior's Standards shall be selected to prepare an onsite interpretive display to be located at the new location of the building. The interpretive display shall include a brief history of the building and its significance within SJSU and the community. The interpretive plan shall be installed within one year of the building's relocation.	Select historic preservation professional. Review draft interpretative display design. Confirm interpretative display	Prior to project occupancy Prior to project occupancy Within one year of Scheller House	Once Once Once	SJSU Facilities Development and Operations			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
	installation.	relocation					
CUL-5 Retain a Qualified Principal Investigator. A qualified principal investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, shall be retained to carry out all mitigation measures related to archaeological and historical resources (hereafter principal investigator).	Retain qualified principal investigator.	Prior to construction	Once	SJSU Facilities Development and Operations			
CUL-6 Preconstruction Worker Training. At the project kickoff and before construction activities begin, the principal investigator or his/her designee will provide training to construction personnel on information regarding regulatory requirements for the protection of cultural resources. As part of this training, construction personnel will be briefed on proper procedures to follow should unanticipated cultural resources discoveries be made during construction. Workers will be provided contact information and protocols to follow in the event that inadvertent discoveries are made. If necessary, the project archaeologist can create a training video, PowerPoint presentation, or printed literature that can be shown to new workers and contractors to avoid continuous training throughout project construction.	Confirm training provided to workers.	Prior to construction	Once	SJSU Facilities Development and Operations			
CUL-7 Archaeological Construction Monitoring. A qualified archaeological monitor will be retained to conduct archaeological monitoring of initial ground disturbing activities within the project site. The archaeological monitor will work under the supervision of the principal investigator. The duration and timing of the monitoring will be determined by the principal investigator. If the principal investigator determines that monitoring is no longer warranted, he or she may recommend that monitoring cease entirely or be	Retain archaeological monitor.	Ongoing during site preparation and grading	As needed during construction	SJSU Facilities Development and Operations			

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reduced to periodic spot-checking. In addition, if the principal investigator determines that an increase in the level of monitoring is warranted, he or she may recommend that monitoring continue beyond initial ground disturbance.							
CUL-8 Procedure for Treatment of Previously Unidentified Cultural Resources. If previously unidentified cultural resources are encountered during construction, all work will be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the cultural resource. In the event that any artifact or an unusual amount of bone, or shell is encountered during construction, work will be immediately stopped and relocated to another area. Construction will be stopped within 100 feet of the exposed resource until a qualified archaeologist/ paleontologist can evaluate the find (see 36 CFR 800.11.1 and CCR, Title 14, Section 15064.5[f]). Examples of such cultural materials might include: ground stone tools such as mortars, bowls, pestles, and manos; chipped stone tools such as projectile points or choppers; flakes of stone not consistent with the immediate geology such as obsidian or fused shale; historic trash pits containing bottles and/or ceramics; or structural remains. If the resources are found to be significant, they should be avoided. If avoidance is not feasible, they should be mitigated to less than significant levels. If the resources are determined to be Native American, consultation with tribes may be necessary.	If potential cultural resources are encountered, verify that work is stopped and found materials are properly assessed and addressed.	Ongoing during site preparation and grading	As needed during construction	SJSU Facilities Development and Operations			
CUL-9 Procedure for Unanticipated Discovery of Human Remains. In the event of an unanticipated discovery of any human remains, the steps and procedures specified in Health and Safety Code Section 7050.5, California Environmental Quality Act (CEQA) Section 15064.5(e), and Public Resources	If human remains are encountered, verify that work is stopped and the proper notifications and	Ongoing during site preparation and grading	As needed during construction	SJSU Facilities Development and Operations			

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Code Section 5097.98 will be implemented. No further excavation or disturbance of the area where the remains are discovered and a 50 foot radius until the coroner is contacted and the appropriate steps taken pursuant to Health and Safety Code §7050.5 and Public Resource Code §5097.98. If the coroner determines the remains to be Native American in origin, the coroner will contact the Native American Heritage Commission (NAHC) within 24 hours. For remains of Native American origin, no further excavation or disturbance will take place in the area where the remains are discovered and a 50 foot radius until the NAHC appointed Most Likely Descendant, the project archaeologist and the CSU SJSU determine a course of action regarding preservation or excavation of Native American human remains. If a Most Likely Descendent cannot be located or does not make a recommendation, the project archaeologist and the CSU SJSU will determine a course of action regarding preservation or excavation of Native American human remains, which will be submitted to the NAHC for review prior to implementation.	evaluations are made.						

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GEOLOGY AND SOILS							
GEO-1 ISB Geotechnical Measures. Grading, foundation design, and construction of the proposed ISB shall comply with recommendations in the site specific Geotechnical Evaluation by Ninyo & Moore (2016), including but not limited to: materials to be used, moistening of subgrade, fill placement and compaction, stabilization of excavations, dewatering, utilities, seismic design, avoidance of site drainage, as well as all applicable earthwork recommendations. The measures are described in more detail in the Geotechnical Evaluation (2016) in Appendix C of the IS-MND.	Review compliance with geotechnical study and final building plans, and implement site specific recommendations	Prior to construction	Once	SJSU Facilities Development and Operations			

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NOISE							
NOISE-1 Construction Noise Reduction. The following requirements shall be implemented during construction of the project: • *Limit construction activities to between the hours of 7:00 AM and 4:00 PM except for construction activities that do not generate substantial noise.* • *To ensure that noise emissions from construction vehicles and other equipment are limited to the minimum feasible levels, equip all noise-producing equipment and vehicles using internal combustion engines with mufflers, and air-inlet silencers where appropriate, that meet or exceed original factory specification. Equip mobile or fixed "package" equipment (e.g., arc-welders, air compressors) with shrouds and noise-control features that are readily available for that type of equipment.* • *Install a temporary sound barrier, such as a temporary sound wall panel system or screened fence, around the active construction work area or adjacent housing uses during construction, during operation of heavy construction equipment.* • *Stage asphalt/concrete crushing operation and equipment away from residences and adjacent uses that are sensitive to noise and vibration.* • *The construction manager/contractor shall act as a noise disturbance coordinator. The noise disturbance coordinator shall be responsible for coordinating construction activities so as to not impact noise-sensitive uses. The noise disturbance coordinator shall also respond to any local complaints about construction noise, determine the cause of the noise complaint, and institute reasonable measures warranted to correct the problem. The telephone number of the noise disturbance coordinator shall be*	Implement construction noise and vibration controls	During construction	Field verification as necessary	SJSU Facilities Development and Operations			

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posted at the project site and provided to adjacent neighbors.							